

MILITARY LAND REFORM

HEARING
BEFORE THE
SUBCOMMITTEE ON
NATIONAL PARKS, FORESTS AND PUBLIC LANDS
OF THE
COMMITTEE ON
NATURAL RESOURCES
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRD CONGRESS
SECOND SESSION

ON

H.R. 2080

TO IMPROVE THE MANAGEMENT OF PUBLIC LANDS USED FOR MILITARY PURPOSES, TO REQUIRE ASSESSMENTS OF FUTURE NEEDS FOR WITHDRAWALS OF PUBLIC LANDS FOR SUCH USES, AND FOR OTHER PURPOSES

HEARING HELD IN WASHINGTON, DC
JUNE 17, 1994

Serial No. 103-96

Printed for the use of the Committee on Natural Resources



U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1994

83-251

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**H.R. 2080, TO IMPROVE THE MANAGEMENT OF
PUBLIC LANDS USED FOR MILITARY PUR-
POSES, TO REQUIRE ASSESSMENTS OF FU-
TURE NEEDS FOR WITHDRAWALS OF PUB-
LIC LANDS FOR SUCH USES, AND FOR
OTHER PURPOSES**

FRIDAY, JUNE 17, 1994

**HOUSE OF REPRESENTATIVES,
COMMITTEE ON NATURAL RESOURCES,
SUBCOMMITTEE ON NATIONAL PARKS, FORESTS
AND PUBLIC LANDS,
*Washington, DC.***

The subcommittee met, pursuant to call, at 10 a.m. in Room 1324, Longworth House Office Building, Hon. Bruce F. Vento (chairman of the subcommittee) presiding.

STATEMENT OF HON. BRUCE F. VENTO

Mr. VENTO. The Subcommittee on National Parks, Forests and Public Lands will be in order. Today we will hear testimony on H.R. 2080.

[Text of the bill, H.R. 2080, follows:]

103D CONGRESS
1ST SESSION

H. R. 2080

To improve the management of public lands used for military purposes, to require assessments of future needs for withdrawals of public lands for such uses, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 11, 1993

Mr. VENTO introduced the following bill; which was referred jointly to the Committees on Armed Services and Natural Resources

A BILL

To improve the management of public lands used for military purposes, to require assessments of future needs for withdrawals of public lands for such uses, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE AND DEFINITIONS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the
5 “Military Land Reform and Reassessment Act of 1993”.

6 (b) **DEFINITIONS.**—As used in this Act:

7 (1) The term “Secretary” means the Secretary
8 of the Interior.

1 (2) The term "FLPMA" means the Federal
2 Land Policy and Management Act of 1976, (43
3 U.S.C. 1701 et seq.).

4 (3) The term "Engle Act" means the Act enti-
5 tled "An Act to provide that withdrawals, reserva-
6 tions, or restrictions of more than five thousand
7 acres of public lands of the United States shall not
8 become effective until approved by Act of Congress,
9 and for other purposes," approved February 28,
10 1958 (43 U.S.C. 155 et seq.).

11 (4) The term "1956 Act" means the Act of
12 July 26, 1956 (16 U.S.C. 505a, 505b).

13 **SEC. 2. STATE MILITARY USES.**

14 (a) STATE AGENCIES.—Section 302(b) of FLPMA
15 (43 U.S.C. 1732(b)) is amended by inserting "or the mili-
16 tary department (or its equivalent) of any State" after
17 "Federal departments and agencies".

18 (b) NATIONAL GUARD USE OF PUBLIC LANDS.—Sec-
19 tion 302 of FLPMA (43 U.S.C. 1732), as amended, is
20 further amended by adding at the end the following new
21 subsection:

22 “(e) STATE MILITARY USES.—(1) After consultation
23 with the Governor of a State, the Secretary may agree
24 to permit use of public lands within such State by the mili-
25 tary department (or its equivalent) of one or more States

1 for purposes of military training, equipment testing, or
2 other authorized military activities, in accordance with the
3 provisions of this subsection.

4 “(2)(A) For activities the Secretary finds are not
5 likely to result in a significant degree of residual contami-
6 nation of affected lands (through use of explosive projec-
7 tiles or otherwise), the Secretary may issue a general au-
8 thorization for the military department (or its equivalent)
9 of one or more States to use public lands where such use
10 would not be inconsistent with the land-use plans prepared
11 pursuant to section 202 of this Act. Any such general au-
12 thorization shall be for no more than 3 years but may
13 thereafter be renewed for additional periods of no more
14 than 3 years each. The provisions of paragraph (4) of this
15 subsection shall apply to use of public lands pursuant to
16 an authorization issued under this paragraph, and the
17 Secretary may wholly or partially revoke any such author-
18 ization at any time if the Secretary finds that there has
19 been a failure to comply with its terms and conditions or
20 that activities pursuant to such an authorization have had
21 or may have a significant adverse impact on the resources
22 or values of the affected lands.

23 “(B) An authorization pursuant to this paragraph
24 shall not authorize the construction of permanent struc-
25 tures or facilities on the public lands.

1 “(C) Each specific use of a particular area of public
2 lands pursuant to a general authorization under this para-
3 graph shall be subject to specific authorization by the Sec-
4 retary and to appropriate terms and conditions, including
5 such as are described in paragraph (4) of this subsection.

6 “(3) The Secretary may permit the military depart-
7 ment (or its equivalent) of one or more States to use pub-
8 lic lands for military activities the Secretary finds would
9 result in a significant degree of residual contamination of
10 such lands, subject to the provisions of paragraph (4) of
11 this subsection, but only to the extent that—

12 “(A) use of specific portions of such lands for
13 such purposes was either authorized as of July 1,
14 1989, or had been permitted to occur on or after
15 January 1, 1986, in which case such uses on such
16 portions may take place, subject to paragraph (4) of
17 this subsection; or

18 “(B) use of public or other lands previously
19 withdrawn or otherwise dedicated to military uses is
20 found by the Secretary (after consultation with the
21 Secretary of Defense) to not be practicable, and
22 therefore additional public lands other than those
23 portions described in subparagraph (A) are with-
24 drawn for military purposes, pursuant to section 204
25 of this Act (with respect to areas of no more than

1 5,000 acres) or pursuant to an Act of Congress
2 (with respect to areas exceeding 5,000 acres, except
3 that in time of war or national emergency declared
4 by the Congress or the President pursuant to appli-
5 cable law, withdrawals of areas exceeding 5,000
6 acres for military purposes may be made pursuant
7 to section 204 of this Act).

8 “(4) The Secretary may waive rental charges for the
9 use of public land (however such use may be authorized)
10 by a State military department (or its equivalent) for mili-
11 tary training, equipment testing, and other authorized
12 military activities permitted under this subsection. Each
13 such use shall be subject to a requirement that the using
14 department, or departments, be responsible for such time-
15 ly cleanup and decontamination of the lands used, and to
16 such other terms and conditions (including but not limited
17 to restrictions on use of off-road or all-terrain vehicles),
18 as the Secretary, after considering national defense needs,
19 may require to—

20 “(A) minimize adverse impacts on the natural,
21 environmental, scientific, cultural, and other re-
22 sources and values, including fish and wildlife habi-
23 tat, of the public lands involved; and

1 “(B) minimize the period and method of such
2 use and the interference with or restrictions on other
3 uses of the public lands involved.

4 “(5) Each State military department (or its equiva-
5 lent) using public lands withdrawn for military purposes
6 shall take appropriate precautions to prevent and suppress
7 range and brush fires caused by or resulting from use of
8 such lands for such purposes, and shall promptly reim-
9 burse the United States for any assistance provided by
10 the Secretary in the prevention or suppression of such
11 fires.

12 “(6) For purposes of this subsection, the term ‘State’
13 means one of the several States, the District of Columbia,
14 or one of the Commonwealths or territories of the United
15 States.

16 “(7)(A) Public lands covered by an authorization is-
17 sued pursuant to paragraph (2) of this subsection may
18 be used by personnel of the military department (or its
19 equivalent) of a State during periods when some or all of
20 such personnel are on active duty in the service of the
21 United States.

22 “(B) During periods of use of public lands by person-
23 nel of a State military department or equivalent, the Sec-
24 retary may also permit such lands to be used by members
25 of one or more United States Armed Forces on active serv-

1 ice, under the same terms and conditions applicable to use
2 of such lands by the personnel of such State military de-
3 partment or its equivalent.

4 “(8) Except as otherwise provided by applicable law,
5 any authorization by the Secretary for the military depart-
6 ment (or its equivalent) of any State or States to use pub-
7 lic lands that is in effect on the date of enactment of this
8 subsection shall remain in effect until its scheduled expira-
9 tion, or for one year after the date of enactment of this
10 subsection, whichever is later.

11 “(9) The Secretary shall not authorize any use of
12 public lands by the military department (or its equivalent)
13 of any State if such use would preclude or unduly restrict
14 use of such lands by the Secretary of Defense or the
15 Secretary of a department within the Department of
16 Defense.”.

17 (c) REPORT.—No later than one year after the date
18 of enactment of this subsection, the Secretary concerned
19 shall transmit to the Committee on Interior and Insular
20 Affairs of the House of Representatives and the Commit-
21 tee on Energy and Natural Resources of the Senate a re-
22 port indicating the extent to which the Department of De-
23 fense (or military department therein) and the military de-
24 partments (or their equivalents) of the several States (in-
25 cluding the District of Columbia and the Commonwealths

1 and territories of the United States) have been authorized
2 since January 1, 1987, to utilize public lands as defined
3 in section 103 of FLPMA (other than lands withdrawn
4 for military purposes) or National Forest lands for train-
5 ing or other purposes and concerning the terms and
6 conditions under which such lands may be used by such
7 agencies.

8 (d) REIMBURSEMENT.—To the extent funds are
9 made available through appropriation, the Secretary of
10 Defense may reimburse a State military department (or
11 its equivalent) for costs to such department resulting from
12 any requirement of this section (including amendments
13 made to the Act by this section) and incident to any use
14 of lands by a National Guard of a State or by United
15 States Armed Forces for purposes authorized by title 10
16 or title 32, United States Code, or by any other provision
17 of Federal law.

18 **SEC. 3. 1956 ACT REFORM.**

19 (a) INTERCHANGE AUTHORITY.—The first section of
20 the 1956 Act is amended as follows:

21 (1) By inserting “except lands within a con-
22 servation system unit or other area designated or es-
23 tablished for conservation or protection by proclama-
24 tion, Executive order, or Act of Congress” after
25 “National Forest System lands”.

1 (2) By inserting “law, including, but not limited
2 to, the National Environmental Policy Act of 1969,
3 Forest and Rangeland Renewable Resources Plan-
4 ning Act of 1974, the National Forest Management
5 Act of 1976, and” after “subject to any applicable
6 provisions of”.

7 (3) By striking “whenever they shall determine
8 that such interchange will facilitate land manage-
9 ment and will provide maximum use thereof for au-
10 thorized purposes”.

11 (4) By inserting “with respect to interchanges
12 involving lands within the same State, or one-hun-
13 dred-eighty days with respect to other interchanges”
14 after “forty-five days”.

15 (b) DETERMINATION BY SECRETARY.—The 1956 Act
16 is further amended by adding at the end the following new
17 section:

18 “SEC. 3. (a) The Secretary of Agriculture shall take
19 into account information provided by the Secretary of De-
20 fense concerning the value for military purposes of lands
21 proposed for transfer to the jurisdiction of the Depart-
22 ment of Defense, but shall exercise the authority provided
23 by this Act only if the Secretary of Agriculture determines
24 that an interchange will improve the protection and man-

1 agement of the natural, cultural, or other resources and
2 values of the National Forest System.

3 “(b) For purposes of this Act, the term ‘conservation
4 system unit’ means a unit of the National Wilderness
5 Preservation System, National Wild and Scenic Rivers
6 System, or National Trails System, a national monument,
7 a national recreation area, a national scenic area, or a na-
8 tional management emphasis area.”.

9 **SEC. 4. AIRSPACE.**

10 The first section of the Engle Act is amended as
11 follows:

12 (1) By inserting “(a)” after “That”.

13 (2) By adding at the end the following new sub-
14 sections:

15 “(b) AIRSPACE.—(1) Except as provided in para-
16 graph (2) of this subsection and notwithstanding any
17 other provision of law or any rule, regulation, or order is-
18 sued pursuant thereto, no zone or area in the airspace over
19 either nonmilitary public lands or lands managed by the
20 Secretary of Agriculture shall be established for use by
21 the Department of Defense for defense purposes or to re-
22 strict or prohibit the flight of civil aircraft.

23 “(2)(A) No zone or area described in paragraph (1)
24 shall be established until the officer or agency responsible
25 for such an establishment has solicited, received, and con-

1 sidered the views of the Secretary of the Interior (to the
2 extent the airspace involved is over nonmilitary public
3 lands) or the Secretary of Agriculture (to the extent the
4 airspace involved is over lands managed by such Sec-
5 retary), or both such Secretaries, with regard to the pos-
6 sible effects of the proposed use of such airspace for de-
7 fense purposes on the resources and values of the affected
8 lands and the uses of such lands, has made such views
9 available for review by the public, and has then afforded
10 the Governors of affected States, affected Indian tribes,
11 and other members of the public an opportunity to com-
12 ment on the proposed establishment of such zone or area.

13 “(B) No zone or area described in paragraph (1) over
14 a total of more than 5,000 acres of nonmilitary public
15 lands or lands managed by the Secretary of Agriculture
16 (or of both such categories of land) shall be established
17 until 180 days after the officer or agency responsible for
18 such an establishment has submitted to the Congress a
19 description of the proposed zone or area and the views
20 of the Secretary of the Interior or the Secretary of Agri-
21 culture (or both such Secretaries), the Governor of any
22 affected State, any affected Indian tribes, and the public
23 provided to such officer or agency pursuant to subpara-
24 graph (A) of this paragraph.

1 “(3) For purposes of this subsection, the following
2 terms have the following meanings—

3 “(A) the term ‘nonmilitary public land’ means
4 land managed by the Secretary of the Interior (in-
5 cluding but not limited to lands managed by the Bu-
6 reau of Land Management and the National Park
7 Service) or held by such Secretary in trust for any
8 Indian tribe and that has not been withdrawn pursu-
9 ant to this Act or otherwise reserved for military use
10 by the Department of Defense or the military de-
11 partment (or its equivalent) of any State.

12 “(B) The term ‘defense purposes’ shall not in-
13 clude emergency search and rescue or firefighting
14 activities carried out by military personnel or
15 through use of military aircraft.

16 “(c) MONITORING.—The Secretary of the Interior
17 and the Secretary of Agriculture shall monitor the effects
18 of military aircraft overflights on the resources and values
19 of nonmilitary public lands and of lands managed by the
20 Secretary of Agriculture, and on visitor enjoyment and
21 other nonmilitary uses of such lands, and shall actively
22 seek the assistance of the Secretary of Defense and other
23 appropriate officers and agencies of the United States to
24 resolve concerns related to such overflights and, to the ex-
25 tent consistent with national security needs to prevent,

1 eliminate, or minimize the derogation of the resources and
2 values of such lands of visitor enjoyment and other non-
3 military uses of such lands associated with military activi-
4 ties, including overflights.”.

5 **SEC. 5. INVENTORIES AND REPORTS.**

6 (a) **EXISTING WITHDRAWALS.**—(1) At the time of
7 submission, pursuant to section 114a of title 10, United
8 States Code, of the first future-years defense plan submit-
9 ted after the date of enactment of this Act, the Secretary
10 and the Secretary of Defense shall submit to the Congress
11 an inventory of all public lands withdrawn for military
12 purposes, including both lands withdrawn under the Engle
13 Act and also lands otherwise withdrawn. The Secretary
14 of Defense shall indicate the purposes for which such
15 lands were withdrawn, the uses being made of such lands,
16 and the justification for continuing the withdrawal of such
17 lands from some or all of the public land laws, including
18 the mining, mineral leasing, and geothermal leasing laws
19 of the United States.

20 (2) To the extent that the Secretary of the Interior
21 has available information concerning the natural, cultural,
22 environmental, scenic, recreational, scientific, and other
23 resources and values of the lands withdrawn for military
24 purposes.

1 (b) PROPOSED WITHDRAWALS.—(1)(A) To the ex-
2 tent feasible, each future-years defense plan required by
3 section 114a of title 10, United States Code, shall include
4 an identification of public lands whose withdrawal under
5 the Engle Act is expected to be requested by the Secretary
6 of Defense or a Secretary of a department within the De-
7 partment of Defense during the years covered by such
8 plan, together with an explanation of the proposed use for
9 each such withdrawal expected to be requested.

10 (B) Nothing in this section shall be construed as pre-
11 cluding the submission to the Secretary of the Interior or
12 to Congress of a request for withdrawal of public lands
13 not identified in future-years defense plan.

14 (2) At the time the President submits a budget re-
15 quest for the first fiscal year beginning after the date of
16 enactment of this Act, and annually thereafter, the Sec-
17 retary of the Interior shall submit to the Committee on
18 Interior and Insular Affairs of the House of Representa-
19 tives and the Committee on Energy and Natural Re-
20 sources of the Senate information concerning all proposals
21 for withdrawal of public lands under the Engle Act being
22 considered by the Department of the Interior and shall
23 indicate which such proposals have been submitted to the
24 Congress and which such proposals the Secretary of the
25 Interior expects will be submitted to the Congress during

1 the succeeding calendar year. The Secretary of the Inte-
2 rior shall also identify those prior withdrawals under the
3 Engle Act which will expire during the succeeding calendar
4 year.

5 **SEC. 6. TERMINATION OF MILITARY USES.**

6 (a) REVERTER.—Upon the termination of a with-
7 drawal of public lands under the Engle Act, or at such
8 time as other lands previously managed by the Secretary
9 or the Secretary of Agriculture are no longer used for mili-
10 tary purposes, such lands shall revert to the jurisdiction
11 and management of the Secretary or the Secretary of Ag-
12 riculture, as the case may be, unless the Secretary or the
13 Secretary of Agriculture determines that some or all of
14 such land is contaminated to an extent that renders it in-
15 appropriate for such management.

16 (b) CONTAMINATION.—If the Secretary or the Sec-
17 retary of Agriculture determines that land described in
18 subsection (a) is contaminated to an extent that renders
19 such land inappropriate for management by the Secretary
20 or the Secretary of Agriculture, the Secretary of Defense
21 shall decontaminate such lands so as to make them appro-
22 priate for such management.

23 **SEC. 7. ORCHARD TRAINING AREA.**

24 Nothing in this Act, or in any amendment to another
25 Act made by this Act, shall be construed as imposing any

1 restriction on use for military purposes of lands military
2 use of which was on July 23, 1991, authorized pursuant
3 to the Memorandum of Understanding #ID-237, dated
4 May 1985, between the State of Idaho Military Division
5 and the Bureau of Land Management, or on the military
6 use of the airspace above such lands.

○

Mr. VENTO. I have a lengthy opening statement, and without objection, my statement and all other opening statements, and the statements of the witnesses in their entirety, will be made part of the record. Hearing no objection, so ordered.

This morning's hearing is a culmination of really a decade of work in the United States Congress dealing with land use policies, the withdrawal of land and airspace and the increasing use of airspace for military training and military exercises.

Dramatic changes obviously have occurred in the last decades concerning the need for such training, and the base closings, the whole panoply of events that have gone on, which cause us to revisit this.

And candidly, as the Engle Act with regards to land withdrawals applies to the national military, we find that the State Guards, which report to the governors, have been able to avail themselves of different means, one that really is contradictory to the intent, I think, of the Engle Act with regards to the withdrawal and review processes that are inherent in it. And so this permit process has resulted in a rather Byzantine process in which National Guard units at the State level don't actually undergo withdrawals, or permanent uses do not undergo the same sort of valuation or consideration by Congress.

Candidly, it is my judgment that that inconsistency should be addressed.

Secondly, within the Department of Agriculture there is a lack of balance and equilibrium with regards to the values of land exchanges that occur. Most notably there was a recent case involving the De Soto National Forest in Mississippi.

Of course, the main focus this morning, the one that has evoked the most attention, is the dramatic impact of airspace reservations and utilization of that airspace at the same time that the sensitivity has grown over conservation, wilderness, parks, other types of lands in the West, the utilization and recreational use of those properties, and the increasing cry to limit the equipment and technology that has begun to impact in a way that is intrusive, and indeed harmful, to various types of wildlife, and certainly, again, contradictory to many of the values for recreation and quietude that many seek or have come to expect from these remote western lands.

The increasing air traffic is not just from military planes, but I am certain some of it is attributed to commercial use as well. So we have focused a great amount of attention on that.

I must say, by way of context, that these policies came to a rather dramatic point just several years ago, and the ragged edges of the Department of Defense policy and the lack of predictability with regards to them became apparent in terms of the amount of airspace that was being proposed to be reserved, and the increasing land that was sought to be brought under the jurisdiction of the Department of Defense and its various related services.

Then-Secretary Cheney began to sand off some of the rough edges of the policy and proceeded forward. But today, even though there has been great effort to try and smooth out some relations with agencies and departments in the Federal family, and perhaps less so at the State level, there is the blunt fact that we still have

continuing applications and proposals, sometimes not very clearly drawn, to increase the amount of land, and to increase the amount of airspace that is reserved and utilized for these purposes.

My point in these hearings and the legislation I have introduced is to try to provide a process to regularize and standardize the method in which we proceed forward to make such approvals, such as land withdrawals, and to try to address in a sensitive yet effective way, in a public voice, the voice of Congress and the public, in the consideration of airspace utilization.

And notwithstanding, I think the fact that some of the edges have been smoothed off, as I said, the blunt fact, the blunt force is that these aircraft, these reservations are going forward to a different type of need in terms of training.

Today we are going to learn from the land management agencies that are clearly focused on the land use, and perhaps a lot more from those that are concerned about the increasing air reservations that are going on, what the impact is and what they see as some of the solutions.

Our initiative here is a rather modest one. We have of course worked closely over this past decade with Senator Reid, who was first a House Member, now a Senate Member, and of course other Members as well. Ben Nighthorse Campbell, Senator Ben Nighthorse Campbell, a former member of this committee—we hoped he could be with us this morning but he informed me he could not—is also very interested in this.

So I am happy to enlist their support and assistance as well as that of other Members of the Senate and House. We hope to move forward today on developing a discussion concerning this. I must say concerning the statements, that it is clear to me that there is never agreement among the agencies, departments, at the Federal level in the Clinton administration, to in fact try to resolve this administratively. And it is startling to me that some of the statements of land managers, which have been most acutely affected by the inconsistency of applications and permit process, have suddenly reconciled themselves that this is something that can be worked out within the Federal family without the involvement of Congress.

I would suggest to you that this is a pretty slippery slope in terms of trying to develop policy. We don't have to be involved in all of this, but I think the framework is a badly flawed method by which these lands and air reservations are being withdrawn.

So I seek to look to reconcile that and try to provide something that is more predictable so that we can respond to the constituencies we represent and to the needs of the Department of Defense and the responsibility of stewardship of all of these agencies and departments that we trust with our public domain and national forests and national parks and national wildlife refuges.

[Prepared statement of Mr. Vento follows:]

OPENING STATEMENT
CONGRESSMAN BRUCE F. VENTO
HEARING ON H.R. 2080,
MILITARY LAND REFORM AND REASSESSMENT
JUNE 17, 1994

THE SUBCOMMITTEE ON NATIONAL PARKS, FORESTS, AND PUBLIC LANDS WILL COME TO ORDER. AS MEMBERS HAVE BEEN NOTIFIED, WE ARE MEETING THIS MORNING TO HEAR TESTIMONY ON H.R. 2080, THE "MILITARY LAND REFORM AND REASSESSMENT ACT", WHICH I'VE INTRODUCED. THE MEASURE HAS BEEN JOINTLY REFERRED TO OUR COMMITTEE AND TO THE COMMITTEE ON ARMED SERVICES.

H.R. 2080 IS A GENERIC, NATIONWIDE, MEASURE THAT WOULD REVISE EXISTING PROCEDURES FOR ALLOCATING FEDERAL LANDS AND AIRSPACES FOR MILITARY USES. IT IS BASED ON SUBCOMMITTEE OVERSIGHT HEARINGS DONE OVER A NUMBER OF YEARS, AND ALSO ON INFORMATION DEVELOPED BY THE GENERAL ACCOUNTING OFFICE, THE CONGRESSIONAL RESEARCH SERVICE, AND OTHERS. AN IDENTICAL BILL WAS REPORTED BY OUR COMMITTEE IN 1992, BUT ACTION ON IT WAS NOT COMPLETED IN THAT CONGRESS.

LAST WEEK'S EVENTS MARKING THE HALF-CENTURY SINCE D-DAY HAVE VIVIDLY RECALLED HOW THE WORLD WAS.

BUT THEY ALSO HAVE REMINDED US HOW MUCH THE WORLD HAS CHANGED. AFTER NEARLY TWO GENERATIONS, THE ERA OF THE COLD WAR HAS COME TO AN END. LIKE HITLER'S "FORTRESS EUROPE," THE BERLIN WALL AND THE IRON CURTAIN ARE GONE. LIKE THE THIRD REICH, THE SOVIET UNION HAS COLLAPSED. TOGETHER WITH THE NATO ALLIES, THE RUSSIAN FEDERATION AND OTHER FORMER SOVIET STATES ARE SEEKING WAYS TO FORGE PARTNERSHIPS FOR PEACE.

OF COURSE, MANY INTERNATIONAL TENSIONS AND PROBLEMS STILL REMAIN, AND AMERICA CANNOT IGNORE THEM OR ALLOW OURSELVES TO BE

NEGLECTFUL OF THE NEED FOR CONTINUED READINESS TO MEET THE CHALLENGES THAT WILL CONTINUE TO COME OUR WAY.

OUR NATION IS ACTIVELY REVIEWING THE ARRAY OF NATIONAL POLICIES AND PRIORITIES AMERICA ADOPTED IN RESPONSE TO THE TENSION AND DANGER OF THE LAST 40 YEARS, AND BOTH THE ADMINISTRATION AND THE CONGRESS ARE WORKING TO RESTRUCTURE OUR DEFENSE ESTABLISHMENT AND OUR INTERNATIONAL PRIORITIES.

THIS BILL IS INTENDED TO BE A CONTRIBUTION TO THIS PROCESS OF CONVERSION, MOVING A COLD WAR TO THE NEW ERA.

THE BASIC PURPOSE OF THE BILL IS TO RATIONALIZE AND REGULARIZE THE WAY THE NATIONAL GOVERNMENT MAKES DECISIONS ABOUT HOW MUCH AND WHICH LANDS AND AIRSPACES SHOULD BE PLACED UNDER CONTROL OF MILITARY AGENCIES, AND TO INCREASE THE EXTENT TO WHICH THOSE DECISIONS TAKE INTO ACCOUNT NATURAL AND CULTURAL RESOURCES AND ENVIRONMENTAL, FISH AND WILDLIFE, AND OTHER VALUES.

I THINK TOO OFTEN WE TEND TO OVERLOOK THE FACT THAT THE DEFENSE DEPARTMENT ALREADY MANAGES A GREAT NUMBER AND DIVERSITY OF NATURAL AND CULTURAL RESOURCES. WHILE MANAGEMENT OF THOSE RESOURCES IS NOT AND CANNOT BE ITS PREDOMINANT MISSION, NONETHELESS IT IS AN IMPORTANT ASPECT OF THEIR WORK, AND IN GENERAL IT IS ONE THAT THEY ARE DOING INCREASINGLY WELL.

SO, IT IS NOT MY PURPOSE IN INTRODUCING THIS LEGISLATION TO ASSAIL THE DEPARTMENT OF DEFENSE, OR ANYONE ELSE. MY GOAL AND THE EFFECT OF THIS PROPOSED BILL WOULD BE TO IMPROVE EXISTING PROCESSES OF DECISION-MAKING REGARDING THE MATTERS IT ADDRESSES.

THIS EFFORT BEGAN WITH A 1990 OVERSIGHT HEARING THAT FOCUSED ON THE WAY THE DEFENSE DEPARTMENT MAKES DECISIONS ABOUT HOW MUCH LAND IT NEEDS. AT THAT TIME, THERE WAS AN ALMOST COMPLETE LACK OF COORDINATION BETWEEN THE VARIOUS SERVICES, AND THE HEARING APTLY DEMONSTRATED THE NEED FOR CLEAR POLICIES TO GOVERN THE ACQUISITION OR USE OF LAND FOR MILITARY PURPOSES.

SUBSEQUENTLY, THE BUSH ADMINISTRATION, LED BY SECRETARY OF DEFENSE DICK CHENEY, SUSPENDED PROPOSED ACQUISITIONS OF LAND, AND ESTABLISHED A SYSTEM OF TOP-LEVEL COORDINATION AND REVIEW.

THE CLINTON ADMINISTRATION TODAY HAS TAKEN IMPORTANT NEW STEPS, INCLUDING THE ESTABLISHMENT OF THE POSITION OF DEPUTY UNDER SECRETARY OF DEFENSE FOR ENVIRONMENTAL SECURITY. TODAY'S HEARING WILL BE FROM THE FIRST OCCUPANT OF THAT POSITION, DEPUTY UNDER SECRETARY GOODMAN.

NOW, CONGRESS NEEDS TO TAKE ACTION AS WELL, BY CONSIDERING WAYS TO IMPROVE EXISTING LAWS AND TO ASSIST THE ADMINISTRATION TO ESTABLISH AND IMPLEMENT SOUND POLICIES.

IT IS MY HOPE AND INTENTION THAT TODAY'S HEARING WILL BE THE START OF A COOPERATIVE EFFORT INVOLVING THE DEPARTMENTS REPRESENTED HERE, INTERESTED MEMBERS OF THE PUBLIC, AND MEMBERS OF THIS COMMITTEE AS WELL AS THE COMMITTEE ON ARMED SERVICES, WHICH WILL ALSO BE CONSIDERING THE BILL BEFORE US.

I ALSO AM PLEASED TO NOTE THAT OUR FORMER SUBCOMMITTEE COLLEAGUE, SENATOR BEN NIGHORSE CAMPBELL, HAS TAKEN AN INTEREST IN THIS MATTER, AND I LOOK FORWARD TO CONTINUING TO WORK WITH HIM TO INVOLVE MEMBERS OF THE SENATE AS WE GO FORWARD WITH THIS ISSUE

AND POLICY.

I HAVE A SUPPLEMENT TO MY OPENING STATEMENT THAT INCLUDES A MORE DETAILED DISCUSSION OF SPECIFIC PROVISIONS OF INTEREST IN WHICH BILL, WHICH I WILL INCLUDE IN THE RECORD, IF THERE IS NO OBJECTION...AND WILL NOW RECOGNIZE OTHER MEMBERS WHO MAY HAVE OPENING REMARKS.

NATIONAL GUARD ACTIVITIES

CONGRESS SHOULD END THE DISTORTIONS OF POLICY THAT NOW RESULT FROM LEGALISTIC DISTINCTIONS, AND INCREASE THE EXTENT TO WHICH MORE REALISTIC CONSIDERATIONS ARE TAKEN INTO ACCOUNT, WHEN THE MILITARY REQUESTS THE USE OF PUBLIC LANDS.

ONE LEGALISTIC DISTINCTION IN CURRENT LAW IS THE DIFFERENCE UNDER THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976--"FLPMA"-- BETWEEN THE REGULAR NATIONAL ARMED SERVICES AND THE MILITARY AGENCIES OF THE SEVERAL STATES -- THAT IS, NATIONAL GUARD UNITS.

BECAUSE OF THIS DISTINCTION, FLPMA HAS BEEN INTERPRETED AS ALLOWING THE SECRETARY OF THE INTERIOR TO AUTHORIZE NATIONAL GUARD USE OF PUBLIC LANDS MANAGED BY THE BUREAU OF LAND MANAGEMENT THROUGH ARRANGEMENTS THAT CANNOT BE MADE FOR USE OF THOSE PUBLIC LANDS BY THE REGULAR NATIONAL ARMED FORCES.

FOR THE REGULAR FORCES, USE OF THE PUBLIC LANDS REQUIRES THAT THE AFFECTED LANDS BE FORMALLY WITHDRAWN FROM OTHER USES--AND, IF THE AREA INVOLVED EXCEEDS 5,000 ACRES, A LAW THE ENGLE ACT APPLIES, MEANING THAT ACTION BY CONGRESS IS REQUIRED TO MAKE OR EXTEND SUCH A WITHDRAWAL.

(AN EXAMPLE OF AN ENGLE ACT WITHDRAWAL IS THE FORT CARSON-PINON CANYON BILL, H.R. 194, BY MR. HEFLEY, THAT THE HOUSE PASSED LAST YEAR).

IN MY OPINION, THIS DISTINCTION BETWEEN THE REGULAR FORCES AND THE NATIONAL GUARD IS DUBIOUS AT BEST.

AFTER ALL, THE NATIONAL GUARD UNITS ARE AN INTEGRAL PART OF THE DEFENSE ESTABLISHMENT--WITH THE NATIONAL GOVERNMENT PAYING THE

TROOPS, SUPPLYING THE EQUIPMENT, AND SUPERVISING THE TRAINING.

BUT EVEN IF IT MIGHT BE SOUND AS A MATTER OF LAW, THE DISTINCTION BETWEEN THE REGULAR FORCES AND THE NATIONAL GUARD MAKES NO SENSE WHATSOEVER IN TERMS OF SOUND LAND MANAGEMENT. TANKS ARE TANKS, CANNON ARE CANNON, AND AIRCRAFT ARE AIRCRAFT--AND THEIR IMPACTS ON THE LAND ARE THE SAME, WHETHER USED BY A FULL-TIME MEMBER OF THE REGULAR NATIONAL FORCES OR BY THE NATIONAL GUARDSMEN.

IN 1958, BY ENACTMENT OF THE ENGLE ACT, CONGRESS ESTABLISHED THE POLICY THAT ALLOCATING LARGE-SCALE AREAS OF THE PUBLIC LANDS FOR MILITARY USE SHOULD BE A DECISION OF THE ELECTED REPRESENTATIVES OF THE AMERICAN PEOPLE.

MY PROPOSED LEGISLATION WOULD EXTEND THAT POLICY TO APPLY TO USE OF PUBLIC LANDS BY NATIONAL GUARD UNITS AS IT DOES TO USE BY THE NATIONAL MILITARY SERVICES.

THIS IS NOT A NEW PROPOSAL. IN THE 101ST CONGRESS, PROVISIONS FOR NATIONAL GUARD USE OF PUBLIC LANDS WERE PASSED BY THE HOUSE AS PART OF A BLM REAUTHORIZATION BILL. UNFORTUNATELY, THE SENATE DID NOT ACT ON THAT BILL. THE NATIONAL GUARD PROVISIONS OF H.R. 2080 ARE SIMILAR BUT NOT IDENTICAL TO CORRESPONDING PROVISIONS OF THAT HOUSE-PASSED BILL. THE CHIEF DIFFERENCE IS THAT H.R. 2080 WOULD GIVE THE SECRETARY OF THE INTERIOR AUTHORITY TO WITHDRAW ADMINISTRATIVELY NO MORE THAN 5,000 ACRES OF PUBLIC LANDS FOR ANY ONE STATE MILITARY INSTALLATION, INSTEAD OF 10,000 ACRES AS IN THE 1989 BILL PROVIDED.

THE 5,000 ACRE LIMIT IS IDENTICAL TO THE ONE IMPOSED BY THE ENGLE ACT ON PEACETIME ADMINISTRATIVE WITHDRAWALS FOR NATIONAL

MILITARY INSTALLATIONS OR SITES. I BELIEVE THAT IT APPROPRIATE AT
LEAST FOR OUR DISCUSSIONS TO BEGIN ON THE PRESUMPTION OF
CONSISTENCY WITH THE ENGLE ACT.

AIRSPACE DECISIONS

ANOTHER IMPORTANT PART OF H.R. 2080 CONCERNS THE ALLOCATION FOR MILITARY USE OF ANOTHER STRATEGIC ASSET--AIRSPACE.

I EXPECT THAT SEVERAL OF OUR WITNESSES TODAY WILL FOCUS ON THIS PART OF THE BILL.

THE RELATED BILL ORIGINALLY INTRODUCED IN THE LAST CONGRESS WENT FURTHER THAN DOES THE BILL BEFORE US TODAY. THAT ORIGINAL VERSION INCLUDED A PROVISION PREVIOUSLY PROPOSED BY THE GENTLEMAN FROM NEVADA, SEN. REID, WHEN HE SERVED IN THE HOUSE, THAT WOULD HAVE BEEN A SORT OF "ENGLA ACT OF THE AIR".

IT WOULD HAVE REQUIRED CONGRESSIONAL ACTION TO ALLOCATE FOR MILITARY USE AIRSPACE OVER NON-MILITARY LANDS MANAGED BY THE INTERIOR OR AGRICULTURE DEPARTMENTS.

HOWEVER, IN THE LAST CONGRESS THIS PART OF THE BILL WAS COMPLETELY REWRITTEN BY THE SUBCOMMITTEE AND THE FULL INTERIOR COMMITTEE, AND H.R. 2080 RETAINS THOSE REVISIONS.

AS REVISED, TODAY'S BILL WOULD REQUIRE CONSIDERATION OF THE VIEWS OF THE LAND MANAGERS--WHETHER FROM THE INTERIOR OR AGRICULTURE DEPARTMENTS--AS WELL AS GOVERNORS OF AFFECTED STATES, INDIAN TRIBES, AND THE PUBLIC CONCERNING PROPOSED AIRSPACE ALLOCATIONS FOR MILITARY PURPOSES.

AND, IF THE AIRSPACE OVERLIES MORE THAN 5,000 ACRES OF NONMILITARY INTERIOR DEPARTMENT LANDS OR A SIMILAR AMOUNT OF LANDS MANAGED BY THE AGRICULTURE DEPARTMENT, THE ALLOCATION COULD NOT TAKE PLACE UNTIL CONGRESS WAS GIVEN 180 DAYS TO REVIEW AND CONSIDER IT.

THESE PROVISIONS WOULD NOT APPLY TO EMERGENCY SEARCH AND RESCUE OR FIREFIGHTING ACTIVITIES OF MILITARY PERSONNEL OR USING MILITARY AIRCRAFT.

THE BILL BEFORE US ALSO INCLUDES A PROVISION TO REQUIRE THE INTERIOR AND AGRICULTURE DEPARTMENTS TO MONITOR THE EFFECTS OF MILITARY OVERFLIGHTS AND TO WORK WITH THE DEFENSE DEPARTMENT TO ELIMINATE OR MINIMIZE ADVERSE EFFECTS ON THE RESOURCES OR ON VISITOR ENJOYMENT.

THAT PART OF THE BILL IS IDENTICAL TO THE MONITORING SECTION OF H.R. 880, THE CALIFORNIA DESERT MILITARY LANDS AND OVERFLIGHT BILL, AS INTRODUCED. IN PREPARING TO BRING THE LARGER CALIFORNIA DESERT MEASURE--H.R. 518--TO THE HOUSE FLOOR, OUR COMMITTEE AND THE ARMED SERVICES COMMITTEE REACHED AGREEMENT ON AN AMENDMENT TO THE CALIFORNIA DESERT BILL THAT USES H.R. 880 AS THE BASIC TEXT BUT INCLUDES SOME REVISIONS, INCLUDING REVISION OF THE MONITORING PROVISION. AT THE APPROPRIATE POINT IN THE HOUSE'S CONSIDERATION OF THE CALIFORNIA DESERT BILL, I WILL OFFER AN AMENDMENT TO INCORPORATE THE LAND-RELATED PROVISIONS OF H.R. 880, AND THE GENTLEMAN FROM CALIFORNIA, MR. FARR WILL HAVE A SECOND-DEGREE AMENDMENT TO ADD THE AGREED REVISED MONITORING SECTION. SIMILAR REVISIONS MAY BE MADE TO THE MONITORING PROVISIONS OF H.R. 2080.

H.R. 2080 ALSO INCLUDES A NUMBER OF OTHER PROVISIONS AS WELL, INCLUDING LANGUAGE TO CLARIFY THE STATUS OF LANDS PREVIOUSLY ALLOCATED TO MILITARY USES WHEN THEY ARE NO LONGER USED FOR THOSE PURPOSES, AND TO SPELL OUT THE DUTY OF THE DEFENSE DEPARTMENT TO UNDERTAKE NEEDED CLEANUP AND DECONTAMINATION OF THOSE LANDS SO THEY MAY BE USED FOR OTHER PURPOSES.

Mr. VENTO. Mr. Hansen.

STATEMENT OF HON. JAMES V. HANSEN

Mr. HANSEN. Thank you, Mr. Chairman.

Mr. Chairman, this legislation is once again before our subcommittee, and in its present form I must oppose it. I hope as we go through this crucible in working on it—I understand the committee I sit on as well as this committee, the Armed Services Committee, will also get something like this—I hope we can work out something that will be beneficial for all concerned, although I know how difficult that task is.

In the past year and a half I have witnessed attacks on military use of airspace. Many of our wildlife refuges that were created by the military are under attack. If it were not for these military bases, the refuges would not exist.

Others have opposed military flights over BLM lands for fear that a missile motor might be left behind. Last year folks from DOD were testifying before this committee on the California Military Lands Act. I distinctly remember warning them that little by little the camel gets further in the tent. There are conscious efforts to drive the military off the public lands, and I think this proposal heads a little this way, and I hope we can change it around.

Most Americans, and I would include many of the groups and people before us today, do not fully understand the importance of military training and readiness and the vast amount of land necessary to complete these missions. In my home State of Utah, we have land as big as three or four eastern States. That is all they are dedicated for. The only test and training range that goes from zero to 58,000 feet is there, the Utah Mountain training range. I hope these folks remember that when they think about closing it. Although we are downsizing our military, this does not mean we should stop our training efforts by way of bureaucratic gridlock.

Waiting periods, environmental assessments, and multi-jurisdictional airspace management will mean an end to training over non-military public lands. I do not understand why it is all right to allow unrestricted military overflights over the California wilderness, yet at the same time this legislation seeks to severely hamper the mission of our military in other areas.

You can tell, Mr. Chairman, I am exercised on this measure and I fully intend to be involved on this committee and on the Armed Services Committee. I will be interested to see how the administration and the Defense Department differ from their previous testimony. And believe me, folks, we are going through it inch by inch, comma by comma, word for word, of what you said last time and what you say this time.

Thank you, Mr. Chairman.

Mr. VENTO. Mr. Hefley or Mr. Calvert, do either of you have statements?

STATEMENT OF HON. KEN CALVERT

Mr. CALVERT. Yes, Mr. Chairman. Thank you.

I am looking forward to today's hearing to reconcile the managements of public lands and the use of these lands for military purposes. As a congressman from California, I am especially interested

in the changing attitudes over public lands and now we are going to handle the use of these vast resources in the future.

California has been hit hard by defense base closures and cutbacks. I am concerned that this piece of legislation will further weaken our military readiness. My State cannot handle additional restrictions on the use of public lands, especially in light of the eminent desert bill. Defense cutbacks have put more pressure on the National Guard to be prepared for emergency situations, whether it be for military operations or humanitarian assistance.

For example, in the past two years Southern California has relied on the National Guard to protect our citizens from riots, fires, floods, earthquakes. H.R. 2080 will hamper the National Guard from carrying out its vital mission in the air and on the land.

Without flexible management of public lands by the Federal Government, a vital component of our military readiness will be in jeopardy. With March Air Force Base in my district as well as Fort Irwin, Twentynine Palms, China Lake Naval Weapons Center and Edwards Air Force Base nearby, all of which are surrounded by lands owned by the government, H.R. 2080 will seriously impact the units operating in this areas.

I appreciate the committee's interest in this important issue and look forward to hearing the testimony of our witnesses. Again, thank you Mr. Chairman.

Mr. VENTO. Mr. Hefley?

Mr. HEFLEY. Thank you, Mr. Chairman.

First I would like to yield to Mr. Hansen.

Mr. HANSEN. Thank you. I appreciate my friend yielding.

Mr. Chairman, I make a unanimous consent request that the Association of National Guard, their statement be included in the record, and also a letter from our colleague, Mr. Sonny Montgomery, who I serve with on the Armed Services Committee.

Mr. VENTO. Without objection, and the statements of Senator Campbell and Congressman Mike Crapo will be also put in the record.

[EDITOR'S NOTE.—See appendix.]

Mr. VENTO. Mr. Hefley.

STATEMENT OF HON. JOEL HEFLEY

Mr. HEFLEY. Thank you, Mr. Chairman.

I am looking forward today to the testimony on your bill, H.R. 2080. The subject before us is one many of us are facing today, not only in the West but across the country; namely, how do we reconcile the desire for more and more people to get away from it all on public land or on private land that is near public land and still provide enough space for military training?

I have been confronted by this issue in my own State where the National Guard would like to expand its training area, unfortunately, an area where people move to be cowboys and enjoy the wilderness areas. Both of these are legitimate concerns, but the problem lies in reconciling conflicting interests. People do have a right to get away from it all, but we can't sacrifice the Nation's security either.

Now, we have heard testimony on this bill for over two years. I am looking forward to the testimony today. I hope we can come up

with a solution. There is one particular area in my State that we have had great concern about, where the Air National Guard wants to fly at 100 feet off the deck at the speed of sound, practically, and in an area that is made up primarily of ranches. And the people who live there sacrifice a great deal to live that far away from the conveniences of modern life, and then to be out rounding up their cattle and having an airplane 100 feet over their head, they don't like very well, and I understand that.

But as I said, I also understand the other side of it, having served for these years on the Armed Services Committee also, that we have to accommodate in some way space for training for our Nation's defense forces as well. So I hope we can get some answers in our hearing today.

Thank you.

Mr. VENTO. I thank the gentleman and the Members present this morning.

The record will, I think, be helpful for us in terms of trying to in fact resolve the matter and perhaps to gain a clear understanding of the bill.

PANEL CONSISTING OF SHERRI W. GOODMAN, DEPUTY UNDER SECRETARY OF DEFENSE (ENVIRONMENTAL SECURITY), DEPARTMENT OF DEFENSE, ACCOMPANIED BY TAD McCALL, DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE FOR ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH, MAJ. GEN. ALAN T. REID, HEAD, MASSACHUSETTS AIR NATIONAL GUARD AND CHAIRMAN OF NATIONAL AIRSPACE STEERING COMMITTEE, MAJOR GENERAL BETHURUM, AIR FORCE, CAPTAIN CALHOUN, NAVY, AND ARMY REPRESENTATIVE PHIL HUBER; MAT MILLENBACH, ACTING CHIEF OF STAFF FOR ASSISTANT SECRETARY FOR LAND AND MINERALS MANAGEMENT, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY DONALD VOROS, CHIEF, BRANCH OF WILDLIFE MANAGEMENT, NATIONAL WILDLIFE REFUGE SYSTEM, DEPARTMENT OF THE INTERIOR; AND GORDON SMALL, ACTING ASSOCIATE DEPUTY CHIEF, U.S. FOREST SERVICE, DEPARTMENT OF AGRICULTURE

Mr. VENTO. We have a distinguished panel this morning of witnesses. I am pleased to welcome Ms. Sherri Wasserman Goodman, Deputy Under Secretary for Environmental Security, Department of Defense; Mr. Mat Millenbach, Acting Chief of Staff for the Assistant Secretary for Land and Minerals Management, Department of the Interior; and Mr. Gordon Small, Acting Associate Deputy Chief, U.S. Forest Service, Department of Agriculture.

Without objection, your statements have been made a part of the record. I have looked over the statements, so I would invite all witnesses this morning, because we have a long list of witnesses, to try and summarize your statements. If you feel you need to read it, especially the administration witnesses, please do so. But please be considerate so we can proceed and hear from all the witnesses in a timely manner today.

We probably will be interrupted by votes at some point during this morning and afternoon's session as we proceed.

Under Secretary Goodman, please proceed.

STATEMENT OF SHERRI W. GOODMAN

Ms. GOODMAN. Thank you, Mr. Chairman and members of the committee. Thank you for inviting testimony today from the Department of Defense.

With me today from the Department of Defense are Mr. Tad McCall, the Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health; Major General Reid, head of the Massachusetts Air National Guard and chairman of the National Airspace Steering Committee; Major General Bethurum, Air Force; Captain Calhoun of the Navy; and Army representative Phil Huber.

Today, Mr. Chairman, I would like to focus on the Department's conservation strategy, which is one piece of our overall environmental security program, and I would specifically like to focus on land management and airspace requirements.

As the committee well knows, the Department is steward for 25 million acres of public land. This is important land for our training missions. We are the second largest caretaker of public lands in the Federal Government after the Department of Interior.

These lands represent essential qualities for our military training. They also represent all our major land types and contain sensitive ecosystems and endangered species.

We face the challenging task of protecting these resources while supporting the military mission. We have moved recently to better integrate our ability to support our essential training missions and to focus on our conservation efforts.

Let me just mention some of the things we are doing in the conservation area to ensure that we comply with all laws and standards for natural resources and promote ecosystem-based management on military lands, coordinate and consult with Federal and State agencies, the public and stakeholders, and provide for public access to our conservation programs whenever possible.

Mr. Chairman, let me comment on the legislation that you have introduced. We cannot support this bill unless it is amended to ensure that it supports both national defense and resource protection goals. The Department's mission is to protect our national security interests. That is the Department's primary mission. And a key element of mission capability is well-disciplined and highly-skilled pilots, which in turn depend on having adequate and realistic training operations.

The department conducts its training on and over national forests and other Federal lands which are managed by the Departments of Agriculture and Interior.

Our primary concern is that the proposal as presently drafted would create significant delays in making changes to critical military operations in airspace over nonmilitary public lands. Particularly we are concerned about the provisions which would amend the Engle Act.

As you know, the Engle Act now requires Congress to approve the military use of more than 5,000 acres of public lands. This would expand the act to include airspace over public lands as well.

This change would eliminate the ability of the Federal Aviation Administration to establish temporary restricted areas for the military to conduct large-scale military training exercises over public

lands. These requirements would greatly complicate future airspace acquisitions by the department. They would limit our ability to train flexibly for regular and reserve aviation forces including the Air National Guard.

The point I need to make this morning is that, despite downsizing of our force structure in the aftermath of the Cold War, the size of the military's land and air areas needed to maintain operational readiness is actually increasing because of changes in tactics and weapon systems.

We are working hard to downsize smartly, and that is a painful process, and to eliminate excess infrastructure. But along with that comes the continued viability of air and training ranges, and that is crucial to our long-term ability to support a trained and ready force.

The second concern that we would have, and we want to work with the committee, is the airspace arrangements for military operations. There are hundreds of special air-use modifications each year, many of which constitute minor changes, to accommodate individual citizens and special groups, requiring a detailed environmental analysis for each modification. Then waiting 180 days could be an unreasonable increase in complexity, expense and time for processing the proposals.

We would like to work with the committee to provide a clear and defined mechanism to authorize National Guard use of public land. Presently the Engle Act does not apply to these uses. We would like to have a solid framework, but we do not want more bureaucratic red tape.

Finally, we would like to work with you on the provisions concerning transfer of withdrawn lands to the Department of Agriculture and the Department of Interior when they are no longer used for military purposes. But consistent with the Department's and the administration's views on the Superfund reform, we recommend requiring the appropriate Secretary to determine what use is expected for the land so that appropriate levels of decontamination can be determined.

Now, the Department of Defense also recognizes that there are heavy concerns about military operations and overflights that may disturb the ecology of our public land. We are committed to cooperative efforts with other agencies and with the public to conserve and enhance our national heritage while ensuring a strong national defense. This is a delicate balance, but I believe it is one that we can achieve and that this Department and this administration are committed to achieving.

Let me tell you about two partnership efforts, one ongoing and one that we plan to get under way, which I believe will help us very much in this area.

Over the past several months the Department of Defense, Department of Interior, as well as the Department of Transportation and the Federal Aviation Administration have engaged in discussions on several issues affecting overflights and refuges.

From this interchange, the Interagency Airspace and Natural Resources Coordination Group has been formed. Last month the group met to discuss military airspace use and, in particular, the

role of Federal land managers in aviation operations and land management.

They have been sitting together at the table very practically identifying specific issues to tackle and have even achieved immediate results in solving several site-specific issues.

We also would like to propose the joint establishment of a formal dialogue with my colleagues in the Department of Interior and stakeholders to discuss broadly the issues of military use of public lands. We believe firmly we will need to continue to use those lands and have access to both land and airspace for essential training missions.

We also believe that by providing a constructive forum to listen to those who have concerns, to exchange ideas, and to develop practical solution that we can address some of the issues that have been raised, both in the context of this legislation and elsewhere.

We have had success in the Department of Defense in increasing public participation in, for example, the Department's cleanup program, by creating community advisory groups. We would like to create a forum that would allow the public to better participate in some informal ways to address those issues and to accomplish our twin goals of national security and resource protection.

As a first step in this process, I met this week with a number of the witnesses for this hearing, to listen to their concerns and to begin to identify common ground for addressing different interests. While I am sure we will not always agree, I think the fact that we will listen and we will partake in a process is an important first step.

In closing, Mr. Chairman and members of the committee, I want to emphasize that the current Department of Defense leadership strongly believes in our national security and in the essential needs of those public lands for our training missions, but we also believe that we can achieve environmental security by working cooperatively.

We are not content merely to be a good steward of our lands. We are committed to becoming a leader in protecting and enhancing the natural environment for future generations, and that this will help to serve our national defense mission.

Mr. Chairman, we look forward to working with you and we look forward to working with the committee on these important issues.

Thank you.

[Prepared statement of Ms. Goodman follows:]

STATEMENT OF

**MS. SHERRI W. GOODMAN
DEPUTY UNDER SECRETARY OF DEFENSE
(ENVIRONMENTAL SECURITY)
BEFORE**

**THE HOUSE SUBCOMMITTEE ON
NATIONAL PARKS, FORESTS AND
PUBLIC LANDS**

HOUSE NATURAL RESOURCES COMMITTEE

H.R. 2080

JUNE 17, 1994

**NOT FOR PUBLICATION
UNTIL RELEASED BY THE
COMMITTEE**

Good morning, Mr. Chairman and Members of the Committee. On behalf of Secretary Perry, thank you for the opportunity to testify on the Department of Defense's land management and airspace programs.

DoD is developing a new conservation strategy as part of its Environmental Security program. The office of Environmental Security was created just over a year ago by President Clinton, Vice President Gore and Secretary Perry in order to integrate environmental considerations into defense policies and practices. Environmental Security has six major goals:

- o ensure DoD operations **comply** with environmental laws;
- o **clean up** and reduce risk from contaminated sites;
- o be responsible **stewards** of the land DoD holds in public trust;
- o **prevent pollution** at the source whenever possible;
- o promote development of dual-use environmental **technologies**; and
- o protect the **safety and health** of our military and civilians.

Today, I will focus on our **land management program and airspace requirements**. The Department of Defense is the steward for 25 million acres of public land, an area approximately the size of the state of Tennessee. DoD lands represent all of our country's major land types and contain sensitive ecosystems and endangered species, irreplaceable historic and archeological sites, and many other important natural and cultural resources.

The Department faces a challenging task of protecting these resources while supporting the military mission. DoD recognizes that protection of these resources and compliance with environmental laws ensures the continued availability of lands and waters to support training that is critical to mission performance and readiness. As part of this conservation strategy, we are committed to:

- o **Comply** with all applicable laws and standards for natural resources.
- o Fulfill the military mission in consonance with **sound natural resource management policies**
- o **Identify** all significant and sensitive natural resources.
- o Promote **ecosystem-based management** on all military lands.
- o Provide **training, education, and staffing** to build a strong conservation ethic.

- o Enhance **coordination and consultation** with federal and state agencies and other interested parties.
- o Provide for **public access** to our conservation programs whenever permitted by mission and resource management constraints.

H.R. 2080, Military Land Reform and Reassessment Act

Next I would like to address the **Military Land Reform and Reassessment Act, H.R. 2080**. The DoD response to this initiative results from the interplay between our responsibilities to support both national defense and resource conservation goals. The key question is how the initiative will affect our ability to achieve operational readiness and accomplish our military mission, while meeting our obligation to manage all of our resources wisely. The Department generally supports the concepts presented in this bill. However, we cannot support H.R. 2080 unless it is amended to ensure the desired results can be realized.

The Department of Defense mission is to protect our national security interests. It must be ready to perform that mission at any time. A key element of mission capability is well disciplined and highly skilled pilots which depend on adequate training under realistic conditions. DoD conducts its training on and over national forests and other federal lands, which are managed by the United States Department of Agriculture (USDA) and the Department of Interior (DoI).

DoD and DoI recognize that Congress and the public are concerned that military ground operations and overflights may disturb or cause deleterious effects on the ecology of these areas. We realize that we have a common interest in these areas, and are committed to cooperative efforts that will conserve and enhance our natural heritage while assuring a strong national defense. Over the past several months, DoD and DoI, as well as the Department of Transportation (DoT) and the Federal Aviation Administration (FAA), have been actively engaged in discussions of several legislative measures affecting overflights and refuges. From this interchange, the Interagency Airspace/Natural Resources Coordination Group evolved and began meeting last January. On May 18, 1994, the Interagency group met to discuss military airspace use, and, in particular, the role of Federal land managers in aviation operations and land management.

H.R. 2080 would create significant delays in making changes to critical military operations in airspace over nonmilitary public lands, **in particular, the provisions in Section 4 which would amend the Engle Act.**

The Engle Act provides that the withdrawal, reservation, restriction, or use of more than 5,000 acres of public lands for military purposes shall not become effective until approved by an Act of Congress, and sets forth information requirements for withdrawal applications. Section 4 of H.R. 2080 would expand coverage of the Engle Act to include airspace over nonmilitary public lands as well. It could eliminate the ability of the Federal

Aviation Administration to establish temporary restricted areas for use by the military to conduct large-scale military training exercises over areas containing public domain lands. And H.R. 2080 would require that the views of the Secretary of Interior or Agriculture, as the case may be, and of the Governor, Indian tribes and public of any affected states be submitted to Congress six months prior to establishment of a military zone or area.

We have two concerns with these provisions. **First and foremost, they would greatly complicate future airspace acquisitions by DoD.** It would severely limit training flexibility for Regular and Reserve aviation forces, including the Air National Guard. It would also hamper aircraft unit activation and modernization initiatives, most of which require airspace actions.

In addition, H.R. 2080 **does not clearly address the status of present airspace arrangements for military operations.** There are hundreds of special use airspace modifications each year, many of which constitute minor changes to accommodate individual citizens and special interest groups. Requiring a detailed environmental analysis for each modification and then waiting 180 days is an unreasonable increase in complexity, expense, and time for processing DoD airspace proposals.

Despite the continued downsizing of our force structure, the size of the land and air areas needed to fully achieve operational readiness is actually increasing because of changes in tactics and weapons systems and platforms. DoD has been striving to downsize smartly and to eliminate excess infrastructure, but continued viability of air and training ranges is crucial to our long-term ability to support a trained and ready force. Section 4 of this bill would limit that viability.

These provisions would impose severe delays on development of military airspace over nonmilitary public lands. It is likely that these delays would be of such magnitude that vital training capability would be lost and readiness would suffer.

We firmly believe that differences of opinion about the compatibility of military overflights and public land use can be satisfactorily resolved. We propose the joint establishment of a public dialogue with DoI and others to discuss the broader issues of military use of public lands. DoD began this process this week by meeting with each of the witnesses for this hearing to listen to concerns and identify common ground for addressing differing interests.

We are already working many issues of joint concern with DoI. For example, resource managers from DoD and Interior's Fish and Wildlife Service are jointly participating in a month-long training program for managers of protected nature reserves and military areas in the Former Soviet Union. Issues being discussed include ecosystem management, biodiversity, law enforcement, and environmental education.

H.R. 2080 attempts to provide a clear and well-defined mechanism for authorizing National Guard use of public lands. Presently, neither the Federal Land Policy and

Management Act nor the Engle Act specifically authorizes these uses. This amendment would provide a solid framework for clarifying our procedures and standards. However, we recommend a technical change to increase the size of land withdrawals that can be made without an Act of Congress to allow for armored or heavy mechanized brigade level exercises. The existing 5,000 acre limit is too restrictive for these exercises, even for dismounted infantry.

Finally, we generally support provisions in the bill which provide for the transfer of withdrawn lands to the Department of Agriculture or Department of Interior when they are no longer used for military purposes. We recommend requiring the appropriate Secretary to determine what use is expected for the land so that the appropriate levels of decontamination can be determined consistent with current law. DoD would then be responsible for cleaning up contamination from DoD uses.

In closing, I would like to emphasize that the current DoD leadership strongly believes that **national security includes environmental security.** We are committed to integrating fully environmental security concerns into our defense policies and practices. The Department of Defense will not be content to merely be a good steward of its lands. We will work to be a leader in protecting and enhancing the natural environment for future generations -- both for its intrinsic value to future generations and to secure the availability of these resources to support the national defense mission.

We look forward to continuing to working with the Committee on these important issues.

Mr. VENTO. Thank you, Under Secretary Goodman.

We have a vote, and I didn't expect to be interrupted quite this soon, but hopefully we will be back soon so we can continue with the hearing.

The committee stands in recess.

[Recess.]

Mr. VENTO. The subcommittee will resume its sitting.

We have heard, of course, from the Under Secretary. I would like to invite Mat Millenbach, the acting chief of staff for the Assistant Secretary for Land and Minerals Management, Department of the Interior, to please proceed. Your statement has been made a part of the record, so can you summarize if you choose.

STATEMENT OF MAT MILLENBACH

Mr. MILLENBACH. Thank you, Mr. Chairman and members of the committee, for the opportunity to appear here today and present the views of the Department on H.R. 2080, the Military Land Reform and Reassessment Act of 1993.

The Department generally supports the concepts presented in this bill. However, we cannot support H.R. 2080 unless it is amended to ensure the desired results can be realized. We will be happy to work with you to draft appropriate changes and modifications.

Section 2 of H.R. 2080 would amend the Federal Land Policy and Management Act of 1976 to provide that State military departments and their supported national units meet the same provisions and limitations of section 302(b) of the Federal Land Policy and Management Act, as do Federal agencies for issuance of authorizations to use the public lands.

In effect, the State military departments would be treated as if they were Federal military agencies for the purpose of using public lands, except that H.R. 2080 does provide for general and specific authorizations to the National Guard for noncontaminating uses. But for some minor changes, we support this section of the bill.

A military use procedure which the Congress might want to consider would be to extend the authority of section 302(d) of the Federal Land Policy and Management Act, which now applies only to, if I recall, military use of public lands in Alaska, so that it applies to military use of public lands in other States as well.

We defer to the Forest Service for comments on section 3 of H.R. 2080 which relates to the amendments to the act of July 26, 1956. This act applies only to the Department of Agriculture and the military departments of the Department of Defense.

Section 4 would amend the Engle Act to make the creation of military use zones or areas in the airspace over nonmilitary public lands and lands managed by the Secretary of Agriculture subject to review by Congress. In general, the Department of the Interior supports the concept of section 4 regarding management of airspace over special management units such as wilderness areas, wildlife refuges and national parks.

This provision would allow for greater input from land management agencies concerning military aircraft overflights when those flights are shown to have negative impacts on the public land resources or users.

Airspace interests of the Department of the Interior are currently being addressed through an agreement with the Federal Aviation Administration that was entered into some 18 months ago, through the Natural Resources Committee which was established six months ago through the initiative of the Air National Guard.

Through these efforts, several issues are close to resolution. The Air National Guard have also assigned a temporary liaison in the national refuge system to help resolve site-specific issues.

Significant progress is being made throughout FAA and the Interagency Airspace/Natural Resources Committee to resolve aircraft overflight issues, although much work still needs to be done.

Consequently, we recommend that the committee defer action on section 4 to allow time for these administrative actions to take effect. This newly-established interagency process has great potential for resolving airspace issues by providing the agencies that represent the interests of public land users the opportunity to influence airspace management.

As this process matures, our experience should provide valuable insight into what new statutory authority, if any, might be warranted in the future.

In addition to the interagency process, we understand that the current FAA approval process provides a number of opportunities for public review and comment. If the committee is interested in monitoring these interagency efforts to ensure that land use concerns are considered, the Department of the Interior could provide a report of our progress in addressing these issues.

Section 6 of H.R. 2080 would provide for a reverter of certain withdrawn military lands to the Secretary of the Interior or the Secretary of Agriculture, if the lands are no longer needed for military purposes, unless the land is contaminated.

There is a question as to whether the reverter is to be considered automatic. An automatic reverter for Federal lands which are no longer needed for military purposes is not appropriate or suitable.

Before lands are transferred between Federal agencies, questions concerning hazardous materials, suitability of the lands for the programs of the receiving agency, and other issues should be considered. The Secretary of Agriculture and the Secretary of the Interior should be allowed more discretion as to which lands should be accepted from the Department of Defense.

We suggest that the bill be amended to provide for mutual agreements to be developed on acceptable standards for reversion of lands, consistent with current law. We also recommend requiring the appropriate Secretary to determine what use is expected for the land in question so that the appropriate levels of decontamination can be determined.

To the extent that decontamination is not technically and economically feasible and to the extent that funds are not appropriated, contaminated lands should remain under the jurisdiction of the Secretary of Defense until decontaminated.

Section 7 of H.R. 2080, concerning the Orchard Training Area in the State of Idaho, should be amended to bring it up to date. It should be amended to make it consistent with Public Law 103-64 rather than the 1985 Memorandum of Understanding.

I have mentioned the most significant problems that should be addressed. There may be other less significant changes which would improve the bill. As I stated earlier, we will be happy to work with you to draft language to ensure that the act can achieve the results intended.

This concludes my prepared statement. I will be pleased to answer your questions.

Mr. VENTO. Thank you, Acting Chief Millenbach.

Finally we have Gordon Small, Acting Associate Deputy Chief.

STATEMENT OF GORDON SMALL

Mr. SMALL. Thank you, Mr. Chairman, members of the subcommittee. I appreciate the opportunity to offer our views on H.R. 2080.

The Department of Agriculture generally supports the concepts in the bill. However, we cannot support H.R. 2080 unless it is amended.

Section 3 of H.R. 2080 would amend the 1956 act. It would prohibit the interchange of National Forest System lands that are within a conservation system unit or other area designated or established for conservation or protection by proclamation, Executive order, or Act of Congress with a department of the military. It would highlight the applicability of NEPA, and the Forest and Rangeland Renewable Resources Planning Act of 1974, and the National Forest Management Act of 1976, to these interchanges. It would also make such interchanges contingent upon a determination by the Secretary of Agriculture that an interchange will improve the protection and management of the natural, cultural or other resources and values of the National Forest System. It would also delay the effective date of any interchange from 45 to 180 days after notification of the Congress.

The relationship between the military and the Forest Service is long. Interchanges have consolidated national forest ownership and improved management as well as supported activities at military installations. The authority is also used to provide single agency administration of Federal works projects, such as water impoundments constructed by the Corps. This authority has been a valuable management tool for both the military and the Forest Service.

We are concerned that some of the amendments contained in H.R. 2080, if enacted, would impede use of this authority. Section 3(b) imposes an absolute requirement that any interchange have a positive impact on resources and values of the national forests. It does not allow for interchanges that may be of significant benefit to the military and have no significant effect on the National Forest System. Such an asymmetrical relationship could serve as a disincentive to the military to accommodate the Forest Service when a proposed interchange would not clearly be to their benefit.

Secondly, we believe that the 180-day notice period specified in section 3(a)(4) is unnecessary. For example, operation of the NEPA process, where applicable, provides clear notice to all interested parties for proposed interchange before a final decision is reached. Extending the formal notice period to 180 days would further delay the process that is reviewed by both houses of Congress. We recommend these two provisions be deleted from the bill.

Section 4 of H.R. 2080 would extend the coverage of the Engle Act to the airspace over lands managed by the Secretary of Agriculture.

Subsection (c) would mandate that both the Secretaries of the Interior and Agriculture monitor the effect of military aircraft overflights on the resources and values of the land under their respective authority. We agree that military overflights present a challenge in managing National Forest System lands but we also believe provisions for mandatory monitoring may be premature.

At the request of Congress, representatives of the Departments of Defense, the Interior, Agriculture, and the Federal Aviation Administration are working together to solve issues regarding overflights. As mentioned by the others on this panel, this effort is being coordinated through an Interagency Airspace/Natural Resource Coordination Group.

We particularly appreciate the excellent leadership of the Air National Guard in dealing with this issue. They are addressing key topics such as operations and safety, environmental effects, NEPA planning and compliance, education and awareness, and coordination and procedures.

This effort has already produced solutions to problems caused by overflights of wildlife refuges managed by the Fish and Wildlife Service. We would ask your patience as we work to address other matters related to overflights of National Forest System land.

This concludes my formal statement. I would be pleased to respond to any questions.

Mr. VENTO. Thank you.

Taken together, everyone is interested in the bill and supports it except for specific provisions. So you all recognize, I guess, that there is a problem, but the message I am getting here is that the Congress ought to butt out, that we should not change anything, even the different treatment of the State National Guard versus the Federal military. Well, Interior endorsed that, but you don't want the State National Guard treated the same as the Federal military, Ms. Goodman, because it is too bureaucratic. In other words, the Engle Act isn't working, it ought to be thrown out.

Ms. GOODMAN. Mr. Chairman, I believe it is important that we provide a way to continue our scheduled military missions and provide an informed dialogue for discussion. I think your proposed legislation is useful in getting started on that point, and I think you have already, by calling this hearing, helped to bring us together, both in the Federal family and as well with other interested stakeholders, as I said, many of whom I have met with this week.

I think that begins a very constructive dialogue. I have noted in my testimony that there are particular parts of your legislation that we can genuinely support. We would like to work with you on that.

Mr. VENTO. I know that. I realize that. I am talking about the specific testimony, the specifics, not the general attitude. I appreciate that. But the fact is that we have a two-track system now, one that exists for the State National Guards and one that exists for the Federal military, and the fact is you are saying you don't want this applied to the States because it is too bureaucratic. That was your testimony. I mean, that is my point.

The point is if there is some solution, if you want to rewrite the Engle Act, then tell me about it. But it is now used to withdraw lands for 15 years, it has got a NEPA process, it has got some warning provisions, some work that is done ahead of time. If that process isn't working, I understand that, because when it expires we have got lands that are still being used, in California and other places. So there is a lot of flexibility in it.

One of the other provisions, Ms. Goodman, you commented on is the airspace issue. On the airspace issue, the bill provides for you to do a planning process and submit it to Congress 180 days before it takes effect, six months before it takes effect.

What is the lead time in terms of planning for airspace reservations that are going to be intensively used by the military or by the various military services?

Ms. GOODMAN. There is quite a bit of planning time involved, Mr. Chairman. And let me ask one of my Air Force colleagues if they can answer that specifically.

Mr. VENTO. Sure. They can just come to the table. There is another microphone next to you to your right, and they can use that microphone. It might be convenient for you to yield to them. Identify yourself for the record, please.

General REID. Thank you, Mr. Chairman. I am Major General Reid. For this purpose, I am the head of the Air National Guard National Airspace Steering Committee.

With regard to the NEPA process, as we were talking about proposed pieces of airspace, let me offer an example. In the Northeast, about three years ago, in association with conversion of two National Guard units from A-10s to F-16s, we surveyed all of the airspace in the entire Northeast United States that these aircraft would be using. This was a dramatic change.

Prior to that, we would generally only do an environmental assessment on the base, the operating base where the airplanes would be housed. Now, that process took two and a half years, and it went into an environmental impact statement that was completely comprehensive. It allowed for extended periods of public comment.

A lot of dialogue back and forth during the informative process, during the scoping meetings, took place, and then during the draft hearings. Mitigations were then put into effect, so that the final record of decision, when it was framed, included a tremendous amount of public comment. More than 800 questions were answered, mitigations were put in there that addressed all of the concerns of the citizens of the various communities that were affected by these flying areas.

And perhaps even more important, there was a political input that happened, because as the interested citizens groups and the constituents were activated by this process and by our going out and speaking throughout all the communities in the areas we were going to fly, there was a tremendous amount of interest. This was reflected by these people activating committees, such as yourself, and individuals representing their constituents.

In the final analysis, a tremendous amount of government input was already injected into the process when the mitigation was finally put forth into the record of decision.

Mr. VENTO. And would you answer my question? My question is, you put in three years of time on the Northeast, in the New England area, looking at airspace, and I commend you for the community outreach efforts, of which apparently some are required by NEPA and other factors, ordered and refined by the courts and other laws that are not directly related to the airspace reservation, but all of this is being done. And couldn't a submission for the recommendation for the reservation and final implementation of it be put before the Congress for 180 days?

Ms. GOODMAN. Let me answer that, Mr. Chairman. We believe the NEPA process is an effective one. We certainly comply with its terms. And it provides opportunities for public comment.

We want in part to use the dialogue processes that I have mentioned today as a way to ensure the fullest possible review and input and to make sure that the process works well. We think that that process under the National Environmental Policy Act is designed to address the issues that I believe you have raised.

And so we are not sure how adding onto that process, already required under NEPA, would improve it, beyond the improvements we have suggested through the dialogue process.

Mr. VENTO. Well, what is the point in terms of not being able to lay the recommendations before the Congress for 180 days?

This does not require approval by the Congress. It is simply a notification to Congress that you have concluded your efforts. Obviously during the process of this dialogue, there is an evolution and refinement of the airspace reservation.

Is that accurate, Major General Reid?

General REID. If I understand your question correctly, sir, would it—

Mr. VENTO. Do you want me to repeat my question?

General REID. No, I will just answer it this way. To add 180 days, whether it is an EIS process or an environmental assessment process or a short-term piece of military airspace that would be used for exercises as they come along, to me would prohibit training. It would eventually result in our detracting from the training that we give our pilots.

Mr. VENTO. When you modify or change the proposal in the NEPA process, do you have a certain waiting period in terms of public comment and so forth that goes on?

General REID. Yes, sir, we do.

Mr. VENTO. Could that notification in terms of final recommendations or evolution be done simultaneously in terms of notifying Congress?

General REID. Yes, I am sure it could, sir.

Mr. VENTO. I think the concern is that we see these proposals come forth and they are not crystallized, they are in a more fluid state. So in the process of coming forth and doing the work that you are doing we don't want to be redundant.

But I think the concern is that once a final or a proposed final airspace reservation is made, there should be some procedure where it does come before Congress in an instance where the Members affected can look at it, examine it, and understand precisely the final form of the terms of that reservation.

Generally these reservations are not a short-term reservation. There are exceptions in here for emergencies and other types of examples. Even your own regulations in the use of airspace; is that correct, Major General Reid?

General REID. Yes, that is correct.

Mr. VENTO. So we are not talking about some short-term type of issue. We are talking about a long-term planning process. Is there a process in which you need to, in fact, formalize and lay down this plan with the FAA, Major General Reid?

General REID. The FAA is included in the environmental impact study process as the final approving authority on all airspace issues.

Mr. VENTO. How long do they have to make a final decision?

General REID. I don't believe there is a limit on their decision.

Mr. VENTO. No limit. Very interesting.

Mr. Small, I examined your testimony and it would seem to me you are saying there is no problem. Was there a problem? Did the Department of Agriculture have any difficulty with the Mississippi-Colorado exchange that was proposed?

Mr. SMALL. There were some concerns about that exchange but they were resolved.

Mr. VENTO. Well, it didn't go forward. If it had gone forward as it was proposed, would it have been a problem for the Department of Agriculture or the U.S. Forest Service?

Mr. SMALL. We were concerned about the balance in that particular proposal.

Mr. VENTO. But yet you are pointing out here that balance isn't important. In your statement, it says that balance is not important.

Mr. SMALL. What we were saying is that over the history of the interchange program, if you look at it from a Forest Service perspective, it has worked quite well. I am sure there are cases before I came in here where people had concerns about them.

But the interchange process, particularly now with NEPA and everything that is associated with it, has so much public involvement that it is an effective tool.

In terms of what has actually happened, the interchanges worked well for us. There have been rough spots along the way, but in terms of what has actually happened, the interchange process works well.

Mr. VENTO. So the Forest Service doesn't have any problems, they like the act the way it is?

Mr. SMALL. We think it works well.

Mr. VENTO. Mr. Hansen.

Mr. HANSEN. Mr. Small, you said you like the act the way it is, you don't see any change, the Forest Service feels okay with it, is that right? That is the way the Forest Service feels today?

Mr. SMALL. There are provisions, things like special conservation—

Mr. HANSEN. One or two minor things, but overall you feel it is okay?

Mr. SMALL. Yes, it is working well for the Forest Service.

Mr. HANSEN. Does BLM feel the same way?

Mr. MILLENBACH. About section 3?

Mr. HANSEN. I said does the BLM—

Mr. MILLENBACH. We are not involved with Section 3, Congressman.

Mr. HANSEN. DOD, Ms. Goodman, is okay with the way it is?

Ms. GOODMAN. Mr. Hansen, I—

Mr. HANSEN. You are getting along okay with the agencies involved?

Ms. GOODMAN. We have good relationships with the agencies, and we are working in places to improve our relationships.

Mr. HANSEN. You don't see any need to change it; is that right? I mean, in your testimony you said you would support the bill if it had some changes, but right now you feel okay the way it is currently?

Ms. GOODMAN. I identified in my testimony those specific areas where I thought we would need to work—

Mr. HANSEN. I am not trying to put words in your mouth. All I want is a yes or no. Yes, you feel okay?

Ms. GOODMAN. Referring to the specific bill or the current law?

Mr. HANSEN. Bill 2080. Last year you didn't give us a definite answer. This year you did—oh, yes, I have it right here. Well, that was on the California bill. Piece of cake. Do you feel okay on the way it is now? You would just as soon play with it the way it is, is that right?

Ms. GOODMAN. We certainly comply with the provisions of the Engle Act—

Mr. HANSEN. Just like you said—you were here. "We also need the flexibility to expand not only to meet current requirements, but also keep pace with the technical complexity of our units, weapons, and tactics improved. We will always need large open spaces in which to train."

Now, isn't H.R. 2080 in direct contradiction with that statement?

Ms. GOODMAN. I identified those areas of 2080, particularly section 4, which need—

Mr. HANSEN. Section 4, where you kind of muck it up a little bit, we bring in the governors and everybody else to respond to this type of thing. You don't like that idea?

Ms. GOODMAN. I identified that we would need to have that substantially changed.

Mr. HANSEN. So basically what I am getting out of the panel is you think it is okay the way it is and you don't want to change it.

Mr. Millenbach, why are we changing it, then? Why don't you just give me any studies that you folks have got that show that overflights are creating problems for species.

Mr. MILLENBACH. We can furnish you with studies from the Fish and Wildlife Service, Congressman. We have got a large number of those which identify some of the specific conflicts going on between the overflights and the wildlife management of the refuges. We would be glad to furnish those to you.

[EDITOR'S NOTE.—See appendix.]

Mr. HANSEN. I wrote a letter to Mr. Don H. Castleberry on February 23, 1994, acting associate director of the National Park Service, specifically asking the question about studies. He wrote back, and he said he didn't have any. Now, you have got some then; is that right?

Mr. MILLENBACH. I am not familiar with the letter you are referring to. We do have a number of studies that the Fish and Wildlife Service has done that we can get to you.

Mr. HANSEN. Can you give me a capsulization or a synopsis of what they say?

Mr. MILLENBACH. I have got a representative from the Fish and Wildlife Service, Don Voros, who can probably address it in some detail.

Mr. VENTO. I have no objection to that. There is an "Aircraft Overflight Annotated Bibliography" prepared by the Fish and Wildlife Service. At this time, I would ask unanimous consent to place that in the record, which lists studies done on aircraft overflight and problems with it.

[EDITOR'S NOTE.—See appendix.]

Mr. VOROS. My name is Don Voros. I am with the National Wildlife System. I am the branch chief of wildlife management.

It was about a year ago that we asked our refuge managers to document in technical paper format any aircraft overflight issues that are occurring over national wildlife refuges that cannot be resolved at the local level.

The good news is that out of 500 national wildlife refuges, only 41 refuges reported aircraft overflight issues.

Of those 41, we trimmed them down to about 29 involving the military. We then took all that information and gave it to the FAA under the auspices of our new interagency agreement.

And from there, it was my understanding that the military issues were then transferred to the Pentagon. The Pentagon individuals associated with the particular aircraft overflight issues affecting those Armed Services were then looked at and we are beginning to see some resolution to some of the problems that we have had.

So we have the papers. We can present them to you. And I think that may clear up your question.

Mr. HANSEN. Let me ask you this. Are there any peer reviewed studies that show a negative impact?

Mr. VOROS. We went through an extensive effort to do an annotated bibliography for land managers in relation to aircraft overflight issue, and we can also present that to you. I think within that annotated bibliography there are at least 30 citations on studies that have been done which could substantiate refuge managers' concerns. And you have to realize, I can only speak for the national wildlife refuge system, and I don't know if the Park Service person who responded to your letter was aware of—

Mr. HANSEN. I will read what that said in response to that area.

Various studies suggest that impacts are possible, but no peer-reviewed studies have yet been designated or funded that could prove or disapprove population level impacts. There are simply too many factors to be able to successfully isolate the effect of aircraft overflights from other events and other stresses in the environments of these animals. Such studies, if possible, would take many years and the costs would be very high. . . .

Do you agree with that statement?

Mr. VOROS. I disagree with it, primarily from the fact that it is a matter of interpretations from the literature. As you are well

aware, many scientists will sit around a table and debate an issue, and numerous opinions are formed.

I think one could look at the literature, and depending on the particular aircraft overflight issue, I think specifically as it relates to migratory birds, at any rate, one could make a case that there are probably impacts that are occurring from the existing literature, and moreover that is reinforced by the papers that our refuge managers have put together.

Mr. HANSEN. I think to a certain extent this reminds me of the witnesses who have been here on global cooling and global warming. You have got as many on one side as you have on the other, and you just wonder who is telling the truth.

Next time you have nothing to do, stop into district court on a personal injury case or a whiplash case and listen to all of the orthopedists, neurosurgeons, chiropractors or quacks who will stand there and say, This person obviously is a malingerer. And that is when the insurance companies put on one, and the plaintiff will put on one that says, This plaintiff has a 45 percent disability. Of course, when they take the settlement they take off the cervical collar, and it is amazing, it is the best thing for curing injuries I have seen in my life. I say that respectfully.

In 14 years on this committee, I have heard so many people testify. I remember when we did an overflight on the Grand Canyon. Can you have a wilderness experience in the Grand Canyon if a Piper Super-Cub goes over the top? Absolutely not. It ruined my whole experience. I came all the way from New York; it just ruined my whole experience.

And I almost get down to the idea, who do you believe? Who is the expert witness in these things? So we will look forward very respectfully, and look forward to your, I guess we call it, admissible evidence as to what it is going to do to the ringtail rufus if something flies over it or what will it do to some of the important things like waterfowl, which I feel very strongly about. I have worked hard to help these things out.

On the other side, I am also a pilot and it also bothers me when you fly a Beech Craft Bonanza 12,000 feet off the deck, where anyone tells me it really hurts it, I really have a hard time believing it.

But thank you for your testimony.

Thank you, Mr. Chairman.

Mr. VENTO. Mr. LaRocco.

Mr. LAROCOCO. Thank you, Mr. Chairman.

I have a question for the Major General. I was not in the hearing room when you were mentioning that in the Northeast you were doing assessments over a larger scale. Could you clarify that for me?

We have issues out in Idaho where I have called for some needs assessments based on some training needs on the GIS and ITR out there. Maybe you can help me understand what you are doing in the Northeast.

General REID. The incident I mentioned had to do with the conversion of aircraft from A-10s in that case to F-16s. It was decided by Mr. Vest at the time that we would do a regional environmental impact statement to get the fullest look of the effect of that conver-

sion on not only the town, the community around the base, but also on the communities under the areas in which those airplanes, in this case the F-16s, would then be flying.

As part of that, we undertook to revise the airspace as needed, looking forward to the coming years and the type of training, the changes in airplanes and the changes in missions. And also, in order to shift flying from some overused pieces of airspace, in particular in New York State, down into some underutilized areas in New Jersey and Pennsylvania.

In other words, what we tried to do is study the entire impact of the military flying operation in the entire Northeast and get a good look at everything from the wildlife, to the effect on the economies of the communities, to the effect on the welfare of the people. Wilderness experience is an expensive, time-consuming, expensive process. And it is at its conclusion now and it sits at the FAA for some modifications by their staff, I guess.

Mr. LAROCO. Was that unique to our country? Was that the first time that such comprehensive regional assessment was done?

General REID. I believe that was the first such comprehensive environmental impact statement that was done for a military aircraft conversion. I can't speak for other issues, though.

Mr. LAROCO. Okay. There has been some discussion about the Engle Act applications with the expansion of the Mountain Home Air Force Base training range out there. Does the Engle Act apply here, either to you—

General REID. Sir, I am not qualified to speak about the Engle Act, I am sorry. Perhaps someone else can answer your question.

Mr. LAROCO. How about Ms. Goodman, do you have any opinion on that?

Ms. GOODMAN. Congressman, I believe the Air Force General Counsel has determined that the Engle Act does not apply in that case.

Mr. LAROCO. Okay. Going to the General, just for a closing question here, does H.R. 2080, would that get in the way of the regional needs assessment that you did on the North? Would it help, hinder, apply at all, if the provisions of this bill were passed?

General REID. Just talking about the Northeast, we are perhaps getting too locally specific. The provisions of this bill, I believe, would add another layer of bureaucracy that would, in fact, over the years develop into an impedance for our flexibility that is necessary to acquire training airspace, to reassess it, to change altitudes as training needs come and go, as new weapons systems develop. I believe, overall, it would have a detrimental and unnecessary impact on the way in which we train our military pilots.

Mr. LAROCO. Okay. I have no further questions, Mr. Chairman. Thank you.

Mr. VENTO. Mr. Calvert.

Mr. CALVERT. Thank you, Mr. Chairman. Ms. Goodman, how would enactment of H.R. 2080 affect future airspace acquisitions by DOD on additional land area?

Ms. GOODMAN. Congressman, I have identified the specific provisions of H.R. 2080, particularly section 4, concerning airspace under which we would find it very difficult to continue air training and to continue the acquisition of airspace. So there are portions

of it which we would like to work with the committee on, but there are portions where we believe considerable revision would be needed in order to continue our ability to train and to carry out our military missions.

Mr. CALVERT. So just in my area, for instance, the additional land area that would be acquired for the expansion of Fort Irwin, would you believe that it would be impossible to have fly overs within the area of additional acquisition under the interpretation of the bill?

Ms. GOODMAN. In order to give you a specific answer with respect to Fort Irwin, I would have to provide that to you for the record, which I would be happy to do. But I am generally familiar with the proposals at Fort Irwin and I believe they are proceeding well under the current law which provides for full public comment on those acquisitions.

Mr. CALVERT. Under the existing law, fly overs would be possible and training could continue, we would hope.

Ms. GOODMAN. The Fort Irwin proposal concerns primarily a land acquisition, but I would be happy to provide to you further information about air space affected by that.

[The information follows:]

The current draft environmental impact statement for the Fort Irwin land acquisition considers six alternative actions. Given no changes in current Federal Aviation Agency rules, there would be no changes in current military or civilian uses of this airspace for any of these alternatives.

Mr. VENTO. If the gentleman will yield to me.

Mr. CALVERT. Yes, sir.

Mr. VENTO. I don't know if it is an acquisition. I think it is a withdrawal. And it is my belief that this bill has absolutely no impact on that type of withdrawal. It would still be subject to the same provisions of law. Those provisions of law are not modified, it is my belief, but perhaps they will come to a different conclusion.

Mr. CALVERT. I understand there is differing opinions on it. There was earlier testimony that approximately 30 areas out of 500 wilderness areas in this country had difficulties with environmental problems related to fly overs. Mr. Millenbach or someone from Fish and Wildlife would be more appropriate to answer this question. Is there any particular section of the country that this was more predominant than any other?

Mr. VOROS. Well, we did put a map together to kind of map the aircraft overflight problems associated with the National Wildlife Refuge System, and it does show that the majority of the problems lie in the Southwest and the West portion of the United States. And we can make a copy of this map available to you.

[EDITOR'S NOTE.—See appendix.]

Mr. CALVERT. So once again, probably because there is more land in the Southwest and the West than there is in the rest of the country in fact, and so—

Mr. VOROS. It makes sense.

Mr. CALVERT. That makes sense that it would be there. And you also mentioned that possibly the largest problem is migratory bird patterns and the possible disruptions that it may have on those migratory bird patterns. Since most of the fly overs from my section of the country would be in the desert portion of the Southwest, has

there been a study on migratory bird patterns over the desert area to show what, in fact, in reality how that disrupts the bird patterns in that area?

Mr. VOROS. As the studies relate to migratory birds, and as we associate aircraft overflight impacts to migratory birds, it is primarily with nesting. If you can envision maybe 2,000 nesting birds on a small island and having a low level aircraft come over at Mach 1 or whatever, 100 feet above them, the birds would leave the nests, abandon them completely and leave the eggs vulnerable to predators.

As it relates to the desert, the concerns have primarily been with large ungulates, such as prong horns and desert bighorn sheep. There are two studies, I believe, that address that right now, and I would say that would be a matter of interpretation of that literature as to whether there are significant impacts or not.

Mr. CALVERT. I find it interesting because, one, I would find that migratory bird patterns in the desert are somewhat low.

Mr. VOROS. That would be correct.

Mr. CALVERT. And two, if you take a look at the bighorn sheep population, which has quadrupled in the last number of decades, and as air flight has increased over the last 20 years, then that would seem to be contrary to the fact that those populations have, in fact, increased.

Mr. VOROS. Well, you have to realize that these populations have been in jeopardy for quite some time. They are probably not at the carrying capacity of the land, and I guess land managers would need to decide what the carrying capacity is. They are probably below carrying capacity right now. So the management objective would be to bring them up to the carrying capacity.

Mr. CALVERT. But haven't those populations increased?

Mr. VOROS. I can't speak to that. That, I don't know specifically.

Mr. CALVERT. I can, and they have increased. In fact, bighorn sheep has increased significantly over the past several decades, primarily due to good management. Interior has done a better job, and the State of California has done a better job of managing these populations. And I would like to take on from Mr. Hansen's questions, I just can't see over the large number of acres in the Southwest, millions of acres, how relatively a small number of fly overs over the same area has any environmental effect on various populations within a large area. But I guess, like you mentioned earlier, people have different opinions on this. Thank you very much.

Mr. VENTO. Mr. Millenbach, let me follow up Mr. LaRocco's question. One of the reasons that the Engle Act perhaps won't apply with the lands in Idaho is because the proposal is for exchange, and in the process, of course, transferring it to the State Guard unit. At least that is proposed. Can you tell us what is the status of that?

I don't think that Mr. LaRocco asked exactly this question, and I wanted to know what the status of that was. I wrote to then-Director Baca in January. It is June. I haven't received an answer.

Mr. MILLENBACH. The status of the exchange proposal is that we are trying to finalize the environmental impact statement that is being prepared by the Air Force. The issue that we need to address—and this has gone clear to Secretary Babbitt and the Sec-

retary of the Air Force for resolution—is what the preferred alternative will be in that environmental impact statement. And they are still discussing that. And because we have not come to agreement on that, the EIS has not been issued yet.

The question as to the applicability of the Engle Act has been referred to our Solicitor's office. We don't have an answer back. That is why you haven't gotten the final answer to your question. Obviously, you know, the issue revolves around a strict reading of the act which would indicate that it does apply to land withdrawals and not to land exchanges. However, there is a question of congressional intent that we need to examine more carefully and come up with a definitive answer on that prior to actually making a decision on whether to proceed forward.

Mr. VENTO. I just think that this stands as sort of an example. The reason we are asking these questions, the reason you got yourself into this particular dilemma, is because, of course, of this unique treatment of the interpretation that it doesn't apply to the State National Guard. If it did, we wouldn't be having this particular discussion in a sense. It is a question of the exchange, too, because it is taking State land, yes, I know that. But the point is in any case that I think the whole issue about airspace reservations and others need to be addressed.

We didn't ask in this particular proposal in this legislation actual legislative approval. The fact is, I think being informed about it and having a period of time after it is submitted before Congress so that there is knowledge if there is controversy or there are differences or Members have an opportunity to see a finalized form of it when other agencies and departments do, but keeping this all in the Federal family, it is evident to me that this results in the appearance of simply circumventing the Engle Act in this particular instance.

And I know it is a tough issue in the State out there, but I said that before, and it still seems to me that that is the effect of it.

On another issue, the GAO did a report on the management of military withdrawals at the request of Senator Glenn and Representative McCurdy that was provided for us in April of 1994, this year, and without objection that report will be placed in the record.

Hearing no objection, so ordered. GAO just looked at six areas, a total of over 7 million acres of withdrawals in the 1986 act. They made several recommendations, two recommendations to the Defense Department to improve liaison activities with Interior agencies to ensure BLM, Fish and Wildlife Service, have reasonable access to military withdrawal areas, which is evident from Ms. Goodman's statement that some of that is taking place today.

Whether it will bring about the result, I don't know, but it might be possible to set up or require an interagency type of council with regard to that, even legislatively. As to importance, after all, the Department of Defense is the fourth largest land manager in the country in terms of the number of acres of land that they manage.

Secondly, they ask to develop improved databases to assess the cumulative impacts of current and proposed military operations on natural resources. This speaks to the issue of my two colleagues, Mr. Calvert and Mr. Hansen, on sort of this debate about carrying capacity, the impact on migratory species.

Incidentally, without objection we would like the map that Mr. Voros was speaking to be placed in the record as well as be shared with our colleague. I might say, too, that inherent in that question, Mr. Calvert, is an examination of where we have public lands. It doesn't mean that there are not other airspace impacts on other areas, where there may be private lands, which also becomes very important. And he was speaking principally to BLM or to refuge areas, I guess, in that study.

I don't know where the monitoring may have gone on. It's wildlife refuges, so it doesn't really deal with other lands. So we have to understand the limitations of that testimony in this context.

In any case, Ms. Goodman, what about the improved database and what is the military doing? I mean since you are a major consumer and user of this airspace and of these high performance, accurate and low-level flights and a whole series of activities that are unique in terms of—also these remote areas do have this biodiversity which is fairly important to us as a Congress, as a people. Ms. Goodman.

Ms. GOODMAN. Mr. Chairman, we concurred in that recommendation of the GAO report, and in fact we believe that protecting the resources on our military lands is important. We have set specific goals for completion of natural resource management plans by the military departments, and specific goals for completion of wetlands inventories as well. We hope to complete this baseline data within the next couple of years.

For example, the Army is currently implementing its Land Condition Trend Analysis Program on approximately 60 installations. That program will provide a baseline inventory of natural and cultural resources and monitor trends and conditions as the land is used. Each of the military departments has a similar program. I think that is a good recommendation. It is important to us and we are working to implement it.

Mr. VENTO. Well, I think for DOD, here is a case where it could serve the environmental impact, too, at least in words to wildlife. There is also a concern in terms of impact on populations and on other activities that are going on on the land, such as ranching or other activities where there is an impact. But I think those are the questions that have to come back and be answered and the state of the art, the state of the science with regards to this is not good.

I think that is the case, so we are discovering things on a piecemeal basis with regards to the impacts. We get a lot of rather subjective and perhaps less than fully complete taking into consideration all the different factors that might be impacting. The Department of the Interior have said that there were several recommendations. One of them Ms. Goodman talked on, Mr. Millenbach. That one was to establish schedules and milestones for implementing resource management plans for military withdrawal areas.

Of course, with the amount of withdrawn land that DOD has on public domain lands, this is a major task for the BLM and less of a task, I guess, for other agencies. Can you speak to that?

Mr. MILLENBACH. Yes, sir. We received the report from the GAO just this past week and have not had an opportunity to get into it in a lot of detail. We did meet with Under Secretary Goodman prior

to this hearing and one of the things that she suggested was getting together a group of the assistant secretaries from the Department of the Interior that deal with the Department of Defense and taking a look at this report.

We concurred pretty much with the report. We look at this report as an opportunity to try to develop some of these working relationships that need to be addressed and try to improve some of these things such as withdrawal review and the BLM role in the management of the natural resources of these military bases that are in the act.

As you know, we have got some other legislation that is pending that takes this same approach for BLM participation and Department of the Interior participation in the management of the natural resources on military withdrawn lands. And we think that we need to do some work on that to try to raise the visibility of that and improve the way we are handling those proposals. So I think her suggestion that we had and the discussion we had last week is a good one, and when we get an opportunity here, I plan to get together with Assistant Secretaries Armstrong and Frampton to try to pursue that.

Mr. VENTO. Well, the staff informs me that the legislation that is pending principally and almost solely addresses fish and wildlife areas, which have obviously been the main focus within the Department of Interior, but not touching on BLM. One, obviously, what comes to—

The members of the committee here, we talk about new responsibilities; substantial new responsibility for the BLM is personnel and the operation and maintenance budget of that agency. So especially when you talk about more closely monitoring implementation of plans, it seems to me that this, again, points out the need for interagency type of effort in terms of involving the FAA and others in terms of monitoring.

You can't, obviously, have the military monitoring itself. That intrinsically is a contradiction inherent in it, although they, obviously, can be requested to provide the common base and the baseline data and everybody ought to agree upon the objectives, then determine whether or not they are being complied with. There are a whole host of problems, not just the airspace one which seems to be so prominent in the discussion today, both in terms of with the six-month reporting, I didn't know that we get quite that response, but I am certain for the critics it hardly does enough, and for those that are sitting at the table today, apparently it does too much, even for the Forest Service. They were even concerned about the six-month waiting period for the airspace reservation, which is impressive to me that they have that concern. So the concern, of course, here is that I don't think that the BLM or the other land managers have any ability at all today to monitor what is going on. Would you agree with that, Mr. Millenbach?

Mr. MILLENBACH. It is very limited, yes, sir.

Mr. VENTO. Mr. Small, would you agree with that, that you have basically no ability to monitor what is going on with regards to the military today in terms of activities that impact forest? Of course, you get new exchange, you don't give some permits, I guess. How about your ability to monitor it?

Mr. SMALL. We have very inconsistent information on that. That is not something on which we compile regular data. I would say very much like the BLM, we have very limited ability to monitor at this time.

Mr. VENTO. You know, one of the things that becomes apparent as we deal with problems in contemporary land use and in airspace is the absolute necessity for agencies to work together, but to be able to maintain their autonomy and independence in the process of working together. That is not always apparent. It isn't apparent today, to me.

Mr. Hansen, do you have further questions of the witnesses?

Mr. HANSEN. No, sir. Thank you.

Mr. VENTO. Mr. LaRocco.

Mr. LAROCCO. I just had one follow-up, thank you, Mr. Chairman. Mr. Millenbach, are you absolutely certain about the Engle Act consideration by the Solicitor, that that has not been made?

Mr. MILLENBACH. Yes, I am. I talked to them just before I came over here.

Mr. LAROCCO. Okay.

Mr. MILLENBACH. They have not come out with a final answer on that.

Mr. LAROCCO. Okay. And then, Ms. Goodman, you had answered that the Department of Defense has issued an opinion on the Engle Act applications to the training range in Idaho, and that it does not apply. Is that correct?

Ms. GOODMAN. I said the Air Force General Counsel has determined that the Engle Act applies not to exchanges, but to acquisitions.

Mr. LAROCCO. Not to exchanges, so not in this case.

Ms. GOODMAN. Correct.

Mr. LAROCCO. Okay. So one has issued an opinion, and the other we are waiting on that. Okay, fine, thank you very much for clarifying. Thank you, Mr. Chairman.

Mr. VENTO. Mr. Calvert.

Mr. CALVERT. Just one other question, Ms. Goodman. I am going back to the issue on expansion. Last year you testified on the California Desert Overflight Act, and you stated, "we need the flexibility to expand not only to meet current requirements, but also to keep pace as the technical complexity of our units, weapons and tactics improve. We will always need large open spaces in which to train."

Just a direct question. Would H.R. 2080 be a direct contradiction of that statement?

Ms. GOODMAN. H.R. 2080, as presently drafted, does not support our ability to continue training, and I have identified those areas where we believe it needs to be modified. But we also want to ensure that as we continue to manage the land and air that we need for our training missions, we are good stewards of the land, the air, and the water in the process. It is a delicate balance, but it is one I think that this Department is committed to and can achieve.

Mr. CALVERT. As presently drafted, H.R. 2080 in effect would inhibit our ability to train our armed services?

Ms. GOODMAN. I identified those portions of the bill that I believe would do so, yes.

Mr. CALVERT. Thank you.

Mr. VENTO. One of the questions that the bill raises is, of course, an inventory of lands, of what has been withdrawn from military use and the status of it. I am interested in that. With regard to the question of inventory, Mr. Millenbach, have you got any comments? You say you are already doing some of that. In what form are you providing it to the Congress?

Mr. MILLENBACH. Under the Federal Land Policy and Management Act, we have the authority or the responsibility, really, to inventory withdrawn lands, withdrawn by all Federal agencies, to determine whether they ought to be returned to public domain status. As you know, that has been a—

Mr. VENTO. Let me see if I understand. Does that deal with all public lands, all military lands, or just the public domain lands?

Mr. MILLENBACH. It deals with public domain lands that have been withdrawn for various Federal purposes, such as for military bases, Bureau of Reclamation projects, any number of different things. It does exempt national parks, national forests and certain other categories.

Mr. VENTO. Ms. Goodman, do you have any comments with regards to the inventory that is called for in H.R. 2080? You didn't comment on it in your statement; I didn't notice it. Are you aware of what I am talking about? That is to say that there is a requirement for an inventorying of current lands and what their status is.

Ms. GOODMAN. Mr. Chairman, I believe, as I understand that provision, that that is something that we already plan to do and that that is consistent with what we want to do in terms of improving our inventories of the resources on our lands.

Mr. VENTO. You don't have any problem with that part of the bill. And I note that you did support the issue of the decontamination and the restoration within the limits that is possible, in spite of the fact that there was some concern from the Department of Agriculture even on that provision. It seems to me that on the reverter, the automatic reverter-type provisions, that is to say, there is a mixed bag with the people in the Department of Defense retaining responsibility for decontamination when lands revert in any case, so it seems to me that according to whatever is required under the Superfund law I think is what the reference was that you used in your statement. But the concern, of course, is that we don't have responsibility shifted to other agencies or departments, I guess, for contamination that occurs.

That is the major concern. We end up writing all sorts of boilerplate language in the legislation at the request of the departments and agencies, then when they come here they suggest in this testimony today that that really isn't all that important. So I hope that—

Ms. GOODMAN. It is certainly not the Department's intent to shift its responsibilities for environmental cleanup. We spend a great deal of money today to meet those responsibilities. It is an important part of our environmental security program and one we continue to meet and believe is important.

Mr. VENTO. Mr. Small, did you have a comment?

Mr. SMALL. I was just rereading my testimony. From our perspective—pack-it-in, pack-it-out-type perspective—and what I think

I am hearing is we are all consistent on this, is that if there is hazardous materials on the site put there by the Department of Defense, it would be their responsibility to clean that up. I don't think this bill particularly addresses other types of infrastructure that may be on the site. But we certainly support the concept if the Department of Defense activity has created hazardous waste sites, then they should be responsible for cleaning them up.

Mr. VENTO. Mr. Millenbach, if the Interior Solicitor does not agree with the Air Force General Counsel about the Engle Act's applicability to the Idaho exchange, who will resolve the dispute? Will it go to the Attorney General or to whom?

Mr. MILLENBACH. I don't know. I will have to get back with you later on that. I am not sure.

[The information follows:]

If the Air Force General Counsel and the Department of the Interior Solicitor cannot reach an agreement on the applicability of the Engle Act to the Idaho Training Range proposal, the matter would be referred to the Office of Legal Counsel at the Department of Justice.

Mr. VENTO. Ms. Goodman, do you have anyone in your staff that can help us with that question this morning? Do you understand the question of the Engle application to the Idaho exchange? We have differing—

Ms. GOODMAN. I would be happy to provide you that answer. I can't do it at the present time, but we would be happy to answer that question for you.

[The information follows:]

The Interior Solicitor has not issued an opinion about the Engle Act's applicability to the Idaho land exchange. If an opinion were issued, and were different from the Air Force's and were neither agency willing to defer to the opinion of the other, the legal dispute could be referred to the Attorney General. The Military Departments may refer questions of law to the Attorney General pursuant to 28 U.S.C. 513. In addition, paragraph 1-4 of Executive Order 12146 encourages agencies to submit interagency legal disputes to the Attorney General.

Mr. VENTO. Okay. Well, we will submit some written questions for the record for the three witnesses. So without objection, and others can submit questions as well. Thank you very much for your testimony. Let me proceed to the next panel then at this point.

PANEL CONSISTING OF REAR ADM. EUGENE J. CARROLL, JR., U.S. NAVY (RET.), DIRECTOR, CENTER FOR DEFENSE INFORMATION; GRACE BUKOWSKI, DIRECTOR, MILITARY LAND AND AIRSPACE PROGRAM, RENO OFFICE, RURAL ALLIANCE FOR MILITARY ACCOUNTABILITY (RAMA); AND LINDSEY MANNING, CHAIRMAN, SHOSHONE-PAIUTE TRIBES OF THE DUCK VALLEY INDIAN RESERVATION

Mr. VENTO. We are pleased to welcome the next panel, Mr. Lindsey Manning, the chairman of the Shoshone-Paiute Tribes, Grace Bukowski, who is with the Rural Alliance for Military Accountability, a long-time activist on in the issue of accountability. And we are also pleased to welcome Eugene Carroll, U.S. Navy retired, who has had a distinguished record and career in the Navy as a pilot and commander, and military planner apparently at the Pentagon as well. He continues to provide and serve at the center and serve the Nation as director of the CDI. The Center's reputa-

tion, of course, is for unbiased analysis as well, as is well-known to Members. We welcome him and look forward to it.

We are pleased to welcome you all and, Admiral Carroll, your statement has been made part of the record. If you could summarize in about five minutes, it would be very helpful to the committee.

STATEMENT OF ADMIRAL EUGENE J. CARROLL, JR.

Admiral CARROLL. Thank you, Mr. Chairman. It is a privilege to be invited to testify before this committee. For the interest of brevity, I will confine my statements very directly to the question. Is there a valid military requirement for additional bombing ranges and low-level flight routes to support training for the 366th Air Interdiction Composite Wing at Mountain Home Air Base?

The first relevant fact that develops is that there are existing range facilities in Utah, Nevada and Oregon, within 30 minutes flying time of Mountain Home that appear to satisfy all Wing training requirements, provides ranges, impact areas, electronic facilities, and so on. The distance from Mountain Home to these facilities is actually an aide, because if you are going to run coordinated missions with Composite Wing elements, you have to have time and space to rendezvous, to refuel, to form the strike elements, space them for timing and so on. So the distance of 30 minutes flying time is very well used for training purposes.

With respect to additional low-level training routes, which is a matter of particular concern in the Owyhee canyon lands, the question I ask is why continue low-level training at all? I have flown hundreds of hours at low level, when it was justified as necessary to penetrate heavily defended Soviet airspace on nuclear delivery missions.

The nuclear mission justification is no longer valid, and as long ago as Vietnam, we discovered that low-level operations place attack aircraft in jeopardy from ground fire of all forms and that we had to discontinue low-level attack tactics in Vietnam because the losses were unacceptable.

Now today the problem is even more acute at low level. Hand-held, heat-seeking missile launchers such as the U.S. Stinger and the Soviet SA-7 Grail add to the vulnerability of low-flying aircraft. New look-down shoot-down, air-to-air missiles on all modern fighters are deadly against low-flying aircraft not supported by fire cover.

In Desert Storm, the vulnerability of low-flying aircraft was horribly demonstrated. For example, the British Tornado aircraft were used for low-level attacks and lost five aircraft. This assessment about the lack of utility of low-level operations is reflected in the final Department of Defense Desert Storm report to Congress of April, 1992. These words are included:

Despite the strong peacetime emphasis on training for low-level delivery tactics, the density of the Iraqi Triple A and the dangers posed by unaimed barrage fire to low-flying aircraft drove aircraft to higher altitude delivery tactics. A virtual sanctuary existed for coalition aircraft above 10,000 feet. In the last 10 days of the war in the Kuwait Theater, bad weather prevailed. Aircraft were driven down to get under the clouds into the targets, and in this short period of time we lost another 10 aircraft. They were exposed to battlefield defenses such as hand-held IR SAMs that were not a threat at middle altitudes.

In short, low-level attack operations produced almost half of all coalition aircraft losses in the Gulf, even though low-level operations were abandoned early in the war and only resorted to when weather forced planes down into the ground fire zones.

There is also a serious question of peacetime safety generated by sustained periods of low-level flight. Even a brief moment of inattention can produce a catastrophic accident. Obstructions snag airplanes, and flight at low levels through mountainous terrain is inherently more dangerous than at higher levels. All of these increased dangers, risk to the people on the ground and the pilots, apply even when the pilots observe all prescribed safety precautions and minimum terrain clearance standards.

Unfortunately, pilots give in to the irresistible urge to fly very close to the ground, even flying under bridges and buzzing people and animals. It is regrettable, but it happens all too often. Low-level flight training is undeniably enjoyable, even exhilarating for pilots, but it is also a budget builder for the Air Force since it is very expensive. It can no longer be justified as necessary for combat readiness for air crews.

Finally, let me describe the consequences of coordinated attacks on low-level flight, the type of things that the Composite Wing intends to do in terms of noise pollution and safety. The objective in coordinated attacks is to put the maximum number of aircraft on the target in the shortest possible time in order to overwhelm defenses.

All aircraft maneuver at high speed using high power, including afterburners, during attack and withdrawal. High noise levels and sonic booms are desirable to add to confusion produced during the attack. In low-level flight operations, aircraft lay down a continuous swath of sound, and the sound is experienced with no warning, typically producing a startled reaction, which is bad enough for humans, but totally panics birds and animals.

As I think back on my numbers of hundreds of hours at low-level flight, the predominant images in my mind are of birds flushing, animals running, and human heads snapped back in fear as the sound hit them. It is for this reason I am totally unimpressed with the Air Force assurances that sound levels will rise only two or three decibels, quote, "on average," unquote.

Although no details were given on their calculations, it appears that sound peaks were averaged out over 24-hour periods. These peaks are not experienced on average. They are suffered as sudden, shattering, bewildering spikes of sound, which create confusion, fear and even pain in humans and animals alike.

In summary, there is no valid military requirement for additional airspace and targets to support the 366th training program. Overall, with smaller forces and reduced military threats against the United States, simple logic demonstrates that all requests for additional funds and facilities for military training operations be viewed with considerable skepticism. This is particularly true when such requests carry heavy costs in terms of the quality of life and the well-being of American citizens. Thank you.

[Prepared statement of Admiral Carroll follows:]



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Center for Defense Information

More Security for Less Money

STATEMENT BY

REAR ADMIRAL EUGENE J. CARROLL, JR., U.S. NAVY (RET.)

DIRECTOR

CENTER FOR DEFENSE INFORMATION

TO THE

SUB-COMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

OF THE

COMMITTEE ON NATIONAL RESOURCES

U.S. HOUSE OF REPRESENTATIVES

103rd CONGRESS
SECOND SESSION

17 JUNE 1994

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Because highly qualified witnesses will testify in this hearing concerning environmental, cultural and land use issues, I will confine my statement to this question: Is there a valid military requirement for additional bombing ranges and low level flight routes to support training for the 366th Air Interdiction Composite Wing at Mountain Home Air Base?

The first relevant fact is that there are existing range facilities in Utah, Nevada and Oregon within 30 minutes flying time of Mountain Home that satisfy all Wing training requirements.

There is nothing unique about training for a Composite Wing. Its tactical and heavy bomber aircraft conduct attack missions; its fighter aircraft provide air cover for the attack planes; its refueling aircraft pump fuel to the fighters and bombers -- nothing special here.

When coordinated exercises involving all of the aircraft are conducted, time and distance to exercise targets is desirable for realistic training because in the real world most such missions will involve strikes several hundred miles from the support bases. If Owyhee targets were available the participating aircraft would first have to fly away from them for rendezvous, refueling and target approach by the strike elements in order to practice realistically for wartime missions. Why not use the time and space between Mountain Home and existing range facilities for these phases of mission training?

As a separate observation, three years before there was a Composite Wing the Air Force wanted to expand Saylor Creek range facilities 1500 percent. The commissioning of the 366th Wing is simply an expedient excuse to pursue expansion under a new guise, in a new locale.

With respect to additional low level training routes, the question to be asked is why continue low level training at all? I have flown hundreds of hours at low level when it was justified as necessary to penetrate heavily defended Soviet airspace with single aircraft on nuclear delivery missions. That justification no longer exists.

For conventional operations, low level flight was sometimes used to stay out of Surface-to-Air-Missile (SAM) zones. As early as Vietnam, however, it was learned that low level operations placed attack aircraft in jeopardy from hand held automatic weapons and mobile, high rate of fire light anti-aircraft batteries. Losses to these weapons became prohibitive and low level attacks in defended areas were discontinued.

Now the problem is even more acute at low level. Hand held heat seeking missile launchers such as the U.S. Stinger and the Soviet SA-7 Grail add to the vulnerability of low flying aircraft. Also, look down -- shoot down air to air missiles on all modern fighters are deadly against low flying aircraft not supported by fighter cover.

As recently as Desert Storm the vulnerability of low flying aircraft was once again demonstrated. British Tornado aircraft attacking Iraqi airfields suffered disproportionate losses at low level. Four Tornados were lost at low altitude.

The preferred, prudent tactics now are to remain above 4,000 feet to avoid small arms, rapid fire Anti Aircraft Artillery (AAA), and hand held SAM's. Supporting aircraft use highly effective Electronic Countermeasures to deceive and/or jam the defenders' search and fire control radar plus thermal flares to confuse Infra Red guided SAM's.

This assessment is supported by the Department of Defense Final Report to Congress of April 1992 which included the following words on Page 167:

Perhaps the most significant tactical issue to arise in planning the air campaign concerned Coalition aircraft flying above the AAA and hand-held SAM's threat. Despite the strong peacetime emphasis on training for low-level delivery tactics, which exploit terrain to reduce aircraft detectability to radar and hence vulnerability to SAM's and to increase weapon delivery accuracy under the weather, the density of the Iraqi AAA and the dangers posed by unaimed barrage fire to low-flying aircraft drove some aircraft to higher altitude delivery tactics. After the initial attacks on Iraqi air defense nodes succeeded in largely neutralizing the SAM's able to engage at medium and high altitudes, a virtual sanctuary existed for Coalition aircraft above 10,000 feet, allowing medium-altitude delivery tactics.

The Report went on to state on Page 242:
Ten aircraft were lost during the final 10 days of the war (19 to 28 February), all in the KTO [Kuwait Theater of Operations]. During this period, Coalition aircraft often operated at lower altitudes, where the Iraqi defensive threat was still potent, to get below the prevalent bad weather and to support the ground forces better. This not only exposed the aircrews to battlefield defenses, such as hand-held IR SAM's that were not a threat at the middle altitudes, but also reduced aircrew reaction time and ability to evade SAMs.

In short, low level attack operations produced almost half of all coalition aircraft losses even though they were abandoned early in the air war phase and only resorted to when weather forced planes down into ground fire zones.

There is also the serious question of peacetime flight safety generated by sustained periods of low level flight. Statistically it can be demonstrated that low level operations are more dangerous, just as logic suggests. Even a brief moment of inattention can produce a catastrophic accident. Obstructions to flight such as power lines and radio/TV antennae have snagged aircraft and flight at low levels through mountains is inherently more hazardous than at higher flight levels.

All of these increased dangers apply even when pilots observe all prescribed safety precautions and minimum terrain clearance standards. Even more dangers await those who deliberately do what the military calls "flathatting." An inevitable part of low level flight training are pilots who give in to the irresistible urge to fly very close to the ground, under bridges and power lines, or to "buzz" people and animals. Regrettable though it may be, it happens all too often. Such deliberately dangerous flying produces even more accidents and risks for people on the ground.

As an anecdote, one Navy pilot engaged in "flathatting" flew through 36 telephone lines connecting Los Angeles and San Diego. These wires in turn were dragged across high voltage power lines which shorted to ground and blew up, starting numerous brush fires. The plane landed successfully at home base, fortunately, but the cost to Navy was substantial. The pilot kept his wings.

Low level flight training is undeniably enjoyable, even exhilarating for pilots. It is also a budget builder for the Air Force since it is very expensive. But it no longer can be justified as necessary for combat readiness of air crews.

Finally, let me describe the consequences of coordinated attacks and low level flight in terms of noise pollution and safety. The objective in coordinated attack planning and training is to put the maximum number of aircraft on the target in the shortest possible time in order to overwhelm the defense. All aircraft maneuver at high speed using high power, including afterburners, during attack and withdrawal. High noise levels plus sonic booms are desirable in order to add to confusion produced by the attack.

In low level flight operations aircraft lay down a swath of sound continuously. Modern aircraft today are less noisy than those of the past but still sound levels are painful along the flight path. Worse yet, the sound is often experienced with no warning, typically producing a startle reaction which is bad enough for humans but panics animals and birds. As I think back on my hours of low level flight the predominant image which comes to mind is of birds flushing, animals running and human heads snapped back in fear as the sound engulfed them.

It is for this reason I am totally unimpressed with bland Air Force assurances that sound levels will rise only 2 or 3 db "on average." Although no details are given on such calculations, it appears that the sound peaks are averaged out over 24 hour periods. The kindest word for such meaningless assurances is disingenuous. These peaks are not experienced "on average." They are suffered as sudden, shattering, bewildering bursts of sound which create confusion and fear for humans and animals alike.

In summary, there is no valid military requirement for additional air space and targets to support 366th Air Interdiction Composite Wing training. With smaller forces and reduced military threats against the United States, logic demands that all requests for additional funds and facilities for military training operations be viewed with considerable skepticism. This is particularly true when such requests carry heavy costs in terms of the quality of life and well being of American citizens.

Mr. VENTO. Thank you, Admiral Carroll. We will be back with a question or two in a moment. We are pleased to welcome Ms. Grace Bukowski, Rural Alliance for Military Accountability.

STATEMENT OF GRACE BUKOWSKI

Ms. BUKOWSKI. Good morning. Thank you for the opportunity to speak before you today. For the past decade, the Rural Alliance, better known as RAMA, has been documenting military abuse of airspace overflights and land takings. In the past two years since I have spoken before you, the situation has gotten worse instead of better for the folks living out in the deserts, in the rural areas where military overflights are having an impact. And indeed, at this time we are again facing massive requests for incremental military land and airspace withdrawals, prior to the completion of any national needs assessments.

These expansions include the proposed Joint Military Training Exercises in Alaska; the Idaho Training Range; the Colorado Airspace Initiative; the Northeast Strategic Training Range; the Yuma Training Range Complex in Arizona; Fallon Naval Air Stations that plans to double current airspace by 10,000 square miles and triple current training areas; Roving Sands in New Mexico; the Missile Defense Extended Test Range in New Mexico and Utah; and the expansion of 320,000 acres at Fort Irwin.

These expansions and current activities truly point out the immense need for the Military Land Reform and Reassessment Act. Today, our problem is one of public participation and process. We believe the Pentagon must reform totally their internal culture with respect to public participation. And your bill would certainly help us in that respect.

Currently, the Department of Defense is continuing to lock horns with what we call in Nevada a strange group of bed fellows. We have the environmentalists, the miners, the cattlemen, all of these folks who usually would really wish each other would die. But when it comes to the United States military coming into the back doors, the shotguns are left at the door and everyone is sitting down at the table.

In short, unless we have something such as H.R. 2080, this problem will continue to exist. We also have a problem with process as far as the Department of Defense attitude in which they decide, then they announce it to us, and then they defend it. And that situation simply is causing a whole lot of problems. And today I brought two examples of that problem. These are two environmental assessments, released on the same day in the State of Alaska, from the same base, in the same region.

We have 3,000 miles of military training routes. Yippee, we are ready. Eight new military operation areas. Hooray, this is great. And 5,000 sonic booms. Right here, in these documents. You will be happy to know, there is no significant impact to this. And by tagging these documents environmental assessments, there were no public hearings, there were no draft documents, there was absolutely no public participation.

On top of that, when we asked for an extension of the 30-day comment period on the FONSI, the finding of no significant impact, we were denied. And in addition, many people were told they would

have to pay for the right to comment on these documents. We would have to pay to get these documents, pay the copying costs. This in my mind is a total abuse of the NEPA process. These should have been full environmental impact statements with full public participation.

These types of things and this type of abuse are really getting people stirred up in the West. And that type of malarkey, in my mind, has got to stop. The problem is that the Department of Defense today is the only Federal agency, with the exception of the National Guard, who does not provide the public with the opportunity to comment on draft environmental assessments. And they plan to continue that.

There is a *Federal Register* out right now with the Air Force that that situation will continue. They say that, whenever practical, they will give us a draft environmental assessment. Well, I have been in Nevada for ten years. I have yet to see a draft environmental assessment from Nellis Air Force Base. They simply do not give the public the opportunity. So that is a big part of the problem.

Today, I would like to talk a little bit more about airspace and how we view what is currently going on with airspace allocation. In my mind, it is simply a swap meet between the FAA and the Department of Defense. The lack of controls on airspace allocation and use provides no incentive for the military to use airspace efficiently.

Without a complete Federal-level review of existing airspace, this situation will continue to deteriorate. And perhaps a national needs assessment would answer that question. Moving on to another problem that is occurring in the Southwest currently in the western United States, in the halls of the Pentagon there is talk of a western training complex that would impact and be major expansions in six western States. And this was documented in a report which I supplied in my testimony by General Colin Powell.

This training complex is being designated and implemented in a piecemeal fashion. We have major expansions in the six western States, Colorado, Utah, Nevada, Arizona, Idaho, and I think that what has happened here is once again the entire NEPA process is being violated.

We have no talk of preparation of a programmatic environmental impact statement, or State notification, or participation of the citizens. And the people are asking a question about what is going on here. So any help this committee could give in overseeing what that expansion plan is would be greatly appreciated.

In regards to H.R. 2080, by allocating special use airspace and military training routes below 500 feet above ground level, oftentimes to the surface of private property, the FAA has failed to safeguard underlying residents. Therefore, we believe this is critical that military training routes be specified as a special use air space area or zone throughout H.R. 2080.

Today, we heard that the Department of Defense is attempting to smartly downsize. Therefore, we have some questions regarding special use air space associated with base closures. We have 25 years associated with the first round of base closures. We were wondering what the status of those airspace designations are. Air-

space designations, as you know, do not have a sunset clause, which is a measure, I think, that clearly needs to happen; the Department of Defense in their own documents is urging units to stake their claims to this airspace.

We believe that there needs to be congressional oversight of this airspace and that there should be return of this airspace to the public domain. I think it would make a great GAO investigation or other type of congressional investigation, but they are not going to give back the airspace.

The Department of Defense will not give back this airspace unless they are forced to in some manner. And I think it is an important question in light of the massive expansions that are currently going on.

In conclusion, today, the reduction of our military forces, the closing of several military bases, and the substantial decrease in the defense budget, and most importantly, the end of the Cold War, indicate that less, not more, land and airspace is required for appropriate defense of our Nation. Clearly, we must continue to contest DOD's continued requests for more airspace. And I would like to say in closing, I was very happy to see Ms. Goodman say that there would be some public dialogue in the future. I hope that that happens. I would certainly cooperate in any manner in which that happens. But I am not going to hold my breath right now.

I have been here for 10 years and I am still struggling and getting a whole lot of gray hairs that I am getting real tired of. So anyway, in conclusion, thank you very much for the opportunity to speak today.

[Prepared statement of Ms. Bukowski and attachments follow:]

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"Military Land Reform and Reassessment Act"
June, 1994

I wish to take this moment to thank the members of this committee for the opportunity to speak before you today. My name is Grace Bukowski. I am Director the Military Land and Airspace Program for the Reno office of the Rural Alliance for Military Accountability (RAMA).

RAMA, a military watchdog coalition, for the past decade has been striving to assure public participation in Department of Defense activities which have impacted the lives of rural people across America. Specifically, our work has focused on military takings of land, Special Use Airspace (SUA), Military Training Routes, weapons production and the environmental consequences of these activities.

Current Expansions

With the passage of time and the evolution of military technologies, military activities taking place in the nation's airspace have slowly changed to the point where the airspace has become hazardous to both aviators and rural residents. Allocation of the national resource of our skies has become so uncontrolled that congressional action is mandatory. Today, our nation is facing unprecedented requests for incremental military land and airspace withdrawals including the proposed Joint Military Training Exercises in Alaska, the Idaho Training Range, the Colorado Airspace Initiative, the Northeast Strategic Training Range in Pennsylvania, New York, New Hampshire, Maine Vermont and Massachusetts, the Yuma Training Range Complex in Arizona, Naval Air Station Fallon Nevada plans to double current airspace operations by 10,000 square miles and triple current training lands, Roving Sands Joint Training Exercises in New Mexico, the Missile Defense Extended Test Range in New Mexico and Utah and in California a 320,000

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acre expansion of Fort Irwin. These expansions and current activities truly point out the immense need for the "Military Land Reform and Reassessment Act".

Impacts to Aviation

Impacts to civil aviation cannot be discounted. In 1989 there were approximately 61.4 million aircraft operations - 5% military, the other 95% civilian. By the year 2001, total operations are projected by FAA forecasters to grow to 79.2 million operations with the military share declining to 4%. From the year 1990 to 2000 there will be 0% growth in military operations. Project Blue Air (Air Force - Army Project Blue Air Vol.1, page 2-15) noted the role empire building has played in the expansion of military airspace. "The concept of 'ownership' has shown to be a strong incentive for some units to develop their own airspace proposals, even though adequate airspace existed". To date we are unaware of any DOD national needs assessment for airspace.

State and Public Participation

The present allocation process for military airspace generally ignores the non-flying public and impacted rural residents below these airspaces. Existing procedures must be altered to ensure that the non-flying public is notified about future airspace zoning changes which affect their lives and property. Failure to do so will only coalesce the current situation with the DOD constantly locking horns with a diverse coalition including environmentalist, Indians, ranchers, miners and big game hunters and rural citizens have all left their shot guns at the door to fight military expansion plans for their backyards. Why? The answer is clear. The DOD is clearly out of step with other federal agency policies. Their policy continues to be "Decide, Announce and Defend". This attitude simply does not fly with the American public in the 1990's. The DOD must reform, totally, their internal culture with respect to public participation. The DOE is doing this. The DOD must follow their lead. For example, unlike their counterparts in the clean up side of the Department of Energy who have embraced public participation in the early National Environmental Policy Act (NEPA) process by providing both a preliminary draft and a draft Environmental Assessment, the DOD, with the exception of the National Guard, does not provide the public or state with the opportunity to comment on draft EAs. This closed door policy leads to public distrust of DOD activities and points out the crucial need for Congressional oversight of DODs airspace and land uses as proposed in H.R. 2080. Today, the allocation of the

national resource of airspace amounts to an inter-agency swapmeet between the FAA and the DOD.

Failure to Coordinate

There is little coordination in airspace planning between the various DOD agencies. A military service can simply sit down with a chart and pencil and, without asking the residents living below a proposed SUA, draw lines around the least populated areas. It then makes the request for the airspace from the FAA, which inevitably grants it approval. The result is inefficient airspace utilization and the creation of forces that act to the detriment of national security and the nation's best interest. The severe impacts of the DOD's uncontrolled acquisition of military use airspace has driven increasing numbers of usually reticent, highly patriotic rural Americans to speak out. H.R. 2080 will guarantee Indian tribes, States and the public the opportunity to participate in the decision making process and would help end the current FAA "rubberstamp" approval policy.

That situation is exacerbated by the FAA's continued squandering of our airspace resource. The lack of controls on airspace allocation and use provides no incentive for the military to use airspace efficiently. Without a complete, federal level review of the existing SUA and MTR structure -- as would be accomplished through establishment of an Engle Act of the Air -- the present situation will continue to deteriorate.

Nevada Hosts Four Electronic Battlefields

Currently, 40% of Nevada is impacted by DOD Special Use Airspace (SUA), including Supersonic Operation Areas and electronic battlefields at the Utah Test and Training Range, Nellis Air Force Base, Fallon Naval Air Station and the Mountain Home Air Force Base. Additionally, over 60 Military Training Routes (MTRs) crisscross much of the rest of the state.

Western Training Complex

A February 1993 report issued by General Colin Powell, then Chairman of the Joint Chiefs of Staff acknowledged that "an integrated test and evaluation range structure linking existing ranges across six western states and supersonic areas off the California coast would provide a land, airspace, sea area to accommodate a large portion of our joint training, test and evaluation needs well into the next century".

We are told that in Pentagon halls this training complex has been nicknamed the "Western Training Complex". Current piecemeal expansion plans in the West clearly demonstrate the implementation of this consolidation in the West by the DOD. We question the necessity for such a massive expansion. Further, we are screaming to the high heavens about DODs process and tactics. This major federal action has not included the preparation of proper NEPA documentation, such as a Programmatic Environmental Impact Statement (PEIS) nor state and public notification or participation. Congressional oversight of this proposal and other oversight actions as currently proposed in H.R. 2080 would assure that our tax dollars and our natural resources are not squandered.

Currently the DOD in some manner controls 50% of our nations skies. The allocation of our nation's skies has reached unprecedented proportions. Therefore, we believe it is critical that the Secretary of the Interior and the Secretary of Defense inventory and report to Congress on all military airspace use in addition to land use.

State and Private Airspace Protection

While we recognize that this Committee may not have authority over private lands in the United States, airspace is a national resource over which Congress claims authority by virtue of the Commerce Clause of the Constitution. Military use of our nation's skies impacts tribal, state, private and county lands as well as public lands. We therefore recommend that language throughout H.R. 2080 be altered to include DOD airspace use over tribal, state, private and county lands. By including tribal, state, private and county lands Congress will ensure that residents adjacent to public lands will have equal protection under the law.

Use of Public Lands by State Military Agencies

H.R. 2080 would amend the Federal Land Policy and Management Act (FLPMA) to explicitly address military use of public lands by State military agencies, such as the National Guard. We have observed an increasing and alarming trend over the past years. The Pentagon is continually attempting to circumvent the Engle Act and FLPMA by using State National Guards to withdraw lands for training use. Nevadans were shocked in 1990 when the Nevada National Guard attempted to nab 630,000 acres of Nevada public lands without acquiring Congressional approval through an Engle Act withdrawal. The Nevada National Guard attempted to use the

current loop-hole in the Engle Act of 1958 (16 U.S.C. 505a, 505b) by virtue of being an Agency of the State of Nevada, thus claiming an Engle Act withdrawal was not mandatory. The Reserve Component Training Center (RCTC) would have allowed a division of 15,000 troops, 5,600 tired vehicles, such as jeeps, and 3,000 tanks to conduct maneuvers. Although the Reserve Component Training Center proposal has been put on indefinite hold, as with any DOD proposal it could emerge again. We believe that it is critical that Congress control any designation of over 5,000 acres of public land for DOD use.

Inventories and Justification

We believe an inventory of DOD lands and justification for the continued withdrawal of those lands is crucial. One example is the Hawthorne Army Ammunition Plants control of Mt. Grant which has been justified under claims of watershed protection. If returned for public use this protection could easily be accomplished through a Memorandum of Understanding (MOU) with the Bureau of Land Management (BLM). We believe the Army can no longer justify the continued withdrawal of these lands which should be returned to the BLM as a designated National Research Area.

Military Training Routes Must be Classified as SUA

We believe it is critical that Military Training Routes (MTRs) be specified as a Special Use Airspace area or zone in H.R. 2080. Military Training Routes are the most prevalent military use of airspace, affecting every state in the union. Sectional charts depict Military Training Routes as a thin line zigzagging across the rural landscape. In reality, Military Training Routes can range in width from one mile to more than thirty miles and sometimes have a length of hundreds of miles. Justification for the inclusion of Military Training Routes is established in the Report on the Joint Review of Special Use Airspace prepared pursuant to section 104(b)(1) of the Airport and Airway Safety and Capacity Expansion Act of 1987 (Public Law 100-223):

... the public comment process revealed that, overall, a greater segment of the population objects to the Military Training Route program. Military Training Route complaints were more widespread nationally than were Special Use Airspace comments.

Furthermore, it is essential that major changes in the current airspace designations, such as the lowering of a Special Use Airspace(SUA) designation from 10,000 feet Above Ground Level (AGL) to 200 feet AGL. We recommend that any change in Special Use Airspace below 3,000 feet require Congressional oversight as proposed in H.R. 2080.

Base Closures and Special Use Airspace

We question why the DOD is pursuing major airspace expansions when there are 25 Special Use Airspace Areas associated with the first round of base closures that is **not** being returned to the public domain (AOPA Pilot, President's Position, Filed Direct, December 1991). To date we have not calculated the amount of SUA associated with the second round of base closures. Since SUA designation, unlike land withdrawals, do not have a sunset clause, the DOD is urging units to "stake their claims" to this airspace.(Air Force - Army Project Blue Air, Volume II December 1990 page 2-12). Without Congressional action or oversight the return of this airspace to the public domain is doubtful. It is, at best, a mystery why these areas will be needed after the bases close. We believe the Department of Defense and Federal Aviation Administration must provide justification to Congress, and the people of this nation for the continued withdrawal of these areas. Congressional oversight perhaps in the form of a General Accounting Office (GAO) investigation is crucial.

Indian Sovereignty

Airspace is a part of a sovereign nation's territory. Nevertheless, the Department of Defense continues to fly in the airspace of sovereign Indian Nations without authority or intergovernmental agreement. We believe this to be illegal and unethical. The Generic Environmental Impact Statement (GEIS) for Air Force Low Altitude Flying Operations, Preliminary Draft, January 1990, Volume 1 has documented that the United States Air Force, **alone**, impacts 25% of the sovereign lands in the continental United States.

Interservice Rivalry

We believe Congressional oversight and public participation of the Department of Defense(DOD) expansion proposals is crucial for a number of reasons. First we believe it is time to end the interservice rivalry that has fueled many of these wasteful expansion plans. Currently, each branch of the DOD has their own sandbox

to train in. We believe it is time the services train together to better prepare our troops during times of conflict. Second we believe interservice training would save the American taxpayer's hard earned money and preserve our nation's natural resources. Thirdly, and most important, interservice training would likely save the lives of American troops. Not only will our troops be better trained, we believe the recent alarming number of troops killed by friendly fire would likely dwindle.

Conclusion

Behind these statistics, there are people, livestock and wildlife suffering. We have been working for 10 years with communities around the country who suffer daily from unregulated and unaccountable training activity over, around and often through their communities. We observe mental and physical illness, excessive family and community disruption which no one has formally documented. We know of damage to wildlife and wilderness values. We have witnessed a lot of sadness and pain amongst people who cannot understand why they are victimized by their own government for a national military mission which cannot be articulated.

In conclusion, the reduction of our military forces, the closing of several military bases, the substantial decrease in the defense budget and, most importantly, the end of the Cold War indicate that less, not more, land and airspace is required for the appropriate defense of our nation. It is important to note, we are proud of our troops in the Persian Gulf War. The training for their tremendous job was accomplished on current DOD training grounds. With coordinated training in the future we question DOD's continuing requests for more land and airspace. We hold them accountable to the American people. Accountable for the impact of their activities upon the land and the people of this country.



RAMA RESOURCES

The Newsletter of the Rural Alliance for Military Accountability

WHAT IS RAMA?

The Rural Alliance for Military Accountability (RAMA) is an informal working alliance of rural organizations and individuals in the United States and its territories who are adversely affected by the U.S. military. RAMA's goal is to change the way the U.S. military operates by making military institutions responsive to environmental, public health, economic, and human rights concerns.

Working with rural community leaders, RAMA has built a national alliance which supports grassroots efforts while promoting national solutions to the military's lack of accountability.

RAMA works with low-income, rural communities which are disproportionately affected by the activities of the U.S. Department of Defense and the U.S. Department of Energy. The people living in these rural communities are politically under-represented and, as a result, are often powerless in the face of military activity which threatens their homes, jobs, health communities and way of life. These communities are frequently left with few options to remedy the environmental degradation, health and safety abuses, and loss of private and public lands that are a consequence of military decisions made far from their homes.

Pruned with information and technical support, citizens are able to address the impacts of the military on their communities and lives. Whether confronting the DOE on health effects of radiation at Hanford in eastern Washington state or rallying high school students to educate the community about the Savannah River plant, RAMA is helping to make a difference at the national and local level.

WHERE WE WORK

New Mexico

In the shadow of the Los Alamos Nuclear Laboratory, RAMA helps the New Mexico Alliance to speak out on the health effects of New Mexico's nuclear facilities on low income and communities of color. We continue to monitor the DOE's plans to ship nuclear waste to the Waste Isolation Pilot Plant (WIPP) near Carlsbad on poorly maintained highways through low income communities. RAMA associate director Juan Montes lives in Questa, NM and serves as education director for RAMA as well as directing the New Mexico project.

Washington State

Downstream from the polluted Hanford Nuclear Reservation, the Tribes of the Yakima Nation wonder whether the fish they catch in the mighty Columbia River are safe to eat. RAMA staffer Wilbur Stockish has helped to organize a working alliance of central Washington residents which speaks out on downstream and health issues related to the polluting impacts of Hanford and the Yakima Firing Center. Wilbur is also providing information to the Yakima Nation on the risks of hosting on tribal land a "temporary" storage site for high level nuclear waste.

Savannah River Region, Georgia and South Carolina

Like Hanford, Savannah River is a melting pot of hazardous and radioactive dangers. DOE and its contractors which have operated the facility in relative secrecy for over 40 years, have not been good faith partners in protecting the health and safety of nearby low income communities. We have begun to work with community groups who are eager to learn more about the impacts of the Savannah River facility on their lives.

Military Land and Airspace

Grace Bukowski directs this national project which researches the military's ongoing disruptions to rural life. RAMA estimates that the military controls 25 million acres and 50% of the airspace in the U.S. We provide information and guidance to groups throughout the United States concerned about military low level and supersonic flights and routes. In addition, many groups have encountered the military's insatiable appetite for new land to scar for practice maneuvers. Grace is the coauthor of a timely report on depleted uranium, the "Agent Orange" of the Gulf War, now suspected to have poisoned military personnel who came in contact with exploded ordnance made from this radioactive material.

Reno Gazette-Journal

Founded 1870

Thursday, March 2, 1989 — 15A

Opinion

'Engel Act of Air' needed to control military airspace

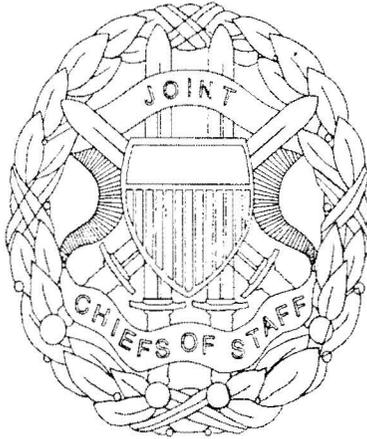
An Engel Act of the Air? Not a bad idea. The proposal was voiced by Citizen Alert director Bob Fulkerson at last week's hearing on military use of airspace in Nevada. It would parallel the existing Engel Act, which provides that Congress must approve all military land withdrawals of more than 5,000 acres. In other words, elected officials, not non-elected government officials, would make the final decision on how much airspace the military can withdraw for its training missions.

Some such control seems imperative, with the military taking more and more airspace in Nevada and neighboring states. Such civilian authority might question whether separate branches of the military need their own special airspace, when they might share the same space with proper scheduling and a little cooperation. Such combinations would reduce military airspace in the West, and open up more flight paths for civilian pilots, who are feeling more and more hemmed in.

Military training and testing are essential, of course; and the low-population West is an ideal place for them. But it does seem that the Federal Aviation Administration has been a little too eager to approve military withdrawals, and the military has been too unwilling to compromise, especially on joint use of the same space.

Congress should become involved, and an Engel Act of the Air would be a good way to go about it.

**Chairman of the Joint Chiefs of Staff
Report on the**



**Roles, Missions, and Functions
of the Armed Forces of the United States**

February 1993

functions between Services. No long-term savings were identified. A comprehensive review of theater air defense is needed to ensure the planned mix and quantities of air and missile defense systems are appropriate. The Joint Staff will head a Joint Mission Area Analysis to review theater air defense requirements, capabilities, and deficiencies. The results of this analysis will determine if further refinements to Service roles and functions are appropriate.

Training, and Test and Evaluation Structures

The extensive array of training and test and evaluation facilities built for World War II and maintained throughout the Cold War can be restructured in keeping with the changed world. An integrated test and evaluation range structure will be developed under the management of an executive agent as part of the effort to lower costs and increase effectiveness. As an example, integration and electronic linking of the many Service training and testing ranges in six western states and off the California coast would provide a land, airspace, sea area and offshore supersonic operating domain to accommodate a large portion of our joint training, test and evaluation needs well into the next century.

Construction Engineers

Each Service has its own construction engineering capability, sized and structured over the years to support combat forces in a global war and maintain a worldwide array of bases and facilities. In view of the smaller requirements of our new military strategy, the Services are reducing their engineer structures -- the Army by 34 percent, the Air Force by 39, the Marine Corps by 20, and the Navy by 11 percent. The possibility of having one Service provide all wartime construction units was evaluated; however, such a consolidation was rejected because of the uniquely tailored support each Service's construction engineers provide to its operational units.

Operating Tempo

"OPTEMPO" is a term describing the pace of operations and training. OPTEMPO determines the rate at which funds are spent from the Operations and Maintenance (O&M) accounts to buy the fuel, repair parts, and supplies consumed during normal operations. When we examined whether additional O&M savings could be achieved through prudent reductions in OPTEMPO, we came to several conclusions. First, increased use of simulation helps train commanders and leaders in operational art and tactics, and weapons crews in engagement techniques. But the requirement to be ready to go on an instant's notice still demands that people be trained in the field,


U.S. Department
of Transportation

Federal Aviation
Administration

Subject: ACTION: Policy on Special Use Airspace (SUA)
Actions-Military Base Closure/Force Reductions

Date: DEC 20 1991

From: Director, Air Traffic System Management, ATM-1

Reply to
Attn. of:

To: Regional Air Traffic Division Managers

We continue to receive inquiries from regional offices, military units, industry and government sources regarding the impact of the pending military base closures or realignments on the SUA associated with those bases.

To date, the Department of Defense (DOD) has not provided FAA a specific timetable of actual closure dates for the installations identified. A number of recent developments in DOD have prompted a need to reevaluate future airspace requirements making it impossible to state categorically at this time whether reductions in SUA will follow. Factors such as United States military force reductions and reorganization, possible relocation of forces from overseas bases to the United States, unit conversions to newer aircraft and the introduction of new weapon systems, "lessons learned" tactics from the Desert Storm operation, and reassessment of the current threat in light of the dynamic changes in the world political arena must all be considered and will have a bearing on determining DOD's training and airspace needs. Additionally, current budget uncertainties may affect final decisions regarding aircraft basing realignments as a result of the closures, as well as actual dates for termination of flying operations at affected installations. Due to the magnitude of this task, DOD needs a reasonable amount of time to complete an assessment of its future requirements. Once requirements are identified to the FAA, appropriate action can be taken to retain, modify, or revoke the airspace.

This office is working closely with the DOD Policy Board on Federal Aviation to ensure not only timely assessment of military airspace requirements but also to develop an airspace plan which optimizes utilization and provides equitable access for all system users.


David J. Hurley

Pentagon seeks millions of acres

Ranchers and conservationists denounce expanded use of public lands

PENTAGON, from Page 1A

pared to 4,000 acres during World War II."

The Defense Department wants the Federal Bureau of Land Management and the U.S. Forest Service to turn over more than 3.4 million acres of public land for military training purposes, adding it to the more than 19 million public acres already held for such purposes.

The land is in Alabama, California, Colorado, Hawaii, Idaho, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nevada, North Carolina, Oklahoma, Utah, Virginia and Washington, according to defense and congressional documents.

"At a time when the Soviets seem to be reining in their military expenditures, our Department of Defense appears to be mounting a latter-day version of the Oklahoma land rush," said Rep. Wayne Owens, D-Utah.

But other members of Congress

overseas could make military training at home even more important. He said military ranges nurture wildlife, including eagles at the Army's Aberdeen Proving Grounds in Maryland.

"The thing that drives away eagles is people, not guns," Stone said. "The Army at Aberdeen and all the services all over the United States are preserving endangered species because they give them a place where they can survive. . . ."

But critics said more species are hurt than helped by the military. They said that once bombs have been dropped on a range, buried unexploded weapons keep the land from being used for other purposes.

Rep. Bruce Vento, D-Minn., chairman of the subcommittee, said that a 1988 National Guard training exercise in Utah violated 35 of 81 stipulations that had been set down to minimize environmental damage. He said unexploded ordnance long has fallen outside the target area on a Navy bombing

range in Nevada.

Steve Erickson of Salt Lake City, representing more than 50 Utah sporting and conservation groups, said the Air Force has "failed miserably" in its efforts to justify building its Electronic Combat Test Capability range in Utah.

While the military argues it needs only 395 acres spread among 50 sites for the range's radar and other gear, the land management bureau has estimated up to 455,000 acres surrounding those sites could be rendered uninhabitable.

"We cannot believe that the Air Force . . . will allow ranchers, miners or recreationists to work or wander around beneath planes carrying live ordnance, dropping chaff and flares, using laser target finders, making sophisticated maneuvers at low-level and supersonic speeds," Erickson said. "Once the camel's nose is under the tent, it is only a matter of time before the arse is inside."

AP contributed to this report.

Critics said that once bombs have been dropped on a range, buried unexploded weapons keep the land from being used for other purposes.

endorsed the expansion.

"It is critical to this country that our young men and women are the best trained there are so they not only can secure their own lives but can secure this nation's freedom," said Rep. Larry Craig, R-Idaho.

Stone said U.S. troop reductions

Owens Joins BLM in Demanding the AF Hold Hearings on Low-Level Flights

By Mike Gorrell
Tribune Staff Writer

Rep. Wayne Owens, D-Utah, has joined state and Bureau of Land Management officials in asking the Air Force to produce an environmental impact statement and hold hearings on a proposed low-level training route through central Utah.

In a letter to Strategic Air Command officials at Offutt Air Force Base in Nebraska, Rep. Owens said the route's potential impact on wildlife and Utah's recreation values warranted the highly detailed analysis provided by an EIS. A facsimile of the letter was sent to *The Tribune*.

"I strongly urge an environmental impact statement with a 'no action' alternative and several opportunities for public hearings for all potentially affected Utahns," said Rep. Owens.

"I also believe that Utahns have the right to weigh the potential impacts this route would have on potential wilderness, as low-level flights are incompatible with the solitude experience so important to Utah's tourism," he added.

Rep. Owens is sponsoring a bill in Congress to designate 5.1 million acres of BLM-managed federal land in Utah as wilderness. The proposed training route would pass over nine wilderness study areas.

The Air Force would like to establish a low-level training route for B-1B and B-52 bombers that would be-

gin over the Book Cliffs in eastern Utah, proceed south along the Green River, then turn west over the San Rafael Swell and Fishlake National Forest before swerving north and finishing in the west desert's Utah Test and Training Range.

The route would be used each weekday of the year by two B-1Bs flying 800 feet above the ground at 820 mph and by two B-52s flying 400 feet above the ground at 390 mph. About 15 percent of the flights would occur at night, the Air Force said in a letter seeking comments for an environmental assessment, which is less detailed than an EIS.

The Air Force proposed the route because of the area's sparse human population. The route also would enable SAC aircraft flying out of North Dakota, South Dakota and Kansas to save time and fuel reaching the Test and Training Range and would prevent them from interfering with other planes entering the Training Range from the north, south and west, said Tech Sgt. Alan Dockery.

The state Office of Planning and Budget and the BLM each requested the Air Force to produce an EIS and hold public hearings in Utah.

They cited the route's potential impact on river-running trips through Desolation Canyon, bighorn sheep populations in the Book Cliffs and San Rafael Swell, populations of bald eagles, peregrine falcons and other species under the flight path,

ancient Indian ruins sensitive to noise and vibrations, local air traffic that includes wildlife surveyors and firefighters, and recreational users.

The plan also sparked objections from environmental groups, the president of the Western River Runner Guides and the Downwinders, a military watchdog group. The Air Force did not contact these groups about the plan.

"The history of these projects," said Downwinders spokesman Steve Erickson, "is the Air Force tells very few people about it, puts together an environmental assessment, gives it a finding no significant environment impact, hustles the document over to the FAA [Federal Aviation Administration] which rubber stamps it and the first time people are aware of the new low-level route is when they get buzzed. That's just not acceptable."

"Utah is not a playground for SAC bombers," he added. "They simply don't need this."

Rep. Owens also protested that he had not been contacted and asked the Air Force to include him in future discussions of the issue.

"Once again, it appears the military has acted in total disregard of the National Environmental Policy Act and the people of the State of Utah," he wrote. "... I will gladly provide an EIS team with the location of my proposed 5.1 million acres of wilderness or other resource information."

TAOS PUEBLO

OFFICE OF TRIBAL RIGHTS PROTECTION P.O. BOX 3600 TAOS, NEW MEXICO 87571 (505) 758-1176

December 3, 1991

National Congress of American Indians
900 Pennsylvania Avenue S.E.
Washington D.C. 20003

Re: Resolution for Airspace
Protection as a Natural
Resource

TO WHOM IT MAY CONCERN:

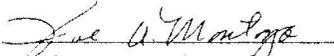
The Pueblo of Taos was successful this past year in joining with our surrounding communities to oppose low-level military overflights through our lands. This confrontation led us to realize how vulnerable Native American lands and populations are to serious intrusion through unprotected airspace rights. Such rights have never properly been recognized by the United States Government as a natural part of our sovereignty. The ability of Native American Tribes to successfully protect land and water resources is intimately and inseparably connected to control of our overlying airspace.

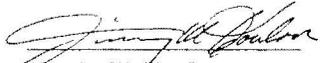
We urge the National Congress of American Indians to consider the possibility of legislation which would recognize airspace protection as part of the trust responsibility of the Federal Government and place such protection on equal terms with land and water.

Thank you for this opportunity. We hope that if this Resolution is adopted by the National Congress that copies can be sent to Senator Inouye as Chairperson of the Select Committee on Indian Affairs for follow-up.

With Good Thoughts,

TAOS PUEBLO


JOE A. MONTOYA, WarChief


STEVEN M. CORDOVA, Governor

Richard Deertrack

TAOS PUEBLO

OFFICE OF TRIBAL RIGHTS PROTECTION P.O. BOX 3600 TAOS, NEW MEXICO 87571 (505) 758-1176

A RESOLUTION FOR AIRSPACE PROTECTION AS A NATURAL RESOURCE

WHEREAS, the National Congress of American Indians is a nationally-recognized organization with a membership in excess of 200+ Native American Indian Nations across the United States; and

WHEREAS, Federally-recognized Native American Indian Tribes in the United States retain sovereignty over their lands and their people by natural right, and by virtue of treaty, federal legislation, and executive order; and

WHEREAS, sovereign rights and the responsibility for the protection of the land, the people, and Native American tradition would be meaningless without a corresponding power to protect overlying airspace to Native American communities and wilderness; and

WHEREAS, with the release of the 1990 Generic Environmental Impact Statement (GEIS), the Department of the Air Force has issued a policy statement which does not recognize sovereignty in Native American Tribes by concluding that all Native American airspace is within the public domain and subject to the regulatory authority of the FAA, and as such is indistinguishable from other public lands; and

WHEREAS, the Air Force GEIS guidelines for determination of when Native American lands would be subject to low-level military overflights were prepared without proper consultation with Native American Indian Nations in violation of the Federally recognized sovereign powers of the Tribes; and

WHEREAS, there is evidence that Native American communities are subject to a disproportionate number of such overflights compared to the general population; and

RESOLUTION FOR AIRSPACE PROTECTION, cont.

Page 2

WHEREAS, testimony has been given in the United States that overflights within the range of 100-1500 feet from ground level result in catastrophic impacts to the general population, animal population, and physical structures upon the land;

NOW THEREFORE BE IT RESOLVED BY THE NATIONAL CONGRESS OF AMERICAN INDIANS THAT a recommendation be made to the Department of the Air Force to suspend GEIS guidelines which govern air space of Indian lands; that the National Congress of American Indians work through Congress to promulgate regulations for the protection of airspace over Native American Indian lands; and

BE IT FURTHER RESOLVED THAT the regulatory protection be a recognition of the sovereignty of Native American Indian Tribes over their airspace; that Native American Indian Tribes claim sovereign rights to airspace as a natural resource of equal status to land and water to be protected under the trust function of the Federal Government.

Submitted December, 1991, Conference
NCAI, San Francisco, CA

Air Force says training range would be useful, not essential

The Associated Press

TWIN FALLS — The Air Force admits it does not need a proposed training range for its new "composite wing" at Mountain Home Air Force Base.

But the 150,000-acre Big Springs training range, proposed by Gov. Cecil Andrus in an effort to keep the Air Force in Idaho, would greatly enhance training as the base girds for a new mission, said Gary Vest, deputy assistant secretary of the Air Force, Friday in the Pentagon.

While the military plans to cut forces by one-third, it is expanding in Idaho — up to \$60 million in base improvements — to accommodate a composite wing of several types of aircraft training as a unit.

The military picked Mountain Home Air Force Base because of its existing capability and future potential, Vest said. The evaporation of the primary military threat to the United States and an ever-growing budget deficit have led to a reduction in military forces nationwide.

"There is no Soviet Union anymore," Vest said. And so the Air Force is withdrawing from 28 overseas bases and closing 19 domestic ones.

The Idaho Department of Fish and Game and the U.S. Bureau of Land Management have informed the Air Force of their concerns about training jets over the Owyhee Desert.

It also plans to cut its number of 36 fighter wings by 10, a reduction of 720 planes. But rather than cut across the board, the Pentagon wants to keep fewer, "quality" units intact.

The Mountain Home wing would be one of those units, part of the "pointy end of the spear," Vest said. During the Persian Gulf War the Pentagon learned the value of highly trained troops with modern, high-tech weapons.

The idea of a composite wing crystallized there, Vest said. The new Air Force will be very mobile, with a global reach, he said. But the Air Force has not assessed its training needs nationwide.

The decision to put the composite wing at Mountain Home was made by the Base Realignment and Closure Commission, based on information from the Air Force.

"We proposed it," Vest said.

Though not vital to the composite wing, the proposed range in Owyhee County would provide flexibility as the wing evolves, he said.

"It's very attractive, but there's no money on the table," Vest said. No decision has been made, he said.

The Idaho Department of Fish and Game and the U.S. Bureau of Land Management have informed the Air Force of their concerns about training jets over the Owyhee Desert, the home of the largest California bighorn sheep herd in the world. The Air Force is working through the process of an environmental impact statement on the proposed range.

Other bases with similar or better training facilities, however, were closed by the commission, also based on information supplied by the Air Force.

In 1989, the commission recommended closing George Air Force Base in Victorville, Calif. The California base has better flying weather than Idaho, and nearby military operating air space includes more extensive ranges, areas with no altitude restrictions on supersonic flight and live ammunition ranges.

The Salt Lake Tribune

Friday Morning, December 7, 1990

Section A

Page 28

Low-Level Flights a Threat

George Nikas, assistant coordinator of the Utah Wilderness Association, wasn't far afield when he called the U.S. Air Force's low-level training route "one of the most outrageous, obnoxious proposals we've seen in a long time."

The Air Force plan is to save time and fuel and to prevent interference with other military aircraft by providing the Strategic Air Command with eastern access to the Utah Test and Training Range. It doesn't take an environmental extremist to understand implications of the training route.

Approximately twice each weekday, massive B-1B bombers would pass over prime recreation terrain, wildlife habitat and ancient Indian ruins in central Utah at 620 mph just 600 feet above ground. The B-52s would travel 390 mph at 400 feet above ground for their twice daily trips. Fifteen percent of the fly-bys would occur at night.

The size, speed and altitude of the bombers would create a deafening, earth-shaking roar in areas popular for their peacefulness. The route would provide an extra "thrill" to the 7,000 people who pay hundreds of dollars each to run the Green River and to the countless other people who hike and camp in Fishlake National Forest and the state's many affected wilderness study areas each year. Just the kind of thrill none of them wants.

Professional outfitters would surely warn customers about the obtrusive clamor, but many visitors would slip into the area unawares. Assuming they survived the fright, they'd leave the state with a shattered image of its wil-

derness. A state whose economy increasingly depends on recreation and tourism cannot afford to allow such a poor impression.

It's hard to predict precisely what the flights would do to wildlife, but it's safe to say they would not enhance habitat. Efforts to establish skittish dignorn sheep to the area could be subverted. Endangered raptors would probably take up residence elsewhere.

If their reaction to the Air Force's past proposal to construct an electronic battlefield at the west desert test range was any indication, ranchers would have something to say about the bomber route. They made it well known two years ago that they were displeased with the prospect of low-flying aircraft spooking their livestock.

Then there are the irreplaceable ruins in Fremont Indian State Park to consider. Vibrations and noise from the aircraft might damage the fragile rock art and ancient artifacts, according to Superintendent Gordon Topham.

If the proposed bomber route would actually cut government costs and contribute to the country's national security, Utahns may be inclined to cooperate. But they shouldn't have to sacrifice their local economic and environmental security along the way.

State and federal land officials have appropriately asked the Air Force for a detailed environmental impact study and public hearings on its proposed training route. That process is absolutely essential if Utahns are to obtain whatever modifications are necessary to protect their own vital interests.

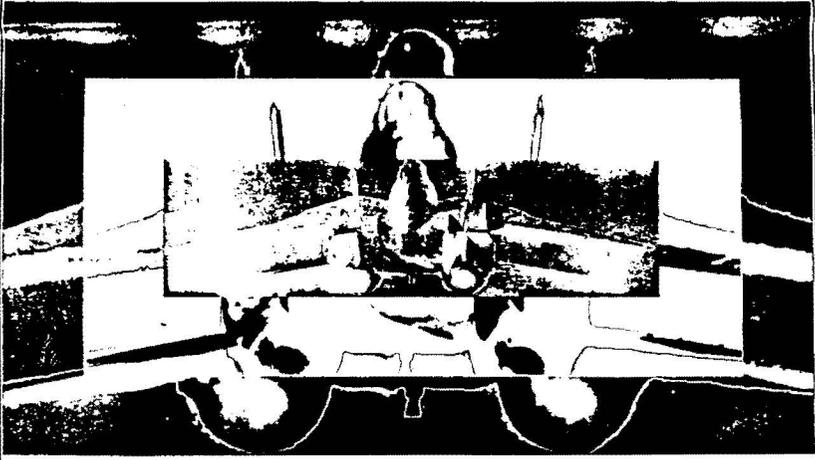
Nevada
WEEKLY
news, politics, arts

Vol. 2, No. 14, April 6 - 12, 1994

free
The Paper:
Some good news, some bad news

The new battle for Nevada's skies

Top Gun could bring massive expansion to Fallon Naval base



INSIDE

- ▲ Jim Gibbons on taxing, spending, and education
- ▲ News, poetry, music, cinema, and culinary adventures

cover story



Top Gun comes to Nevada: The air and land battles begin

by William Albright

There is a war going on the continent of the Ocean State.

But this is not a fight between the United States and some Middle Eastern power. The skies over the Nevada desert, and the combatants are local activists and the federal government.

Situated on the frontier in this conflict is Fallon Navy Air Station. At 142,000 acres, NAS Fallon and its associated bombing ranges are much smaller than its Air Force counterpart at Nellis in the southern part of the state. But the base, which has grown to engulf the nearby community of Fallon, has had a much greater impact on the local population.

For years, NAS Fallon has been a lightning rod for attacks by its neighbors and by environmentalists, Nativists, Americans, out-doormen, farmers, and hunters.

The recent announcement that the Navy's "Top Gun" fighter tactics school is moving to Fallon has put the base in the news and raised new questions about how much space it is going to need.

The training scenario

After weeks of negotiations, I am sitting in NAS Fallon's observation tower with several Navy officials. I am here to interview Captain Joe Sciarra, the commanding officer. Four advisors are standing by to assist the captain who has only been in command at Fallon for the last six months. A military spokesman is taping out conversation.

"I've been commander here for six months, but I've been at Fallon for training since 1972, so I'm no stranger."

Scibara explains.

The observation tower affords excellent views of the surrounding desert and the distant mountains — newly snow-covered.

On the tarmac below sit a dozen or so fighters of various makes in "aggressive" paint jobs preparing for takeoff. Scibara tells me the base is conducting search-and-rescue exercises.

Somewhere out there, helicopters and their fighter escorts are trying to locate and retrieve "freedlies" — freed hostages of covert operations. Take your pick. They must get their fight this way out against hostile interceptors.

On the nearby runway, a pair of F-5s in desert camouflage struts by. In moments, they disappear into the desert beyond.

This is a relatively quiet time at the base whose main mission is training aircraft carrier strike wings in ground attack and electronic warfare techniques.

As part of a carrier aircraft complement's preparation for sea duty, they come to Fallon for three weeks of training at the base's strike warfare center.

In the course of a year, six to eight Navy and Marine wings, each bringing 60 to 80 jet aircraft and helicopters, rotate through NAS Fallon.

An unfavorable kill-to-loss ratio during the Vietnam War pointed out the need for more extensive and realistic training. In 1972, Fallon was upgraded from an auxiliary to a full Naval Air Station.

"Combat pilots make most of their mistakes during their first 10 to 15 missions," Scibara says. "Our whole purpose is to give the pilots those mistakes here at Fallon, where they will have a chance to learn from their mistakes."

The Navy accomplishes this goal through threefold training on all of Fallon's four Bravo ranges: 16, 17, 18, and 19.

NAS Fallon, which experienced rapid growth during the military buildup of the Reagan era, wants a fivefold increase just to meet existing needs. This does not include accommodations for "Top Gun" when it arrives.

Range 16 is used for training in target identification, target acquisition, and target destruction. Range 17 is used for training in target identification, target acquisition, and target destruction. Range 18 is used for training in target identification, target acquisition, and target destruction. Range 19 is used for training in target identification, target acquisition, and target destruction.

Pilots have the opportunity to "fight" their way through stage-act "enemy" air defense systems to their targets, make their bombing runs, and critique their performance after the mission.

This training is as realistic as the Navy can make it. The overall training success of air power during the Persian Gulf War has been attributed, in part, to such training. On returning from one of the first missions of the war, a carrier pilot was asked what it was like. "It's just like Fallon," he replied. "But all this training is not without its costs."

The land battle

More than a million acres of Nevada land are used for military purposes and more than 40 percent of its air space is restricted by the military. In total, more than 80 percent of Nevada is barred to military operations.

Despite the fact that nearly 25 percent of the nation's military land is in Nevada, the armed forces are calling for more. In a state whose lands are already predominantly federally owned, many Nevadans are saying they have had enough.

The protest movement has spawned an unusual alliance of environmentalists, ranchers, sportsmen, and miners.

Environmentalists point to the intrinsically destructive nature of military operations and their effect on fragile desert ecology. (Quadrants most object to the withdrawal of wilderness areas and the issue in the areas that are accessible. Miners and ranchers can't get access to the natural resources on the withdrawn lands.)

NAS Fallon, which experienced rapid growth during the military buildup of the Reagan era, wants a fivefold increase just to meet existing needs. This does not include accommodations for "Top Gun" when it arrives.

"We're not sure yet how much more air space we'll need for 'Top Gun,'" Scibara says, "but we know we will need at least two more military operating areas and an increased ceiling of 45,000 feet."

The Navy recently released the final draft of its "Top Gun" environmental assessment. While the document is merely concerned with housing for the additional 200-plus personnel to be transferred to NAS Fallon, it also gives an indication of things to come: housing for an additional and his staff.

"Top Gun" is moving to Fallon because its normal base at Miraflores was slated for closure during the most recent military "draw down."

But military downsizing does not necessarily mean terminating certain programs. It often means consolidating. "Unfortunately, everything can't get smaller if you're going to consolidate," Scibara says. "Something has to grow, and Fallon is one of those places."

With another round of base closures to the works, the news that an admiral's quarters are being built at Fallon can only be interpreted to mean a large increase in activity there.

Critics of NAS Fallon are bracing for more land and air space withdrawal and more military overflights. Some residents there wonder why they should be subjected to overflights at all when only 150,000 of the country's three million acres are privately owned.

The Bravo 16 Range has been a cause for complaint for years. The Navy uses Bravo 16 for bombing runs with tank ordnance. On some days, as many as 200 sorties take place there.

Jet aircraft approach the range at low level and high speed over private land occupied by 2,000 civilians. Airborne jet engine pressure between 90 and 100 decibels at low level which is enough, coupled with its sudden onset, to startle most people. The Navy's own estimates put the average noise level around Fallon at 60 decibels. Peak levels of 125 decibels are recorded on a regular basis.

To give these numbers meaning, dead quiet is about 80 decibels. The Navy's average 60 decibels is like living next to a car, running without a muffler, five feet away for eight, all year long.

The 125 decibels generated by that taking F-18 are three billion times louder, comparable to the discharge of a .45-caliber pistol at 50 feet. This huge increase occurs because decibels, like the Richter scale, have a logarithmic progression.

What civilians want

Many civilians would like to see Bravo 16 bombing range moved somewhere else. But Scibara says, when an air wing is training, it flies up all the other ranges, denying their use to other units such as the Nevada Air National Guard which often train there. This may be small consolation to the people who live near Bravo 16.

The Navy is preparing its long-awaited environmental impact statement on its proposed 181,324-acre land withdrawal around Bravos 16, 17, and 19. These are deemed necessary for "noise and safety concerns."

By safety concerns, the Navy primarily means unexploded ordnance that missed their targets and ended up on public land. This is a reference to one of NAS Fallon's more recent embarrassments, Operation Ugly Baby.

In 1989, the Navy was inadvertently discovered secretly disposing of more than 1,000 live boxes of ordnance which had landed off-range. Over 30,000 acres of contaminated public land had to be closed until they could be certified safe.

"The Navy was ninety percent successful in its cleanup," said Dave Luomis, an environmental planner with the Bureau of Land Management and the author of *Combat Zoning* — one of the few books dealing with the history of military land use in Nevada. "But many live bombs still lie beneath the desert's surface. We haven't the idea yet whether it is more harmful to go in and get them or just leave the areas closed to the public."

The Navy drew sharp criticism for the secrecy surrounding Operation Ugly Baby. Officials said the secrecy was necessary to avoid alarming the public. The bombs, they said, had accumulated over 40 years of training and that safety precautions are much better now.

NAS Fallon is also host to 27 toxic sites. NAS officials say eight of them "need work" and 21 are under investigation. But they say all the pollution is from hydrocarbons.

Art Sumner, who lives next to Bravo 16, believes there are good economic reasons why the base should be closed. "The Navy's presence here costs Churchill County millions of dollars a year in lost taxes and additional infrastructure expenses," he said.

Amelias
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COUPON CORNER

Nevada Weekly, April 9, 11, 1994, Page 7

See Top Gun, page 8

cover story

Top Gun, from page 7

Summer said these expenses are not shared by the Navy. As an example, he pointed to the \$10 million in the county's school budget. It costs the county \$4.50 a year to educate each student. Navy dependents who use the local school system only contribute \$500 of that amount. Based on 400 military dependents, that results in a \$1.6 million shortfall.

But the Navy spent \$85 million in Fallon in 1992, including \$54 million on civilian payoffs. Most Fallon residents believe the base is an economic boon to the community.

Summer is unimpressed.

"If NAS Fallon left tomorrow, we would have the richest county in the state," says Summer, a former defense industry vice-president who holds a master's degree in long-range planning.

Summer wants to turn the base into a commercial freight airport serving the Pacific Rim. In his estimation, the airport would bring in \$500 million and create many non-military service jobs. The Navy would save money by combining operations with the Air Force at Nellis.

"Military bases are seldom popular with their surrounding communities," says Frank Partlow, a political analyst and a retired army brigadier general, "until they are threatened with closure. Then the civilians howl."

"Fallon is being considered as the location of a federal prison and I wonder which the locals would prefer — a Navy base or a prison?"

Seibarra says his base and Nellis are already too busy to accommodate both services and he says that flying from Fallon to the Nellis Range would allow his pilots too little time over the target area.

These arguments have been put forward since World War II when the Navy wanted to share Nellis with the Air Force. The Air Force said there was no room for the Navy, so the Navy began to develop Fallon. When Congress intervened, the Navy said its base at Fallon was too far along to change.

In 1956, a congressional investigation concluded that both assertions were "incomprehensible" and "inexcusable." Given the increased performance of today's aircraft and weaponry, it is hard to verify whether current arguments are valid.

Partlow, who teaches political science at the University of Nevada, Reno, concedes there is too much interservice rivalry and given the enormous cost of equipping and training the armed forces, there is too much duplication of effort. As an example, Partlow points to the aerobics four air forces.

"The military does not set policy," Partlow says. "I tend to share Nellis, the Navy and the Air Force would find a way to do so."

Military expansion

The Navy is not the only service looking to expand in Nevada. On the contrary, all the arms of the defense establishment are looking to expand their enclaves in the state.

The Air Force, whose three-million-acre Nellis Range constitutes the largest piece of

withdrawn land, is seeking more withdrawals for its electronic warfare range at Mountain Home on the Nevada-Utah border and for security around the Groom Lake Base where the nation's most secret projects (such as the Boppo-whisperer identification waves) plans are being developed.

Both proposals are drawing heated opposition from environmental and Native American groups who question the need for such projects in light of the collapse of the Soviet Union.

Military projects in Nevada have faced opposition — often with little success — from unlikely coalitions in recent years. But the stunning military success in the Persian Gulf War has taken some of the sting out of their criticisms.

Today, even the most ardent critics acknowledge the need for training to maintain an adequate national defense.

"The military has to train somewhere," said Grace Bukowski of the Rural Alliance for Military Accountability. "But we wonder why they can't combine their operations into a national sacrifice zone somewhere that we could just write off."

Bukowski points out that interservice jealous problems which erupted up during the Persian Gulf War indicated a need for combined training.

In the late 1980s, the apparently endless appetite for state land and air space resulted in the creation of the Special Nevada Report. Years in the making and costing millions of dollars, the massive document is a definitive catalogue of military activities in Nevada.

But many of the report's conclusions

have been challenged by nearly everyone, including some who worked on the project — those fairly skating with environmental concerns. In particular, have been left indelible.

The Special Nevada Report also failed in creating a viable institution to coordinate military planning with the desires of Nevadans.

The new appreciation of open spaces — the sanctity of wilderness among Nevada's growing population has come into conflict with the military view of the state's desecrated as suitable targets for repeated bombing.

Most commentators say the public needs to be included in the military planning process at an earlier stage in order to help off conflicts before they begin.

In recent years, the military has become more sensitive to public criticism and more responsive to public needs, but only insofar as these needs do not jeopardize its primary mission.

That primary mission is dictated by its government, as the military points out. In the post-Gulf War world, the body politic must decide what role they want their military to perform.

Military analysts believe the world has become a more, not less, dangerous place. This belief suggests that, barring a radical shift in national policy, military expansion in Nevada can be expected to continue.

Note: This report is part of a series by its author that will run on RENO-TV, at 7:30 A.M. from April 12 through the 15.

William Albright is a free-lance journalist from Truckee.

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MEMORANDUM

TO: Dana Bennett, Senior Research Analyst
Legislative Counsel Bureau

FROM: Maud Naroll, State Clearinghouse *MN*

DATE: May 17, 1994

SUBJECT: Update -- Special Nevada Report

This memorandum discusses ongoing activities for implementing certain recommendations contained in the Special Nevada Report. Before discussing these activities, however, some background information might be helpful.

The Special Nevada Report was a congressionally required study of all military activities in Nevada. It was authorized as part of the Military Lands Withdrawal Act which was passed by the 99th Congress and signed into law by President Reagan in November, 1986. Among other things, the Act renewed the Nellis land withdrawal and initiated a withdrawal for the Navy's Bravo 20 bombing range located north of Fallon.

The need for the Special Nevada Report grew out of the piece-meal approach that the Department of Defense has used to acquire public lands and airspace for military use in Nevada. During the 1980's, various branches of the military introduced a number of separate airspace and land withdrawals without adequate planning or coordination. These independent proposals resulted in a State

concern regarding potential cumulative impacts on the people and environment in Nevada.

Subsequent approval of some of these proposals, including the Navy's 5,000 square mile Supersonic Operations Area, the 89,000 acres Groom Range Land Withdrawal, the Hart Military Operations Area, and others, caused citizens, environmental groups, and elected officials (including former Governor Bryan) to ask Congress for a complete review of all existing and planned military activities in the State. Hence, the Congress through Public Law 99-606, addressed these concerns by requiring preparation of the Special Nevada Report.

With a price tag of over \$2 million, the report took more than three years to complete. It's worth noting that State officials, along with officials from the Bureau of Land Management and the affected military agencies spent considerable time and effort on the report. The report was published in September 1991 and submitted to the Congress by the Secretaries of the Air Force, Navy, and Interior.

While the report covers several major issues¹, our comments today generally address the section dedicated to mitigation.

We believe several efforts must be undertaken to mitigate the cumulative effects of military land and airspace withdrawals in Nevada. Mitigation, as we interpreted it, should at a minimum address the following fundamental questions:

First: What can the various defense agencies give back to Nevadans in return for lost airspace and public lands to military training, and

Second: What kind of actions can be taken to reduce or eliminate the impact of military training activities on the human and natural environment in Nevada.

In reference to the first point, the State has continued to suggest that DoD agencies provide compensation to the citizens of Nevada in the form of an acre for acre land trade, or exchange, for any public land withdrawn for military use. This would include allowing the State to select lands from the unappropriated public domain to compensate for military withdrawals. As the committee is aware, the State of Nevada recently suggested this concept to the Bureau of Land Management in comments submitted on the proposed expansion of the Groom Range withdrawal in Lincoln County.

In reference to other potential mitigation issues, the State plans to continue to address the future use and management of the Mt. Grant area, which is located above the U.S. Army's Hawthorne Ammunition Depot in Mineral County. We believe this area should be designated as a special recreational use area and be managed by a federal or state resource agency.

The State will also continue to suggest that the U.S. Navy close the Bravo 16 bombing range. Bravo 16 is located only a few miles west of down town Fallon. We believe Bravo 16 should be closed and possibly exchanged for other lands or airspace that are outside of the Lahontan Valley and away from sensitive resources and populated areas. We note that as many as 1,000 people² currently live beneath military airspace set aside for the Bravo 16 range.

Finally, to address activities that could be undertaken to reduce or eliminate the impact of military training, we believe it is time for the DoD, along with other federal land management agencies, and the State to begin a process to assess the impact

of all military training routes (MTR's) located in Nevada airspace. Such an assessment is needed to review and make recommendations concerning overflight impacts on sensitive wildlife habitats, wilderness and wilderness study areas, and high-use recreational areas.

It is worth mentioning, that nearly every state park is either covered by military airspace and/or a low-level Military Training Route (MTR).

In a related issue, if the Navy proceeds with its envisioned airspace withdrawals described in the Special Nevada Report, several existing Forest Service wilderness areas, along with Wilderness Study Areas being recommended by the BLM could be subjected to low-level high speed overflights and sonic booms. Finding ways to avoid these conflicts must be addressed, and this may well include a look at options for joint-use of existing military airspace among DoD agencies.

While this memorandum only touches on some of the major issues described in the Special Nevada Report, it is important to note that DoD agencies in Nevada have initiated a process to begin to address some of our concerns. Next week (Wednesday, June 8, 1994) the respective DoD agencies and representatives from the State are scheduled to meet and discuss these and other issues.

We would be happy to advise the Committee on the outcome of that meeting, and we would be happy to keep the Committee abreast of State activities concerning implementation of mitigation measures described in the Special Nevada Report.

MN\jhw

cc: Paula Steinbauer, Governors Office
Effected State Agencies

TESTIMONY

FROM: Marianne H. Thaeler, Military Issues Chair, Rio Grande Chapter, and Chair, Southern New Mexico Group, Sierra Club. Also, BLM designated Affected Interest on all grazing units on McGregor Range

Subject: Fort Bliss Texas/New Mexico, McGregor Range in New Mexico

Range=

"Home, Home on the Range where the deer and the antelope play"

NOT

"Bang, Bang shooting range where the air craft and tanks play"

US Army Fort Bliss is located in the City of El Paso, Texas. But, exercise Ranges are in southern New Mexico. McGregor Range in New Mexico is over 608,000 acres and was withdrawn for 15 years by Public Law 99-606-Nov. 6, 1986. Under PL 99-606 McGregor Range was to be managed co-operatively with the Dept. of Interior, Bureau of Land Management (BLM) and US Army, Fort Bliss. The only area now managed by BLM, and without cooperation, is Otero Mesa and the Sacramento Mountain foothills. The foothills has a BLM designated Wilderness Study Area and Otero Mesa has 4 Areas of Critical Environmental Concern to preserve vestiges of black grama grass. Otero Mesa is what southern New Mexico was like before over grazing at the turn of the last century, an area important to all New Mexicans. Otero Mesa is home to the most productive herd of trophy antelope in the State of New Mexico. The State of New Mexico, Department of Game and Fish, conducts regular deer, antelope (antique muzzle loaded guns only), and quail hunting seasons on Otero Mesa. The US Army has another area of McGregor Range designated for Military Only Hunting. The BLM is to manage all natural resources. BLM now manages only Otero Mesa and the foothills under FLPMA for multiple use, grazing, hunting, camping and wildlife, and as a "Show Case of good grazing practices." BLM and the Army issue Access Permits to the public. Two years ago Fort Bliss refused to allow BLM to continue issuing Access Permits. After citizens of Dona Ana County protested, authority was returned to BLM but only for residents of the City of Las Cruces (Dona Ana County). Otero County residents, where McGregor Range is located, and all other citizens, must now go to an Army unmarked metal building 25 miles south and 5 miles east of the City of Alamogordo, NM, during the week and during working hours.

Fort Bliss has and continues to solicit "business" from other branches of the military, as well as the Army, to use McGregor Range's Otero Mesa and the foothills. A "Master Plan for Fort Bliss, Texas", April 1993, prepared by GeoMarine of Baton Rouge, Louisiana, for the Army Corp of Engineers, Fort Worth, lists and describes the military activities and expansions. These new activities include:

- Radar Tracking Facility
- Low Level Bombing Range
- Helicopter Gunnery Range
- Bivouac of 500-800 troops
- Training Exercises Without Troops (off road vehicle exercises which could include tanks)
- Etc.

Military expansions announced to date on McGregor Range's Otero Mesa include:

- Roving Sands Joint Training Exercises - 15 Patriot missile sites
- Theater Missile Defense Extended Range - Patriot missile firing sites
- JTF-6 (Joint Task Force 6, the joint military counter drug border undercover group in cooperation with INS & EPA) - 450 acre firing range (this is Very Large), and we expect soon to witness the construction of a helicopter gunnery range.

Cooperation and consultation are required to be done through the NEPA process BEFORE activities are initiated. The NEPA process for these activities has been and is done AFTER activities and exercises have already taken place or have already begun, making BLM cooperation and public input and Comments moot.

The US Army does not comply with the existing Memorandum of Understanding executed with the BLM (example: access permitting.) Fort Bliss has not executed a Management Plan and attendant NEPA compliance with the Department of the Interior as required and specified in PL 99-606. Statements made by the Army in public environmental documents that a Compliance Agreement has been signed by the Dept. of Interior and its Agencies and Department of Defense, US Army are FALSE. The US Army does not cooperate as envisioned by PL 99-606.

New Mexico citizens and their organizations, rancher, hunters and environmentalists have banded together to oppose all military expansions on McGregor Range. Mr. Dave Hall, Moderization Officer at Fort Bliss told Marianne Thaeler, Chair of Southern New Mexico Group, Sierra Club, "Don't try to protest. The Army can do anything it pleases. Save your breath."

The citizens want cooperation and clean-up, not as the Army recently requested of BLM "gates wide enough to accomodate tanks."



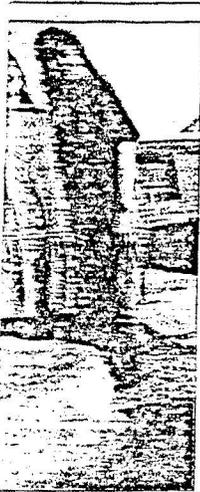
BILL ROTH / ANCHORAGE DAILY NEWS

last week. The Snowbirds fly the Canadian CT-114 Tutor on 74 tours at 54 locations from April through October.

From Sky and a supporter of the bill, blamed the latest reversal on heavy lobbying by companies that own the big at-sea processor ships, including Tyson Seafood Group.

The measure would assess a 3.5 percent tax on trawler

Please see Fish, B-2



THE STARBUCKS / SEATTLE TIMES. MASCOT: MARY TERESA AND THE MASCOT.

cultures degrees

At the same time, their parents are making the long flight inside of Toksook Bay, off the west coast, to watch them fly. They mark the distance the birds have traveled.

Please see Page B-2. JOHN

Air Force interrupts training exercises

5-10-93
ANCHORAGE DAILY NEWS

The Associated Press

FAIRBANKS — The Air Force temporarily halted jet fighter combat training late last month when British airmen broke an agreement to stay away from sensitive peregrine falcon nesting areas.

After biologists from the U.S. Fish and Wildlife Service videotaped jets dropping below an agreed-upon altitude of 2,000 feet near the Charley River nesting sites, the Air Force stopped the Cope Thunder exercise April 29.

Air Force officials said they used the day to review the flying rules with pilots taking part in the training.

The low-level flights violated an agreement designed to protect the nesting birds, which were considered endangered until recently.

Federal biologists twice videotaped the jets dipping below 2,000 feet over bluffs used by the falcons. The violations, along with other reports of pilots flying near off-limits areas along the Salsina River, prompted the move.

But the biologists said the violations — one by a C-120 on April 22 and the other by a British Tornado on April 28 — didn't appear to be intentional.

"It looked like the pilot of the C-120 tried to get out of the way," said biologist Skip Ambrose.

And the British Tornado just clipped the edge of the

Federal biologists twice videotaped the jets dipping below 2,000 feet over bluffs used by the falcons.

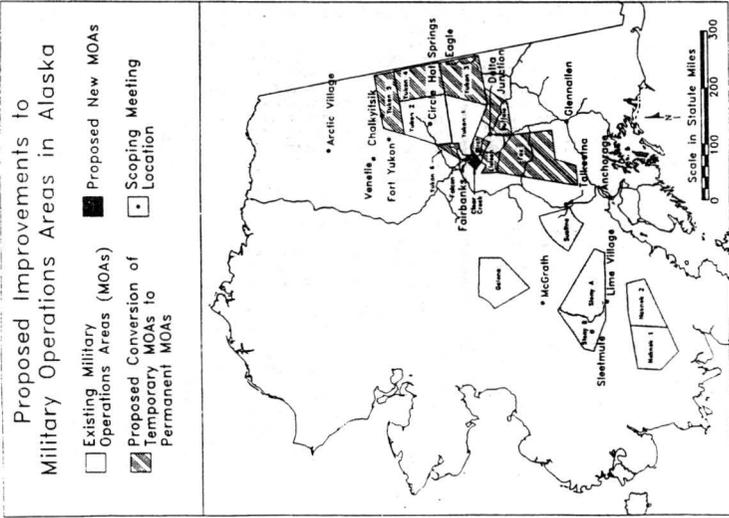
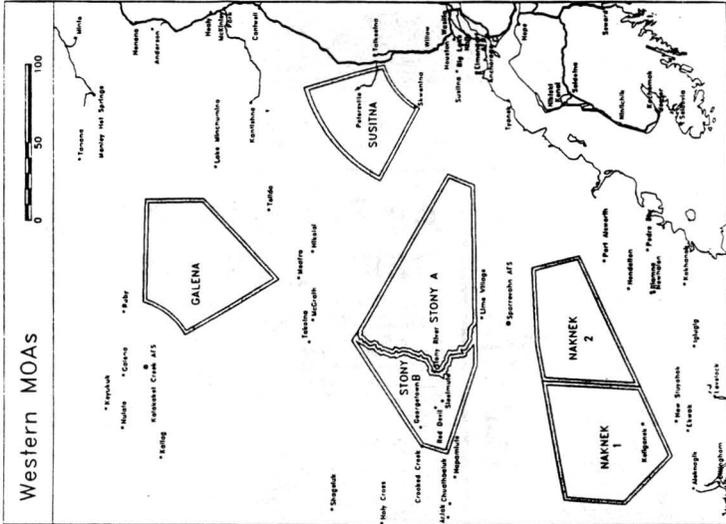
zone, flying by at about 1,500 feet, one mile from the river. "Neither of these looked like flagrant violations," Ambrose said. "It just looked like a mistake."

Increased training activity over the Charley River last summer sparked concern for the wildlife there, especially since the Air Force has switched from the slower, quieter A-10s to the supersonic F-16s.

The military also has moved the annual Cope Thunder exercise from the Philippines to Alaska this year, and in the process drew more fire from biologists. They fear the super-sonic rumble will startle the birds and cause them to knock their chicks from cliff-side nests.

The peregrine falcon, which nests and breeds in the bluffs along the Yukon and Charley rivers northwest of Eagle, has been listed as an endangered species since 1972. But since 1978, Ambrose said, the population has been growing.

Western MOAs



Mr. VENTO. You are welcome, and we will recess for a vote, maybe two votes, and then be back. I think we may have a final passage vote, too, we will see, but we will recess for a brief time. And we will hear Mr. Manning at that point, sir.

[Recess.]

Mr. VENTO. We are pleased to welcome Mr. Lindsey Manning, the chairman of the Shoshone-Paiute Tribes. Mr. Manning, your statement has been made part of the record. Please proceed.

STATEMENT OF LINDSEY MANNING

Mr. MANNING. Thank you, Chairman Vento. My name is Lindsey Manning. I have been elected chairman of the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation. My spiritual name is Eagle Soldier.

I am a Native American who practices traditional ways. Speaking to the Idaho Training Range, that is the place where we practice our religion. I am here to speak to the Native American concerns about H.R. 2080. I was here a couple of years ago, in 1992 testified, and I thank you for implementing some of that language into this new draft.

I have to ring the bell for people to hear. Traditional Native American people, most of us are not scientists or professors. But the bell I would like to ring is, as the pictures on the walls of this room show, that the Native American people have contributed to every fiber of the United States, and we are consistently being compromised for the good of the Nation. And I think that is the case that the Idaho Training Range goes through.

The Federal Government long ago sent the military out to protect the settlers from the American Indians. And as more settlers came, the military had to protect the Indians from the settlers. And now, we are here, the Indians are here to ask the Federal Government to protect us from the military. So we have made a full circle on that issue.

Mr. VENTO. To protect everybody.

Mr. MANNING. As the military is expected to protect us from foreign threats and attacks, Federal laws are placed to protect the human and the natural resources from unwise exploitation, such as NEPA and such as the Engle Act.

The issues of overflight and airspace, the Duck Valley Indian Reservation is in the Paradise MOA, and what is being proposed is a state-of-the-art training range in our part of the country which would entail flights over the Duck Valley Indian Reservation and encompass 3 million acres of southwest Idaho.

This will bring to us supersonic flights, sonic booms, chaff, flares, lasers, refueling, and so that points to a health issue.

In the long term, range impacts of a state-of-the-art electronic training range over and above and around the Duck Valley Indian Reservation, nobody can foresee what type of children we will have, what kind of future we will have in 100 years or 200 years. We have no place to go. We cannot relocate like everybody else or anybody else can in the United States, nor do we desire to relocate anywhere else.

I see that our Congressman LaRocco has entered the room, and I would like to state for the record again, it is in my testimony,

that we support the military and that we support the Mountain Home Air Force Base.

In the sacred lands issue, the religious freedom, I mentioned that we practice our religion. Religious freedom is one of the founding principles of this Nation. We would like our religious freedom protected, the graves, the southwest Idaho desert is our Mount Sinai, our Vatican.

In our religion we speak for the animals, we speak for the land and water because they have no voice that could be understood here.

We pray for all living things, Mother Earth because she has no voice that could be understood here. We like to say everything we see, everything we are and use comes from the Mother Earth. Everything in this room comes from the Mother Earth, the cars we drive, ourselves, we are 97 percent water, iron in our blood, calcium, zinc, everything that the earth is, we represent. So that is part of our religion, and that is what we pray to.

Man is not powerful enough to destroy Mother Earth. But he is powerful enough to destroy his ability to live upon her.

Drastic times call for drastic measures. That does not exist today. There is not a military threat against the United States. If there were, I believe we stated before that we would gladly give again everything that we have. We feel that there are adequate training ranges.

The proposed Idaho bombing range in this time of cutbacks and in the \$4 trillion national debt is supported by retiring Governor Andrus, to politicalize the Base Closure Commission, which is against the congressional intent of that commission, and it circumvents the Engle Act.

If it looks like a duck and walks like a duck, don't call it anything else. I thank you again for letting me testify.

[Prepared statement of Mr. Manning follows:]

**TESTIMONY OF LINDSEY MANNING, CHAIRMAN
SHOSHONE-PAIUTE TRIBES OF THE
DUCK VALLEY INDIAN RESERVATION**

**BEFORE
SUBCOMMITTEE ON PARKS, FORESTS AND PUBLIC LANDS
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES**

June 17, 1994

RE: H.R. 2080, THE MILITARY LAND REFORM AND REASSESSMENT ACT

Mr. Chairman and members of the Committee. My name is Lindsey Manning. I am Chairman of the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation which spans the border between Idaho and Nevada. I appreciate the opportunity to return and testify before the Committee again on this legislation. If you may recall, I testified in May of 1992 on H.R. 3564, the predecessor bill to H.R. 2080. I would like to thank you for including several of the recommendations I made at that time into H.R. 2080.

Today, I would like to propose two additional amendments to the proposed legislation. The Duck Valley Indian Reservation is facing two serious problems as a result of inappropriate encroachment by the military on our lands and on our lives. Before I discuss these problems, however, I would like to make it clear that we strongly support our military in general and, specifically, the Mountain Home Air Force base which is located 100 miles north of our reservation. We are a warrior people and our boys have served and died in the armed services of this country in numbers that are far greater than our proportion in the population as a whole. However, when inappropriate action by the military harms our babies and threatens to destroy our religion, we must speak up and ask Congress to take steps to remedy these problems.

The two problems I would like to discuss today are military overflights and the threats being posed to our sacred religious sites by the proposed Idaho Training Range. Our first problem is overflights by military planes from Mountain Home Air Force base, from aircraft carriers in the Pacific Ocean, and even from Canada. Our small reservation, and particularly our tiny little community of Owyhee, has become a favorite "target" for military planes. The military planes fly over the reservation at altitudes of only a few hundred feet above the ground. They break the sound barriers; they drop flares and chaff; and, they engage in dogfights right above our heads. These activities scare our children, wake our babies from sound sleep, upset patients in our hospital and generally disturb the peace on our reservation.

The reservation the United States government put us on does not have much in the way of material benefits. It has no oil and gas. It is not a great place for farming. There is no industry nearby to employ our people. But we like it because it offers us the peace and quiet that enables us to pursue the lives our tradition has taught us. That is now being taken away from us by the military.

The FY 94 Senate Defense Appropriations Report contained language asking the Air Force to work with us to reduce the number of overflights. I am pleased to say that General McCloud from Mountain Home has been a very honorable person. He has worked with us, and to the best of his ability, he has been able to reduce the problem. But the problem has not gone away and we are not convinced that we will be so fortunate if another general is put in charge. We believe the problem is one that needs to be addressed by legislation and should not be dependent upon the good will of one general.

For this reason, we urge that language be included in H.R. 2080 that completely prohibits military aircraft zones or areas in the airspace within a 25 mile radius of any community, school, hospital, church or any other public building on an Indian reservation. We believe that the consultation provisions in Section 4 of H.R. 2080 are fine for uninhabited areas. However, for areas where people live, work, go to school and pray, zones or areas for military aircraft activity have no place whatsoever. You would not tolerate it over your children's school or your house. There is no reason why we should have to put up with it over ours.

The second problem I would like to address today is the proposed Idaho Training Range, or ITR. The Idaho Training Range is a bombing range which the Air Force and the State of Idaho are proposing to build in southwest Idaho. The proposed site for the range is just a short distance from our reservation. But more importantly, it is located on land to which we still have aboriginal title, and it is on land that is the location of our most sacred religious sites.

If the bombing range is built, we will be unable to worship the Creator in the way we have been taught and in the way our people have worshiped for several thousand years. Our tradition teaches us that if we are unable to conduct our ceremonies at these sites, we will disappear spiritually as a people. These are not portable buildings that can be moved elsewhere. These are special places in the earth that the Creator gave to us as the place that we are to use to worship Him.

There is a sad irony to the proposal to place a bombing range at this site. In the 1860's, gold was discovered in Idaho and suddenly our lands were overrun with non-Indians. When we tried to protect our lands, we were called savages. The local Idaho government determined that there was only one solution --

the total extermination of our people. To accomplish this, they offered a bounty for the scalps of our people -- \$100 for a male scalp, \$50 for a woman's scalp and \$25 for a child's scalp. This was nothing less than a calculated plan for genocide.

A calvary was formed by the local citizenry to collect on these bounties. They rode out into the area that is the proposed location of the ITR and found our people camped at one of the religious sites I referred to. They caught the women and children at a camp below one of our sacred mesas while the men were up on top of the mesa performing their religious responsibilities. Fortunately, the men were able to keep the calvary at bay until nightfall, when the women and children were able to escape in the dark. Otherwise, we would have lost all of our women and children.

Today we are again being threatened by the military. In the 1860's, we were threatened physically; today, we are being threatened spiritually with the proposed destruction of our religion.

I know that the issue before this Committee today is public lands, not Indian religion. However, the approach the Air Force is taking to establish the proposed bombing range is a blatant attempt to circumvent one of the laws being strengthened by H.R. 2080.

As you know, the Engle Act requires Congressional approval before more than 5000 acres of public lands can be withdrawn for military purposes. The Air Force knows that Congress is unlikely to approve the bombing range. Not only will this 25,000 acre proposed bombing range on land now controlled by the Bureau of Land Management destroy our religion, it also will destroy the largest herd of big horn sheep used for replanting throughout the country, a huge herd of pronghorn antelope, and scenic rivers and untouched high desert, some of which is proposed for wilderness designation. To circumvent the Engle Act, the Air Force is proposing to have the state of Idaho obtain the land through a land exchange, build a bombing range for its Air National Guard (with Federal dollars), and then lease it to the Air Force. One of the most absurd aspects of this charade is the fact that the Idaho Air National Guard soon will have no bombers -- only air transports. So, the Idaho Air National Guard will have no need for a bombing range at all.

The Air Force will argue that this is not an Engle Act problem because there is no loss of public lands. While 25,000 acres will be given to the State for military purposes, BLM will be getting land in exchange, so the purposes of the Act are not being undermined. This is too narrow a reading of the Engle Act, which is intended to do more than just protect public lands. One of the major purposes of the Engle Act is to impose some

discipline on the military's insatiable thirst for land. What this committee stated back in 1957 is true again today:

The spiraling demand by the military for multimillion acre training, gunnery, rocketry and bombing ranges, and for testing of missiles and pilotless aircraft had -- in mid-1955, in the view of the committee -- reached a point where a detailed re-examination of the policies and procedures for managing areas held, and justifying additional holdings, was clearly indicated.

In fact, the genesis of the Engle Act was an inquiry by Congressman Engle "to determine whether all of these public military reservations are needed and used, and whether or not it wouldn't be possible for the services to make joint use of some of these facilities, thereby limiting their area and number".

I wish to point out to the Committee that the Air Force has never conducted a study to determine if existing bombing ranges could serve the functions intended for the ITR. Instead, as was the case 40 years ago, they would prefer to increase the empire, notwithstanding the huge potential costs this creates for the United States in the operation and clean-up of these lands.

A second major goal of the Act was to return to Congress the authority to create new military reservations. As Congressman Engle stated during the floor debate on the bill:

[W]hat this bill does, in effect, is to repeal the implied grant of power under which the Department of Defense for a great many years has undertaken to slice out without any restraint or restriction whatever -- and really on their own say-so because nobody in these other agencies ever argues or disputes a matter of military necessity -- and restore that power to the Congress where it belongs and where it is vested by the Constitution of the United States.

If the loophole the Air Force is proposing to use to obtain the ITR is permitted to stand, both of these goals of the Engle Act will be undermined. The Executive branch, -- the military and the Department of the Interior, with cooperation from state governments under severe pressure to hold on to their military bases -- will be able to vastly expand the military's land holdings without any involvement by Congress. Military land acquisitions will again be undisciplined and Congress will again be standing on the sidelines.

Also, this cannot be viewed as simply another land exchange. The authors of the Engle Act recognized, and this situation starkly demonstrates, that the use of land for military purposes is different and more destructive than other uses. In the case of the ITR, the Bureau of Land Management would not just be

giving up the 25,000 acres. The ITR would effectively destroy or severely limit the use of all of the surrounding area as well, thereby destroying one of the largest undisturbed areas of high desert left in the country.

Also, in this case, in return for giving up a solid block of pristine land, BLM will be getting hundreds of tiny pieces of state land scattered throughout the state. This kind of exchange is not in the best interest of animals, plants and human beings who find it increasingly difficult to find places to retreat to feel the special voices of nature and the land that my ancestors listened to and learned from.

Based on this analysis, it may be that the loophole is in the Engle Act; or it may be in the land exchange provisions of the public lands laws. Either way, we believe new legislative language is needed to prohibit land exchanges when the Secretary of the Interior has reason to believe that the exchanged lands will be used for military purposes upon completion of the exchange.

Mr. Chairman, 130 years ago, our people were able to avoid extermination because we knew the terrain better than our enemies. Today, we are forced to fight on a battlefield that those seeking to destroy know much better than we -- the halls of Congress, the loopholes in the laws, the politics in the White House. I do not know whether the approach I have proposed is the right one. I do not know whether it is appropriate for this bill. I do know, however, what will happen if we fail. I therefore ask for your help in finding a way to stop this effort to exterminate my people's religion and to destroy beautiful lands that have remained pure and pristine for millions of years. If the approach I have suggested is not the right strategy on this battlefield, please help us develop a better strategy. But, please help us stop an action that is clearly wrong.

Thank you for this opportunity to testify today.

Mr. VENTO. Well, thank you for your testimony, Chairman Manning. We appreciate your concerns with the legislation.

Well, we heard from the Department of Defense and the Interior Department and the Forest Service. They are three of the stewards of the public lands. Of course, the Department of Defense, which is a principal subject of this proposed legislation, obviously talked to some of the points of the legislation, but by and large does not see a big problem, that they have things now with the consultation process and perhaps some better research, some better science, and they are going to have this on track.

They are making an effort, and I commend Sherri Wasserman Goodman. I know that she had in fact tried to reach out to even the witnesses this week that were in town, which was convenient, and I take that as a positive step on the Deputy Under Secretary's part to in fact try to listen and respond to some of the concerns, such as the EA statement that you talked about with regards to Alaska. I think that is the up-close reality of how the system works in terms of what is happening with regards to EAs and the lack of EISs and the lack of public comment.

It is interesting that the Department of Defense by and large is one of the few Federal departments that doesn't assure public comment on each of the EAs that they do. I don't know for certain if they permit it on some and not others, but certainly with regards to airspace reservations.

So they are spending some dollars and going through the process. The question is, and I asked this of the agencies which are land management, of course there are many private lands on this, there are conflicting interests with public land use, such as the Native American issue with the religious freedom and the right to exercise religious activities on public lands, even in parks and other conservation lands. So that is important.

We have already heard there is a problem. There is a problem. There is a serious problem here with regards to this. And the question is, Is it going to inconvenience or is it going to eliminate the ability of the military to carry out its mission if we required the Congress, the United States Congress, to have six months notice about new airspace allocations?

It is interesting that was referred to as the bureaucratic problem when they had to notify us, but the fact is that they have to work with the FAA and they have to work with the BLM, so this is a new definition of a bureaucratic problem.

Notifying Congress all of a sudden is a bureaucratic problem, but the other types of activities that go on are not bureaucratic problems, apparently, or maybe they are, too, so perhaps we are just more bureaucrats is the point. I thought we were policymakers.

I was listening, Chairman Manning, as you were describing the relationship between the United States military, historically, how it has changed from protecting the settlers to protecting the Native Americans. Now they need protection for everyone.

That is sort of the description of law. Laws are instituted by our Constitution and by design to protect or define what the relationship is between the government and the people that are governed. I think I heard that someplace before. It has a familiar ring.

I expect one of the messages that comes out of the last panel is that the agencies want all the flexibility they can get, and they want Congress not to write new rules because those are a bureaucratic problem. Do we need new laws in this particular area? Or do you think problems can be solved administratively, with the right attitude, and now the right, obviously, Deputy Under Secretary. For the first time, a Deputy Under Secretary of Environmental Security, and I should have mentioned and commended the administration and Sherri Goodman for the role that she is playing when I introduced her, but I did not, but let the record show that that is my view, and the intent.

But do we need laws, Mr. Carroll, in this area or not, and why?

Admiral CARROLL. Absolutely, Mr. Chairman. What is the old dictum, where you stand depends on where you sit. The military sits on top of a lot of money and a lot of equipment and a lot of future opportunity that they want to protect.

And so they will see the problem from their own viewpoint and with their own requirements given first priority, if not total priority.

And therefore they can come up with some contrived rationale that because we now call this the 366th Air Interdiction Composite Wing, and we didn't ever have one of those before, we have new training requirements. We need new ranges and new airspace and new training routes.

That is just not true. It has to be submitted as a request and evaluated under an objective procedure with the opportunity for the democratic process to work, for people to be heard, and certainly your bill is, I think, structuring that process much more formally and effectively than has been done.

Let me give you a brief anecdote. The Air Force was going to put the MX missile into the Nevada/Utah deserts in, what do they call that thing, the racetrack mode. They actually hired contractors, the science applications, incorporated organization, to go out into Nevada and, using taxpayers' money, sell this idea to the taxpayers.

They were holding town meetings and explaining how good it was going to be for the people of Nevada to have this racetrack in their backyard.

I object as a taxpayer to them using my money to sell to the American people an idea that really needed extreme scrutiny and evaluation under a procedure such as your bill.

Mr. VENTO. That is sort of a marketing type of activity. It is sort of an extreme example of contracting out, somehow that we don't need just the departments and agencies and the personnel in the departments, but you need to market.

In fact, there are laws that we have that say you cannot use appropriated dollars to lobby. That is the law. The agencies and departments may not use appropriated dollars to lobby. And so they are involved in, ostensibly, an objective representation of the facts—a factual representation. I think the real question is, in our society today, what type of facilitation do we need to establish the dialogue?

One of the things the administration has been most involved in is a number of local activities. They have talked about ecosystem management. You have heard that phrase today, again. When we

talk about that, we have to keep in mind, of course, that is a cognitive construct, ecosystem management.

It really only exists in our heads and it is a way of dealing with facts and relating them to a management process.

But in this process, Secretary Babbitt has been foremost in setting up within the Pacific Northwest something called adaptive management areas. These bring together citizens, agencies, the State level, and the professional management of the Forest Service or the BLM, as the case may be.

The same is of course true with regards to other activities in public lands. In fact, there is quite a controversial proposal like that eliminating the grazing boards and setting up something like that at the local level, which hasn't yet materialized. It was developed in conjunction with Governor Romer's model in Colorado.

But the truth is, what about the local boards and the local groups when it comes to these types of activities that are taking place over public lands? These other extraordinary activities?

We keep talking about the growing military mission and the need for more airspace, but the globe isn't growing as such. In fact, it is shrinking. So the complexity and the challenge here to all of us who make public policy or are involved in utilizing resources like airspace and flights over public lands or over private lands is how do you reconcile that system to a process that will in fact result in communication?

Is it the sort of statement, this paper you get out of Alaska concerning this, Grace?

Ms. BUKOWSKI. Well, I mean, it is a statement, and the problem is there. It seems to me—and going back to your other question—until there is some sort of regulation of it, perhaps through this bill, or even a change in the CQ regs that mandate public participation, right now CQ regs say that for EAs there have to be diligent efforts made.

That is something that I think could be changed, that there has to be public participation.

I would also like to comment on the 180 days. It seems to me that the Pentagon would be real happy with 180 days.

Mr. VENTO. I kind of felt like I held out the olive branch and got caught.

Ms. BUKOWSKI. Face it, the FAA is notorious for taking years to do things. One hundred eighty days is—

Mr. VENTO. It is a "bureaucratic problem."

Ms. BUKOWSKI. I mean, look at Idaho, we have been working on Idaho for five years. I look at Nevada. There have been airspace proposals on the books for years that are still sort of dangling out there and nothing's happened with it.

So those objections in my mind simply don't hold water.

Mr. VENTO. I couldn't understand the objection. I expect if you could put it at the first instance, you could submit the recommendation when they start the process to Congress.

But I thought that it probably was more prudent because as they go through these, they may evolve or slightly change or vary. If there is a problem with minor changes as regards this area at some level, we could probably make exceptions.

But the idea is to put Congress on notice, not to approve it, obviously if we were approving each one of these airspace reservations, that would be another matter, and I think that would be of concern. But if you receive some notice, you have a controversial proposal—it also serves as a note of some finality to what is an evolving process, a moving target, and it makes and I think forces them to do that.

That may be the basic problem, that they can't micromanage this right down to the last day to suggest they may have taken care of problems or not.

So it forces some deadline, some decision made, some finality. That may be uncomfortable and cause some anxiety, but our job in life is not to alleviate anxiety in bureaucrats, but to bring some resolution and some focus on them, which they apparently feel is inconvenient and would fundamentally disrupt the entire training of pilots.

None of us want to do that. We want to have adequate training, but it has to be done in the context of other values and other concerns. Mr. LaRocco has been very patient listening to me, so I will yield to him so he can question his constituent.

Mr. LAROCO. Thank you, Mr. Chairman. I welcome, of course, all the witnesses to this important hearing.

Chairman Manning, I apologize for being a little late for your opening. I appreciate the role that you have been playing to come to some resolution on a very, very critical issue in Idaho.

Where do you think we ought to head from here, Mr. Chairman?

Mr. MANNING. Well, you know, Congressman, there are two ways I can answer that. One is not in my backyard, you know, like everybody else, the NIMBY thing.

The other part in my feeling is that there are adequate training ranges available, and the way it is written now is unacceptable, the Idaho Training Range proposal.

Mr. LAROCO. Have you supported the expanded Saylor Creek Range that was the original BLM proposal, I believe? Have you signed off on anything in that regard, or to take out the north training range?

Mr. MANNING. No, we haven't signed off on anything. We have heard talk of a mini-training range or maybe an expansion of the existing Saylor Creek Range. In meeting with General McCloud and him diverting craft away from us, it is on the principle that we want it to be the Bermuda Rectangle of the Paradise MOA. But I don't know. I would have to see. The Saylor Creek expansion, I know it was listed as one of the alternatives during the draft EIS stage, but I don't know to what dimension or how far along they are looking to that.

But what I speak to is that the council, the business council, the tribal council I represent would have to tell me what to tell you on that.

Mr. LAROCO. Well, thank you very much. We will have to await the preferred alternative. I am not certain whether this will end up in court. I assume the tribe will have that option.

Mr. MANNING. Right. The tribe is prepared right now to enter into an Engle Act lawsuit should the ROD, you know, be opposed to what we feel it should be.

Mr. VENTO. If the gentleman will yield, it has come to my attention that Chairman Manning and the Shoshone-Paiute Tribes have notified Secretary Babbitt there will be a court challenge if the Idaho land exchange goes ahead. Is that correct, Mr. Manning?

Mr. MANNING. That is correct, Mr. Chairman.

Mr. VENTO. The basis for that is obviously the freedom of right to exercise and practice your religious faith and the Engle Act issue; is that correct?

Mr. MANNING. Yes, it is, and there is also another issue that we notified the Secretary of the Interior on, is that the area in question was ceded by our people by the signing of the people of Bruneau Valley.

The Bruneau Valley treaty was signed in 1856, in the same year our people were attacked out in that desert. But by that treaty, we ceded that land to the United States Government for use in mining. And the treaty was scuttled by the citizenry of the Idaho territory because it gave us too much. They felt it was too generous to the Indians. So by the time it hit here to the Senate, it was scuttled and it was never ratified.

So we informed the Secretary of the Interior that because the land was not properly ceded to the United States, and if we still are proclaiming title, and we oppose the land exchange for military purposes based back to that. So that was one of the things—

Mr. VENTO. That sounds like a Supreme Court case to me. It sounds like a long one. I suppose that sort of bureaucratic issue will have to be put up with insofar as it is a matter, I suppose it could be explained away that way. I might comment that my staff points out that of course it was the Seiberling subcommittee in the Congress that took the lead in trying to seek an Engle Act withdrawal for those sites that Grace Bukowski referred to and played a major role in the final demise of the MX project.

But it is just such land use process of withdrawals that occupies at least 5,000 acres. We are discussing today whether that should be increased. I think it was the testimony of the Department of Defense, especially in regards to National Guard projects, probably also with an eye on projects or withdrawals for themselves, small withdrawals could come under a 10,000-acre ceiling.

It is sort of an oxymoron. The point is, though, it is clear that some of the impacts here, even though they may not constitute 5,000 acres in an individual area, could have such an impact that they could or should be brought under review and authorized by the Congress, and that perhaps acreage isn't the only consideration that ought to take place.

And that really constitutes the issue here with regards to airspace, some is over public, some is over private, how do you get a handle on it without trying to reinvent the FAA?

I suppose if the FAA had put in procedures or some procedures that we could find would dovetail with public policy in terms of role, that would be what is ideal for these reservations of airspace, these large reservations for the military.

But that doesn't exist today. It isn't really a solution so much as it is a fail-safe. If all other processes fail, if it has a significant impact, this doesn't happen.

One of the things I find constituents get frustrated with is that decisions seem to be able to be made, and somehow nobody has had anything to do with it, not the Congressman from Minnesota, not the Congressman from Idaho, not the President.

In other words, it is sort of relegated that things just happen and nobody is responsible.

And if you are for something, you ought to be willing to stand up for it, or against it, if you don't favor it. And I think the frustration of the public often is that these decisions seem to be made and relegated to someone else.

There are all sorts of machinations to invent political issues here, but the fact of the matter is there are enough real decisions to be made so that we don't need to invent problems.

We have quite enough that are relevant to the conduct of public law and policy that could and should fill what apparently is a void filled with other issues that are invented for the purpose of political digestion or indigestion, as the case may be.

Does the gentleman have a further question on digestion or indigestion?

Mr. LAROCO. Speaking of lunch, Mr. Chairman. The problem that Chairman Manning mentioned about things dying in the Senate just points out that nothing has changed, at least between the bodies here in Congress.

We are still dealing with those things, Chairman Manning, although the issue you raise is certainly an important matter.

Chairman Manning made a point about supporting the Air Force Base and Composite Wing. I testified at the Base Closure Commission in favor of it. It is important to the structure of the United States and the Composite Wing makes sense to me.

Now, we go to the second tier, once the Composite Wing is established here, and we are now dealing with this issue in Idaho, all of which I might add, Mr. Chairman, is in my district. The whole proposed expanded training range is in my district.

And I get a bit frustrated in dealing with it. I didn't testify, but I submitted comments to the DEIS, something I don't normally do, but it was the only vehicle I could use at that time.

I had a question for Admiral Carroll, regarding the CDI, if I could get you to just give us a few sentences on the CDI, the genesis of that and how such distinguished military members such as yourself and Admiral LaRocque established it and the purpose of it.

Admiral CARROLL. Admiral LaRocque founded the Center for Defense Information in 1972, based on the perception he had that the American people were not having a voice in the policies and actions in Vietnam. Really it grew out of Vietnam, and the long period of misleading the American people about what was going on there.

He saw the Center performing the role of informed and responsible critic of waste and excess in the military and policies which resulted in increased risk award. These are really the two areas that we work on.

How do we hold the spending within appropriate limits for an adequate defense and how do we adopt policies which we think reduce the risk of war? We see an over-militarization of U.S. foreign policy, for example.

Our first response all too often is, where are the carriers, can we send mobile wing or something.

So we have continued to exercise the role now for 22 years of responsible and informed critic offering appraisals and alternatives for national security.

Mr. LAROCO. I appreciate that. I think we have created a bit of a dilemma. The Base Closure Commission, I think, is a good vehicle, and maybe you would agree or disagree with that.

Now, as we look forward to the future rounds, I think those of us out in the States where these installations exist, obviously a lot of us, you know, don't want to lose those installations, so what you tend to do is you want to make that bulletproof, no pun intended.

You want to make sure you are doing everything to support that installation. You are going overboard, you want to show the Commission that they are supported at the local level, the community supports it, and the delegation is in agreement.

But it tends to get to the point where you say, here is a blank check. You are saying that we should have limits and we shouldn't go overboard in some of these things. And I am finding myself in that dilemma.

I raised some of the issues you raised in your cogent statement here about the existing ranges. Now, I have not flown low-level missions, although I am the only veteran in the Idaho congressional delegation. I have served in the military, but I don't have that low level at the stick or whatever experience. But I am just trying to raise common sense issues here.

And believe me, people are pointing their fingers at me and saying, you know what the accusations are going to be, he is soft on defense, you know? He is soft. He doesn't stick up for our military. He is not protecting those pilots who are going to go in combat when he and the Congress and the Commander in Chief sends them.

So this is a tremendous dilemma for us, Admiral.

Admiral CARROLL. You will prevent them from investing all of this time and money and resources into continuing the concept of low-level attack tactics.

For 25 years now we have been losing pilots because we send them down too low to attack targets. The fact is it is kind of a budget builder. If you have 4.5 hours a month of low-level flight time in the syllabus, you ask Congress for another 52 hours of flight time per pilot per year.

It simply is not a valid military tactic any longer. The way to attack targets is quite different from getting down on the ground and hitting them with rocks, which is more or less what you are doing when you drop bombs off of airplanes at 100 feet.

I sympathize with you because we get the same problem at the Center when we say this is not right, there is a better way to do it. It is, oh, well, you are soft on defense, you are against the military.

Mr. LAROCO. You are retired, you must—

Admiral CARROLL. Not so. We are for the military. We are for a sound national defense program. We are for not wasting money on unneeded training facilities at Mountain Home or OIE.

I can go over the details of training missions with you, but let me just give you this anecdote.

There is a target just a few miles from Jacksonville, Florida, called Stevens Lake, very convenient, sort of like Owyhee would be with Mountain Home. But in order to attack Stevens Lake, I often-times flew to Alabama or Tennessee or Georgia someplace, and then circled around and completed my mission at Stevens Lake.

That is what the Composite Wing is going to be doing. It has got to take off, fly profile, rendezvous with other aircraft, refuel, split into strike elements, get the spatial and the timing established, and hit the target.

So you don't have to be smack bang up against Owyhee at Mountain Home in order to get effective training at those ranges that already exist.

Mr. LAROCCO. As a matter of fact, the present range is already the host to transient fighter pilots or training missions that come in there.

Admiral CARROLL. That is right. They will be coming from some base in Michigan or Arizona.

Mr. LAROCCO. Well, I requested some information from the Air Force with regard to the cost-benefit analysis of using the existing ranges in Nevada and Utah, and I got seven paragraphs—got seven sentences.

Admiral CARROLL. I think they told you they would save more than 3,000 hours of flight time per year that would be wasted in simply transiting to and from the existing facilities.

If they are so unimaginative and their planning is so poor that they can't use this time and space for effective training getting to the range, then they are not doing a very good job organizing their training, I don't think.

Mr. LAROCCO. Well, I am trying to raise these questions, and I thought the DEIS was deficient in that regard, Admiral. You have raised some interesting questions here yourself. I appreciate that.

One final question, because I notice down at the bottom of your letterhead here, there is nobody from the Air Force. This is an interservice rivalry?

Admiral CARROLL. We have got General Jack Kidd, retired, U.S. Air Force. He just doesn't show on our masthead. He is a consultant to us.

Mr. LAROCCO. He would agree with your testimony today?

Admiral CARROLL. Yes, sir. He would and happy to come up and testify himself.

Mr. LAROCCO. Well, thank you very much. I don't have any questions for Ms. Bukowski. Thank you for testifying. And Chairman Manning, thank you for coming all the way back to DC. It is good to see you.

Mr. VENTO. One thing is evident. If there are air reservations and activities going on, the fact that they would have to prepare and submit something to Congress at the conclusion of it, obviously means the preparation activity will be maybe more carefully examined by Congress for shortfalls or inconsistencies or the lack of public input.

That, of course, would have a reverse effect in terms of some of the things that went on to make certain it wasn't this rubber-

stamp process that is being applied. And I am certain that that is not the intent of the policymakers that were before us on the first panel, but that is the reality today.

And obviously with regards to Idaho there is considerable conflict and contradiction with regards to land withdrawals and airspace reservations and other types of problems in those areas in the West.

But there is no systematic process. The process today is an ad hoc process really, relying upon other laws. We wonder why sometimes certain laws fail. And they fail and you end up back-loading a lot of other things in it that are not accomplishable to what you are trying to accomplish.

And the real purpose there, it is like the Endangered Species Act. We say you don't have to worry about this or that because the Endangered Species Act will stop that particular activity.

What happens then is you finally end up putting it all on the Endangered Species Act, there is some other law like the NEPA process when in essence you really need to directly address that in a different way.

Maybe NEPA isn't the appropriate process in terms of this instance. Maybe we need a process where people come forward and talk about what the impacts are from a human standpoint, in terms of their own experience or what they want and what they think is necessary, not that we have to demonstrate beyond a shadow of a doubt that this has an adverse effect upon amphibians or pronghorn antelope or the wildlife, which apparently now is coming out and probably can demonstrate some effect on migratory types of species.

But the problem is that it is an indication to me that something isn't working here when we begin to try to rely on other laws in order for individuals to be able to voice their concern.

The Engle Act or some of the others are not perfect, they are not the law of science, which hasn't changed too much. They need improvement.

Well, I appreciate very much this panel's effort, especially Grace Bukowski and Admiral Carroll and Lindsey Manning, Chairman. Thank you.

PANEL CONSISTING OF DALE AHLQUIST, DIRECTOR, NATIONAL AIRSPACE COALITION, CUSTER COUNTY ACTION COMMITTEE; DAVID DEXTER, FOUNDATION FOR NORTH AMERICAN WILD SHEEP; AND PHILIP H. VOORHEES, WASHINGTON REPRESENTATIVE NATIONAL PARKS AND CONSERVATION ASSOCIATION [NPCA]

Mr. VENTO. We have panel three here, Dale Ahlquist, the Custer County Action Committee; Mr. David Dexter, Foundation for North American Wild Sheep; and Phil Voorhees, the National Parks and Conservation Association.

We are pleased to welcome them this morning.

Your statements have been made a part of the record. We are going to have to conclude this hearing in about 30, 40 minutes, so we are going to ask you, all of you, to summarize your statements in five minutes or less so that I can do that. And I would appreciate your cooperation.

Mr. Ahlquist.

STATEMENT OF DALE AHLQUIST

Mr. AHLQUIST. Thank you, Mr. Chairman. My statement is less than five minutes.

First of all, Mr. Chairman, I want to commend you for sponsoring this legislation and for recognizing the growing problem of the military's expansion of airspace.

My name is Dale Ahlquist. I am the director of a newly-formed organization called the National Airspace Coalition. I have visited with people from all around the country whose lives have been disrupted by military overflights.

What has struck me is how similar their stories are and how they felt absolutely powerless to do anything about it.

What I fail to understand is that in this time of belt tightening and cutbacks, why is the military expanding its training space, creating new military operations areas and MTRs, and enlarging existing ones in at least 40 locations around the country? This grab of airspace is unprecedented and unwarranted.

The most significant problem has to do with low-altitude training. Low-flying jets are unbearably loud, and the experience of being buzzed by one is absolutely unnerving. The sound of an F-16 can reach 133 decibels, past the tolerable level of pain for the human ear.

Military officials acknowledge this, and their standard comment is, sure, it is unpleasant, but it doesn't last long. Well, the same could be said of having your head chopped off.

There are a number of medical studies demonstrating this kind of noise is hazardous both to human and animal health, causing stress, headaches, sleep interruption and deprivation, hypertension, and adverse psychological effects as well.

Mr. Chairman, I have attached to my statement an annotated bibliography on the medical effects of environmental noise.

In addition to noise pollution, these jets dump tons of emissions into the air, they dump excess unburnt fuel, they dump chaff and flares. And the gravest threat of all is the possibility of a crash, since low flying of this sort is extremely dangerous.

In spite of their safety records, four F-16s have crashed in the last six months, including a crash just this week in Colorado, only a half a mile from a residential area.

I have been especially involved with the proposed LaVeta MOA in south central Colorado. This MOA is situated over two national forests and two national wilderness areas. It took 13 years to get the Colorado Wilderness Act passed, and all that effort to protect a peaceful and pristine wilderness area will be wasted if we let F-16s roar over those mountains and through those valleys.

The Air National Guard has never justified its need to train in this area; the public is strongly opposed to it; and even Governor Roy Romer and Congressman Scott McInnis have gone on record against it. Yet the Guard proceeds with its plans.

Like so many other places affected by MOAs, this is a remote and economically depressed area that relies heavily on tourist industry, second-property owners, ranches and hunters, the very

groups which are most adversely impacted by low-flying military jets.

People come to the Wet Mountain Valley for peace and quiet. Take away the peace and quiet, they no longer have any reason to come.

The military simply does not need any additional airspace. I would like to point out that your committee report from 1992 notes that there are over 800 places in the United States for low-altitude training, which encompass 1 million square miles.

The old arguments about maintaining our readiness and improving our defense cannot possibly be sustained in light of that figure. Giving the military more places to fly low is bad for everybody. It is bad for ranchers, it is bad for backpackers, it is bad for the environment and for local economies. And it is even bad for the military.

Besides creating public ill will by the unnecessary expansion of its airspace, the military risks diminishing one of its most important characteristics. And I am referring to discipline. Pilots train better when they have more restrictions.

But giving them more mountains and more valleys to swoop down on is to give them too many opportunities to fly low in a wide open and all out, undisciplined manner. I have spoken with jet fighter pilots.

They have told me that the opportunity to fly low is irresistible and any time it is permissible, they will take advantage of it.

Congress has to start taking control because the military has not demonstrated the ability to control itself. Your bill, Mr. Chairman, is an important step in the right direction.

Mr. VENTO. Thank you.

[The prepared statement of Mr. Ahlquist and attachment follow:]

STATEMENT OF

MR. DALE AHLQUIST
ON BEHALF OF THE NATIONAL AIRSPACE COALITION,
THE CUSTER COUNTY ACTION ASSOCIATION (COLORADO),
AND TOM REDMOND (WOLF SPRINGS RANCH)

BEFORE THE
HOUSE NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON NATIONAL PARKS,
FORESTS, AND PUBLIC LANDS

H. R. 2080, MILITARY LAND REFORM
AND REASSESSMENT ACT

JUNE 17, 1994

Mr. Chairman, first of all, I want to commend you for sponsoring this legislation and for recognizing the growing problem of the military's expansion of airspace. My name is Dale Ahlquist, and I am the director of a newly formed organization called the National Airspace Coalition. I've visited with people from all around the country whose lives have been disrupted by military overflights. What has struck me is how similar their stories are and how they have felt absolutely powerless to do anything about it.

What I fail to understand is that in this time of belt-tightening and cutbacks, why is the military expanding its training space, creating new Military Operations Areas and Military Training Routes and enlarging existing ones in at least 40 locations around the country? This grab of airspace is unprecedented and unwarranted.

The most significant problem has to do with low-altitude training. Low-flying jets are unbearably loud, and the experience of being "buzzed" by one is absolutely unnerving. The sound of a F-16 can reach 133 decibels, past the tolerable level of pain for the human ear. Military officials acknowledge this, and their standard comment is: "Sure, it's unpleasant, but it doesn't last long." Well, the same could be said of having your head chopped off.

There are a number of medical studies demonstrating that this kind of noise is hazardous both to human and animal health, causing stress, headaches, sleep interruption and deprivation, hypertension, and adverse psychological effects as well. In addition to noise pollution, these jets dump tons of emissions into the air, they dump excess unburnt fuel, they dump chaff and flares. And the gravest threat of all is the possibility of a crash, since low-flying is extremely dangerous. In spite of their safety records, four F-16s have crashed in the last six months, including a crash just this week in Colorado, only a half a mile from a residential area.

I have been especially involved with the proposed LaVeta MOA in south central Colorado. This MOA is situated over two national forests and two national wilderness areas. It took 13 years to get the Colorado Wilderness Act passed, and all that effort to protect a peaceful and pristine wilderness area will be wasted if we let F-16s roar over those mountains and through those valleys. The Air National Guard has never justified its need to train in this area, the public is strongly opposed to it, even Gov. Roy Romer and Congressman Scott McInnis have gone on record against it, and yet the Guard proceeds with its plans. Like so many other places affected by MOAs, this is a remote and economically depressed area that relies heavily on the tourist industry, second-property owners, ranches and hunters; the very groups which are most adversely impacted by low-flying military jets. People come to the Wet Mountain Valley for peace and quiet. You take away the peace and quiet; they no longer have any reason to come.

The military simply does not need any additional airspace. I would like to point out that your Committee Report notes that there are already over 800 places in the United States for low altitude training. The old arguments about maintaining our readiness and improving our defense cannot possibly be sustained in light of that figure. Giving the military more places to fly low is bad for everybody: it's bad for ranchers, it's bad for backpackers, it's bad for the environment and for local economies. And it's even bad for the military. Besides creating public ill will by the unnecessary expansion of its airspace, the military risks diminishing one of its most important characteristics. I'm referring to discipline. Pilots train better when they have more restrictions. But giving them more

mountains and valleys to swoop down on is to give them too many opportunities to fly low in a wide-open and all-out, undisciplined manner. I've spoken with jet pilots, and they've told me that the opportunity to fly low is irresistible, and anytime it's possible, they'll take advantage of it.

Congress has got to start taking control because the military has not demonstrated the ability to control itself. Your bill, Mr. Chairman, is an important step in the right direction.

(Attached hereto and submitted for the record is a list of the individuals and organizations opposing the LaVeta MOA in Colorado, and an annotated bibliography on the Medical Effects of Environmental Noise.)

**LIST OF INDIVIDUALS AND ORGANIZATIONS OPPOSING
THE LA VETA MOA AND THE AIRBURST MOA
OF THE COLORADO AIRSPACE INITIATIVE**

POLITICAL LEADERS

Gov. Roy Romer
U.S. Congressman Scott McInnis
State Senator Linda Powers
State Rep. Robert Shoemaker
State Rep. Ken Chlouber
State Rep. Mike Salaz
Custer County Commissioners
Huerfano County Commissioners
Saguache County Commissioners
Pueblo County Commissioners
Fremont County Commissioners
Costilla County Commissioners
Chaffee County Commissioners
Town Council of Westcliffe
Town Council of Silver Cliff
Town Council of Rye
Town Council of Crestone
Town Council of Moffat
Town Council of Florence
Town Council of Canon City
Town Council of La Veta

WILDERNESS GROUPS

Colorado Environmental Coalition, State of Colorado
Sierra Club of southern Colorado
Audubon Society of southern Colorado
Co-PIRG of southern Colorado
Mission Wolf, Wet Mountains
Wilderness Society
Sangre de Cristo Mountain Council
Defenders of Wildlife
John Fielder (nationally renown wildlife photographer)
Friends of the Dunes
Colorado Bird Observatory

AGRICULTURAL GROUPS

Cattlemen's Association of Custer County
 Cattlewomen's Association of Custer County
 Colorado Stockmen's Association
 San Luis Valley Cattlemen's Association
 Citizens for San Luis Valley Water
 Huerfano County Farm Bureau
 Renner Rest and Retreat Ranch, Custer County
 Wolf Springs Ranch (horse breeders), Custer & Huerfano Counties
 Sierra Serenade Ranch (horse & cattle breeders), Custer County
 Adventure Specialists, Custer County
 Zapata Ranch, San Luis Valley
 Great Sand Dunes Country Club
 Goodnight Training Stables, Crestone
 Rancho Rosado, San Luis Valley
 High Horse Stables, Gardner
 Malachite Farm and School, Gardner

PILOT GROUPS

Muller-Sirhall and Associates Airport Consultants
 Women Soaring Pilots Association
 Soaring Society of America

SPIRITUAL GROUPS

Colorado Catholic Conference (Catholic Bishops of Colorado)
 Spiritual Life Institute (Catholic Carmelite Monks), Crestone
 Crestone Mountain Zen Center, Crestone
 San Luis Valley Buddhist Project, Crestone
 Haidakhandi Universal Ashram, Crestone
 One Mind Zen Center, Crestone
 Sacred Passage Retreat Center, Crestone
 Manitou Foundation, Crestone
 Colorado College at the Baca, Crestone/Colorado Springs
 Sri Aturobindo Learning Center, Crestone
 Redicoverly Four Corners, Crestone
 San Luis Valley Christian Community Services
 Dorje Khyung Dzong Buddhist Center, Gardner
 Shenpen Choeling Tibetan Buddhist Retreat, Gardner
 Gardner Methodist Church
 Gardner Catholic Church

ECONOMIC GROUPS

Chamber of Commerce President, Custer County
 Custer County Realty
 Rio Grande Tourism Tax Board
 San Luis Valley Tourism Council
 San Luis Valley / Upper Arkansas Enterprise Zone
 Crestone Service and General Store
 Valley View Hot Springs
 Saguache County Planning Commission
 Saguache County Department of Social Services
 Baca Townhouse Association
 Baca Grande POA
 Trinidad Film Commission
 Gardner Community Center Corp.
 Prof. William Weida (national expert), Colorado College Economics Chair
 Eric Nickell (national expert), Washington, D.C.

EDUCATION

John Mall High School, Walsenburg
 Moffat School District Board of Education
 Libre School, Inc., Gardner
 Re-1 School District, Huerfano County
 Gardner School
 Colorado City Day-Care Center
 Colorado Outward Bound School, Crestone

OTHER GROUPS & INDIVIDUALS

Wet Mountain Fire Protection District
 Baca Grande Fire Department
 Upper Huerfano Fire District
 Upper Huerfano Ambulance
 Spirit Magazine Editorial Staff, Huerfano County
 Cowboy Magazine, La Veta
 Rural Alliance for Military Accountability (national experts), Nevada
 Dr. John Ippense (national expert on noise), Springfield, Missouri
 San Luis Valley Justice and Peace Commission

CITIZEN ACTION GROUPS

Custer County Action Association, Westcliffe
 Open Space Alliance, Crestone
 Huerfano Valley Citizens Alliance, Gardner
 Greenhorn Valley Coalition, Rye
 Peace of Air Alliance, La Veta

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Annotated Bibliography

Medical Effects of Environmental Noise

General References

- Jeanine Rosenber, MD: *Text Over Labrador And Quebec: Noise Effects On Human Health*. Can Med Assoc J 144:869, 1991.
- Task Force on the Health Effects of Increased Flying Activity in the Labrador Area: Final Report*. Can Public Health Assoc, Ottawa, 1987.
- J. Steven Newman, Kristy R. Beattie: *Aviation Noise Effects*. Federal Aviation Administration, Report No. FAA-EE-82-7, 1983.
- Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise*. Office of the Scientific Consultant, Office of Noise Abatement and Control, U.S. Environmental Protection Agency, 1981.
- Kryter, K.: *Physiological, Psychological, and Social Effects of Noise* (pub 1115). National Aeronautics and Space Administration, Washington, 1984.
- Summary:** Noise from aircraft operations can negatively effect the health of all people exposed to it. Impacts may include annoyance, fear, anxiety, anger, startle reactions, a sense of loss of control, pediatric behavior problems, psychiatric disorders necessitating hospitalization, sleep disturbances, speech and communication interference, performance interference, temporary and permanent hearing loss, increased utilization of medical services and medications, hypertension, and increased mortality rates.
- Annoyance**
- Kryter, K.: *Physiological, Psychological, and Social Effects of Noise* (pub 1115). National Aeronautics and Space Administration, Washington, pp. 335-345, 1984.
- Hall, Fred L., Binnie, Susan E., Taylor, S. Martin, Palmer, John E.: *Direct Consequences Of Community Response To Road Traffic Noise And To Aircraft Noise*. J. Acoust. Soc. Am. 70:690-698, 1981.
- Griffiths, TD: *Review of Community Response to Noise, Integration of Multiple Aircraft Noise Exposure Over Time by Residents Living Near U.S. Air Force Bases*. The Fourth International Congress on Noise as a Public Health Problem, Turin, Italy, pp 1031-1048, 1983.
- Stephens, D.C., Powell, C.A.: *Human Response to Aircraft and Other Noise Events*. The Fourth International Congress on Noise as a Public Health Problem, Turin, Italy, pp 1061-1072, 1983.
- Fridell, Sanford: *Speech Interference and Community Annoyance*. In Community Noise, Peppin, RJ & Rodman, CW (ed). American Society for Testing & Materials, Philadelphia, pp 80-86, 1979.
- U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, 1974.
- Richards, E.J., Ollerhead, J.B.: *Noise Burden Factor - New Way of Rating Airport Noise*. Sound and Vibration, V. 7, No. 12, December 1973.
- Kryter, Karl D.: *The Effects of Noise on Man*. New York, Academic Press, 1970.
- Great Britain Committee on the Problem of Noise. *Noise, Final Report*. Presented to Parliament by the Lord Minister for Science by Command of Her Majesty London, H. M. Stationery Office, July 1963.
- Summary:** (1) Aircraft peak dBA: Annoyance is greater with 80 dBA directly overhead than off to one side. Annoyance increases directly with higher dBA. (2) Aircraft Ldn: 30-60% extremely annoyed at 65 dBA, above 75 dBA annoyance approaches 100%. Aircraft noise is more bothersome than same level of road traffic noise, with a differential of 8 dBA at Ldn 55 and 15 dBA at Ldn 65. This probably relates to intermittency, louder peak dBA, and psychologic factors associated with aviation noise. Aircraft noise annoyance is associated with fear of the following: crash, air pollution, vibration, and loss of control. People don't wish to live near or close to airports. (3) Annoyance with noise of day and in quiet rural areas compared to areas with higher ambient noise. At Ldn 65, one study showed 60% fear reactions, 25% disturbed conversation, 15% sleep disruption and 10% occupation interference. Another study at Ldn 65 showed a 45% occurrence of startle reaction, waking up from sleep, and house vibration, 40% conversation disruption, and 25% inability to fall asleep. People rate an area as "unacceptable for residential living" in aircraft noise zones at 30% with Ldn 65, 65% with Ldn 75, and 90% with Ldn 85. The FAA and USAF both recommend no residential construction where Ldn exceeds 74 dBA and only under special circumstances when Ldn exceeds 64 dBA. The EPA recommends an outdoor Ldn = 55 dBA and indoor Ldn = 45 dBA to avoid interference with activities and have found severe complaints and litigations occurring when Ldn exceeds 60-65 dBA.
- Startle Reactions**
- Spreng, M.: *Effects of Noise From Low-level Flights On Humans*. In Berglund B, Lindvall T (eds): *Noise as a Public Health Problem: New Advances in Noise Research* (vol 1 of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, 1988). Swedish Council for Building Research, Stockholm, pp 293-304, 1990.

Medical Effect of Noise

Nixon CW, Hillis HK, Sommer HC et al: *Sonic Booms Resulting from Extremely Low-Altitude Supersonic Flight: Measurements and Observations on Houses, Livestock, and People*. Aerospace Medical Research Laboratories, Wright Patterson Air Force Base, Ohio, 1968.

Summary: When exposed to loud peak dBA from low aircraft overflight or sonic booms, startle reactions frequently occur. When exposed to peak dBA in the 100-113 range, there are increased startle and avoidance behavior in subjects. There was no habituation to these effects over three days of study.

Loss of Control

Lundberg U, Frankenhauser M: *Psychophysiological Reaction To Noise As Modified By Personal Control Over Noise Intensity*. Biol Psychol, 6:51-59, 1978.

Singer JE, Achi JB, Schaeffer MH: *Cognitive Changes From Noise Exposure*. In Berglund B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of proceedings of the 5th international congress on noise as a public health problem, held in Stockholm, Aug. 21-25, 1988). Swedish Council for Building Research, Stockholm, pp 401-410, 1990.

Bargen R: *Airspace Blues*. Airspace, Gibbs, Nev, p 424, 1989.

Summary: Study subjects who could chose the level of noise (70-105 dBA) had less subjective discomfort and lower secretion of cortisol and catecholamines during noise exposure. Another group demonstrated decreased performance and ability to make decisions during loud noise when they had no ability to stop the noise. Surveys show that loss of control over one's life is one of the most disturbing effects of low level military overflights and/or sonic booms on rural Americans.

Pediatrics Behavior

Goldman B: *Shestshabit, Lebnudor A Town Without Hope*. Can Med Assoc J, 141:602-605, 1989.

Barzeli K: *Medizinische/psychosomatische Auswirkungen von Tieffluglärm*. In Kinder und Tiefflug. Dokumentation des Expertenforum zu den Auswirkungen des Tieffluglärms auf Kinder, Bonn, June 12, pp 18-22, 1989.

Preuss S: *Militärischer Tiefflug Und Seine Psychischen Auswirkungen Auf Kinder*. In Kinder und Tiefflug. Dokumentation des Expertenforum zu den Auswirkungen des Tieffluglärms auf Kinder, Bonn, June 12, pp 3-8, 1989.

Curio I, Ising H: *Gesundheitliche Auswirkungen Des Militärischen Tieffluglärms-wormadie*. Umweltbundesamt, Berlin, 1986.

Summary: In Canada, Innu children are very distressed by low military jet overflights. In Germany extensive studies have revealed the following behavior associated with low overflights: terror, panic, screaming, freezing in place, palpitations, shaking, dizziness, bed

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wetting, sleep disturbances, nail biting, anxiety, slowed motor response, elevation of blood pressure and blood cortisol levels. No habituation was observed. In one study, blood pressure and urinary response occurred after just mentioning that a low flight was coming in those experienced to them.

Psychiatric

Kyner, KD: *Association of Heathrow Airport Noise with Psychiatric Admission*, Psychol Med 20:1022, 1990.

Abeys-Wickrama, I, et al: *Mental Hospital Admissions and Aircraft Noise*. Lancet 2:1275, 1969.

Summary: Two studies done around Heathrow Airport in London showed increased incidence of "nervous breakdowns" and admissions to psychiatric hospital in areas subjected to loud aircraft noise compared to those in quiet areas.

Sleep Disturbance

Greifahn, Barbara: *Research on Noise-Disturbed Sleep Since 1973*. In Proceedings of the Third International Congress on Noise as a Public Health Problem. ASHA Report No. 10, April 1980.

Lukas, J.: *Measures of Noise Level, Their Relative Accuracy in Predicting Objective and Subjective Responses to Noise During Sleep*. EPA-600/1-77-010, U.S. Environ. Prot. Agency, Feb 1977.

Kryger, Ran D.: *Analysis of Laboratory and Field Data on Awakening from Noise*, 1988.

LeYere T, Montlock G, Hart, F.: *Waking Performance Decrements Following Minimal Sleep Deprivation: The Effects of Habituation During Sleep*. Physiological Psychology, 3:147-174, 1975.

Noise Effects Handbook A Desk Reference to Health and Welfare Effects of Noise, Office of the Scientific Assistant, Office of Noise Abatement and Control, U.S. Environmental Protection Agency, 1981.

Greifahn, B Muzet, A.: *Noise Induced Sleep Disturbances and Their Effects on Health*. Institut Four Arbets- und Sozialmedizin, Universitat, Mainz, West Germany and Centre d'Etudes Biochimiques due CNRS, France.

Ohlsson, E.: *Primary and After Effects on Noise During Sleep With Reference to Noise Sensitivity And Habituation in Laboratory and Field*. In Berglund B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, 1988).

Summary: Sleep can be disturbed in many ways by loud environmental noise. Single events of loud peak dBA are better predictors of disturbance than averaged values such as Leq and Ldn. Periodic noise is more disturbing than continuous noise. The upper threshold is considered to be 35-40 dBA for falling to sleep, and arousal from deep (SWS1 - stage 4)

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Summary: As noise increases, both reaction time and number of errors increase, especially for more complex tasks. These effects are seen at continuous levels above 90 dBA or at lower levels that have a high frequency component (jet engine), intermittency, unexpected, or uncontrollable. These performance effects may last after the noise stops especially when the noise source is unpredictable or uncontrollable.

Noise-Induced Hearing Damage

Spreng, M: *Effects of Noise From Low-level Flights on Humans*. In Berglund B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol 1) of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, 1988), Swedish Council for Building Research, Stockholm, pp 293-304, 1990.

Laroche C, Heu R, Poizat S: *The Growth and Recovery From TTS in Human Subjects Exposed to Impact Noise*. *J Acoust Soc Am*, 85:1681-1690, 1989.

Wu Y, Liu X, Wang B, Wang X: *Aircraft Noise-Induced Temporary Threshold Shift*. *Aviation, Space, and Environmental Medicine*, 60:268-70, 1989.

Lipsonette, D: *Considerations of Community Noise Impact on Hearing Health*, in *Community Noise*. Parsons, EJ & Rootman, CW (ed), American Society for Testing & Materials, Philadelphia, pp 73-79, 1979.

U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, 1974.

U.S. Air Force, *Design Note 3F1*, January, 1974.

Mertuzzi F, Orsini S, Dighera A: *The Risk of Occupational Hearing Loss to Airport Workers*, In Berglund B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol 1) of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, p53, 1988.

Summary: Exposure to loud noise, either periodic or continuous can produce a temporary threshold shift (TTS). With further exposure a permanent noise induced hearing loss (NIHL) occurs. Thresholds have been measured in various circumstances: 105 dBA for multiple single aircraft overflights or 115 dB for a single overflight in a day, 102 dBA for impulse noise at 105 dBA for 100 workers. Short-term TTS can be induced in 100 workers who can have TTS with short exposures to 117-128 dBA and NIHL with 10 years of work at the 86-92 dBA range during an eight hour work day. The USAF set work place noise exposure standard at 30 min for 100 dBA, 13 min for 105 dBA, 5 min for 110 dBA, and 2.2 min for 115 dBA. When referring to averaged noise measures, experimental data suggests a threshold at $L_{eq} = 70$ dBA and the EPA has adapted this value as a level of protection with a margin of safety.

Medication Usage

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sleep requires louder noise in the 70 dBA range. The usual cycles of sleep and EEG patterns are affected occasionally (10%) at 40 dBA and often (60%) at 70 dBA. Children are less susceptible and the elderly more susceptible to noise induced disturbances. These disruptions can lead to symptoms of fatigue, lethargy, decreased efficiency, anxiety, desiring to be left alone, and can lead to health disorders or interfere with convalescence from illness.

Speech Interference

Cohen, A: *Effects of Noise on Task Performance*. *J Safety Res*, 8:146, 1976.

US Air Force, *Design Note 3F1*, January 1974.

Summary: Speech interference will generally occur with background noise exceeding 60 dBA, especially when it exceeds 80 seconds/hour. The USAF has published a table of speech interference with noise and distance. It shows that background noise of 68-70 dBA will

VOICE LEVEL*	COMMUNICATION DISTANCE (meters)				
	0.5	1	2	3	5
Normal Voice (in dB)	72	66	60	54	52
Raised Voice (in dB)	76	72	66	62	58

Steady A-weighted sound levels that allow communication with 95 percent sentence intelligibility over various distances outdoors for different voice levels

*Assumes normal voice level of 70 dB (67 dBA) or raised voice of 76 dB (73 dBA)

generally interfere with telephone usage and speech at a 3-6 foot distance.

Performance Interference

Müller JP: *The Effect of Noise on People*. *J Acoust Soc Am*, 56:729-764, 1974.

Harris CS: *The Effects of Different Types of Acoustic Simulation on Performance*, in Proceedings of the International Congress of Noise as Public Health Problem, Dubrovnik, Yugoslavia, May, pp 398-407, 1973.

Gulan E: *Noise as an Occupational Hazard: Effects on Performance Level and Health - A Survey of Findings in the European Literature*, May 20, 1974.

Glass DC, Singer JE: *Urban Stress Experiments on Noise and Social Stressors*, Academic Press, New York, 1972.

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Kojanchid P, Oudshoorn N: *Medical Effects Of Aircraft Noise: Drug Survey*. Int Arch Occup Environ Health, 40:197-200, 1977.

Kryer K: *Physiological, Psychological, and Social Effects of Noise (pub 1115)*. National Aeronautics and Space Administration, Washington, p380, 1984.

Summary: A study in one community showed that the use of prescription drugs for sedatives, hypnotics, antacids, and antihypertensives increased significantly after opening a runway that resulted in loud aircraft overflight. In general the physiologic and psychologic responses to loud environmental noise increase requirements for medical care and medications.

Hypertension

Weisman JC, Walters JR: *Noise And Stress: A Comprehensive Approach*. Environ Health Perspect, 41:291-309 1981.

Ising H, Michalak R: *Effects Of Noise From Military Low-Level Flights On Humans (part II)*. In Bergland B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, 1988), Swedish Council for Building Research, Stockholm, pp 303-314, 1990.

Lenhart A, Eggertsen R, Svensson A: *Noise And Essential Hypertension*. In Bergland B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, p 83, 1988).

Ising H, Sprang M: *Effects of Noise From Military Low-Level Flights on Humans*. In Bergland B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, p 84, 1988).

Suvomov GA: *Extra-Aural Effects of Noise*. In Bergland B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, p 84-5, 1988).

Milovic-Kraus S: *Effects of Noise on Blood Pressure*. In Bergland B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, p 93, 1988).

Summary: Experimental studies have shown: (1) increases of systolic and diastolic blood pressure with exposure to 85 dBA for 8 hours; (2) increases of blood pressure and blood cortisol during playback of military jet overflights with 106-125 dBA. In patients with essential hypertension, exposure to noise at 85 dBA for 30 min further increased blood pressure and peripheral vascular resistance. Epidemiologic studies have shown elevated blood

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pressure and hearing loss in many of 433 children exposed to military jet overflights at 75 meters compared to controls. 85 workers exposed to 85 dBA showed elevations of systolic and diastolic pressures compared to age matched controls not exposed. A review of 40 studies showed a consistent correlation of prolonged high intensity industrial noise and hypertension.

Mortality

Meechan WC, Shaw NA: *Increase In Disease Mortality Rates Due to Aircraft Noise*. In Bergland B, Lindvall T (eds): *Noise as a Public Health Problem*. New Advances in Noise Research (vol I of Proceedings of the 5th International Congress on Noise as a Public Health Problem, held in Stockholm Aug. 21-25, vol 3:331-356, 1988).

Summary: A study in the Los Angeles area using US Census and LA Department of Health Mortality Tapes showed an overall 5% increased mortality in a group of 100,000 exposed to LAX airport noise (Ldn 65) compared to a demographically matched control group in a quieter area. Mortality was most elevated in the age group 75 yr., especially from cardiovascular causes.

STATEMENT OF DAVID DEXTER

Mr. VENTO. Mr. Dexter.

Mr. DEXTER. My name is David Dexter. I am a member of the Foundation for North American Wild Sheep. I speak before the subcommittee today on behalf of this organization concerning its membership with the Owyhee Canyon Lands Coalition.

This coalition is a highly diverse association of special interest groups. Included are hunting organizations, conservationists, peace activists, Native Americans, outfitters and guides, and ranchers. It is a motley crew, but these groups came together to conserve a high desert ecosystem that currently exists much as it did 200 years ago.

The area has been earmarked for the establishment of an Air Force electronic combat and bombing range which would forever impair the prime natural asset of southwestern Idaho.

The Foundation for North American Wild Sheep supports H.R. 2080, the Military Land Reform and Reassessment Act. We are persuaded that enactment of this legislation will provide the needed reforms to diffuse such incompatible endeavors as the establishment of the proposed bombing range.

The Foundation has been instrumental in establishing with the Idaho Department of Fish and Game the largest free-roaming herd of bighorn sheep in the continental United States. In 1963 there were no California bighorns left in this area. The last documented sighting was in 1939. In 1963, through the generosity of the government of British Columbia, approximately 20 sheep were trapped and relocated to this area.

Today there are nearly 3,000 sheep in the Owyhee Canyon lands. These sheep are now transplantable stock to nine western States. They provide hunting opportunities to 36 hunters, both residents and nonresidents of Idaho. And they provide watchable wildlife opportunities to thousands of the nonhunting public.

Concerning the proposed bombing range, we sought the opinion of Dr. Valerius Geist. Dr. Geist is an internationally recognized authority on wild sheep behavior. Dr. Geist stated this range, if established, would have short, intermediate and long-term detrimental effects on the sheep herd.

I don't know if he has any documentation, but if I can get my hands on it, I will send it to the committee for the record.

Sheep management and military training don't necessarily complement one another. We have got some horror stories. The China Lakes Naval Air Station in California has restricted the use of radio telemetry collars used in monitoring populations. We understand jets have targeted these sheep rather than electronic emitter sites they are looking for. Although some in our coalition want to harvest these sheep, that is not what we had in mind.

In Nevada, Air Force jets destroyed a water catchment for desert bighorns. In Nevada, Arizona, New Mexico and California, access by natural resource personnel has been restricted or even denied because of security clearance considerations. These concerns and incidences were recently confirmed by the United States General Accounting Office.

Simply put, we think the situation needs to be addressed, and having heard all the testimony, you have learned a little bit more

about it today. I am sure we can reach some sort of compromise that would reduce or just limit the bureaucratic planning that we talked about.

In the end, passage and enactment of H.R. 2080 will provide needed reforms to resolve situations like the one that drew these many diverse interests together.

On behalf of the Foundation for North American Wild Sheep and the Owyhee Canyon Lands Coalition, I appreciate the opportunity to comment on H.R. 2080, the "Military Land Reform and Reassessment Act."

Thank you.

Mr. VENTO. Thank you very much, Mr. Dexter.

Finally, on this panel, Mr. Phil Voorhees. It is not the first time—you have appeared before the committee on an earlier occasion in the past couple of weeks, and I haven't had a chance to welcome you. So I appreciate it.

We work closely, as the staff and Members are aware, with the National Parks and Conservation Association on a whole host of issues.

Mr. Voorhees is a new member of that organization or of that staff. Welcome.

STATEMENT OF PHILIP H. VOORHEES

Mr. VOORHEES. Relatively new. Thank you very much for the opportunity to testify, Mr. Chairman. I will also be very brief in my comments today.

Again, I am Phil Voorhees. I am here representing National Parks and Conservation Association. We are a member organization representing approximately 450,000 citizen members who are concerned about the national parks in this country and keep close watch on them.

I would like to state at the outset that NPCA is not opposed to military maneuvers on public lands, per se. I think that sentiment is probably shared by everybody who has testified today on all aspects of the issue.

There are certainly lands, however, on which and above which military maneuvers are simply and basically incompatible. H.R. 2080 provides useful structure and more firm requirements for consultation with the Secretaries of Interior and Agriculture, but it fails to acknowledge the status of national park lands and lands designated as wilderness.

These lands reported a higher level of protection from intrusions by man, and the military should be required to honor the protection provided by the National Park Services Organic Act and the Wilderness Act.

The Wilderness Act of 1964 specifically defines wilderness as land which has retained its primeval character and where the impact of man's work is unnoticed, providing outstanding opportunities for solitude.

In addition, the Park Service Organic Act of 1916 describes the purpose of park lands as those to conserve scenery and the natural and historic objects and the wildlife therein.

Few things are more disruptive to the wildlife, natural quiet, and opportunities for solitude in these areas than the scream of mili-

tary jets flying at tree-top level on maneuvers. Anything short of a ban on military use of these lands, including overflights, is a contravention for the purpose for which these acts were written.

We receive mail on a fairly regular basis as the FAA and the Park Service are engaging in a proposed notice to engage on the question of overflights over park lands.

And just recently, just this week, I received an interesting letter which lays out the issue. We received from a citizen a statement saying that this fellow was nearly blown off a rock face and temporarily deafened by a Navy A-6 jet flying 50 feet above a cliff in North Cascades National Park. That is a quote.

The same citizen related an experience similar in Grand Canyon National Park, where another F-4 jet flying through the canyon at approximately 50 feet above the surface of the Colorado River nearly dunked him in the river.

This is not merely a question of deafening noise and disturbance of natural quiet. There are clear risks to both the visitors and the basic resource of the parks at issue. Like I said, there are plenty of examples throughout the parks, and I will offer just a couple. At Organ Pipe Cactus National Monument, 95 percent of which is designated wilderness, military aircraft regularly fly less than 500 feet above the ground near high-visitor-use zones. Crashes are not uncommon. In the past several years there have been quite a few.

Much more of a concern, however, are a variety of stories that we have heard about, both from citizens and from park personnel, relating to military aircraft deliberately expelling material from the planes while they are flying over the parks.

Another more recent example, in Alaska, where there are plenty of aircraft overflight issues at hand, in Yukon-Charley Rivers National Preserve, in 1992 flares dropped from an Air Force jet engaged in a mock dog fight above the park, ignited wildfire in the park, burning for four months on both sides of the Charley River, eventually consuming 32,000 acres of park land.

With the threat of fire, strafing, unknown material falling from the sky, and simple aggravation from the noise and disruption caused by these low-flying military aircraft, visitors are leaving many parks with bad experiences, to say the least. And some may fear returning.

The impact on wildlife from military aircraft, I think, has been sufficiently documented here, and I expect there are probably more studies under way which will do a better job of explaining the impact of low-flying military aircraft on wildlife. So I will not go into that here.

Less recognized, however, are the impacts from low-flying aircraft on archeological resources. In the southwestern U.S. in particular, the Park Service protects a large number of fragile Native American archeological resources. Acoustic vibrations caused by aircraft flying so close to the ground near or at the speed of sound may cause irreparable damage to cultural resources.

Park personnel at Pipe Springs National Monument in northern Arizona have commented that they feel the vibrations from planes every time they pass 4-5 times a day. So concerned are the personnel that they prepared a seismograph to measure the vibrations at the monument.

Mr. Chairman, with significant impacts on the vitality of wildlife, preservation of natural and cultural resources, and the quality of visitor experiences, it is clear enough that military overflights are incompatible with the purposes for which parks and wilderness areas were created in a most basic way. To honor the commitment made by the Federal Government to conserve the scenery and the natural and cultural and historic objects and the wildlife therein, and to preserve the primeval character of the wilderness land where the imprint of man's work is unnoticed, disruptive military activity in and over these lands must cease.

Encompassing just 6 percent of the land area of the United States, suggesting a ban on military overflights of park land and wilderness areas is not such a radical request. Of the remaining 94 percent of land, more than one-half billion acres is Government-owned and still available for military training. Unless Congress enacts a ban on military overflights of national park land and wilderness, H.R. 2080 should be amended to provide additional safeguards for these areas.

Specifically, section 4 dealing with airspace should provide the Secretaries of Interior and Agriculture with greater authority in their consultations with the Department of Defense, providing the land management agencies the authority to compel NEPA consideration of military use proposals in these areas, the authority to participate in planning the time when military uses will occur, and allowing some level of veto authority by the land management agencies over military use of particularly sensitive areas.

Mr. Chairman, that concludes my testimony, and I appreciate the opportunity today.

[The prepared statement of Mr. Voorhees follows:]



National Parks and Conservation Association



STATEMENT OF
PHILIP H. VOORHEES
NATIONAL PARKS AND CONSERVATION ASSOCIATION

BEFORE THE
SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS
ON HR 2080, THE MILITARY LAND REFORM AND REASSESSMENT ACT

JUNE 17, 1994

Mr. Chairman and members of the subcommittee, my name is Phil Voorhees. I am a Washington Representative for the National Parks and Conservation Association (NPCA), America's only private nonprofit citizen organization dedicated solely to protecting, preserving, and enhancing the U.S. National Park System.

On behalf of NPCA, I am pleased to appear before the subcommittee to submit our views on HR 2080, the Military Land Reform and Reassessment Act. Although HR 2080 addresses the broader issue of military use of public lands, I will limit my testimony to Section 4 of the bill, regarding military use of the airspace above public lands, specifically national park land.

I would like to state at the outset that NPCA is not opposed to military maneuvers on public lands, per se. The military services have an understandable need to train for combat and test equipment. There are certain lands, however, on which and above which military maneuvers are simply and basically incompatible. HR 2080 provides useful structure and more firm requirements for consultation with the Secretaries of Interior and Agriculture, but it fails to acknowledge the special status of national park lands and lands designated as wilderness. These lands were accorded a higher level of protection from intrusions by man, and the military should be required to honor the protection provided by the National Park Service Organic Act and the Wilderness Act.

Both laws were written to provide the American people with opportunities to escape the cacophony of urban life by preserving areas where Americans can still hear the rush of the wind and the sound of bird song. Moreover, the Wilderness Act of 1964 specifically defines wilderness as land which has retained its "primeval character," and where "the imprint of man's work is unnoticed... [providing] outstanding opportunities for solitude." The National Park

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Service Organic Act of 1916 describes the purpose of park lands to "conserve the scenery and the natural and historic objects and the wildlife therein...." Few things are more disruptive to the wildlife, natural quiet and opportunities for solitude in these areas than the scream of military jet engines flying at treetop level on maneuvers. Anything short of a ban on military use of these lands, including overflights, is a contravention of the purpose for which these acts were written.

The problem of military overflights is a significant issue in the national parks, and NPCA hears regularly from members who relate disturbing stories of being targeted for strafing practice, mock bombing runs and other military exercises. According to the National Park Service, 91 parks experience problems with military overflights, and in some of the parks the disruption is constant. Just this week I received a letter from a concerned citizen from the state of Washington. He related that he "was nearly blown off a rock face and temporarily deafened by a Navy A-6 jet flying 50 feet above a cliff in North Cascades National Park." The same citizen relates an experience in Grand Canyon National park, witnessing another F-4 jet flying through the canyon at approximately 50 feet above the surface of the Colorado River.

This is not just a matter of disturbing the solitude of the parks or scaring park visitors. Military maneuvers over national park areas place both visitors and basic park resources at considerable risk. Examples abound. In Organ Pipe Cactus National Monument, 95 percent of which is designated wilderness, military aircraft regularly fly less than 500 feet above the ground near high visitor use zones. Crashes are not uncommon, the last one being in 1987. Much more of a concern, however, is the stories visitors and park personnel relate of military aircraft deliberately expelling unknown material from the planes flying over the park.

In Alaska, military training exercises are also a regular occurrence over Yukon-Charley Rivers National Preserve. Though a sparsely visited unit of the National Park System, Yukon-Charley contains spectacular scenery and abundant wildlife. In 1992, flares dropped from an Air Force jet engaged in a mock dogfight ignited a wildfire in the park, burning for four months on both sides of the Charley River, eventually consuming 32,000 acres of park land. With the threat of fire, strafing, "unknown" material falling from the sky and simple aggravation from the noise and disruption caused by low-flying military aircraft, visitors are leaving many parks with a bad experience and some may fear returning. In 1987, the Canadian Public Health Administration concluded in the report "CPHA Task Force on the Health Effects of Increased Flying Activity in the Labrador Area," that, "It is reasonable to expect that some people who have been overflown would develop a fear of exposing themselves to an overflight situation in the future. This could effect their behavior, particularly in terms of travel to areas in which they expect to be overflown."

The impact on wildlife from military aircraft flying over parks and wilderness areas is harder to measure, but anecdotal evidence suggests the impacts are significant. Nesting habits may be altered as birds are severely stressed by these maneuvers. Large mammals scatter, run for cover or stampede when a sortie passes overhead. The U.S. Fish and Wildlife Service has documented a large variety of stress reactions among mammals in response to noise levels commonly

produced by low flying military aircraft. Common responses include disruption of mating and nesting rituals, reduced lactation, elevated heart rates and stampede responses. In their study, the Canadian Public Health Administration did not investigate wildlife responses, but it does not take a field biologist to correlate large mammal responses to those of humans. Unfortunately for the animals, the parks and wilderness being buzzed by the military are their habitat, and they have no where else to go.

Less recognized are the impacts from low-flying military aircraft on archeological resources. In the southwestern U.S. in particular, the National Park Service protects a large number of fragile native American archeological resources, including dwellings and burial grounds. The acoustic vibrations caused by aircraft flying close to the ground near or at the speed of sound may cause irreparable damage to ancient cultural resources. Park personnel at Pipe Springs National Monument in northern Arizona have commented that they feel the vibrations from the planes every time they pass, four to five times per day. So concerned are park personnel that they have procured a seismograph to measure the vibrations at the monument.

Mr. Chairman, with significant impacts on the vitality of wildlife, the preservation of natural and cultural resources, and the quality of the visitor experience, it is clear enough that military overflights are incompatible with the purposes for which parks and wilderness areas were created in the most basic way. To honor the commitment made by the federal government to "conserve the scenery and the natural and cultural and historic objects and the wildlife therein," and to preserve the "primeval character" of the wilderness land, "where the imprint of man's work is unnoticed," disruptive military activity in and over these areas must cease.

Encompassing just 6 percent of the land area of the U.S., suggesting a ban on military overflights of park land and wilderness areas is not such an radical request. Of the remaining 94 percent of land, more than one half billion acres is government owned land still available for military training.

Until Congress enacts a ban on military overflights of national park land and wilderness, HR 2080 should be amended to provide additional safeguards for these areas. Specifically: section 4 dealing with airspace should provide the Secretaries of Interior and Agriculture with greater authority in their consultations with the Department of Defense, providing the land management agencies the authority to compel NEPA consideration of military use proposals for these areas, the authority to participate in planning the time when military uses will occur, and allowing veto authority by the land management agencies over military use of particularly sensitive areas.

Mr. Chairman, NPCA looks forward to working with you, with the land management agencies, and with the Department of Defense in establishing guidelines for military use of public lands and the airspace above them that acknowledge and honor the commitment to national park protection and wilderness preservation provided by the National Park Service Organic Act of 1916 and the Wilderness Act of 1964. Thank you for the opportunity to provide NPCA's views.

Mr. VENTO. Thank you. You all were here and heard the Interior Department and the Forest Service, the stewards of our public land, working in concert with Department of Defense. Did that give you all a good feeling of comfort that everything was going to be worked out?

Mr. VOORHEES. It doesn't give me as warm and fuzzy a feeling as I might like, no. I was particularly disturbed by the letter that was read into the record by Mr. Castlebury from the Park Service, which alluded to the thought that there are minimal impacts on park land. I think clearly that is untrue.

We have a list of 91 park areas which are significantly impacted by military overflights that land managers themselves have provided us.

Mr. VENTO. I would give the others the opportunity to answer, but the Park Service has such a pristine and crystal view of this, so unimpaired that they were asked to do a study in 1987 which they still haven't delivered to us in 1994.

Mr. VOORHEES. I am well aware of that, Mr. Chairman.

Mr. VENTO. So if they have such a definitive view on this, perhaps they could complete the study we asked for concerning overflights of parks for other reasons.

Mr. Dexter, did you feel that you were adequately represented, your public lands were adequately represented by the Interior Department and Forest Service today?

They said their relationship was just fine. I think Mr. Small said the relationship was just great, they don't need any changes. They were even concerned about the 180-day notice, which is amazing to me.

Mr. DEXTER. Clearly, Mr. Chairman, there is more that can be done to identify the problems that we know are out there and they should be included in these other assessments that are taking place and considerations. And we will do what we can to help the committee and the agencies to—

Mr. VENTO. Well, how about with the bighorn sheep, can you help me with that? There is some suggestion by some Members that said there is no problem with the bighorn sheep, although the Fish and Wildlife Service, I think, in defense wasn't quite as willing to fold their tent. They sounded like they were still talking about what their job was.

Mr. DEXTER. We need to get them out there on the ground. Our people in the field can easily identify these problems. Maybe these folks back here in Washington could use a field trip, perhaps. But bighorn sheep is something that we are—

Mr. VENTO. Well, you said you were going to look into getting research, there was research work done by Doctor—

Mr. DEXTER. Valerius Geist.

Mr. VENTO. Yes, Doctor Geist, and you thought that you could probably help us in terms of getting information on that.

Mr. DEXTER. I will do what I can.

Mr. VENTO. Of course, most of these biologists and other large vertebrate zoologists probably work for money. They probably just aren't able to do this and devote five years of their life to the advancement of science without being compensated with at least some bread and water or something.

Mr. DEXTER. Yes, sir, we will be happy to work with the committee in any way we can to protect the resource and help you identify documentation that would bolster your support for this legislation.

Mr. VENTO. Well, I am fearful that the Fish and Wildlife Service is standing out today a little bit better in terms of what they are doing, but many of them have been co-opted in this process. Even though they are going to have a lot of discussions in the process, it didn't sound to me like anytime soon that they were going to stand up for their concerns.

I must say, I wish they would, because it is fine if they want to do it. I won't let them give away the prerogatives of Congress, that is another thing. They have to testify to give away our prerogatives. I think I am a better judge of that maybe than even the Forest Service.

Mr. Ahlquist, how did you feel about that?

Mr. AHLQUIST. Well, Mr. Chairman, I was here in April visiting with different congressmen and other government officials on this issue. And different people that I visited with at BLM and at the Forest Service and other people from the Department of Agriculture that I visited with then expressed their frustration in not getting the response from the military that they had hoped for on a lot of these issues. They felt as frustrated as we did, they said.

I am encouraged by what I heard today, but I certainly haven't reached that comfort level.

Mr. VENTO. Yes, well, I was discouraged by what I heard today, because what I heard was a lot of discussion about how they were cooperating and that they really didn't need any policy change. And, you know, to me that is a code word for business as usual. So you may feel comforted, but this Member of Congress is not comforted.

Mr. AHLQUIST. No, no, I will clarify what I said, Mr. Chairman. I was encouraged to hear that they are trying to work together, but I am not comforted. I haven't reached the comfort level at all. I agree with you. I am worried about business as usual. That is why we are supporting the bill.

Mr. VENTO. I would like to see some tangible actions before I—you know, this is just a matter of trust, I think, that I am operating on. I was aware that Congressman McInnis, as you reported to us in your testimony, is interested in the LaVeta MOA, and we will be visiting with him concerning that, Mr. Ahlquist, in terms of trying to provide some process where we can actually get a report up here. The process that exists now, each of you may, various instances, be familiar with the process for military air withdrawal that goes on between the FAA, the Department of Defense and various other interested parties, including citizens. Is that system adequate?

Mr. AHLQUIST. Well, Mr. Chairman, there is an EIS process right now in regards to the LaVeta MOA and I interviewed people in Pennsylvania regarding the MOA there. And we thought the EIS was just a sham. It was approved without adequate review at all. We have submitted in Colorado a stack of information that is easily 5 feet high. And if that EIS gets approved, I think that will be proof positive that this process is a sham and that there is just not adequate control.

Mr. VENTO. You believe that there is adequate autonomy in terms of the EIS process from the direct relationship of the Department of Defense utilization of these airspaces?

Mr. AHLQUIST. To date, that is how I feel.

Mr. VENTO. They are, obviously, taking a lot of information, but the question is what are they doing with it?

Mr. AHLQUIST. That is the question, Mr. Chairman.

Mr. VENTO. Mr. Dexter, what about the process in terms of these airspace reservations?

Mr. DEXTER. Well, I don't want to get into an analysis of the environmental assessment process, but I guess we feel a sense of doubt in that all information is being considered and are fairly pessimistic at the level of cooperation among these various agencies, less than satisfactory.

Mr. VENTO. Well, of course, one of the things that always happens to us in an EIS process, someone says, well, we have to have an economic impact statement, we have to have others. Of course, we are not even talking about that here, and I wouldn't propose to because there aren't hard and fast rules. But, is the EIS process the right process to, in fact, make a decision with regards to reservation of airspace?

If we say it is, and we can't demonstrate an adverse impact environmentally, because of our limited ability do so. Is that really sufficient in terms of the final decision?

Mr. DEXTER. I would not—

Mr. VENTO. I mean it is a really—

Mr. DEXTER. We have been hearing a lot about bureaucracy. It sounds like a lot of bureaucracy to me and maybe some policy changes would better facilitate the process.

Mr. VENTO. Maybe a law would be better. You know, rather than rely upon something that really wasn't designed to deal with that, maybe we ought to have some other failsafes in it. You know, I think they do an EIS, or EA if an EIS isn't warranted. But, obviously, they are sitting there as their own judge. Of course, we are relying upon these agencies, which you heard from today and that sounds to me like a rather tenuous reliability.

Of course, other communities, local governments ought to participate, and there should be notification of the governor. Some of this, obviously, would make more work, but where you have got controversy, you are going to be doing that in any case. Well, thank you all very much for your testimony, we appreciate it.

PANEL CONSISTING OF CATHY CARLSON, LEGISLATIVE REPRESENTATIVE, FISH AND WILDLIFE RESOURCES DIVISION, NATIONAL WILDLIFE FEDERATION; ROBERT L. DEWEY, DIRECTOR, HABITAT CONSERVATION DIVISION, DEFENDERS OF WILDLIFE; AND KARL GAWELL, DIRECTOR, NATIONAL PARKS PROGRAM, THE WILDERNESS SOCIETY

Mr. VENTO. We have finally the fourth panel, and that consists of Ms. Cathy Carlson, the National Wildlife Federation, and Mr. Robert Dewey, the Defenders of Wildlife, and Mr. Karl Gawell, the Wilderness Society. We appreciate their patience and the efforts that they made to prepare statements for today's hearing.

Ms. Carlson, if you would try to summarize your statement, it would be helpful to the committee so we can conclude our business in an expeditious manner. Welcome.

STATEMENT OF CATHY CARLSON

Ms. CARLSON. Chairman Vento, I would be happy to summarize. Thank you very much for giving the National Wildlife Federation an opportunity to appear and discuss some of our concerns about military use of public lands. In the interest of time, I thought I would make a few observations about the discussions that have gone on so far today and answer a question that you posed before.

First, I would just like to state for the record that the National Wildlife Federation supports H.R. 2080. We think that it is going to make some important modifications in the approach that is taken by the military departments in the use of public lands, and I think it is going to do that in such a way that it doesn't unravel the basic framework in existing law that is used now to try and facilitate coordination and cooperation amongst the agencies.

You asked the question of an earlier panel, do we need new law? And I think that H.R. 2080 addresses some specific concerns that continue to be problems in the way that the military approaches the use of public lands today. For example, H.R. 2080 suggests that National Guard be treated like any other Federal military agency when it comes to impacting public lands. And as was indicated in the discussions about the proposed Idaho Training Range, we are still seeing the Air National Guard in Idaho being used, I think, as a front by the Air Force as a way to try and circumvent some of the obligations that they have under the Engle Act.

Clearly, the approach that is being taken with respect to the land exchange for ultimate use of the lands by the Air Force is a convoluted process where the land is exchanged with the State of Idaho. It is then turned over to the Idaho military district, they then enter into a long-term lease with the Air Force, rather than the Air Force coming out first and foremost and saying we want to use these lands, we will probably need a withdrawal, therefore we should be subject to the Engle Act.

H.R. 2080 also calls for a national review of military use of public lands and deals with the idea of better consultation with the agencies, the land management agencies, with the public, with others, particularly with regard to overflights. And we find that this is still something that needs to be addressed, and we think needs to be addressed through legislation. There was an attempt made in the military construction fiscal year 1994 appropriations to get the Air Force at least to look at the overflight question and in particular how overflights are going to be dealt with and land use was going to be dealt with for the Idaho Training Range in the context of a broader question of needs for the agency. And despite that specific direction in the fiscal year 1994 Military Construction Appropriations Act, the Air Force feels like they have solved their problem by a fairly inadequate analysis that they did in conjunction with a draft environmental impact statement.

Another area that we really like in H.R. 2080 is the need to look at lands that were previously in public domain and making sure those lands are returned to public domain. And what we are find-

ing, as the Secretary of Defense and the military departments move forward with their base closures, is that under an interim final regulation that was just published on April 6, 1994, there is no recognition of the fact that there are public domain lands that are subject to base closure and a recognition that those lands could be or should be returned to the agencies they were carved from in order for the land management agencies to reacquire those lands for conservation purposes.

In fact, there has been some effort by the Department of the Interior to focus on areas, lands that will be subject to closure, including withdrawn lands that they think should be returned to the Department of the Interior for management. And it is my impression that the interests of the Department of the Interior are not getting due concern when the military departments are moving forward through their base transitions. So clearly, there are programmatic failures in the approach that the military departments are taking on public lands.

H.R. 2080 addresses a lot of those concerns and we support the bill. We look forward to working with you in any way that we can to help you move forward with it. Thank you.

Mr. VENTO. Thank you. That concludes your statement, Ms. Carlson? I appreciate your testimony and your response to the proposal. And we are pleased to welcome Robert Dewey and invite him to summarize his statement.

Mr. Dewey.

STATEMENT OF ROBERT L. DEWEY

Mr. DEWEY. As briefly as I can. Thank you, Mr. Chairman. I am Robert Dewey and I direct the Habitat Conservation Division at Defenders of Wildlife. I am testifying today on behalf of Defenders and the National Wildlife Refuge Association. Defenders and the Refuge Association have been actively working to help alleviate the existing and potential adverse impacts of military overflights on national wildlife refuges.

For this reason, we strongly support H.R. 2080 because it would establish a statutory mechanism to ensure greater scrutiny of overflight problems. Earlier this year, Defenders released "Unfriendly Skies," a report which documents the concerns of fish and wildlife refuge managers about military overflights.

This report illustrates where existing mechanisms for resolving overflight conflicts have proven ineffective and suggests a new national approach for reducing these conflicts. Mr. Chairman, I would like to request that a copy of our report be submitted for the record.

Mr. VENTO. Yes, without objection. Do we have a copy in our possession at this time? If we do, fine, without objection it will be made a part of the record.

[EDITOR'S NOTE.—See appendix.]

Mr. DEWEY. Thank you. "Unfriendly Skies" emphasizes two primary concerns relating to military overflights. First, overflights pose a serious threat to many units of the National Wildlife Refuge System. According to studies by the GAO in 1989 and the Fish and Wildlife Service in 1990, military overflights are one of the most harmful activities affecting national wildlife refuges.

While these studies were completed more than three years ago, our research and a 1993 report by the Fish and Wildlife Service indicate that overflights continue to pose a serious threat on at least 35 national wildlife refuges. Refuge managers often reported that conflicts between overflights and endangered species, migratory birds and protection of wilderness values continue.

Even if existing overflight concerns were satisfactorily resolved, proposals to use more of the Nation's airspace for military training purposes are likely to cause additional conflicts. There is a clear need for Congress to establish a formal and legally binding process for minimizing conflicts between military overflights and national wildlife refuges.

Military overflights continue to harass wildlife and undermine conservation efforts on scores of refuges in the Refuge System. Managers spend valuable time and limited resources dealing with local military bases. Communications with the military, flight restriction agreements, and enforcement of agreements, depend heavily on the good will of the local military commander, which varies widely from base to base.

For these reasons, we strongly support the effort made in H.R. 2080 to improve the process used to designate airspace over public lands for military purposes. We also support a provision for monitoring of impacts to public lands. These statutory requirements should help assure that Fish and Wildlife Service and other public land managers have a stronger congressional mandate to press the Defense Department for more rigorous environmental review.

They should also help to ensure greater accountability by the Defense Department in addressing identified problems. Although these provisions would, as drafted, significantly enhance the hand of Federal land managers in protecting public lands, we recommend further strengthening of the monitoring provision.

The Interior Department should be given lead responsibility for identifying overflight conflicts and in conjunction with DOD identify measures necessary to avoid, minimize or mitigate these impacts. Most important, the Defense Department should be required to implement those measures.

To avoid any potential conflicts between required mitigation measures and a compelling national security consideration, the President could be given broad discretion to grant a case-by-case exemption. These recommended changes are a means of reasonably reconciling two important national priorities, protecting wildlife resources on public lands, and assuring military preparedness.

Mr. Chairman, this concludes my statement. We stand ready to work with you on this important legislation and we appreciate, again, the opportunity to present these views.

[Prepared statement of Mr. Dewey follows:]



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**STATEMENT OF ROBERT L. DEWEY
DIRECTOR, HABITAT CONSERVATION DIVISION
DEFENDERS OF WILDLIFE**

ON

**H.R. 2080--THE MILITARY LAND
REFORM AND REASSESSMENT ACT**

FOR

**THE SUBCOMMITTEE ON
NATIONAL PARKS, FORESTS, AND PUBLIC LANDS
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES**

JUNE 17, 1994

ON BEHALF OF

DEFENDERS OF WILDLIFE

AND

NATIONAL WILDLIFE REFUGE ASSOCIATION

Mr. Chairman, I am Robert Dewey, Director of the Habitat Conservation Division at Defenders of Wildlife. I am testifying today on behalf of Defenders of Wildlife and the National Wildlife Refuge Association.

Thank you for scheduling this important hearing and for the opportunity to testify on H.R. 2080, the Military Land Reform and Reassessment Act. Defenders of Wildlife and the National Wildlife Refuge Association have been actively working to help alleviate the existing and potential adverse impacts of military overflights on national wildlife refuges. We strongly support H.R. 2080 because it would establish a statutory mechanism to ensure greater scrutiny of overflight problems.

Defenders of Wildlife is a national conservation organization with over 85,000 members. We have a longstanding interest in ensuring that wildlife and wildlife habitats are protected on public lands, especially those within the National Wildlife Refuge System. In 1990, for example, we organized the Commission on New Directions for the National Wildlife Refuge System, led by Dr. Robert Weeden and Mollie Beattie, the current director of the U.S. Fish and Wildlife Service (FWS). In 1992 this Commission issued the report, Putting Wildlife First: Recommendations for Reforming Our Troubled Refuge System. This report was highly critical of secondary uses which currently threaten the viability of certain refuges.

In January 1994 we released Unfriendly Skies, a report which documents the concerns of FWS refuge managers about military overflights. This report illustrates why existing mechanisms for resolving overflight conflicts have proven ineffective, and suggests a new national approach for reducing these conflicts. A copy of this report is being submitted for the

record. Defenders also submitted comments on the Air Force's recent proposal to revise its National Environmental Policy Act (NEPA) compliance procedures and is presently preparing comments for the Federal Aviation Administration's (FAA) advanced notice of proposed rulemaking for overflights on National Park Service lands.

Military Overflights Are Harming Many National Wildlife Refuges

Unfriendly Skies emphasized two primary concerns relating to military overflights. First, military overflights pose a serious threat to many units of the National Wildlife Refuge System. According to studies by the General Accounting Office (1989) and the FWS (1990), military overflights are one of the most harmful activities affecting national wildlife refuges. The GAO report, for example, found that refuge managers viewed military air exercises as harmful on 36 of the 55 refuges where they occurred. Of these 36 managers, 35 recommended that the air exercises be discontinued. In the 1990 FWS report, refuge managers reported that military air exercises were harmful on 70 of the 96 refuges on which they occurred. While these studies were completed more than three years ago, our research and a 1993 report by the FWS, entitled Aircraft Overflight Issues on National Wildlife Refuges, indicates that overflights continue to pose a serious threat to wildlife and the Refuge System.

Last year's FWS review found that overflights continued to be a problem on at least 30 refuges. Despite some limited success, a three-year effort by the FWS has failed to resolve satisfactorily most overflight concerns. In many cases, refuge managers appear to have reached an impasse with the military in their efforts to resolve overflight concerns at scores of federal refuges.

At many refuges, refuge managers report conflicts between overflights and endangered species, migratory birds and protection of wilderness values. For example:

- At New Jersey's Forsythe National Wildlife Refuge, FWS officials have expressed concern about the potential impact of military overflights on the endangered piping plover. FWS managers have also expressed concern that disruption of feeding and occasional flushing of snow geese and Atlantic brant "impacts winter survival and overall condition of the population." The refuge provides wintering habitat for approximately 15% of the Atlantic flyway's Atlantic brant population.
- At California's Farallon National Wildlife Refuge, overflights occurring during the nesting season result in the loss of seabird eggs and chicks as startled adults knock them from their nests and leave them vulnerable to predators. The refuge is home to the largest continental seabird breeding colony south of Alaska.
- At Alaska's Togiak National Wildlife Refuge, military overflights scare thousands of seabirds off their nests and cause hundreds of walrus, seals and sea

lions to stampede. FWS staff believe that one major overflight disturbance can severely impact the reproductive success of seabirds for the entire year.

Why do the concerns of refuge managers continue to go unaddressed? Because FWS lacks control over the airspace above its refuges and the Defense Department is under no legal obligation to avoid, minimize or mitigate overflight conflicts. Consequently, refuge managers have relied primarily on personal negotiations with local military bases to solve their overflight problems. Of the 30 refuges reporting military overflight problems in the 1993 FWS report, at least 19 have been in contact with local military bases. The good will of local military commanders is often insufficient, however. In some cases, the military simply has been unresponsive to FWS efforts to resolve problems. For example, according to the 1993 FWS report, the refuge staff at Arizona's Buenos Aires National Wildlife Refuge, "made at least a dozen calls and . . . in frustration, we have discontinued the complaint process." In other cases, the military has been generally cooperative. Some military bases have even voluntarily agreed to restrict airspace over refuges by designating an acceptable minimum altitude of flights over refuges or designating no-fly zones. Unfortunately, these restrictions are evidently not always sufficient or, more often, they are frequently violated.

Planned Military Airspace Designations Pose New Risks

Even if existing overflight concerns were satisfactorily resolved, proposals to use more of the nation's airspace for military training purposes are likely to cause additional conflicts. In Alaska, for example, a recent major flying exercises proposal would increase supersonic operations over 20,050 square miles and expand low-level training by 33,155 square miles, including areas covering Yukon Flats and Innoko National Wildlife Refuges. Additional military training route expansions have also been proposed for the northeast, Colorado, Idaho, Nevada, New Mexico and Utah.

The FAA has traditionally allowed the military to be responsible for its own environmental assessments and has not been involved in substantially reviewing or evaluating the assessments. A 1989 review by the Department of Defense (DOD) and the Department of Transportation, entitled Report on the Joint Review of Special Use Airspace, concludes that there is a public perception that in passing the responsibility for NEPA compliance to the Department of Defense, the FAA has left a large amount of room for military bias to enter the assessments.

A Memorandum of Understanding (MOU) between the FAA and the DOD attempted to address these concerns. However, the MOU, while establishing coordination procedures between the FAA and DOD, failed to provide any measures to increase the DOD's accountability. It even goes so far as to allow DOD to exclude categorically from NEPA review certain actions relating to airspace designations which would not be categorically excluded under FAA regulations. Only this spring, five years after the MOU became effective in November 1989, did the Air Force begin adding the

MOU implementation provisions to its NEPA compliance regulations. The other agencies of the Defence Department have yet to address the MOU in their regulations.

Failure to follow NEPA procedures as well as inadequate consideration of impacts to public lands during the designation of additional airspace for military purposes, is clearly one factor that helps explain the large number of overflight concerns reported by refuge managers.

Legislative Action Is Needed

There is a clear need for Congress to establish a formal and legally binding process for minimizing conflicts between military overflights and national wildlife refuges. Military overflights continue to harass wildlife and undermine conservation efforts on scores of refuges in the National Wildlife Refuge System. Refuge managers spend valuable time and limited resources dealing with local military bases. Communications with the military, flight restriction agreements, and enforcement of agreements depend heavily upon the good will of local military commanders, which varies widely from base to base. FWS has recently attempted to enlist the help of the FAA in resolving specific issues identified in the 1993 FWS report. FAA's willingness to press these concerns with the military is questionable, however. Moreover, conflicts between the military and refuge managers are likely to increase as the military expands its use of airspace in Alaska and elsewhere.

For these reasons, we strongly support the effort made in H.R. 2080 to improve the process used to designate airspace over public lands for military purposes and the provision for monitoring of impacts to public lands. Section 4 would require DOD to solicit and consider the views of the Secretary of Interior or the Secretary of Agriculture before establishing airspace over non-military public lands. The Governors of affected states, affected Indian tribes and other members of the public must also be given the opportunity to comment on the proposed establishment of military flight zones. If the airspace is more than 5000 acres, the legislation would require that Congress be notified. The monitoring provision in H.R. 2080 requires the Secretaries of the Interior and Agriculture to monitor the effects of military overflights on the resources of their public lands. The provision also requires the Secretaries to seek actively the assistance of DOD to resolve military overflight concerns and to prevent, eliminate, or minimize the detrimental impact that overflights have on the public land resources. These statutory requirements should help assure that FWS and other public land managers have a stronger Congressional mandate to press the Defense Department for more rigorous environmental review. They should also help ensure greater accountability by the Defense Department in addressing identified problems.

Although these provisions would, as drafted, significantly enhance the hand of federal land managers in protecting public lands, we recommend further strengthening the monitoring provision. Specifically, we recommend giving the Department of the

Interior lead responsibility for identifying military overflight conflicts and, in conjunction with DOD, identifying measures necessary to avoid, minimize or mitigate the impacts of overflights on public lands. Most important, the Department of Defense should be required to implement those measures. Such a requirement would, for the first time, formally hold DOD accountable and assure that the agency makes a serious and diligent effort to reduce the impact of its activities on some of the nation's most important wildlife habitats. To avoid any potential conflicts between required mitigation measures and a compelling national security consideration, the President could be given broad discretion to grant a case-by-case basis exemption. The exemption would relieve any Defense Department agency from implementing a measure designed to minimize or mitigate impacts if that measure was found in direct conflict with national security objectives. These recommended changes are a means of reasonably reconciling two important national priorities: protecting wildlife resources on public lands and assuring military preparedness.

Mr. Chairman, this concludes my statement. Defenders stands ready to work with you on this important legislation. Thank you very much for the opportunity to present these views. I will be glad to answer any questions.

Mr. VENTO. Thank you, Mr. Dewey, and we will have a question or two in a moment for you. Finally, I want to welcome Karl Gawell for the Wilderness Society. Welcome, Karl, thank you for your patience.

STATEMENT OF KARL GAWELL

Mr. GAWELL. Thank you, Mr. Chairman. I assume my statement will be part of the record so I will save time by summarizing it and end with just a few remarks.

Mr. Chairman, I want to thank you for moving forward with this hearing and this legislation. The fact of the matter is that as much as the Defense Department may be uncomfortable with H.R. 2080, I think it is a good first step. We think it needs several strengthening amendments, and if they find H.R. 2080 uncomfortable, I guess our position is probably their worst nightmare. But I think it is very disingenuous for the Defense Department to come before this subcommittee and talk about bureaucracy or delays or people trying to upset national defense needs.

No one here has said that is what they seek. What they seek is accountability. And as long as I have been in Washington and dealt with the agencies and seen them interact with the Defense Department, for that matter when I see Congress interact with the Defense Department, there is a great deal of subtle intimidation. It is not necessarily intended, it is not necessarily something they go out of their way to do, but it is very difficult to deal with an agency who, when you get, you know, to the point of disagreement, you go to the White House, can always say this is a matter of national security.

I have seen this repeatedly, and we all know what occurs. And that is why as we are getting this growing conflict over the public lands, it is important, in our view, for Congress and I believe, in your view, by introducing H.R. 2080 to play an intermediary role. And my observation on the earlier testimony is maybe I just view these things slightly differently.

I think of the public lands are Congress' domain. These aren't the Forest Service's lands or the Park Service's lands or the Interior Department's lands, these are the public lands. And the Constitution quite clearly gives Congress a preeminent role with respect to the public lands and in a sense a trust obligation in ensuring their management. And I think that is what people here are asking for. A 180-day review period gives us a chance, gives us all a chance, to look at what they are doing. It is not, yes or no; it is not, here is the decisive conclusion about impacts. It is a question about accountability and process.

I think it is ironic that at a time when we are hearing many people or at least a few people clamor for the protection of the property rights of a few people, that what we really need is for people to begin respecting the rights, the property rights, of many people. And the public lands are the property of the American people and for most Americans this is their only property. And when we have parks and refuges and wildlife areas, I think the American people expect them to be protected and view that as an obligation of Congress.

And this hearing and your legislation is an attempt to execute I think faithfully and fairly your responsibilities. And that is what we are looking for in H.R. 2080 and why we support it, because we believe this is the only way you can have an effective check and balance on the military system, both between the agencies and in terms of overall public accountability. Thank you.

[The prepared statement of Mr. Gawell follows:]



THE WILDERNESS SOCIETY

**STATEMENT OF KARL GAWELL, DIRECTOR OF NATIONAL PARKS PROGRAMS,
FOR THE WILDERNESS SOCIETY BEFORE THE HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS,
REGARDING H.R. 2080, JUNE 17, 1994**

Good morning, Mr. Chairman and Members of the Subcommittee. I am Karl Gawell, Director of National Parks Programs at The Wilderness Society (TWS). I am here today on behalf of the Society's 300,000 members to present testimony concerning H.R. 2080, legislation to improve the management of public lands used for military purposes, to require assessments of future needs for withdrawals of public lands for such uses, and for other purposes. This testimony has been prepared with the assistance of several individuals at TWS including Pamela Eaton, Pamela Miller, Craig Gehrke, Norbert Riedy, and Suriya Douglas.

The military has used public land and airspace throughout the United States for many years. Lands managed by the Bureau of Land Management (BLM), Forest Service (FS), National Park Service (NPS) and the Fish and Wildlife Service (FWS) in the West and Alaska particularly have been the subject of expansive and increasing military use. The Wilderness Society recognizes the need for this shared use, but strongly feels that the Congress should involve itself more in the oversight of these activities to improve the accountability of their use and to minimize adverse effects upon historic, recreational, wildlife and natural resources as well as impacts upon Native American and rural communities.

When The Wilderness Society testified before this Subcommittee in 1990, we expressed our concern about the prospects for large expansions of military use of public lands and the impact such uses could have. Today, our concerns are only heightened.

In Alaska, a major expansion of training flights and military exercises by the U.S. Air Force and other branches of the military is taking place over national parks and preserves, national wildlife refuges, wild and scenic rivers, and other public lands. At least ten conservation system units and five wild and scenic rivers in Alaska will be affected by new flying exercises in expanded military training routes and military operating areas covering about 34 million acres, and expanded joint training exercises of undefined scope are also proposed. As a result, wildlife and recreational users of other public lands in Alaska, and rural and urban residents of the state, will be subjected to unprecedented areas with high noise levels that belie Alaska's wilderness reputation.

Major expansions of joint military training exercises, which occur annually, will bring additional impacts on the ground and in the airspace over the public lands. For

example, in 1987 the Brim Frost Exercise conducted by the Alaska Air National Guard and the U.S. Army took place in 17 locations across Alaska, including the Arctic National Wildlife Refuge. Before the end of the Cold War, a major NATO exercise took place in Alaska, and international exercises such as Cope Thunder are continuing that are incompatible with the purposes of conservation units. Recently, a joint peacekeeping training exercise involving U.S. and Russian ground troops that had been planned to occur in Russia was rejected by that country, and there is now pressure to use Alaska instead for such purposes.

In Idaho, the U.S. Air Force is aggressively pursuing the establishment of a sprawling 3 million acre electronic combat and military bombing range in the Owyhee Canyonlands. This range would be located in the heart of one of the largest remaining relatively intact high desert ecosystems in the United States, characterized by rolling grassland and juniper plateaus deeply cut by sheer-walled river canyons, which provide habitat for at least a quarter of the nation's California desert bighorn sheep population, a candidate for protection under the Endangered Species Act. The Owyhees also provide critical habitat for peregrine falcons, bald eagles, redband trout, mountain lions, ferruginous haws and other rare and sensitive animal species. The Owyhees support critical fawning habitat for the most productive pronghorn antelope herd in Idaho.

If the combat range in the Owyhees is created aircraft activity will more than double as military divisions from around the west, including jet fighters, heavy bombers, tankers, and radar planes, converge over the range at least once a month for massive training activities. Smaller, day-to-day training flights with laser systems, and nighttime, low altitude flying will also occur. Fighter jets will be allowed to fly as low as 100 feet above the ground. Incendiary flares and radar-jamming aluminum chaff would be scattered throughout the area. Over 30,000 practice bombs will be dropped annually with marker charges hot enough to ignite range fires.

Alaska and Idaho are just two examples of areas where the military is proposing major expansions of its use of the public lands.

Few would dispute the importance of providing sufficient space to ensure military preparedness. Moreover, we recognize that the military cannot conduct exercises in heavily populated areas. The sad fact is, however, that there is less and less open space in this country, and the competition for its use grows more intense every day.

The Impact of Military Activities

The military must acknowledge this fact and take affirmative steps to better address the impacts its activities are having upon the public lands, wildlife, natural resources, rural communities and Native Americans. The impacts of military land use are not trivial.

In the case of the proposed Idaho bombing range, at least 15 wilderness study areas and candidate wild and scenic rivers and numerous Native American sacred sites would be impacted. Important wetland habitat would be lost. The disturbance from low

flying aircraft will likely force wildlife out of preferred habitat onto less suitable ranges, resulting in an overall decrease in wildlife populations, and bombing activities will destroy the sagebrush habitat necessary for most local wildlife species. Local biologists estimate that up to 75 percent of the antelope herd will be lost, and sage grouse habitat will be largely destroyed.

Perhaps the most pervasive impact upon historic resources, wilderness, wildlife and human populations result from aircraft overflights. Since the Subcommittee's 1990 hearings there has been much more learned about these impacts. In its report entitled "Aircraft Overflight Issues on National Wildlife Refuges" (August 1993), the U.S. Fish and Wildlife Service documented numerous overflight problems on national wildlife refuges. These are just three of the many problems cited in the report:

- o At Harris Neck National Wildlife Refuge in Georgia, low-flying military aircraft disturb endangered wood storks and may cause eggs and downy young to die when adults, flushed from the nest by aircraft, kick the young out of the nest, or expose the young to predators, sunlight and rain. Aircraft can cause the young to literally jump out of the nest.
- o At Sequoyah National Wildlife Refuge in Oklahoma, within two weeks of the beginning of military training overflights, the snow goose population dropped from 14,000 to 6,000 and the bald eagle population dropped from 19 to 3.
- o A refuge ecologist at the Cabeza Prieta National Wildlife Refuge in Arizona was thrown from her horse when it was startled by a military aircraft. The same ecologist witnessed a deer run off a cliff and break a limb in response to an overflight. In harsh desert areas, biologists assert overflights can severely endanger animals where their energy budgets are already stretched by the environment.

In Alaska, expansion of Air Force training programs include designation of millions of acres of new military training routes (MTRs) and military operating areas (MOAs), initiation of major flying exercises in Alaska, and installation and maintenance of the Yukon measurement and debriefing system. According to the U.S. Air Force, 36 million acres of airspace already has been permanently withdrawn by the military, much of which is over public lands. Proposals to permanently designate at least 15 million acres of additional airspace are currently pending, and millions of acres of temporary airspace withdrawals occurred recently. Approximately 67,800 sorties are proposed annually for the major flying exercises alone, of which 5,478 are estimated to involve super sonic flights and resulting sonic booms.

The first major increase in environmental impacts to the natural values of public lands in Alaska occurred with a major transfer of F-16 jets to Alaska after closure of the Subic Bay base in the Philippines following the volcanic eruption and the need for replacement training areas. The closure of Subic Bay has resulted in expansion of training not only in Alaska, but also in Nevada, New Hampshire, Idaho, and at Guam

where there are conflicts with endangered species. Conversion from A-10 to F-16 and F-15 aircraft squadrons at U.S. Air Force bases in Alaska is significant since these jets need more space for training because they are faster, and also because the F-16s are extremely noisy aircraft.

Already, the solitude of Yukon-Charley Rivers National Preserve has been transformed from a remote defacto-wilderness set aside by the Alaska National Interest Lands Conservation Act specifically to protect habitat of endangered peregrine falcons along the river cliffs to a land filled with thundering F-16 jets. Even though some modifications to the training flights were made as the result of Endangered Species Act consultations, such as buffers and altitude restrictions around concentrated areas of peregrine falcon nesting, take of peregrine falcons has occurred. In May 1993, violations of the stipulations concerning restrictions on low-elevation flights over falcon nests were documented by the Fish and Wildlife Service on video. These flights also violate the wilderness values of this unit of the national park system.

While these impacts may not be as intensive as those caused by tank warfare maneuvers, or bombing ranges, the sheer expanse of military airspace use magnifies the problem to severe proportions. As this Subcommittee noted in its 1992 report on H.R. 3564, 25% of the total land area of the United States, or 1 million square miles, is used by the Air Force as training airspace. This airspace is largely over public lands and rural communities, explaining why the personnel at 91 National Parks and 28 Wildlife Refuges report military overflights as an issue of management concern.

H.R. 2080

In general, The Wilderness Society believes that H.R. 2080 is a good first step in the direction of more accountable land and airspace use by the military. It builds upon some of the recommendations which we made in 1990, but should be significantly strengthened in several areas.

State Military Land Use

Section 2 of H.R. 2080 would take the important step of placing state military uses of public lands under FLPMA. However, we believe that this provision should be strengthened in several ways.

First, proposed subsection (7)(B) would statutorily authorize the use of national guard areas by the United States Armed Forces. We are concerned that this will become a major loophole for the armed services to exploit, especially when many exercises are conducted as joint training. In the case of the Idaho Bombing range, the Air Force appears to be using a complicated arrangement of land exchanges and leasing of state lands to make an end run on the requirements of the Engle Act. To remedy this problem, at least in part, we suggest making all permits for military activity involving 5,000 acres or more subject to congressional authorization regardless of the requestor. Further, we recommend expanding the terms of the existing law to cover military use of

state lands and the exchange of federal land for state land when the exchange is made to accommodate military uses.

Section (2) proposes a very low standard of damage in determining when the Secretary may permit state military uses. Under proposed Section (2)(A), the Secretary would be allowed to permit such uses that "are not likely to result in a significant degree of residual contamination of affected lands" and are "not inconsistent with the land use plans" prepared for these lands. Under this provision, the Secretary is not required to consider impacts on threatened or endangered species, wildlife, or other natural resources unless those impacts were explicitly considered in the land use plan. While we have not prepared a detailed study of land use plans, it is our informed belief that most land-use plans do not examine military uses in any detail unless the lands involved are already used by the military. Congress should add a more affirmative obligation to this provision to ensure that the proposed uses would have a negligible adverse impact upon the wildlife and natural resources of the lands involved. This could simply be accomplished by making the optional requirement of proposed subsection (4)(A) mandatory.

Reporting

The report called for in proposed section (9)(c) should also include study of the uses of conservation system units, including national wildlife refuges, for military training exercises and facilities and airspace uses. The inventory of public lands withdrawn for military purposes called for under Sec. 5 of H.R. 2080 should also include an inventory of the public lands, including conservation system units, where military training exercises occur on the ground or in the airspace above them. The relationships between the uses of lands withdrawn by the military, and the other lands which they use on a temporary or permanent basis needs to be comprehensively assessed in order to get a full picture of the impacts of the military on the natural resources of our public lands.

Military Land Interchanges

Section 3 of H.R. 2080 would make some important changes to the 1956 Act regarding interchanges between the Department of Defense and the Forest Service. We support these provisions and believe that they represent much needed improvements.

Military Airspace Use

The most contentious military use issue today may be military overflights. Section 4 of H.R. 2080 takes some initial steps to bring reasonable order to the current allocation of air space for defense purposes but does not go far enough. In our view this section should be strengthened in several respects. To begin with, it should specify that the Department of Defense is required to reimburse the federal land management agencies for their costs in monitoring the effects of military overflights. Also, the language of this proposed section should not be limited to recognizing the impacts of overflights on visitor enjoyment, but should be expanded to include impacts on historic,

wildlife, and other natural resources as well as impacts upon Native American and rural communities.

More significantly, we believe that as a general rule the land areas and airspace over National Parks, National Monuments, designated Wilderness Areas, Wilderness Study Areas and National Wildlife Refuges should be off limits for military operations. Only Congress should be allowed to approve military use of such airspace when it is demonstrated that such operations are essential and there is no feasible alternative. The values and benefits of these areas are nationally significant and, therefore, military intrusion into them should not be taken lightly.

Also, we would like to see all exclusive military airspace designations involving over 5,000 acres approved by Congress. The fact is that only Congress can function as an appropriate "check and balance" on the military. For military land withdrawals, that has meant requiring congressional approval. That same standard should be applied to airspace use. Also, we urge the Subcommittee to add to this section an express, affirmative requirement for the Department of Defense to prevent, eliminate or minimize impacts on public land resources from overflights. Further, there is a need for an explicit legislative provision establishing a process to resolve disputes between the agencies, which is discussed in more detail later in this statement.

Planning for Defense Land Use Needs

Section 5 of H.R. 2080 would make a major contribution towards resolving present and future problems with military land use. The Wilderness Society strongly supports requiring the Department of Defense to prepare plans for its use of the public lands which anticipate and justify future expected uses.

Resolving Disputes in Military Use Areas

A significant problem not addressed in H.R. 2080 is the difficulty the public and federal land management agencies have in ensuring that the military uses public lands and the airspace over public lands in the manner intended.

The April 1994 General Accounting Office (GAO) report to this Committee entitled "Defense and Interior Can Better Manage Land Withdrawn for Military Use" contains examples of repeated violations of the terms of military airspace and land use agreements. For example, at Desert National Wildlife Refuge, a portion of which was overlaid in 1986 by a military withdrawal, the GAO report cites repeated violations of the terms of the working agreement between the Fish and Wildlife Service and the Air Force. Specifically, the Air Force has conducted and continues to conduct air-to-ground bombing at the Desert Wildlife Refuge outside of approved areas. On three occasions since 1979, this bombing in unapproved areas involved a catchment for drinking water for sheep--the very species the refuge was established to protect.

H.R. 2080 should establish a formal process for the resolution of these problems, including a process for elevating the dispute to the appropriate agency heads when

problems cannot be worked out at the local level. This process should also be used to assign responsibility for rectifying problems, including which agency is responsible for paying for clean-up, mitigation, or preventative measures.

NEPA Compliance

Furthermore, compliance with NEPA should be taken more seriously, particularly concerning cumulative impact assessment. For the major expansion of U.S. Air Force training activities in Alaska this has been a major problem. The U.S. Air Force has failed to comply with the requirements of NEPA and to ensure that proposed activities are compatible with the conservation goals of the Alaska National Interest Lands Conservation Act (ANILCA) and the requirements of FLPMA in its expansion of training activities in Alaska. The conversion to noisier F-16 jet squadrons was addressed in an environmental assessment with no public or natural resource agency review. From this first step, the U.S. Air Force and other branches of the Armed Services including the Alaska National Guard, have continued a piecemeal assessment of the environmental impacts of their activities. The major flying exercises (MFEs), military training routes (MTRs), target facilities, and expansion of military operating areas (MOAs) are interrelated activities for which the cumulative effects should be considered in a single environmental impact statement (EIS). However, the U.S. Air Force merely conducted separate environmental assessments for the MTRs and MFEs. After completion of these documents, the Air Force requested temporary airspace withdrawals from the Federal Aviation Administration (FAA).

In comments submitted on the two EAs prepared for expansion of the MTRs and MFEs to the U.S. Air Force on our behalf on April 7, 1993, the Sierra Club Legal Defense Fund asserted that it was unlawful for the Air Force to request designation of additional airspace from the FAA because the Air Force had failed to prepare an EIS examining the impacts of these and other related proposals nor had the Air Force determined that the proposals would be compatible with ANILCA and FLPMA. Although an EIS for expansion of the MOAs is now underway, we question whether it will adequately address the cumulative effects of all activities. For one thing, the no action alternative for this new EIS assumes that the temporary MOAs now in existence will continue in use, and therefore is not truly a "no action" alternative in light of the recent expansion of military activities which this subsumes.

Contamination

While H.R. 2080 provides new authority addressing the clean-up of lands which in the future will revert to the land management agencies, it does not address the many thousands of contaminated "Formerly Used Defense Sites" that are now administered by the public land agencies. For example, old Distant Early Warning Lines (DEWlines), are located within national wildlife refuges and other conservation system units, forests, and public lands and Native lands in Alaska. Cleanup of military debris and contamination at abandoned DEWline sites within the Arctic National Wildlife Refuge is finally being started this summer, but not as adequately as the Fish and Wildlife Service thought was necessary.

H.R. 2080 should enhance the legal authority of the Departments of the Interior and Agriculture to see that cleanup and restoration of these sites is carried out by the military to standards acceptable to the public land manager. Unfortunately, the program for clean up of these sites is grossly underfunded and the U.S. Army Corps of Engineers is very slowly tackling the legacies of World War II and the Cold War in Alaska. However, because many of these sites are remote from major population centers--even though the toxic contamination still poses threats to wildlife and the rural residents who depend on the wildlife for subsistence--they tend to rank lower on the national priority system and it will be many decades before all the sites will be cleaned up at the current pace of the effort. Additional oversight by Congress is needed to ensure that these critical clean-up activities get done properly and in a timely manner.

Conclusion

In conclusion, Mr. Chairman, The Wilderness Society feels strongly that this Subcommittee should act on legislation to improve the management of public lands in order to allow the continued use of public lands by the military in a manner which will protect the environment, respect the concerns of local communities, and rationalize the increasing military demands on the land base. We believe that H.R. 2080 is a good starting point, but would like to see the strengthening amendments we have discussed adopted by the Congress.

Thank you.

Mr. VENTO. Well, thank you, Mr. Gawell, for your statement and the spirit and philosophy behind it.

I must say that I find no difference with regards to that. My view is that the 180-day wait was an effort to try and simply report and to look at the process. And, obviously, it would take an entire action of Congress to block a proposal. But, when you talk about it, obviously, you are charged with putting your finger on something in terms of the national security and/or the lives of fliers, immediately when you start to begin to talk about it, the complaint is that if you are going to have a six-month waiting period, you are talking about the lives of fliers.

That is immediately the conclusion that opponents jump to, which I think is a good solution if they have a weak argument. But it doesn't particularly wear very well with most of us when the answer is always a claimed threat to the national security or the lives of soldiers and sailors—in fact, of course, the lives may be saved by virtue of a closer look, as was pointed out by Admiral Carroll on the low-level flights issue. We are actually talking about air reservations that last forever, that, in fact, other than with the FAA, if they voluntarily relinquish them, then they would come back into a different circumstance.

Mr. Dewey, there is a question that I had as I was looking through your statement. And that was with giving the Department of Interior the lead responsibility for monitoring. But to this date, you know, we have run into some of this difficulty with regards to other agencies in the Department of Interior such as the Park Service. And it does not have the resources or tools to monitor.

Isn't that really something that the BLM or the Department of Interior would have to rely upon the FAA or others to help monitor?

Mr. DEWEY. I think they should do it in conjunction with other agencies, clearly. And another issue there is resources. There needs to be the resources to support additional monitoring. It is true that the Interior Department in some cases doesn't have the expertise to propose specific, say, once they have done the monitoring, the mitigation suggestion, but they know what the impacts are on their resources. So I fully expect that they would work with other agencies.

Mr. VENTO. Yes, this was also a recommendation of the GAO, interestingly enough, in the report that Congressman McCurdy and Senator Glenn had sought. And, you know, I think the question is agreeing upon what is adequate monitoring and what is appropriate monitoring in this process. Do you think the existing process for the consideration or the setting aside of the reservations for aircraft or flight patterns, do you think that system is flawed, as others have indicated here today?

Mr. DEWEY. I think that a number of studies, for example, in my written statement I mention a report, a 1989 study, by the Defense Department and the Department of Transportation, entitled "Report on the Joint Review of Special Use Airspace," concludes that there is a widespread public view that in passing a large amount of NEPA compliance off to the Defense Department, the FAA has largely left that whole review process in NEPA up to, and given significant discretion to, the Defense Department.

And so I think that with respect to NEPA, that there are flaws there, and that in addition, the FAA hasn't exercised a great deal of oversight over the designation of airspace. And that is critical, obviously, because, say, other agencies, such as the Interior Department, just don't have the expertise that one would assume that the FAA would. And so it is all the more critical that the FAA exert careful review of these proposals.

Mr. VENTO. Well, there are a couple of things that don't happen with the FAA. First of all, they are looking at safety and conflicts between other types of airspace users, commercial or private aircraft with regards to general military aircraft. They are looking at the distances between them, the type of equipment that they have. They are not, as far as I know, looking at what the environmental impact is in terms of the impact on resources. They don't consider something as intangible, I suppose, as what the impact is if it is a wilderness area. And these are simply not so easily defined. So there has to be some subjective judgment along the way. And, of course, the subjective judgment apparently is made by the Department of Defense.

This really is sort of an in-house process—I wonder, since there is such a sensitivity to this, what the record is for the past year in the Department of Defense on the discipline of those pilots that are using existing airspaces that may in some way, shape, or form, have violated the air restrictions that might be placed on those areas, just for a year, as an example.

I wonder how much information I could get if I would ask that about just a single airspace reservation area. Since there is such a close monitoring of this, I wonder what type of disciplinary action was taken in those instances where there were violations? Maybe we should identify somewhere there are typical questionable use of aircraft and what the reaction was in terms of the discipline. That could be as simple as a convincing argument that they are proactive in dealing with this issue, as opposed to simply reactive to an effort by Congress to try and address the matter.

I know that that question will be asked of Ms. Goodman, to provide some information along those lines that is reliable and, hopefully, in a format that is understandable. But there is an increasing concern—especially with the airspace issue, but also with the land issue in terms of contamination, and in terms of other areas.

Is there any reason why the National Guard should be treated any differently than the Federal military with regards to the withdrawal of lands, Ms. Carlson?

Ms. CARLSON. No, I think when you have circumstances in which the National Guard, the State National Guard, is using the public lands and causing significant alterations to those lands, that they ought to be treated just like any other military agency for the purposes of environmental assessment, of potential impacts, and also in terms of withdrawals or exchanges that may occur.

Mr. VENTO. Well, I don't know, looking at a longer period of time or at smaller areas, there are, I guess, themes and variations. Maybe it is a signal—you know, one of the things I am concerned about is that the NEPA process ends up being the only vehicle available. As I said before, I think the reliance upon a single law like NEPA is not good. NEPA is important, and I think that proc-

ess ought to go forward here, but it ends up being the only tool available when there should be, I think, public policies maybe not as generic and all reaching at NEPA, but something to talk about the specific problem in terms of trying to construct a format, whether it is interagency, and of course, I think it is a question of how these agencies that have these multiple responsibilities, these overlapping responsibilities, relate to the public, relate to other units of government like the States or the political subdivisions and generally the public and those impacted. Did you feel comfortable today that the stewards from the Interior Department and the Forest Service were adequately representing you, Mr. Gawell?

Mr. GAWELL. Well, I was rather surprised to hear a Park Service representative indicate that places like Yukon Charlie don't exist, apparently. Because it is fairly well-known within the Park Service, in fact, the Interagency Council put out a list of 91 parks where the park personnel indicated military overflights are considered at least a concern.

Mr. VENTO. Well, I think the record should show that Mr. Castlebury is the regional director of the Midwest Region of the Park Service. I don't know what the impacts of aircraft overflight are, maybe around Omaha and its strategic air base that is there, the B-52s would be about it. I don't know that he has the privilege of having F-16s, -18s and sundry aircraft impacting various parts of the State.

Mr. GAWELL. Yes, but it is obvious that with 91 park units reporting military overflights as a problem, that even as a regional supervisor—they are usually a pretty tight net at that level in terms of what they know the problems are. And I think what you heard this morning was every agency say they simply don't monitor this. A lot of the areas that are either withdrawn or set aside, particularly if they are intensively used like bombing ranges, they write them off.

Mr. VENTO. I thought the only credible response came, frankly, and not because they were saying what I wanted to hear, but I thought the only definitive response came from the Fish and Wildlife Service. Of course, they have been pushed into that particular issue by a variety of different circumstances, as was indicated. And no doubt the Defenders of Wildlife have been a major factor in pushing them into that particular situation.

Oh, I am sorry, the letter from Mr. Hansen that we were referring to—we will put this in the record, if there is a copy of it now—but apparently the original letter went to Regional Director Castlebury, but the answer was from Mr. David Moffet, Acting Associate Director of Operations. But I would say that the Park Service, notwithstanding that, has been and is four years late in terms of its study on aircraft overflight. They largely are dealing with commercial type of aircraft overflight by tour operators, that's what they are focusing on. But I think military areas are, of course, a problem because you, not infrequently, I think, have the intrusive activities of military aircraft that want to see the splendors of the Grand Canyon from the cockpit of a military aircraft. And so it is a great temptation to get a little closer than perhaps they should, and without the adequate discipline or control. And I heard that in the testimony today, at least in the written testimony, Admiral

Eugene Carroll pointed out the problems and the sort of free wheeling that goes on in terms of flathatting, in terms of aircraft, as he referred to it.

I had not heard that phrase before, but that apparently is a common description of the exploits of some of our Naval and Air Force aviators and other aviators in terms of demonstrating their performance and low-level flight activities, sometimes at the expense of power lines and so forth between various communities. But, more importantly than that, that stands up because we are going to hear from the utilities, but my concern was that if public land managers don't stand up for these resources in their area, transboundary and dealing with airspace and so forth, whether it is wilderness, I don't know who is going to do it.

They are standing in our place and the fact is we can get them to report back to Congress on things from time to time, but on a day-by-day basis they have to speak up for these resources. If they don't, we are simply left floundering, I suppose, in a sense, trying to on a day-by-day basis deal with the press of decisions and problems that affect these lands.

There is going to be degradation to these resources.

Ms. CARLSON. If I could respond.

Mr. VENTO. Yes, Ms. Carlson.

Ms. CARLSON. I just wanted to point out, I think that the Deputy Under Secretary, Sherri Goodman, has really made tremendous strides to try and open up a dialogue with the other Federal land management agencies. And there seems to be a tremendous reluctance at least on the part of the Interior agencies to consider changes in the rules of engagement, if you will, while they are just starting to get to know each other. But as you point out, Mr. Chairman, that a lot of these discussions are in their infancy, and activities like this tend to be somewhat ephemeral. So I think it is really important that the agencies do take a much stronger role in trying to recognize the importance of all the natural resource values on these public lands and speak up in their behalf.

Mr. VENTO. Yes, it is the old phenomenon of great expectations. I think they wrote a play on that once. Well, without objection, the exchange of letters between Congressman Hansen and the Park Service will be put in the record.

Mr. Castlebury was the acting associate director of operations at this point, in February of 1994, and the answers, so both these will be placed in the record. Hearing no objection, so ordered. Thank you very much for your assistance. This panel has been helpful. We look forward to your continuing involvement in this process so that we can come to some resolution. Thank you.

[Whereupon, at 1:52 p.m., the subcommittee was adjourned.]

APPENDIX

JUNE 17, 1994

ADDITIONAL MATERIAL SUBMITTED FOR THE HEARING RECORD

Statement before the SUBCOMMITTEE ON NATIONAL PARKS, FORESTS, AND PUBLIC LANDS COMMITTEE ON NATURAL RESOURCES U.S. HOUSE OF REPRESENTATIVES

**Senator Ben Nighthorse Campbell
June 17, 1994**

Mr. Chairman, I appreciate the opportunity to comment on my experience with military use of public lands. I know you've already heard from a bunch of people about this issue, and no doubt you'll get another earful today.

I especially appreciate your leadership and your persistence on this proposal. I supported this bill while a member of the House Interior Committee. Now as a member of the Senate, I plan to introduce the Federal Land Reform and Reassessment Act of 1994. This is a companion bill to your legislation, H.R. 2080. I will introduce this bill because I want the Senate, and particularly the Senate Committee on Energy and Natural Resources, to take a look at the thorny issues that cause more controversy and raw tempers every time a military agency wants to use public lands or airspace.

Like you, Mr. Chairman, I am more than willing to hear comments and suggestions on this legislation. The bottom line is that it's time for Congress to take a fresh look at these issues. I don't have anything to teach this committee about environmental policy, but let me quote briefly from the Federal Land Policy and Management Act: "the national interest will be best realized if the public lands and resources are periodically and systematically inventoried and the present and future use is projected through a land planning process coordinated with other federal and state planning efforts." The Act tells us to manage our public lands in a manner that protects the quality of scientific, scenic, historical, ecological, and environmental values.

The intent of Congress is clear, and I don't think Congress wanted there to be any exceptions. But there are exceptions, and judging from comments from some Coloradoans, it seems to me that we need to address those exceptions that affect the use of public lands and airspace.

The bill H.R. 2080 addresses many of the issues surrounding military use of public lands and airspace. My own experience gives me several personal concerns specifically about the use of airspace over public lands. You already know that there is a airspace request by the Colorado Air National Guard to create a new military operations area in central Colorado. Some of that training space is over land designated as wilderness. I spent several years negotiating, cajoling, bullying and begging, helping to put together the Colorado Wilderness Bill. That bill finally became law just last year. After all that, I find a proposal to fly fighter jets on training missions over those new wilderness areas.

Mr. Chairman, you remember the preamble of the Wilderness Act, which says wilderness areas are places where "the earth and its community of life are untrammeled by man, where man himself is a visitor...[and which] appears to have been affected primarily by the forces of nature." An F-16 flying at low altitudes and high speeds is not the force of nature the Wilderness Act's authors had in mind.

I submit that the current practice of reserving airspace, without first analyzing how the reservation fits into the federal scheme of public lands management, is contrary to the intent of current laws and contrary to common sense -- a solitary place is not one that is shared with a low-flying fighter.

When you combine a growing concern for the environment with the current military drawdown, it's easy to understand the increased visibility of this issue. In my own state, add to the mix the fact that many more people travel or move to Colorado to enjoy the peace and quiet of our national forests and wilderness areas, and you have the makings of a real hornet's nest.

Mr. Chairman, I have letters on this issue from the Governor's office, Rep. McInnis's office, several state legislators, eight county commissions, eight town councils, ten wilderness groups, six agricultural groups, three pilot groups, 16 spiritual organizations, 12 economic development organizations, seven schools, and assorted other groups and individuals, not forgetting the five citizens' action groups organized specifically to oppose the Air National Guard's airspace request.

I have to say that, this time around, the Colorado Air National Guard has followed very carefully the process mandated by the National Environmental Policy Act. But all the controversy suggests that it's just not enough to approve the military use of public lands or airspace on the basis of an environmental impact statement. One of my constituents wrote in and gave his blunt opinion about the process, "There is not a single person elected by the people of the United States directly involved in it." Congress needs to be involved in the process of determining the use of public lands.

None of us here are against the military, and least of the all the National Guard. I know those pilots need to train, because they may find themselves on short notice in a real dogfight. We all know the few remaining areas large enough to accommodate training will be over public lands. Given the congressional requirement to plan all public land uses in advance, I believe congressional oversight over all military uses of public lands dovetails with our responsibility to both protect national security and manage public lands for the use and enjoyment of all Americans.

Times have changed, and the competition for resources is a lot more heated than it used to be. We need to take a hard look at the problems with the process, and we need to be more involved in the process. That's why I support this bill, and I look forward to holding hearings in the Energy Committee back on my own side of the Hill.

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QUESTION NUMBER 1.a.

INTERAGENCY AIRSPACE/NATURAL RESOURCES COORDINATION GROUP

Mr. Vento: What is the formal status of the "Interagency Airspace/Natural Resources Coordination Group" referred to on page 2 of Ms. Goodman's testimony?

Ms. Goodman: The Interagency Airspace and Natural Resources Coordination Group is a collection of Federal agencies that have responsibility for airspace and land use. At the invitation of the Air National Guard, these agencies met informally for the first time in January 1994 to get acquainted and discuss matters of mutual interest. The group met again in May and September of this year, because members have been encouraged by the proceedings. While it does not have official status, the group operates within existing authorities, and has the support of all agencies involved. To further the efforts of the group, and to recognize the potential and encourage the development of similar groups to deal with interagency issues, a memorandum of understanding has been drafted and is currently being reviewed by the Department of Defense and the Department of the Interior.

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QUESTION NUMBER 1.b.

INTERAGENCY AIRSPACE/NATURAL RESOURCES COORDINATION GROUP

Mr. Vento: What agencies are represented on this body?

Ms. Goodman: The following agencies have sent representatives to meetings of the group in January and May.

- Department of Defense
 - Deputy Under Secretary of Defense (Environmental Security)
 - Department of Army
 - Department of Navy
 - Department of Air Force
 - Headquarters U.S. Marine Corps
 - Army National Guard
 - Air National Guard
 - Air Force Reserve
- Department of Agriculture
 - U.S. Forest Service
- Department of Interior
 - Assistant Secretary - Indian Affairs
 - Bureau of Land Management
 - National Park Service
 - Office of Aircraft Services
 - U.S. Fish and Wildlife Service

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QUESTION NUMBER 1.c.

INTERAGENCY AIRSPACE/NATURAL RESOURCES COORDINATION GROUP

Mr. Vento: How often is it expected that this body will meet?

Ms. Goodman: The group met in January and May of this year, and will meet again in September. This frequency of every four months has been determined by the need and willingness of the members of the group to meet, and will probably continue; although all members have agreed the group should meet at least twice a year.

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QUESTION NUMBER 1.d.

INTERAGENCY AIRSPACE/NATURAL RESOURCES COORDINATION GROUP

Mr. Vento: What procedures have been adopted for the Interagency Group's work in developing and implementing recommendations?

Ms. Goodman: The group has been guided by a policy of resolving issues at the lowest level possible. It is implementing this policy through the adoption of the following precepts and procedures:

- Foster a cooperative environment and promote more interagency dialogue.
- Provide a forum for information sharing and operational feedback.
- Identify airspace and land use issues early in planning process.
- Identify airspace and land management training opportunities.
- Establish subcommittees to staff airspace and land use issues.
- Encourage individual agency action to resolve issues.
- Facilitate interagency action to resolve issues.

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QUESTION NUMBER 1.e.

INTERAGENCY AIRSPACE/NATURAL RESOURCES COORDINATION GROUP

Mr. Vento: Have any recommendations been developed to date? If so, what are they, and what steps are being taken to seek their implementation?

Ms. Goodman: The group has identified 55 issues for resolution or further study. Five subcommittees have been formed to fully consider the 55 issues and make recommendations to the agencies involved. The group has no enforcement or regulatory authority, and is not empowered to implement recommendations; but it has been successful in resolving 5 longstanding issues, to date.

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QUESTION NUMBER 2.a.

MILITARY OVERFLIGHTS

Mr. Vento: What steps has the Department of Defense taken to respond to concerns raised by other agencies and by the public with regard to the effects of military overflights?

Ms. Goodman: The Department of Defense is concerned with the effects of military overflights, and we make an effort to respond to agency and citizen complaints. Military pilots are guided by command operations manuals and rules governing overflights of populated and protected areas, such as national parks, wilderness, and cities and towns. We have also made it possible for the public to notify us whenever they have an overflight problem, by providing a "1-800 number" to our major airspace schedulers.

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QUESTION NUMBER 2.b.

MILITARY OVERFLIGHTS

Mr. Vento: How many citizen complaints about military overflights have been received by the Department of Defense in each of the last 5 years?

Ms. Goodman: The Military Departments report the following information on citizen complaints about military overflights:

Army does not maintain records on citizen complaints about its overflights and is unable to supply this information.

Navy has received a total of 347 overflight/noise complaints over the last five years. Twelve of these involved overflights of noise sensitive areas that were being conducted within allowable limits; i.e., either along designated low level routes or within Special Use Airspace.

Air Force does not maintain records on such complaints for five years. In 1993 it received 92 citizen complaints about military overflights, and in 1994, through August 22, it has received 47 complaints.

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QUESTION NUMBER 2.c.

MILITARY OVERFLIGHTS

Mr. Vento: How many expressions of agency concerns about military overflights have been received in each of the last 5 years?

Ms. Goodman: Based on the information we have, the Department of Defense has not received any formal complaints from other agencies in the last 5 years, although we understand the Navy has been apprised informally of agency concerns with military overflights 4 times during the same period.

We are also aware of a list of overflight concerns that the Department of the Interior, U.S. Fish and Wildlife Service submitted to the Federal Aviation Administration in 1994. The list included concerns with military and civilian overflights, and we are working with Interior to address the military ones.

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QUESTION NUMBER 2.d.

MILITARY OVERFLIGHTS

Mr. Vento: To the extent possible, please describe the responses to these complaints and expressions of concern.

Ms. Goodman: Navy has responded by taking circumstances of these concerns into account. In one case, it took an airspace action to provide a no-fly zone around a monument and avoid overflight of it. In another, it rerouted aircraft one mile away from two wilderness areas. It has also requested flight crews to avoid known sensitive nesting sites, as have Army and Air Force.

All Military Departments follow the rules and regulations governing proper use of airspace, and investigate procedural deviations promptly and thoroughly. Citizen concerns about overflights are accommodated whenever possible, often by making route changes.

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QUESTION NUMBER 3.a.

MILITARY OVERFLIGHTS

Mr. Vento: What disciplinary or other measures are applicable in cases in which relevant restrictions on military overflights are not complied with?

Ms. Goodman: In the Army, local base commanders determine the appropriate action to be taken when overflight restrictions are not heeded.

The Navy investigates any alleged deviations from overflight restrictions through the chain of command, beginning at installation level, and appropriate disciplinary action is taken.

In the Air Force, all alleged pilot deviations are thoroughly investigated by the appropriate Major Air Command, with input from the unit. In every case, an investigating officer conducts a complete and unbiased evaluation of the circumstances surrounding the incident and recommends corrective action.

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QUESTION NUMBER 3.b.

MILITARY OVERFLIGHTS

Mr. Vento: Have any such measures been taken within the last 5 years? If so, please describe them.

Ms. Goodman: Army and Navy have not had to take such measures, since they have had no violations of regulations.

The Air Force has taken corrective action in response to the alleged pilot deviations, including pilot decertifications and recertifications, briefings on "lessons learned" to all aircrews, and changes in published routes/procedures.

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QUESTION NUMBER 4.a.

ENVIRONMENTAL IMPACT STATEMENT (EIS)

Mr. Vento: Testimony at the hearing indicated that the Air Force prepared an environmental impact statement (EIS) regarding the conversion of A-10s to F-16s and the impact of training exercises in the northeast part of the Nation. Was a similar procedure followed with respect to conversion to F-16s in Alaska?

Ms. Goodman: No, the Air Force did not prepare an environmental impact statement for the 1991 conversion to F-15 and F-16 aircraft in Alaska. The Air Force prepared environmental assessments (EAs) for the changes of aircraft in Alaska, and the EAs concluded that there were no significant impacts on the environment from the conversions. In 1992 and 1993, the Air Force prepared EAs and findings of no significant impact (FONSI) for proposed changes to military training routes and for proposed flying exercises. In August 1994 the Air Force published a draft EIS for the changes of aircraft and restructuring of military operating areas (MOAs) in Alaska.

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QUESTION NUMBER 4.b.

ENVIRONMENTAL IMPACT STATEMENT (EIS)

Mr. Vento: If not, why not?

Ms. Goodman: The environmental analysis accomplished for the Air National Guard changes of aircraft and modifications to airspace in the northeast United States differs from that being done for the changes of aircraft in Alaska. The northeast and Alaskan actions both involved a replacement of A-10 aircraft with F-16 aircraft, but replacement necessitated modifications of northeast airspace to accommodate day to day training requirements.

In Alaska, the replacement of aircraft was prompted by base closure in the Philippines, and did not dictate modifications of airspace. However, the large composite force flying exercises formerly conducted in the Philippines now have to be held in Alaska, and these exercises require additional airspace. The Air Force is proposing to accommodate this requirement by converting some temporary airspace to permanent airspace. To address the cumulative impacts of replacing aircraft and converting airspace in Alaska, and to be responsive to the public, the Air Force prepared and published a draft EIS in August 1994.

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QUESTION NUMBER 4.c.

ENVIRONMENTAL IMPACT STATEMENT (EIS)

Mr. Vento: What procedures were adopted for public participation in connection with the conversion in Alaska and attendant training activities?

Ms. Goodman: Through the preparation of an environmental impact statement that addresses all aspects of the Alaska conversion and the training activities there, the public will be involved in the environmental review process. Public scoping meetings have already been held, a draft EIS has been published, and a public comment period will open in September, during which public hearings will be scheduled. Newsletters and press releases have been distributed to update and notify the public of the Alaska Airspace Initiative. After the release of the Final EIS in mid-1995, there will be a Notice of Availability published in the Federal Register for public review of the final document prior to signing a Record of Decision.

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QUESTION NUMBER 5.a.

 MILITARY OPERATION AREAS

Mr. Vento: How many proposals for establishing new or enlarged permanent or temporary Military Operation Areas of airspace are currently pending either within the Department of Defense or before the Federal Aviation Administration?

Ms. Goodman: Army has no proposals for enlarging current, or establishing new airspace.

Navy has fourteen proposals pending at the following locations:

<u>Location/Name</u>	<u>Times</u>	<u>Missions/Operations</u>	<u>Altitude</u>
Cherry Point, NC (2)			
Cherry MOA	0700-2300, M - F	42 flights/day maximum	500' to 17,999' AGL
Core MOA	0700-2300, M - F	42 flights/day maximum	500' to 17,999' AGL
Key West, FL (1)			
	0700-2300, daily	30 flights/day maximum	5000' to 17,999' MSL
Mayport, FL (2)			
Mayport Low MOA	0800-2200, daily; 30 1-hour blocks/month	3 blocks/day, 3 a/c maximum per block	500' to 2,999' MSL
Mayport High MOA	1800-2200, daily; 8 1-hour blocks/month	3 blocks/day, 12 a/c maximum per block	3000' to 17,999' MSL
Meridian, MS (1)			
Sea Ray MOA	0700-1800, M - F	10 flights/day	500' to 1,999' AGL
Fallon, NV (1)			
Delta MOA in development			

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QUESTION NUMBER 5.a. (continued)

 MILITARY OPERATION AREAS

<u>Location/Name</u>	<u>Times</u>	<u>Missions/Operations</u>	<u>Altitude</u>
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Lemoore, CA (2)

New MOA in development--coexists with existing approach control

Hunter/Roberts Realignment MOA in development

Port Hueneme, CA (1)	24 hour advance NOTAM	12 hours/month, 3 hours/flight	
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Twentynine Palms, CA (2)

Bristol MOA in development

Giant Rock MOA in development

Bridgeport, CA (1) in development

Yuma, AZ (1)

Able South MOA in development

Air Force has thirty five proposals pending at the following locations:

<u>Location/Name</u>	<u>Times</u>	<u>Missions/Operations</u>	<u>Altitude</u>
Pike West Alpena, MI	0700-1800, M-F, or by NOTAM	12 flights/day	5,000' to 17,999'
Pike East MOA Alpena, MI	0700-1800, M-F, or by NOTAM	12 flights/day	Surface to 17,999'
Steelhead MOA Alpena, MI	0700-1800, M-F, or by NOTAM	12 flights/day	5,000' to 17,999'
Poinsett Low MOA Shaw AFB, SC	0600-2400, M-F, or 0800-1600, S	20 flights/day	300' to 2,500'

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QUESTION NUMBER 5.a. (continued)

MILITARY OPERATION AREAS			
<u>Location/Name</u>	<u>Times</u>	<u>Missions/Operations</u>	<u>Altitude</u>
Pecos Thunder Temporary MOA Cannon AFB, NM	0800-1100, 1400-1700, 4-6 Oct 94	50 at one time	500' to 17,999'
Coronet Sentry Temporary MOA Tinker AFB, OK	0830-1115, 1330-1645, 13-20 Oct 94	50/time block	300' to 17,999'
Yukon 3, AK (convert temporary)	1000-1500, or by NOTAM	6 - 166/day, (routine or exercise)	100' to 17,999'
Yukon 4, AK (convert temporary)	Same as above	3 - 164/day	100' to 17,999'
Yukon 5, AK (convert temporary)	MOA activated by NOTAM	1 - 170/day	3,000' to 17,999'
Yukon 6, AK (convert temporary)	0800-1800, M-F, or by NOTAM	14 - 107/day	100' to 17,999'
Buffalo, AK (convert temporary)	Same as above	12 - 86/day	300' to 6,999'
Birch, AK (convert temporary)	0800-1800, M-F, or by NOTAM	14 - 145/day	100' to 4,000'
Eielson, AK (convert temporary)	Same as above	11 - 105/day	100' to 17,999'
Fox, AK (convert temporary)	0800-1800, M-F, or by NOTAM	16 - 80/day	3,000' to 17,999'
Clear Creek, AK (new MOA)	MOA activated by NOTAM	5 - 13/day	3,000' to 5,000'
Falcon, AK (new MOA)	Same as above	5 - 13/day	100' to 17,999'

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QUESTION NUMBER 5.a. (continued)

MILITARY OPERATION AREAS			
<u>Location/Name</u>	<u>Times</u>	<u>Missions/Operations</u>	<u>Altitude</u>
Yukon 1, AK (modify MOA)	0600-1800, M-F, or by NOTAM	18 - 206/day	100' to 17,999'
Yukon 2, AK (modify MOA)	Same as above	12 - 201/day	5,000' to 17,999'
Stony A, AK (modify MOA)	0800-1800, M-F, or by NOTAM	17 - 16/day	100' to 17,999'
Stony B, AK (modify MOA)	Same as above	7 - 7/day	100' to 17,999'
Naknek 1, AK (modify MOA)	0800-1800, M-F, or by NOTAM	5 - 4/day	3,000' to 17,999'
Naknek 2, AK (modify MOA)	Same as above	3 - 3/day	3,000' to 17,999'
Galena, AK (modify MOA)	Same as above	1 - 1/day	1,000' to 17,999'
Antler MOA, PA	Sunrise to sunset, M-F, or by NOTAM	16/day	300' to 5,000'
Syracuse 5 MOA, NY	Sunrise to sunset, M-F, or by NOTAM	22/day	2,000' to 6,000'
Yankee High MOA, NH	Same as above	17/day	10,000' to 17,999'
Yankee Low MOA, NH	Same as above	17/day	300' to 9,999'
Condor High MOA, ME	Same as above	19/day	10,000' to 17,999'

QUESTION FOR THE RECORD
 HOUSE COMMITTEE ON NATURAL RESOURCES
 SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS
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 JUNE 17, 1994

QUESTION NUMBER 5.a. (continued)

MILITARY OPERATION AREAS			
<u>Location/Name</u>	<u>Times</u>	<u>Missions/Operations</u>	<u>Altitude</u>
Condor Low MOA, ME	Sunrise to sunset, M-F, or by NOTAM	19/day	300' to 9,999'
Academy MOA Air Force Academy, CO	0700-1800, M-F, or by NOTAM	1,650/week	9,000' to 12,000'
Jarbridge MOA Mountain Home AFB, ID	0600-2400, M-F, or by NOTAM	348/week	100' to 17,999'
Owyhee MOA Mountain Home AFB, ID	0600-2400, M-F, or by NOTAM	348/week	100' to 17,999'
Paradise East MOA Mountain Home AFB, ID	0600-2400, M-F, or by NOTAM	348/week	14,500' to 17,999'
Paradise West MOA Mountain Home AFB, ID	0600-2400, M-F, or by NOTAM	348/week	14,500' to 17,999'
Randolph IC MOA Randolph AFB, TX	0700-1900, M-F, or by NOTAM	12/hour	7,000' to 17,999'

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QUESTION NUMBER 5.b.

MILITARY OPERATION AREAS

Mr. Vento: Where would those be located?

Ms. Goodman: Please refer to the information in my answer to your earlier question on pending proposals for new/enlarged Military Operation Areas (MOAs).

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QUESTION NUMBER 5.c.

MILITARY OPERATION AREAS

Mr. Vento: What would be the frequency, total number, and altitudes of the military overflights that would occur within these areas?

Ms. Goodman: Please refer to the information in my answer to your earlier question on pending proposals for new/enlarged Military Operation Areas (MOAs).

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QUESTION NUMBER 5.d.

MILITARY OPERATION AREAS

Mr. Vento: What procedures for obtaining public comments was followed in developing these proposals?

Ms. Goodman: In accordance with FAA regulations, the appropriate regional offices of FAA solicited public comments on each Military Operation Area (MOA). The FAA evaluated comments it received from the public during its review of the proposed new/enlarged MOAs. This public involvement in the approval process is a key element of the environmental assessment that is required to accompany all MOA proposals.

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QUESTION NUMBER 6.a.

ALLOCATIONS OF AIRSPACE

Mr. Vento: What procedures exist for reviewing the continued need for previous allocations of airspace for military uses?

Ms. Goodman: The Military Departments review their need for airspace on a continuing basis, to determine if changes may be warranted due to base closure, realignment or force structure changes. When the airspace is no longer needed, it is eliminated.

QUESTION FOR THE RECORD
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QUESTION NUMBER 6.b.

ALLOCATIONS OF AIRSPACE

Mr. Vento: Has the Department of Defense identified any airspace allocations that are no longer needed?

Ms. Goodman: Yes. We have identified airspace that we will not need, due to base closures, and have returned it to the National Airspace System where it is available for civil use. For example, Military Operation Areas and Military Training Routes have been cancelled where our bomber force has been eliminated, at Fairchild, Castle, and K.I. Sawyer Air Force Bases.

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QUESTION NUMBER 6.c.

ALLOCATIONS OF AIRSPACE

Mr. Vento: If so, what steps will be taken to end these allocations?

Ms. Goodman: The base responsible for managing an allocation notifies its headquarters that the airspace is no longer needed, and the designated official at headquarters evaluates the allocation for cancellation. If it is determined that the allocation should be released, the official informs FAA, and FAA takes a cancellation action to remove it from their charts.

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QUESTION NUMBER 7

IDAHO TRAINING RANGE

Mr. Vento: When does the Air Force now expect to issue a final EIS on the proposed Idaho Training Range?

Ms. Goodman: We will release the final Environmental Impact Statement for the Idaho Training Range upon completion of policy and security review, and the inclusion of final comments from the Department of the Interior.

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QUESTION NUMBER 8

NATIONAL GUARD USE OF FEDERAL LAND

Mr. Vento: What role does the Department of Defense play in coordinating the use of particular Federal land areas by the National Guard units of various States?

Ms. Goodman: The National Guard units of various States use Federal lands to conduct the activities of their state militias either through lease, license or permit granted directly to the appropriate state militia by Federal agencies having ownership of the lands. These Guard units are required to meet whatever terms and conditions are placed on their use of Federal lands by the respective granting agency, but the Department of Defense does not coordinate their use or have oversight responsibility.

When a National Guard unit proposes to use Federal lands under the control of the Department of Defense, the Department executes a license with the Guard, and specifies its own appropriate terms and conditions.

QUESTION FOR THE RECORD
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JUNE 17, 1994

QUESTION NUMBER 9.a.

DESERT WILDLIFE RANGE AND NELLIS AIR FORCE RANGE

Mr. Vento: I understand that consideration is being given to legislation (S. 823 as ordered reported) that would change the respective roles and responsibilities of the Department of Interior (Fish and Wildlife Service) and the Department of Defense (Air Force) with respect to the Desert Wildlife Range and Nellis Air Force Range, in Nevada. Is this correct?

Ms. Goodman: The statement is partially correct. S. 823 would transfer a portion of Desert National Wildlife Refuge from the Secretary of the Interior to the Secretary of Defense "for use in aerial training activities. Such lands may also be utilized for bombing and other aerial-related ground impacts." The bill would place the portion of the refuge that is used primarily by DoD under the jurisdiction of DoD, which would continue to be the primary user. It would not change overall roles and responsibilities regarding management/use of withdrawn lands.

QUESTION FOR THE RECORD
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QUESTION NUMBER 9.b.

DESERT WILDLIFE RANGE AND NELLIS AIR FORCE RANGE

Mr. Vento: To what extent would the proposed changes affect implementation of the Military Lands Withdrawal Act of 1986 (P.L. 100-3457), particularly section 4(a)(2) of that Act, or the memorandum of understanding between the Secretary of the Interior and the Secretary of the Air Force referenced therein?

Ms. Goodman: We believe that the proposed legislation will not affect the implementation of the Military Lands Withdrawal Act of 1986, or the memorandum of understanding between the Secretary of the Interior and the Secretary of the Air Force. It is our understanding that provisions of S. 823 would represent a management transfer and not a transfer of title. Air Force would have primary jurisdiction over use of a portion of the refuge, and would manage that use in accordance with the Military Lands Withdrawal Act of 1986.

JAMES V. HANSEN
1ST DISTRICT UTAH

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February 23, 1994

Mr. Don H. Castleberry
Acting Associate Director, Operations
National Park Service
U.S. Department of the Interior
P. O. Box 37127
Washington, D.C. 20013-7127

Dear Mr. Castleberry:

Thank you for your response to my December 3, 1993 letter on the aircraft overflight issue. Unfortunately, since you did not respond to a majority of the questions in my original letter, a second round of questions is necessary. When agencies require 2 months or longer to respond to congressional inquiries, such inadequate responses unacceptably extends the time required to secure the necessary information for policy considerations. I hope that you will more completely answer all questions this time. Please organize your responses by question number and respond to all aspects of each question.

1. On June 15, 1993, Secretary Babbitt testified on H.R. 880, which provides for certain military uses of Federal lands in the State of California, as follows:

"H.R. 880 strikes the appropriate balance between national defense and concerns as to the noise and other adverse effects of aircraft overflights on park resources. Further, H.R. 880 recognizes the importance of military overflights now and in the future."

As you know, that bill provides statutory assurance that establishment of new units of the National Park System or wilderness will have no impact on existing or any proposed future low-level military overflights. How do you rectify the Department's support of H.R. 880 at the same time that you have made the following statement to me in your letter dated February 2, 1994:

"Let me state unequivocally and without reservation that the National Park Service is concerned about the adverse effects of aircraft noise to park resources and to the visitor experience in units of the National Park System, especially those areas we manage as wilderness. Included among those resources about which we are concerned are the opportunity to experience natural quiet and solitude."

What is the current amount of low-level military overflight use ongoing at areas which would be managed by the National Park Service under the California Desert Protection Act, which you have found to be the "appropriate balance" with respect to park designation? Does Interior Department support of H.R. 880 mean you would have no objection to similar levels of military use over other units of the National Park System or wilderness? If not, why not?

2. Is the National Park Service currently negotiating an agreement with air tour operators in Hawaii to mitigate overflight impacts? Since the National Park Service testified that overflight studies in Hawaii are incomplete, what is the National Park Service using as a basis for determining whether impacts to park resources have been adequately mitigated? What is the current status of any such negotiations between the National Park Service and air tour operators? Please provide drafts of any agreements developed to date.

3. On November 18, 1993 the National Park Service testified:

"The auditory and visual intrusion of aircraft overflying national parks in Hawaii generates more public complaints than any other issue in those parks."

Yet, when asked how many complaint letters you had in 1992 you stated that information was unavailable. Exactly what information can you provide me which documents this unqualified statement? When will you be able to provide me with an accounting of the number of complaint letters from both national parks in Hawaii over each of the last 5 years?

4. Thank you for a copy of the annotated bibliography concerning aircraft impacts on wildlife. While it contains numerous interesting studies, the real question I have is can you provide copies of any peer-reviewed research completed to date which documents population level impacts on any species?

5. Exactly what assistance has the National Park Service Director requested of the FAA Administrator to make collection of air tour operator park use fees "possible"? Please provide me a copy of all correspondence between these two offices on this matter. What authority does the National Park Service have to collect fees from persons who never enter the administrative jurisdiction of the National Park Service? How can the National Park Service monitor the effectiveness of any such fee collection program? How much does the National Park Service expect to generate in fees from such a program and how much will it cost to operate this program? When do you anticipate this fee collection program will go on line?

6. With respect to aircraft safety, on November 18, 1993 the National Park Service testified as follows:

"We also have several safety concerns, which the FAA is addressing. Helicopters are flying too low over active lava flows, over the ocean near the lava flows, and through related volcanic fumes. This not only endangers the air tour pilots and passengers, but also the park rangers who must conduct rescues in the event there is a crash. Low flying helicopters can also be dangerous to people on the ground as hovering can subject them to a shower of volcanic glass, debris, and toxic fumes."

Please provide all available documentation which supports the National Park Service contention of aircraft flying in an unsafe manner. Please provide documentation of park visitors being showered by volcanic glass, debris and toxic fumes. How many park visitors have been injured as a result of these practices in the last 5 years? What has been the nature and extent of any injuries?

7. Actually, it is my understanding from National Park Service study (Report No. NPOA No. 91-4) that the rate of sound attenuation does not decrease as a function of distance as incorrectly stated in your February 2, 1994 letter. The general rule is that sound levels decrease about 6dBA for each doubling of the distance from source to receptor due to spherical spreading. Further, in places where ambient sound levels are extremely low, such as Grand Canyon and Haleakala, an elevation increase of several thousand feet will have little (if any) impact on the ability of visitors to hear aircraft. Under what circumstances (if any) would the NPS consider lowering aircraft tour operation which might improve the visitor experience for the air tour passenger and reduce the noise footprint on the ground?

8. Please provide a list of all National Park Service areas where air tour operations are ongoing. Please provide the name and address of all air tour companies operating over National Park Service areas and a description of tours offered, specifically including the number of tours on an annual basis.

I appreciate your timely responses to these questions.

Sincerely,



JAMES V. HANSEN
Member of Congress



IN REPLY REFER TO
S5815(650)

United States Department of the Interior

NATIONAL PARK SERVICE
P.O. Box 37127
Washington, D.C. 20013-7127



MAR 29 1994

cc: Callin

Honorable James V. Hansen
House of Representatives
Washington, D.C. 20515

Dear Mr. Hansen:

The purpose of this letter is to respond more fully to your letter of February 23, 1994.

1. H.R. 880/California Desert Aircraft Overflights.

Passage of H.R. 880, the California Desert Protection Act, is an extremely high priority of Secretary Babbitt and this Administration. The Secretary accepts that current levels of use (which have not been measured by the National Park Service (NPS) or the Bureau of Land Management) from Edwards Air Force Base, China Lake Navel Air Station, Twenty-nine Palms Marine Base, Fort Irwin, and the Yuma Test Station must necessarily pass over some of the parks and wilderness areas in the California Desert. These five major military installations are accepted as essential to National Security. Creation of parks and wilderness areas underneath existing military training routes and military operations areas should not automatically lead to the exclusion of military overflights, nor to an automatic acceptance of military use over other units of the National Park System. Each situation would need to be evaluated to see if there are prudent and feasible alternatives that might be less impacting. This does not lessen our concern over possible adverse effects of aircraft noise to park resources and the visitor experience in units of the National Park System.

2. Hawaii Overflights

The NPS has been negotiating with the Federal Aviation Administration (FAA) and the Hawaii Helicopter Operators Association to mitigate overflight impacts. As many as six meetings have been held for this purpose, and negotiations are continuing. The last draft provided the NPS headquarters offices dates to July and is the subject of current discussions (See Enclosure 1). The park views this effort as a compromise and a barely adequate interim measure, which does not adequately addresses all their concerns. Until the studies provide a better basis, the park used a simple measure from their experience of the distance at which the complaint levels dropped off, not dissimilar to FAA's more elegantly researched metrics for use around airports.

3. Numbers of Complaints about Aircraft

The park reports that visitor complaints are primarily verbal in nature, and that until your interest, complaint letters were not kept on file. The acting Superintendent at Hawaii Volcanoes and the Superintendent at Haleakala confirm that it is their belief as managers of these areas that overflights do generate more public complaints than any other issue in those parks. Their testimony is all that the NPS could provide at this time.

4. Wildlife Impacts

Various studies suggest that impacts are possible, but no peer-reviewed studies have yet been designed or funded that could prove or disprove population level impacts. There are simply too many factors to be able to successfully isolate the effect of aircraft overflights from other events and stresses in the environments of these animals. Such studies, if possible, would take many years and the costs would be very high, which is why these studies have not yet been completed.

5. FAA Assistance Request

On December 23, 1993, the Director requested the assistance of the FAA in accomplishing the mandates of the Omnibus Budget Reconciliation Act of 1993. This act amended Section 4 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-6a) and directed the NPS to begin charging additional fees for Commercial Tour operations entering the parks by vehicle. In addition, the statute established a new requirement concerning fees for aircraft conducting tours above parks by requiring aircraft entering the airspace of units of the National Park System identified in Section 2(b) and Section 3 of Public Law 100-91 for the specific purpose of providing Commercial Tour services within the airspace of these units to pay a Commercial Tour fee.

For the purposes of Grand Canyon National Park, a commercial air tour or sightseeing flight shall be considered to enter the airspace of the park whenever it operates within the Grand Canyon National Park Special Flight Rules Area (established by Special Federal Aviation Regulation 50-2 in late 1988). Special Federal Aviation Regulation (SFAR) 50-2 extends from the surface up to but not including 14,500 feet Mean Sea Level (MSL). For the purposes of Haleakala National Park, a commercial air tour or sightseeing flight shall be considered to enter the airspace of the park whenever it operates below an altitude of 12,000 feet MSL within the boundaries of Haleakala National Park. For the purposes of Hawaii Volcanoes National Park, a commercial air tour or sightseeing flight shall be considered to enter the airspace of the park whenever it operates below an altitude of 3,000 feet Above Ground Level within the boundaries of Hawaii Volcanoes National Park. Other units of the National Park System may need to be added at a later date, dependent upon the growth of commercial air tours in various parts of the country or upon further legislation that requires expanded collection of these fees.

Fee compliance for all approved air tour operators will be a cooperative effort between the FAA and the NPS. Operators have their names, addresses and operating procedures on file with the local FAA Office. If acceptable, under the new fee collection procedures for commercial tour aircraft, the local FAA Office and NPS would require that all operators submit a written monthly report of tour activities over these parks.

Mandatory compliance with the requirements of the commercial tour fee program would be an important component of the local FAA Office-NPS cooperation. To this end, we would see it as necessary that the local FAA Office require tour operators to complete the required reports, pay the amounts billed on the basis of these reports, and allow periodic auditing of flight records to verify the accuracy of the reports.

Revenue estimates for the remainder of FY 1994 for air tour fees is \$800,000 and operating costs would be approximately \$88,000. The fee was initiated on March 1, 1994.

6. Aircraft Safety

Park officials report that flights continue to be low over areas where visitors or employees of the NPS and U.S. Geological Survey are located. In the last several years, tour operators have changed their flight activity and rarely hover 50' from visitors as they did previously. Low flights of less than 500' above or laterally from the ground and park visitors continue to occur. Employees have a sense of futility in reporting incidents and presently only document flagrant violations. Over 90 reports are on file relating to hazardous flight.

Flights continue to be a hazard to the pilot and passengers on board. Employees have observed helicopters hovering less than 50' above active lava flows and vents. Law Enforcement rangers in the area of Puu O'o have observed commercial tour flight hovering directly over Puu O'o vent. A low flying helicopter hovering over ocean entry lost tail rotor authority and crashed in the ocean. All passengers were lost. This crash was immediately adjacent to the national park. At least two other tour helicopters have crashed or had hard landings on Puu O'o vent. One accident resulted in injury to the visitors on board as they attempted to leave the crash site in hazardous volcanic terrain.

Flights continue to be observed entering fume areas. In November 1993, while filming a commercial film, a helicopter crashed into the Puu O'o vent. A very costly rescue followed, carried out by Interagency emergency services under command of the NPS. Cause of crash was pilot error and mechanical failure due to flying the draft into volcanic fumes. Over 30 rangers and county fire rescue personnel were put in grave jeopardy to carry out the rescue.

Daily logs from the eruption site regularly carry comments "lots of low flying helicopters in plume area of ocean entry."

Helicopter reports, daily logs, and helicopter accident reports are available if needed, but have not been included because of time and fiscal constraints. Visitor injury reports relating to helicopters may not be retrievable since all were minor and would have been covered under first aid/visitor assistance reporting mechanisms.

7. You are correct that the rate of sound attenuation does not decrease as a function of distance. Our previous answer was based on a table from Report No. NPOA No. 91-4 (Enclosure 2). If maximum sound level, decrease in onset rate, and decrease in total sound exposure were used as measures of impact, decreases in those measures during the first 3,000 feet in increased slant distance to the flight track are significant. So, in that sense, it is possible for altitude restrictions to aid mitigation of impact in some circumstances. You are also correct that audibility would be little affected by elevation changes of a few thousand feet. The same table suggests that very substantial changes in elevation would be necessary to affect audibility of the aircraft on the ground. It is theoretically possible that lowering an air tour route would lessen overall visitor impact by reducing the noise footprint on the ground, but we have not identified any such situations to date.

8. List of Air Tour Operations

Enclosure is a list of air tour operators (Enclosure 3) that the NPS contractor used in an attempt to do a survey of air tour passengers. It is all the data that the NPS has related to your questions. We believe that the list and addresses for Grand Canyon and Hawaii operators is relatively correct. We have no confidence in the data from elsewhere. We were not able to secure assistance from the FAA or air tour operators in this regard. Most of the information you request is regarded by the FAA and air tour operators as privileged commercial information. If you need more information than this, we must recommend that you make inquiry of the FAA.

If we can be of further assistance, please let us know.

Sincerely,



David L. Moffitt
Acting Associate Director, Operations

Enclosures

TESTIMONY OF REP. MIKE CRAPO
HEARING ON HR 2080
NATIONAL PARKS, FORESTS AND PUBLIC LANDS SUBCOMMITTEE
OF
NATURAL RESOURCES COMMITTEE
JUNE 17, 1994

THANK YOU, CHAIRMAN VENTO FOR HOLDING THIS HEARING ON HR 2080, THE MILITARY LAND REFORM AND REASSESSMENT ACT OF 1993.

I WISH TO BRING BEFORE THIS SUBCOMMITTEE SEVERAL ISSUES WHICH ILLUSTRATE WHY THIS PIECE OF LEGISLATION IS NOT ONLY UNNECESSARY, BUT ALSO BURDENSOME AND INTRUDING. HR 2080 ENCROACHES ON STATE SOVEREIGNTY, INTRUDES ON THE JURISDICTION OF THE FEDERAL AVIATION ADMINISTRATION (FAA), AND THREATENS THE MILITARY READINESS OF OUR NATIONAL DEFENSE.

STATE SOVEREIGNTY:

HR 2080 SIGNIFICANTLY ALTERS THE FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA) OF 1976 BY FORCING THE MILITARY DEPARTMENTS OF INDIVIDUAL STATES TO COMPLY WITH THE SAME LAND USE REQUIREMENTS AS FEDERAL DEPARTMENTS AND AGENCIES. IN A STATE LIKE IDAHO WHICH IS 64% FEDERAL LAND, THIS IS A SERIOUS ENCROACHMENT ON STATE SOVEREIGNTY WITH REGARD TO THE STATE MILITARY. THIS FLPMA PROVISION IS NOT BEING REQUIRED OF ANY OTHER STATE AGENCY EXCEPT THE STATE MILITARY.

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PROPOSED SECTION 2, NEW PARAGRAPH (e) [PAGE 2, LINE 22] STATES THAT "AFTER CONSULTATION WITH THE GOVERNOR OF A STATE, THE SECRETARY [OF THE INTERIOR] MAY AGREE TO PERMIT USE OF PUBLIC LANDS WITHIN SUCH STATE BY THE MILITARY DEPARTMENT OF ONE OR MORE STATES FOR PURPOSES OF MILITARY TRAINING, EQUIPMENT TESTING, OR OTHER AUTHORIZED MILITARY ACTIVITIES, IN ACCORDANCE WITH THE PROVISIONS OF THIS SUBSECTION." THIS DIRECTLY CONTRADICTS THE AUTHORITY THE GOVERNOR OF ANY STATE HAS TO TRAIN THAT STATE'S MILITIA OR NATIONAL GUARD ON PUBLIC LANDS.

UNLESS THE PRESIDENT OF THE UNITED STATES CALLS NATIONAL GUARD TROOPS UP TO ACTIVE DUTY THESE MEN AND WOMEN ARE UNDER THE MANDATE OF THE STATE GOVERNOR WITHIN AN OUTLINED MILITARY CAPACITY. HR 2080 REMOVES CERTAIN STATE AUTHORITY.

FURTHERMORE, WITHOUT CONSULTATION OF THE GOVERNOR THE SECRETARY OF THE INTERIOR "MAY WHOLLY OR PARTIALLY REVOKE ANY AUTHORIZATION IF THE SECRETARY FINDS THAT THERE HAS BEEN A FAILURE TO COMPLY WITH ITS TERMS AND CONDITIONS OR THAT ACTIVITIES PURSUANT TO SUCH AN AUTHORIZATION HAVE HAD OR MAY HAVE A SIGNIFICANT ADVERSE IMPACT ON THE RESOURCES OR VALUES OF THE AFFECTED LANDS." NOT ONLY DO I QUESTION THE POWER THAT IS BEING GIVEN TO THE SECRETARY, I QUESTION THE DEFINITION OF SUCH VAGUE TERMS AS "VALUES OF THE AFFECTED LANDS." WHAT IS THE DEFINITION OF VALUE HERE? ECONOMIC, ENVIRONMENTAL, CULTURAL, MILITARY?

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PARAGRAPH #5 OF SECTION 2 (PAGE 6, LINE 4) ESTABLISHES THAT "EACH STATE MILITARY DEPARTMENT USING PUBLIC LANDS WITHDRAWN FOR MILITARY PURPOSES . . . SHALL PROMPTLY REIMBURSE THE UNITED STATES FOR ANY ASSISTANCE PROVIDED BY THE SECRETARY IN THE PREVENTION OR SUPPRESSION OF . . . FIRES." BUT IN PARAGRAPH #9(d), "REIMBURSEMENT" (PAGE 8, LINE 8), IT IS STATED THAT "TO THE EXTENT FUNDS ARE MADE AVAILABLE THROUGH APPROPRIATION, THE SECRETARY OF DEFENSE MAY REIMBURSE A STATE MILITARY DEPARTMENT FOR COSTS TO SUCH DEPARTMENT RESULTING FROM ANY REQUIREMENT OF THIS SECTION" WHY MUST STATES REIMBURSE FUNDS "PROMPTLY" TO THE FEDERAL GOVERNMENT, WHEN THE FEDERAL GOVERNMENT MAY USE IT'S OWN DISCRETION TO REIMBURSE FUNDS TO STATES.

FAA JURISDICTION:

BY DEFINITION ONE OF THE FAA'S PRIMARY MISSIONS IS TO OVERSEE THE SAFE AND EFFICIENT UTILIZATION OF OUR NATION'S NAVIGABLE AIRSPACE. SECTION 4 OF HR 2080 STATES THAT EXCEPT AS PROVIDED IN PARAGRAPH 2 OF SECTION 4 " . . . NO ZONE OR AREA IN THE AIRSPACE OVER EITHER NONMILITARY PUBLIC LANDS (NONMILITARY PUBLIC LANDS MEANS LANDS MANAGED BY THE SECRETARY OF INTERIOR) OR LANDS MANAGED BY THE SECRETARY OF AGRICULTURE SHALL BE ESTABLISHED FOR USE BY THE DEPARTMENT OF DEFENSE FOR DEFENSE PURPOSES OR TO RESTRICT OR PROHIBIT THE FLIGHT OF CIVIL AIRCRAFT." THIS PARAGRAPH PUTS CERTAIN AIRSPACE UNDER THE DIRECT JURISDICTION OF THE SECRETARIES OF INTERIOR AND AGRICULTURE AND TAKES IT OUT OF THE HANDS OF THE

- 4 -

FAA, THE VERY AGENCY THAT WAS DESIGNED TO MANAGE AIRSPACE. WHAT EXPERIENCE DO THE DEPARTMENTS OF INTERIOR AND AGRICULTURE HAVE THAT LENDS THEM SUFFICIENT KNOWLEDGE TO MANAGE AIRSPACE?

PARAGRAPH 3(c) [PAGE 12, LINE 16] STATES THAT "THE SECRETARY OF THE INTERIOR AND THE SECRETARY OF AGRICULTURE SHALL MONITOR THE EFFECTS OF MILITARY AIRCRAFT OVERFLIGHTS ON THE RESOURCES AND VALUES OF NONMILITARY LANDS AND OF LANDS MANAGED BY THE SECRETARY OF AGRICULTURE, AND ON VISITOR ENJOYMENT AND OTHER NONMILITARY USES OF SUCH LANDS . . ." AGAIN, I QUESTION THE EXPERTISE THE AFOREMENTIONED DEPARTMENTS HAVE TO MONITOR AIRCRAFT. I ALSO FIND THE VAGUE USE OF THE TERMS "VALUES," "VISITOR ENJOYMENT," AND "OTHER NONMILITARY USES" TO BE TOO BROAD AND UNCERTAIN.

MILITARY READINESS:

HR 2080 IS SPECIFICALLY DESIGNED TO LIMIT TO THE MAXIMUM EXTENT POSSIBLE THE USE OF PUBLIC LAND AND AIRSPACE BY OUR NATIONAL DEFENSE AND/OR NATIONAL GUARD. SECTION 3(b) [PAGE 9, LINE 18] STATES THAT "THE SECRETARY OF AGRICULTURE SHALL TAKE INTO ACCOUNT INFORMATION PROVIDED BY THE SECRETARY OF DEFENSE CONCERNING THE VALUE FOR MILITARY PURPOSES OF LANDS PROPOSED FOR TRANSFER TO THE JURISDICTION OF THE DEPARTMENT OF DEFENSE, BUT SHALL EXERCISE THE AUTHORITY PROVIDED BY [THE 1956 ACT] ONLY IF THE SECRETARY OF AGRICULTURE DETERMINES THAT AN INTERCHANGE WILL IMPROVE THE PROTECTION AND MANAGEMENT OF THE NATURAL, CULTURAL, OR OTHER RESOURCES AND VALUES OF THE NATIONAL FOREST SYSTEM."

-5-

THE USE OF THE WORD "IMPROVE" APPEARS TO SET A NEARLY UNACHIEVABLE QUALIFYING FACTOR FOR THE COMPLETION OF LAND TRANSFERS WITH THE DEPARTMENT OF DEFENSE. FURTHERMORE, THE PARAGRAPH THAT FOLLOWS DEFINES "CONSERVATION SYSTEM" IN A VERY BROAD, ALL ENCOMPASSING MANNER.

THESE PROVISIONS, COUPLED WITH THE STATE MILITARY AND AIRSPACE RESTRICTIONS PRESENT A UNITED FRONT THAT HAS THE POTENTIAL TO HARM MILITARY READINESS. AS WE CONTINUE TO CUT THE MILITARY BUDGET WE ARE CLOSING AMERICAN BASES ALL OVER THE WORLD, CREATING A VERY DOMESTIC NATIONAL DEFENSE AND LIMITING TRAINING SPACE PREVIOUSLY AVAILABLE INTERNATIONALLY. WE MUST COMPENSATE FOR THIS AND THE CONTINUED RESTRICTIONS ON MILITARY LAND USE AND AIR SPACE ACTIONS IS THWARTING THESE EFFORTS.

THANK YOU.

Subcommittee on National Parks, Forests, and Public Lands

Committee on Natural Resources

June 17, 1994

Remarks by Ken Calvert

Thank you, Mr. Chairman.

I am looking forward to today's hearing to reconcile the management of public lands and the use of these lands for military purposes.

As a Congressman from California, I am especially interested in the changing attitudes over public lands and how we are going to handle the use of these vast resources in the future. California has been hit hard by defense base closures and cutbacks, and I am concerned that this piece of legislation will further weaken our military readiness. My state cannot handle additional restrictions on its use of public lands, especially in light of the eminent Desert Bill.

Defense cutbacks have put more pressure on the National Guard to be prepared for emergency situations, whether it be for military operations or humanitarian assistance. For example, in the past two years, Southern California has relied on the National Guard to protect our citizens from riots, fires, floods, and earthquakes. H.R. 2080 will hamper the National Guard from carrying out its vital and strategic mission in the air and on land.

Without flexible management of public lands by the federal government, a vital component of our military readiness will be jeopardized. With March Air Force Base in my

district, as well as Fort Irwin, 29 Palms Marine Base, China Lake Naval Weapons Center and Edwards Air Force Base near by, all of which are surrounded by lands owned by the government, H.R. 2080 will seriously impact the units operating in these areas.

I appreciate the Committee's interest in this important issue and look forward to listening to the testimony of our witnesses.

Again, thank you Mr. Chairman.

OPENING STATEMENT
of
THE HONORABLE JAY DICKEY
Fourth District - Arkansas
Before the
National Parks, Forests and Public Lands Subcommittee
Hearing on
**H.R. 2080, to improve the management of public lands used
for military purposes**

June 17, 1994

Mr. Chairman, the military land withdrawal issue dealt with in H.R. 2080 is a new issue for me, although I understand it has been vigorously debated in this committee in years past.

While I do not want to sanction unnecessary environmental harm to our public lands or cluttering the airspace above those lands, I am concerned from what little I have learned in the briefing material, that this legislation may bring severe restrictions to ability of the military, including the National Guard, to prosecute fully the military training missions, which even in times of a too rapidly shrinking military, need to go on for readiness purposes.

But, I am ready to listen and learn more about this issue and look forward to reviewing the testimony of those who appear here today.

Thank you.

###

STATEMENT OF CONGRESSMAN G.V. MONTGOMERY

**SUBMITTED TO THE SUBCOMMITTEE ON NATIONAL
PARKS, FORESTS, AND PUBLIC LANDS OF
THE COMMITTEE ON NATURAL RESOURCES**

IN CONNECTION WITH H.R. 2080

JUNE 17, 1994

I WANT TO THANK THE CHAIRMAN AND RANKING MINORITY MEMBER FOR ALLOWING ME TO SUBMIT A STATEMENT CONCERNING H.R. 2080.

I OPOSE THIS BILL BECAUSE IT WOULD CREATE ANOTHER LAYER WITHIN THE MANAGEMENT OF MILITARY OPERATIONS IN THE AIRSPACE OVER NONMILITARY PUBLIC LANDS. THIS BILL WOULD EXPAND THE ENGLE ACT COVERAGE TO INCLUDE AIRSPACE OVER PUBLIC LANDS.

THE BILL WOULD REQUIRE CONGRESSIONAL APPROVAL FOR ANY AIRSPACE ACTIONS OVER PUBLIC LANDS. ACQUISITION OF AIRSPACE ALREADY TAKES A LONG TIME TO ACCOMPLISH AND EACH YEAR HUNDREDS OF SPECIAL USE AIRSPACE MODIFICATIONS ARE REQUESTED. TO INSERT CONGRESS AS THE FINAL APPROVING AUTHORITY IN WHAT IS AN ADMINISTRATIVE FUNCTION IS IMPRUDENT AND UNREASONABLE. THESE ISSUES ARE ALREADY COMPLEX ENOUGH WITHOUT ADDING A POLITICAL ELEMENT. THE CURRENT PROCESS IS EXTENSIVE AND INVOLVES DOD, FAA, AND THE REQUIREMENTS OF THE NATIONAL ENVIRONMENTAL POLICY ACT.

THIS BILL WOULD DILUTE THE AUTHORITY OF THE FAA OVER CIVIL AIRSPACE BY SUPPLANTING IT WITH MICRO-MANAGEMENT BY THE CONGRESS. FAA IS CHARGED WITH THE RESPONSIBILITY TO MANAGE AND ADMINISTER THE SPECIAL USE AIRSPACE AS PART OF THE OVERALL NATIONAL AIRSPACE SYSTEM. IN THAT ROLE, FAA IS THE EXCLUSIVE AIRSPACE MANAGER WITH THE EXPERTISE TO ENSURE SAFETY, REDUCE NOISE IMPACTS AND TO SUPPORT THE REQUIREMENTS OF OUR NATIONAL DEFENSE. THE FAA PROVIDES COMPREHENSIVE PLANNING AND TAKES INTO ACCOUNT THE MULTIPLICITY OF COMPETING PUBLIC AND MILITARY INTERESTS.

H.R. 2080 SEVERELY LIMITS THE TRAINING FLEXIBILITY OF REGULAR, RESERVE AND NATIONAL GUARD AVIATION UNITS. BY CAUSING ALL AIRSPACE MODIFICATIONS AND ACQUISITIONS TO BE APPROVED BY CONGRESS, THIS BILL WOULD HAMPER THE EFFICIENT USE OF AIRSPACE AND LIMIT ANY TEMPORARY USE PERMITS FOR SHORT TERM TRAINING EXERCISES OVER PUBLIC LAND.

LAST BUT NOT LEAST, THIS BILL WOULD MAKE A FUNDAMENTAL CHANGE BY ESTABLISHING THE CONTROL OF AIRSPACE BASED UPON THE OWNERSHIP OF THE LAND BELOW THE AIRSPACE. THE CURRENT PRINCIPAL OF AIRSPACE MANAGEMENT PHILOSOPHY PROMOTES AND FACILITATES THE DEVELOPMENT OF AVIATION WITHIN THE PUBLIC'S INTEREST WHILE MAINTAINING AND SAFEGUARDING THE INTEREST OF THE UNDERLYING LANDOWNERS, WHETHER PUBLIC OR PRIVATE. THIS BILL WOULD ERODE THE DELICATE BALANCE ACHIEVED THROUGH LITIGATION AND REFINEMENT OVER THE YEARS.

H.R. 2080 HAS BEEN JOINTLY REFERRED TO THE ARMED SERVICES COMMITTEE. WITH THE CHANGING MILITARY ENVIRONMENT, IT MAY BE NECESSARY TO MAKE REFINEMENTS TO THE CURRENT LAW. I EXPECT THE ARMED SERVICES COMMITTEE TO ADDRESS THIS ISSUE IN THE NEAR FUTURE.

THANK YOU AGAIN FOR ALLOWING ME TO SUBMIT THIS STATEMENT ON THIS BILL.

United States General Accounting Office

GAO

Report to Congressional Requesters

April 1994

**NATURAL
RESOURCES**

**Defense and Interior
Can Better Manage
Land Withdrawn for
Military Use**



GAO/NSIAD-94-87



United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-254114

April 26, 1994

The Honorable John Glenn
Chairman, Subcommittee on Military Readiness and
Defense Infrastructure
Committee on Armed Services
United States Senate

The Honorable Dave McCurdy
Chairman, Subcommittee on Military Installations and Facilities
Committee on Armed Services
House of Representatives

The Military Lands Withdrawal Act of 1986 removes from public use until the year 2001 more than 7 million acres of land and devotes them to the military services for training and weapons and equipment testing purposes.¹ The Chairman of the former Environmental Restoration Panel, House Committee on Armed Services, requested that we review the experiences of Department of Defense (DOD) and federal resource agencies in jointly managing the withdrawn lands. As agreed with your offices, we examined the experiences at all six sites named in the act to determine whether (1) resource management activities have constrained military operations, (2) military operations have constrained resource management activities, and (3) there are opportunities to improve resource management programs at the six locations.

Background

The withdrawn lands, which have been under military control since the 1940s and 1950s, include six sites: (1) Fort Greely Maneuver Area and Air Drop Zone and (2) Fort Wainwright's Yukon Maneuver Area, both in Alaska; (3) Goldwater Air Force Range in Arizona; (4) Nellis Air Force Range and (5) Bravo-20 Bombing Range, both in Nevada; and (6) McGregor Range in New Mexico. Military training at the sites includes air activities, such as pilot training in air-to-air combat, and bombing and ground activities, such as troop and vehicle maneuvers. Air activities occur above the sites and some contiguous public and private lands while ground maneuvers and bombing occur within site borders. (Appendixes I to V further describe these sites.)

¹If the military wants to continue using withdrawn lands after 2001, it must (1) prepare an environmental impact statement consistent with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et. seq.) and (2) apply for an extension of the withdrawal in accordance with the Department of the Interior regulations.

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The law defines how DOD and the Department of the Interior agencies are to operate in managing the resources of lands controlled by the military.² Military needs have priority over resource management. DOD is authorized to establish military uses on the lands without consulting with Interior, and Interior's resource management activities require DOD concurrence. The law requires Interior to develop a resource management plan after consultation with DOD. It also requires both Interior and DOD to enter into an agreement to implement the resource management plans. Interior's Bureau of Land Management (BLM) has primary resource management responsibilities at all six sites.³ Another Interior agency, the U.S. Fish and Wildlife Service (FWS), manages two national wildlife refuges that have airspace under military control (Goldwater Range in Arizona and the Nellis Range complex in Nevada).⁴

Results in Brief

The results of resource management at the six military training sites have been mixed. Military operations have not been hampered, but military commanders at five of the sites said that they changed some training activities to accommodate concerns for wildlife. At one site, however, officials expressed concern about meeting future training needs because of the environmental constraints the Army must meet.

Although military operations have not been hampered, those operations have constrained resource management activities, but lack of information on resource conditions prevents an overall assessment of the impacts. Five of the six sites we visited had resource management plans, but only about half of the planned actions had been initiated as of November 1993. Three sites had access restrictions that made it difficult for BLM to carry out resource management activities. These restrictions and the overall military presence led BLM to assign a low priority to resource management on military lands. At three sites, BLM allocated considerably less money to manage lands used for military training than other lands BLM is responsible for.

²Resource management includes activities such as wildlife and habitat protection, recreation and hunting programs, evaluation and protection of historic and prehistoric properties, and granting of grazing and mineral leases.

³BLM manages the lands' resources pursuant to the Federal Land Policy and Management Act of 1976 and other applicable laws.

⁴Withdrawn lands within a National Wildlife Refuge unit are to be managed according to the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 666d et. seq.).

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All six sites have opportunities to improve resource management by enhancing cooperation between BLM and the military or by strengthening mechanisms to monitor the progress of planned resource management actions. Resource management at the Goldwater Range—where well over half of the actions in the site's approved resource management plan were either completed or under development—is an example of effective cooperation between a BLM office and the military. BLM monitoring of planned actions at the Nellis Range provided a record of accomplishments and areas requiring further effort.

Resource Management Activities Did Not Constrain Military Operations

Officials at each site—including officials responsible for training, operations, airspace, and environmental management—expressed no concerns about the effects of resource management activities on current military operations. Military officials said that all current training objectives were being met and training missions had not been adversely affected by adjustments to accommodate resource management.

A primary reason why military operations were not constrained by resource management activities is that the act allows the military to restrict public access without the concurrence of the Department of the Interior or local land-managing agencies. Such restrictions are based on a determination by the Secretary of the Army, Navy, or Air Force that military operations, public safety, or national security require restricted access.

Although military operations have priority over resource management activities, military officials in charge of training operations said they had adjusted operations to enhance or protect resources at most locations. For example, some sites had established special flight altitude restrictions to reduce wildlife and habitat disturbances. In addition, aircraft routes had been developed to avoid sensitive areas, such as wildlife habitat. At the Alaska sites, the number of training flights had been reduced during prime moose calving and hunting seasons. At the Goldwater Range, where military airspace overlies the Cabeza Prieta Refuge, Marine Corps pilots flew specific low-level routes, but the refuge manager authorized them to fly at low altitudes only during a twice-annual training course. The refuge manager said efforts to eliminate these flights altogether were overruled by the Secretary of the Interior.

Current military operations notwithstanding, officials at the McGregor Range in New Mexico expressed concern about meeting future training

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needs. For example, McGregor officials were considering expanding training in a grassland area of the McGregor Range, called Otera Mesa, which contains sensitive habitat for plants and wildlife. However, the Army's assessment of the possible environmental impacts from a 1993 training exercise involving wheeled vehicles on the mesa received substantial negative public comment primarily because of the lack of data on the cumulative environmental effects of military operations.

Military Operations Have Constrained Resource Management Activities

The military presence at the sites strongly affects BLM's strategy for resource management. BLM efforts in planning and implementing projects to enhance protection and use of site resources for non-military uses such as recreation, grazing, and mining were often restricted by the military. For example, BLM area managers said that, among all lands they managed, the sites had a relatively low funding priority because of BLM's lower expectations for resource management in those areas. The military programs coordinator at BLM headquarters told us that because of the complications brought about by the military presence, BLM has preferred that the military services, rather than BLM, manage the sites' resources.

Resource management was limited by access restrictions, which varied in degree from site to site. For example, the entire 41,000-acre Bravo-20 Range was off limits to BLM staff due to hazardous unexploded ordnance. At the 3-million acre Nellis Range, BLM officials cited several difficulties in visiting areas crucial to management of a wild horse and burro program. To enter the area without an Air Force escort, managers were required to obtain DOD security clearances. Even with those clearances, their access generally was limited to weekends and excluded certain site areas. Although access at other sites was less restrictive, BLM managers were not permitted in target areas or in areas outside of target zones during military operations. Resource management activities constrained by military operations included both the planning and implementation of resource management actions.

Developing Resource Plans

BLM prepared the required resource plans for five of the six sites. The agency did not prepare a plan for the Bravo-20 Bombing Range because military restrictions on access and the quantity of unexploded ordnance on the site made resource management activities inappropriate. Goldwater, Nellis, and McGregor ranges have resource plans in place with agreements between the military and BLM offices on plan implementation.

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The plans for the Fort Greely and Yukon Maneuver Areas were in draft form as of November 1993.

BLM's resource plans generally addressed between 8 and 16 resources and included "decisions" for each resource to be accomplished over a 15-year period. Decisions generally (1) stated a policy or described a general goal that required no specific BLM action or (2) identified specific actions to accomplish. For example, the plan for the Nellis Range named 16 resources, including visual resources (scenery) and wild horses and burros. BLM's plan for visual resources calls for no specific management actions because visual resources are not currently affected by other activities or operations. In contrast, the decisions for wild horses and burros set forth seven actions, such as creating a wild horse inventory, developing water sources, and conducting wild horse gathers.

Implementing Resource Plans

The resource plans for the 5 sites contained a total of 225 decisions. Table 1 shows that 100 decisions (44 percent) did not require further BLM action, while 125 (56 percent) did.

Table 1: Summary of BLM Resource Decisions and Required Actions at Five Military Training Areas

Military range	BLM decisions		Status of decisions requiring actions		
	No action needed ^a	Action needed	Not started	Started but not completed	Completed
Greely	18	7	5	1	1
Yukon	13	5	4	1	0
Goldwater	23	36	14	11	11
Nellis	21	26	14	9	3
McGregor	25	51	25	12	14
Total	100	125	62	34	29

Note: BLM did not develop a resource management plan for the Bravo-20 Bombing Range.

^aRepresents a policy decision or general goal requiring no BLM action under the present conditions.

Of the 125 decisions requiring further action, 63 had been started or completed, and 62 had not—due to access restrictions and a lack of available funding, according to BLM managers. Examples of decisions that BLM had deferred are wildlife surveys on the Alaska ranges, development and implementation of habitat management plans on portions of the McGregor Range, and taking inventory of water resources on the

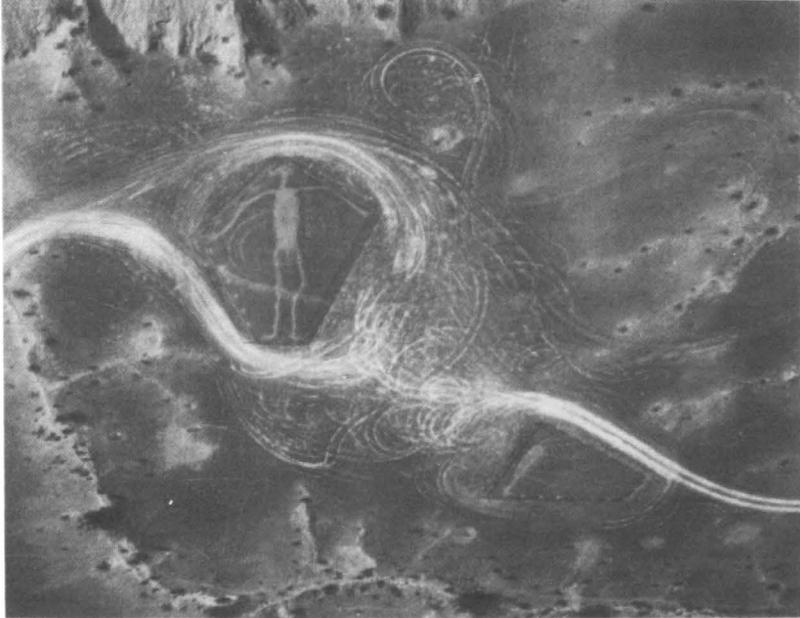
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Goldwater Range. Implementation was underway for decisions, such as updating a vegetation map for a portion of the Goldwater Range, resolving issues regarding a historical cabin on an Alaska range, and monitoring riparian areas on the Nellis Range complex.

Decisions involving completed actions included both continuations of past practices and new actions. For example:

- On the McGregor Range, BLM continued past practices to monitor its grazing program.
- On the Nellis Range, BLM designated a landmark as an Area of Critical Environmental Concern, providing additional protection from damage or use.
- On the Alaska ranges, BLM established fire management areas and designated fire suppression sites.
- On the Goldwater Range, BLM surveyed cultural sites and constructed fencing to protect ancient designs called petroglyphs on the desert floor. Figure 1 is an aerial photograph showing vehicle damage to the petroglyphs that occurred before the fence was erected.

Figure 1: Petroglyphs on the Goldwater Range Fenced to Prevent Further Vehicle Damage



BLM officials said the military presence on the sites affected BLM decisions to fund resource projects. They said that due to military restrictions on site activities, BLM has been reluctant to devote funding to the sites. Although comparable data were not available at all sites, we found that

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BLM spent a relatively small portion of its funds on some military sites.⁵ For example, the Alaska sites accounted for almost 12 percent of the land managed by the Steese/White Mountains District Office, but BLM allocated those sites only about 1 percent of the fiscal year 1992 area budget, according to estimates of the area manager. At the McGregor Range, BLM spending on withdrawn lands was proportional to its spending on other federal lands. McGregor Range represents about 23 percent of the land managed by the Caballo Resource Area Office, and BLM allocated it about 21 percent of the area office's funding in fiscal year 1992. The military also funded resource management activities on the sites, in part to meet the requirements of environmental laws such as the National Environmental Policy Act.

Impact of Military Operations on Resource Conditions Is Unknown

Military operations can affect the physical condition of the sites' natural and cultural resources. However, the limited data on the effect of military operations fall short of baseline data required to measure changes in resource conditions. The largely anecdotal information on resource conditions at the six sites indicates that military operations benefited some resources, harmed others, and had unknown effects in other cases.

BLM and military officials said that certain resources benefited from the military's presence. For example, BLM officials said that reduced public access on Goldwater Range and other restrictions on off-road vehicles resulted in less vandalism and damage to sensitive soils than would have occurred otherwise. Figure 2 shows a typical view of the Sonoran Desert on the Goldwater Range.

⁵BLM does not always account for resource management expenses on the withdrawn lands separately from its other lands. For example, local BLM officials in Phoenix said they could not estimate their fiscal year 1992 resource management expenses on the Goldwater Range.

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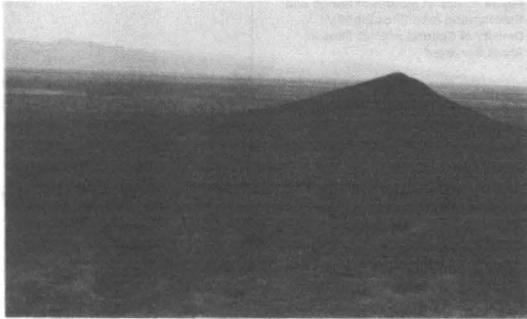
Figure 2: View of Sonoran Desert on Goldwater Range



In contrast, soils and vegetation were clearly adversely affected in the sites' various bombing range impact areas that contain unexploded ordnance and are generally not available for recreation or other secondary uses. The most extreme case was Bravo-20, considered so hazardous due to unexploded Navy ordnance that virtually no resource management has occurred. Figure 3 shows a prominent rock outcrop on Bravo-20 called Lone Rock, a primary bombing target.

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Figure 3: View of Lone Rock Bombing Target and Surrounding Terrain on Bravo-20



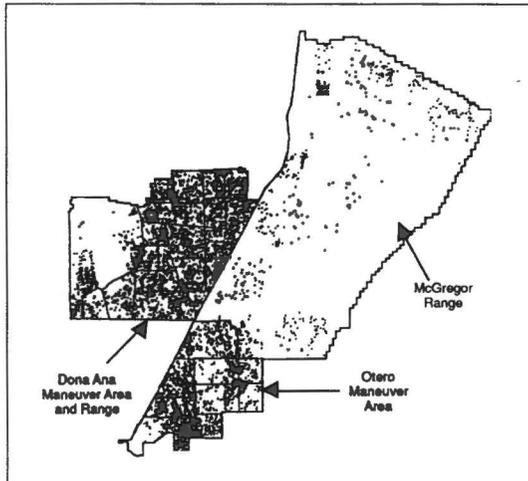
The unknown impact of military operations pertains to certain threatened or endangered wildlife species. For example, the Sonoran Pronghorn Antelope and the Lesser Long-Nosed Bat, both endangered species, are present on the Cabeza Prieta National Wildlife Refuge, which underlies the Goldwater Range's airspace. Concern about the effects of aircraft noise from overflights on these species' habitat areas has prompted assessment studies by FWS and the Air Force, but as of November 1993, the studies had not shown harm.⁶

Figure 4, which shows the location of cultural artifact sightings, such as pottery and tool fragments, in and around McGregor Range illustrates the potential risks to cultural artifacts at that site. A Fort Bliss archaeologist said the large number of identified cultural artifacts outside the site reflects extensive surveys in those areas. He said little survey work has occurred on McGregor Range, but he expects the same density of cultural artifacts within McGregor site boundaries.

⁶According to FWS, assessments of the effects of aircraft noise on the Lesser Long-Nosed Bat and the Sonoran Pronghorn Antelope occurred in order to comply with Section 7 of the Endangered Species Act.

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Figure 4: Map of McGregor Range and Surrounding Area Showing High Density of Cultural Artifact Sites in Areas Surveyed



Opportunities for Improving Interagency Cooperation and Agency Specific Management

Interagency Cooperation

The requirement of the Military Lands Withdrawal Act that DOD and Interior agencies consult and agree on plans to manage resources necessitates close cooperation between those agencies, a cooperation that would be consistent with DOD goals articulated in May 1993 by the Deputy

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Under Secretary of Defense (Environmental Security).⁷ However, we found little evidence that top managers of military services and Interior agencies had taken steps to ensure effective cooperation in managing resources at the six sites.

We found many instances of interagency difficulties in implementing resource management plans. Although the McGregor Range plan calls for BLM to manage eight different resources such as wildlife, vegetation, and cultural resources, the Chief of Fort Bliss' Directorate of Environment said Fort Bliss officials viewed BLM's role as limited to managing the cattle grazing program, assisting with fire suppression if requested, and helping to administer recreation activities. The range planner at Fort Bliss said the Army is reluctant to share authority with BLM because of concerns that BLM's plans could restrict future military training activities at the McGregor Range.

FWS officials at Nellis Range said that the military was generally uncooperative in resource management. They said that the Air Force constructed military roads, targets, and facilities on the refuge without informing the Refuge Manager. FWS officials also said that Air Force bombing outside of approved areas—which had occurred three times since 1979—damaged a rainwater catchment for bighorn sheep. In addition, they said that, without consulting with FWS managers, the Air Force had stored on the refuge some tank targets contaminated by depleted uranium.⁸ Air Force officials at Nellis said they had no record of coordinating with FWS regarding these matters and they were uncertain whether or not coordination had occurred.

We found very little interaction or cooperation between the military and BLM at the Alaska sites. For example, an Army Range Manager said that he had a good working relationship with BLM, but this relationship was based on only two telephone calls with BLM in 6 years. BLM officials said they saw little reason to work closely with the military since the ranges did not represent unique resource values, considering the abundant resources in Alaska and low public use at the sites.

⁷At hearings before the Subcommittee on Military Installations and Facilities, House Committee on Armed Services, the Deputy Under Secretary of Defense (Environmental Security) said that DOD wanted to create environmental partnerships to help ensure responsible environmental performance in defense operations.

⁸For a discussion of issues associated with handling depleted uranium during the Persian Gulf War, see Operation Desert Storm: Army Not Adequately Prepared to Deal With Depleted Uranium Contamination (GAO/NSIAD-93-90, Jan. 29, 1993).

The most cooperative relationship between the military and BLM occurred on the Eastern section of the Goldwater Air Force Range, where BLM Lower Gila Resource Area and Air Force officials worked together on several projects, sharing both funds and expertise. BLM conducted archaeological projects with Air Force financial support. BLM's archaeologist said that archaeological surveys on the range outnumbered those off range because of the Air Force's financial support. Together, the Air Force and BLM also put up visitor information signs on the state highway crossing the site and fences along the range boundary to control livestock. Air Force and BLM managers used a videotape to publicly promote their "partnership in the desert."

BLM and Air Force environmental managers said that their joint work took more time than working independently. Air Force officials said that the public would be more likely to accept resource management strategies on military ranges if agencies like BLM were involved.

Individual Agency Efforts

Efforts to Develop Information on Resource Conditions

None of the sites we visited had comprehensive information about resource conditions and the effects of military operations on those conditions. Although the National Environmental Policy Act requires agencies to evaluate the environmental effects of their major operations, the site environmental impact statements and assessments we reviewed discussed resource conditions in only general terms. Military officials at three sites (Nellis, Goldwater, and McGregor) agreed that more information on resource conditions was needed. At most of the six sites, however, officials said that developing more comprehensive information was either too costly or had not been a priority.

The Army has known of the importance of developing information on resource conditions since before the Military Lands Withdrawal Act was passed in 1986. For example, the Army's environmental impact statement prepared in 1977 for the eventual withdrawal of the McGregor Range acknowledged the need to develop information on resource conditions. However, not until 1993 did officials at the site begin planning for the development of baseline data on McGregor Range. In May 1993, Army officials met with several agencies to reach agreement on what baseline data should be developed on McGregor Range. Their goal is to have

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essential data available for future McGregor Range environmental impact statements.⁹

Developing information on resource conditions is consistent with a recent Interior initiative to inventory plant and wildlife species in the United States. The National Biological Survey will inventory plants and animals to better understand the ecological health of all ecosystems.

Controls Over Implementing Resource Plans

Several BLM offices lacked formal mechanisms to monitor the progress of planned resource management actions. Although lack of formal monitoring does not preclude BLM offices from making progress, such monitoring can provide greater assurance of successful resource management. At the Goldwater, Greely, and Yukon sites, BLM staff had no formal mechanism to monitor work. Alaska site BLM officials said that they are awaiting approval of the sites' resource management plans before implementing a formal monitoring system at Greely and Yukon. At Goldwater, BLM officials said they did not see a current need for an implementation schedule or tracking system.

More formal controls existed at Nellis and McGregor sites, including the use of priorities for implementing actions and preparing funding requests and periodically summarizing resource management accomplishments. For example, the Nellis implementation schedule allowed managers to track accomplishments and included, for many actions, a measuring system defining units of accomplishment, such as miles of fence built or number of wild horses removed. These approaches appeared to recognize accomplishments and areas requiring greater effort.

Recommendations

To better achieve the objectives of the Military Lands Withdrawal Act, DOD and Interior need to cooperate more fully to plan and implement resource management projects at the sites. To develop a more cooperative relationship and strengthen DOD's resource management, we recommend that the Secretary of Defense direct the Secretaries of the Air Force, Army, and Navy to

- improve liaison activities with Interior agencies to ensure that local BLM and FWS officials have reasonable access to withdrawn lands and military managers and

⁹The Military Lands Withdrawal Act requires that an environmental impact statement be prepared by November 1998 if the secretary of the military department concerned intends to seek renewal of the withdrawal when it expires in 2001.

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-
- develop improved baseline data to assess the cumulative effects of current and proposed military operations on range natural resource conditions.

To strengthen Interior's management under the act, we **recommend the Secretary of the Interior direct the Director of BLM to improve internal controls over military range programs by**

- establishing schedules and milestones for implementing actions called for in resource management plans and
- more closely monitoring implementation milestones and actions accomplished.

Agency Comments

DOD fully agreed with our report and recommendations. DOD plans to improve BLM and FWS access to the sites and to maintain open communication with BLM and FWS officials to ensure that natural resource management requirements are carried out. DOD also will develop baseline data by 1998 that could be used to assess the cumulative effects of military operations at the sites.

Interior generally agreed with our report and recommendations. Interior added clarifying comments concerning cooperative efforts with DOD, baseline data, and BLM funding priorities at military sites. In addition, Interior said that BLM will issue improved guidance concerning the implementation and monitoring of resource management plans.

The scope and methodology for our review are discussed in appendix VIII. Unless you publicly announce its contents earlier, we plan no further distribution of the report until 30 days after its issue date. At that time, we will send copies to appropriate congressional committees, the Secretaries of Defense, the Army, the Navy, the Air Force, and the Interior, and the Director of the Office of Management and Budget. We also will make copies available to others upon request.

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Please contact me at (202) 512-8412 if you or your staffs have any questions concerning this report. Major contributors to this report are listed in appendix IX.



Donna Heivilin, Director
Defense Management and NASA Issues

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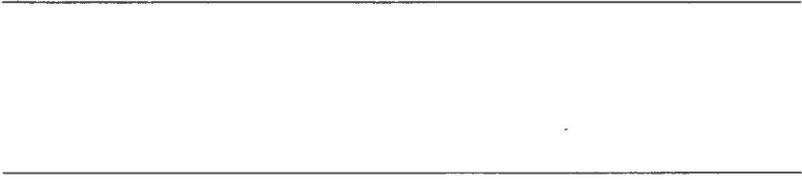
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Abbreviations

BLM	Bureau of Land Management
DOD	Department of Defense
FWS	Fish and Wildlife Service
NAS	Naval Air Station



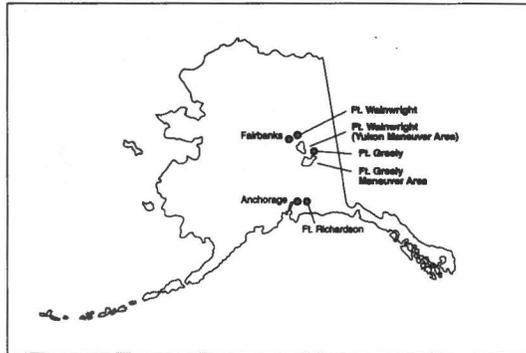
Appendix I

Fort Greely Maneuver Area and Yukon Maneuver Area, Alaska

Background

The Fort Greely Maneuver Area and Air Drop Zone and the Fort Wainwright Yukon Maneuver Area are separate sites located near Fairbanks in interior Alaska (see fig. I.1). Together, the two comprise about 872,000 acres. The two sites were withdrawn from public use for military purposes in 1961.

Figure I.1: Location of Greely and Yukon Range Land Areas, Alaska



The areas are characterized by low hills in the Yukon site and by lake dotted, rolling country and rugged mountainous terrain in the Fort Greely site (see fig. I.2).

Appendix I
Fort Greely Maneuver Area and Yukon
Maneuver Area, Alaska

Figure I.2: The Range at Yukon
Maneuver Area



The two sites, and the military airspace above them, are administered principally by the Army through three Alaska installations—Forts Wainwright, Greely, and Richardson. However, both sites are used by two military branches—the Army and the Air Force. Army training officials said they primarily use the ranges for light infantry operations¹ and for glacier and mountaineering training. The Army also tests the effect of cold weather on military equipment (winter temperatures drop as low as -63 degrees Fahrenheit.) The Air Force uses the sites for such training as air-to-ground bombing and strafing exercises in designated target areas. In addition to using the areas for their separate activities, the Army and the Air Force also use the sites for joint combat training.

The Bureau of Land Management (BLM) officials of the Steese/White Mountains District Office in Fairbanks said they direct BLM activities within the sites, with planning assistance provided by BLM's Alaska State Office in Anchorage. Except for locations specifically designated for bombing and strafing, they said the sites are generally open to the public for recreational and subsistence fishing and hunting.

¹According to Army officials, "light" designates that operations are conducted primarily by infantry troops and vehicles, without the use of tanks, tracked vehicles, and other heavy equipment.

Status of Actions Under the Military Lands Withdrawal Act

As of November 1993, neither site had a resource management plan that had been signed by BLM and the Army. According to BLM's planning team leader in Alaska, BLM's resource management plans had been completed but not formally adopted.

Although the plans were not adopted, officials said all parties had been proceeding as if the plans were in place. The plan for Fort Wainwright's Yukon Maneuver Area contains 18 management decisions in 12 resource categories, including fish and wildlife, cultural resources, minerals, and fire management (see table I.1). More than two-thirds of the decisions were statements of policy. Statements of policy require no additional actions to be implemented by BLM in their management of the site. The plan called for specific actions in five areas—access, fire management, forestry, cultural resources, and fish and wildlife. Actions were not completed in any of the five areas.

Table I.1: Status of Decisions in Yukon Maneuver Area Resource Management Plan as of November 1, 1993

Resource	BLM decisions		Status of decisions requiring actions		
	No action needed*	Action needed	Not started	Started but not completed	Completed
Lands	1	0	0	0	0
Minerals	2	0	0	0	0
Vegetation	1	0	0	0	0
Fish and wildlife	0	1	1	0	0
Recreation	2	0	0	0	0
Cultural resources	1	1	1	0	0
Visual resources	1	0	0	0	0
Forestry	0	1	1	0	0
Trespass	1	0	0	0	0
Rights of way	1	0	0	0	0
Access	3	1	1	0	0
Fire management	0	1	0	1	0
Total	13	5	4	1	0

*Represents a policy decision or general goal requiring no BLM action under the present conditions.

The draft plan for the Fort Greely Area covered the same resource categories (see table I.2). It calls for a total of seven actions to be taken. One of the seven actions (a fire management plan) had been completed, and another (resolution of issues regarding an historical cabin) was under

Appendix I
Fort Greely Maneuver Area and Yukon
Maneuver Area, Alaska

way. The remaining five actions, including monitoring of caribou calving and development of a wildlife habitat management plan, had not been started.

Table I.2: Status of Decisions in Greely
Maneuver Area Resource Management
Plan as of November 1, 1993

Resource	BLM decisions		Status of decisions requiring actions		
	No action needed*	Action needed	Not started	Started but not completed	Completed
Lands	1	0	0	0	0
Minerals	2	0	0	0	0
Vegetation	1	0	0	0	0
Fish and wildlife	0	2	2	0	0
Recreation	2	1	1	0	0
Cultural resources	0	2	1	1	0
Visual resources	1	0	0	0	0
Forestry	0	1	1	0	0
Trespass	1	0	0	0	0
Rights of way	1	0	0	0	0
Access	9	0	0	0	0
Fire management	0	1	0	0	1
Total	18	7	5	1	1

*Represents a policy decision or general goal requiring no BLM action under the present conditions.

The BLM planning team leader said that while ongoing BLM and Army management of the lands will reflect the policy decisions made in the plans, there is little likelihood that all of the actions will be completed soon because BLM does not give the military withdrawals a high funding priority. For example, in fiscal year 1992, BLM allocated less than 1 percent of the district's staff years and less than 1 percent of district funding to the withdrawn lands, which account for almost 12 percent of the land the district manages. District officials said that actions in the plans were of low priority because (1) the sites had low levels of non-military use and (2) their resources were not unique in Alaska.

The Steese/White Mountains District Office did not have a formal system to track annual implementation of the resource management plans, according to BLM officials. They said they are awaiting approval of the resource management plans before tracking implementation.

Appendix I
Fort Greely Maneuver Area and Yukon
Maneuver Area, Alaska

The Army also conducts resource management activities on the two Alaska sites. Officials at Fort Greely and Fort Wainwright said most of these efforts are related to environmental cleanup.

Effect of Resource Management on Military Operations

Overall, resource management had not affected military operations on the two sites, according to military officials. They said they had adjusted their operations to accommodate some resource concerns—for example, reducing operations during moose calving seasons and canceling operations during annual moose hunts. However, military officials including training directors and range operations officials said resource management activities had not constrained military operations or prevented the achievement of training objectives.

Effect of Military Operations on Resource Management

The overall effect of military operations on the sites' resources is unknown, because of a lack of available data. BLM officials said they believed that military operations had no significant effects on natural resources or resource management, and none of the BLM officials we interviewed expressed concerns about resource conditions at the sites. However, neither the BLM nor the Army had formally assessed resource conditions or the effect of military activities on resources.

BLM's district manager said that for all practical purposes, resource management at the sites was Army-managed, since so little BLM staff time and funds were allocated to the sites. BLM district managers said that they would favor transferring resource management at the sites to military control if BLM's staffing and funding levels are not increased to more adequately address the resource issues on the lands. The Chief of the Training Division for the U.S. Army Garrison, Alaska, said that the management arrangement with BLM today was no different from the arrangement before 1986, when BLM involvement was required by the act.

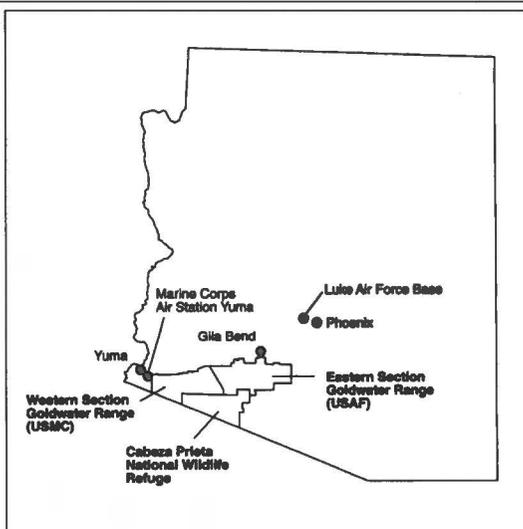
Appendix II

Barry M. Goldwater Air Force Range, Arizona

Background

The Barry M. Goldwater Air Force Range, the second-largest land-based military range in the U.S., occupies about 2.7 million acres of Sonoran desert in the southwestern corner of Arizona (see fig. II.1). Since 1941, this training facility has been used for air-to-air combat practice and bombing mock airfields and other targets. Approximately one-third of the range lies within the Cabeza Prieta National Wildlife Refuge, which was established in 1939 to protect the Desert Bighorn Sheep. The Organ Pipe Cactus National Monument area adjoins the southeast corner of the site.

Figure II.1: Location of Goldwater Air Force Range Land Area, Arizona



The range is divided into three distinct administrative sections—Eastern, Western, and the Cabeza Prieta National Wildlife Refuge—with military

Appendix II
Barry M. Goldwater Air Force Range,
Arizona

administration divided between the Air Force and the Marine Corps. The Air Force is the overall military administrator of the site through Luke Air Force Base in Arizona, and schedules military use and controls public access in the site's Eastern section. According to the Air Force, in 1992, the Eastern section hosted about 46,000 sorties (takeoffs and landings) and was utilized about 75 percent of the time. The Marine Corps controls public access in the Western section. According to the Marine Corps, the section hosted over 11,000 sorties and was in use 352 days in 1992.

The range is characterized by rugged mountain ranges and broad valleys (see fig. II.2). Natural resource management is divided between BLM, which manages the Eastern and Western sections, and the U.S. Fish and Wildlife Service (FWS), which manages the wildlife refuge. BLM manages the Eastern section from its Phoenix district office and the Western section through its Yuma district office. FWS management of the refuge is carried out by a manager and staff in Ajo, Arizona.

Figure II.2: The Goldwater Air Force Range



Appendix II
Barry M. Goldwater Air Force Range,
Arizona

Status of Actions Under the Military Lands Withdrawal Act

BLM issued a resource management plan for the Goldwater Range in 1989.¹ BLM's plan was based on a 1986 plan developed by the University of Arizona under a contract with the Air Force. A BLM official said the plan was modified to reflect BLM's regulations, address specific land use management requirements mandated by the Federal Land Policy and Management Act of 1976 and Public Law 99-606, and generate specific management actions for resources assigned to BLM's jurisdiction. BLM's plan describes specific management steps for 12 resource categories, including water, soils, wildlife, cultural resources, and recreation (see table II.1). The plan calls for 36 specific actions, such as managing desert tortoise habitat, monitoring water table levels, and developing visitor use maps.

Table II.1: Status of Decisions in
Goldwater Range Resource
Management Plan as of November 1,
1993

Resource	BLM decisions		Status of decisions requiring action		
	No action needed ^a	Action needed	Not started	Started but not completed	Completed
Land uses	4	1	0	0	1
Soils	1	2	1	0	- 1
Water	2	3	2	1	0
Botanical resources (vegetation)	1	2	0	2	0
Wildlife	1	5	0	3	2
Recreation	7	7	5	2	0
Cultural resources	0	2	0	0	2
Visual resources	2	1	0	0	1
Roads and vehicle use	4	3	1	1	1
Areas of critical environmental concern/other	0	7	2	2	3
Wild horse/donkey burros	0	3	3	0	0
Fire management	1	0	0	0	0
Total	23	36	14	11	11

^aRepresents a policy decision or general goal requiring no BLM action under present conditions.

¹The Military Lands Withdrawal Act requires Interior to develop and implement resource management plans. At Goldwater Range, BLM developed the plan for the withdrawn lands. The FWS manages Cabeza Prieta National Wildlife Refuge lands, which were not withdrawn by Public Law 99-606, under an overall refuge management plan.

Of the 36 actions called for in the resource plan, BLM had completed 11 and started an additional 11. For example, BLM had completed actions to create a cultural resources plan, assess cultural resource sites, and designate the Tinajas Altas Mountains and the Mohawk Mountains and Sand Dunes as areas of critical environmental concern. BLM had started but not completed efforts to inventory endangered plants and update a vegetation map of the site.

Some of the actions involved activities conducted jointly by BLM and the military services. For example, the Air Force helped fund archaeological projects, allowing BLM to complete more archeological surveys within the range than on similar BLM land off site, according to a BLM archaeologist. The Air Force and BLM also developed interagency agreements for joint construction of visitor information signs on the state highway crossing the site and for fencing that prevents trespassing livestock from entering prescribed areas of the range. These joint efforts are promoted as a "partnership in the desert" by BLM and Air Force officials in a videotape shown to site visitors. BLM officials told us they had also undertaken some joint management efforts with the Marine Corps, including fencing ancient Native American petroglyphs to protect these cultural resources from damage by wheeled military vehicles, placing public information signs at site entrances, creating visitor access permit procedures, and conducting joint surveys of bighorn sheep and water holes. BLM had not started 14 actions called for in the plan. These include, for example, creating an inventory of water resources, inventorying the burro population, and preparing a burro capture-and-removal plan.

In addition to providing assistance with items in BLM's plan, the Air Force and the Marine Corps conduct additional natural resource-related work through military environmental management programs at Luke Air Force Base and Marine Corps Air Station, Yuma. Actions undertaken by the military include a study of plant life.

Neither the Phoenix nor Yuma BLM offices had a formal system to track annual implementation of the resource management plan, according to BLM officials. Officials at Phoenix and Yuma said they saw no need for such a system, since there is a BLM review of management plans every 5 years.

Effect of Resource Management on Military Operations

Overall, resource management had little effect on military operations at the range. Air Force officials said they knew of no significant effect, and they had been able to accomplish training objectives within constraints of environmental programs. Similarly, a Marine Corps range official said that

Appendix II
Barry M. Goldwater Air Force Range,
Arizona

resource management programs had not caused any significant delays or mission cancellations. He said the Marine Corps had also made some adjustments to accommodate natural resource requirements, such as not flying below a certain minimum altitude over the Cabeza Prieta Wildlife Refuge, or not flying along specific routes, but these adjustments had not precluded meeting training requirements successfully.

BLM and Air Force officials said that their joint management of natural resources was more time-consuming than single-agency management. While the Air Force funds most of the natural and cultural resources projects on the range, Air Force officials said that joint management benefited the military because the public was more likely to accept range management strategies with the involvement of agencies like BLM and FWS. According to the manager of BLM's Lower Gila Resource Area, joint management has significantly changed the way the military has done business. Under the joint management arrangement, he said, military actions on the Goldwater Range are conducted in a more open public forum and are therefore subject to agency and public oversight.

Effect of Military Operations on Resource Management

The effect of military operations on resource management is unclear, primarily because of limited data. Neither Air Force nor BLM officials had comprehensive information on the condition of site resources or the effects of military operations on those resources. A primary concern about negative effects of military operations centered on the issue of aircraft noise. However, military officials at both Luke Air Force Base and the Noise and Sonic Boom Impact Technology Center at Wright-Patterson Air Force Base said that without baseline data on animal populations, no conclusions could be drawn about the long-term effects of aircraft noise. Officials indicated that the Air Force, BLM, and contractors are still assessing the effects on wildlife of noise from military operations.

The manager of the Cabeza Prieta Wildlife Refuge said that although he did not have conclusive data, he believed aircraft overflight was a "harmful" use of the refuge due to wildlife disturbance and displacement. During 1993, under the terms of an agreement between the Marine Corps and the refuge that certain refuge uses would require the manager's approval, the manager said he decided not to allow Marine Corps use of low-level refuge airspace during a military training exercise. However, he said he was overruled by the Secretary of the Interior. The refuge manager said another concern was that jets sometimes flew below the established minimum altitudes over the refuge. Air Force officials said their radar

Appendix B
Brazo M. Goldwater Air Force Range,
Arizona

system could track aircraft altitude in airspace over the refuge if needed, but that they had received very few complaints from the refuge and there are gaps in radar coverage.

On the other hand, BLM officials and the refuge manager said that military use of the Goldwater Range may have benefited some natural resources, in that restricted public access may have reduced detrimental public-use effects. For example, BLM officials said the reduction of off-road vehicle use had resulted in less disturbance of soils and vegetation than would have occurred without military restrictions.

While the effect of military operations on natural resources was unclear, military operations had not adversely affected resource management routines. BLM and FWS officials said that although their work on the site is restricted to breaks in military operations, this had not prevented them from accomplishing needed activities. For example, BLM officials told us that most of the site is not used for active targeting by the military, and as a result, is largely open for resource managers' use. In addition, BLM officials said that joint military/BLM resource management—including sharing expertise and funding—enabled BLM to make good progress implementing resource plan activities. BLM officials said that under this joint arrangement, BLM primarily provided staff and the Air Force or Marine Corps provided the funding. However, neither the Phoenix or Yuma District offices could provide data to compare expenditures for resource management on the Goldwater Range site with expenditures for non-military areas.

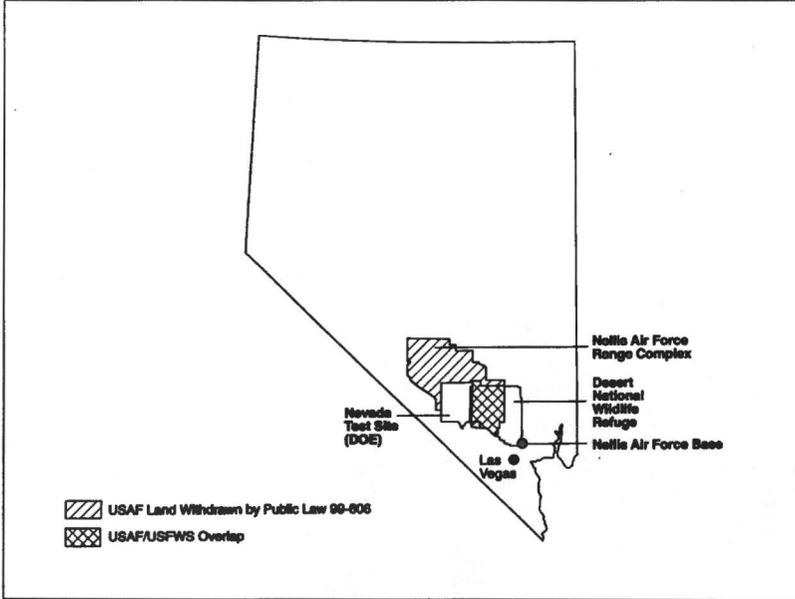
Nellis Air Force Range, Nevada

Background

The Nellis Air Force Range, established in 1940, is the largest land-based military range in the United States, occupying about 3 million acres of high Nevada desert near Las Vegas, Nevada (see fig. III.1). Over one-fourth of the site lies within the Desert National Wildlife Refuge, established in 1936 to protect the Desert Bighorn Sheep. Air and ground-based military activities, including pilot training, combat exercises involving units from several countries, and various test and evaluation activities, occur on both the refuge and on the remaining three-fourths of the site. In fiscal year 1989, approximately 60,000 takeoffs and landings occurred on the Nellis Air Force Range. The site is bordered by other federal lands, including the Department of Energy's Yucca Mountain site, which is for potential storage of high-level nuclear waste, and the Energy Department's Nevada Test Site, which is used for nuclear program testing and development.

Appendix III
Nellis Air Force Range, Nevada

Figure III.1: Location of Nellis Air Force Range Land Area, Nevada



The site's terrain is characterized by mesas, lake basins, and rugged, isolated mountain ranges (see fig. IIL2).

Appendix III
Nellis Air Force Range, Nevada

Figure III.2: The Nellis Air Force Range



The Air Force, the overall administrator for the range, schedules Air Force use and controls public access to the site. In addition to the Air Force, the Sandia National Laboratory uses portions of the site to test and develop weapons, and Energy Department's Yucca Mountain site and Nevada Test Site use portions of the site in conjunction with their activities.

Appendix III
Nellis Air Force Range, Nevada

Natural resource management activity is divided between BLM and FWS, with BLM managing natural resources on all lands other than the Desert National Wildlife Refuge and FWS managing natural resources on the refuge. BLM's management is done through its Las Vegas District and Caliente Resource Area Offices; FWS' through a refuge manager and staff in Corn Creek, Nevada, and a project leader in Las Vegas.

**Status of Actions
Under the Military
Lands Withdrawal Act**

In February 1992, BLM issued a resource plan describing specific decisions for 16 resource categories, such as management of wildlife habitat, areas of critical environmental concern, and wild horses (see table III.1).¹ At the time of our review, BLM and the Air Force had agreed formally on their respective roles in implementing the plan. BLM had also developed an implementation schedule for the actions with a mechanism enabling managers to track accomplishments and, for many actions, a measuring system defining "units of accomplishment."

¹The Military Lands Withdrawal Act requires Interior to develop and implement resource management plans. At the Nellis Range complex, BLM developed the plan for the withdrawn lands. The FWS manages Desert National Wildlife Refuge lands, which were not withdrawn under Public Law 99-606, under an overall refuge management plan.

Appendix III
Nellis Air Force Range, Nevada

Table III.1: Status of Decisions in Nellis Range Resource Management Plan as of November 1, 1993

Resource	BLM decisions		Status of decisions requiring action		
	No action needed*	Action needed	Not started	Started but not completed	Completed
Lands	4	0	0	0	0
Minerals	0	1	0	0	1
Vegetation	0	5	3	2	0
Wildlife	0	8	4	4	0
Recreation	1	0	0	0	0
Cultural resources	3	0	0	0	0
Visual resources	3	0	0	0	0
Forestry	1	0	0	0	0
Access	1	0	0	0	0
Wild horse and burro	0	8	4	3	1
Areas of critical environmental concern	1	1	0	0	1
Natural area	1	0	0	0	0
Livestock grazing	1	3	3	0	0
Soil, water, air	3	0	0	0	0
Wilderness	1	0	0	0	0
Fire management	1	0	0	0	0
Total	21	26	14	9	3

*Represents a policy decision or general goal requiring no specific BLM actions under the present conditions.

BLM's plan calls for 26 specific actions, such as constructing fencing, removing burros, and developing water sources for wild horses. As of November 1993, BLM had completed its work on three of these actions. It had removed over 1,400 wild horses and had designated a portion of the Timber Mountain Caldera National Monument as an area of critical environmental concern, which BLM's Resource Area Manager said provided the monument additional protection from damage or misuse. BLM had started work on nine other actions, including preliminary surveys and monitoring of riparian areas, initiating project proposals and designs for water sources, and designing grazing-related water development, pipelines, and corrals for livestock management of the Bald Mountain allotment. BLM had not started the remaining 14 actions, which include conducting an inventory of wildlife habitat and monitoring livestock grazing use levels for the Bald Mountain allotment.

In addition to BLM's resource management on the site, Nellis Air Force Base conducts its own natural resource-related activities through its environmental management unit. The unit spent over \$1 million for range environmental management activities in fiscal year 1992, including wildlife studies, remediation of prior range contamination, and compliance with environmental laws.

Effect of Resource Management on Military Operations

Overall, the level of resource management occurring to date had no substantive effect on military operations on the site, according to Air Force officials. They said no resource management activities, including those conducted by BLM or FWS had caused significant delays or mission cancellations.

However, the Air Force had adjusted some of its operations to accommodate resource protection. Air Force officials said they established training air routes and altitude restrictions partly to avoid sensitive resource areas and located target areas away from sensitive areas, primarily placing targets on the desert floor in dry lake basins.

Effect of Military Operations on Resource Management

Available data indicate that military operations are having some negative effects on resources, but the data are too limited to draw overall conclusions, according to Air Force officials. The information on negative effects is contained in the Special Nevada Report, a contractor-prepared document assessing military land use in Nevada for the Air Force, Navy, and Interior Departments. The report, which is a compilation of existing literature, concludes that while military activities on the site could affect the survival of species such as the threatened Desert Tortoise, the overall effects of military operations on natural resources cannot be determined based on available information. The report also cites negative effects on cultural resources caused by heavy ordnance contamination, training activities, and construction of roads and military facilities.

BLM officials said they had conducted very few resource management activities on the range. They said that although the management actions are to be implemented over a 20-year period, progress even on this timetable has been slow. BLM managers cited limited funding and access restrictions as two reasons for the slow progress.

- BLM's manager of the Caliente Resource Area said the lands within the range generally have a lower funding priority than other lands the area

office manages. This is the case, he said, because the military presence leaves the land largely inaccessible and, in some locations, contaminated with unexploded bombs and other military equipment. As a result, the public-use options are limited, and BLM's expectations for the future use and management of the lands are lower than its expectations for using land outside the military withdrawal. Available cost data support this statement, in that BLM lands within the site account for about 41 percent of the lands managed by the Area office but received only about 28 percent of the Area office's expenditures (\$159,296 out of \$574,356 in fiscal year 1992). BLM's Nevada State office provided most of that funding (\$148,666) specifically allocated for wild horse gathering.

- BLM officials told us it is more difficult to visit the BLM-managed lands on the range than similar BLM lands not under Air Force control. For example, BLM employees must obtain the Department of Defense (DOD) security clearances to enter range areas crucial to BLM's management of its horse and burro program without an Air Force escort. Even with proper clearances, BLM officials said they were generally restricted to weekend access on some portions of the range. They had no access to other range areas, even on weekends and holidays.

The FWS refuge officials cited the same limitations of funding and access and also provided us with a list of incidents and general conduct of the Air Force and Energy that they believed impeded resource management and, in some cases, violated the terms of their working agreement. These incidents included the following:

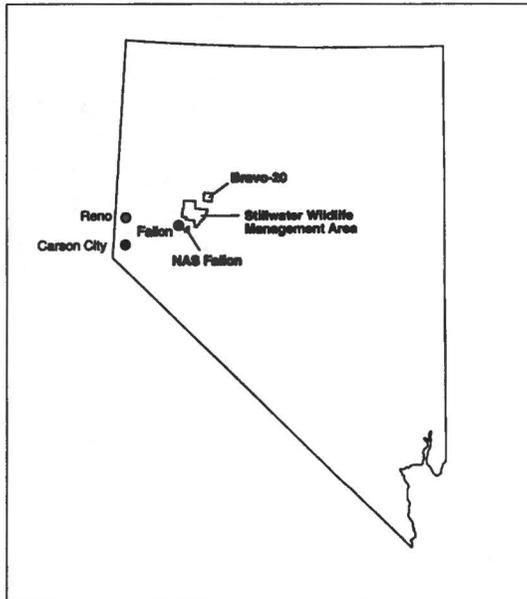
- The Air Force constructed and relocated military roads, targets, and facilities on the refuge without coordinating with the refuge manager or obtaining FWS approval, as required by their agreement.
- The Air Force conducted air-to-ground bombing outside of approved areas. On three occasions since 1979, this bombing in unapproved areas involved a catchment for drinking water for sheep.
- The Air Force left tank targets on the refuge that were contaminated by depleted uranium shells. Although the Nuclear Regulatory Commission issued the Air Force a permit for the use of depleted uranium, according to FWS, it was never consulted about storing the contaminated tank targets on the refuge.
- Energy's use of some portions of the refuge resulted in FWS personnel being denied access to some refuge areas, including a 23,680-acre Research Natural Area. This area is legally protected from all disturbances. Because of the access restrictions, refuge staff were not able to monitor the area or ensure that it remains undisturbed.

Bravo-20 Bombing Range, Nevada

Background

The Bravo-20 Bombing Range comprises about 41,000 acres in western Nevada about 80 miles northeast of Reno (see fig. IV.1). It is used for a variety of bombing and gunnery training. The range lies within the 3-million acre Lahontan Resource Area and about 7 miles north of the 200,000-acre Stillwater Wildlife Management Area, which includes the Stillwater National Wildlife Refuge and the wetland areas around it.

Figure IV.1: Location of Bravo-20 Bombing Range Land Area, Nevada



Appendix IV
Bravo-20 Bombing Range, Nevada

The site is primarily a dry lake bed with sandy, alkali soil and little vegetation (see fig. IV.2). About half of the land is withdrawn public land, and the remaining half, previously leased, was obtained by the Navy in 1982 through condemnation procedures.

Figure IV.2: The Bravo-20 Bombing Range



The Navy administers the range through Naval Air Station (NAS) Fallon, located near Fallon, Nevada, which also administers other ranges in the area. The Navy uses Bravo-20 for live ordnance and gunnery training, laser target practice, and to jettison unsafe ordnance. The Navy conducts about 650 training flights per month on the range.

According to BLM's Lahontan Resource Area manager, BLM is responsible for resource management on the range as well as other lands it manages within the Lahontan Resource Area. He manages the area from the Carson City District Office. fws manages the Stillwater Wildlife Refuge through a refuge manager and staff in Fallon.

Status of Actions Under the Military Lands Withdrawal Act

BLM has not developed a resource management plan for the range. On May 27, 1988, the director of BLM's Nevada office issued a decision that a resource management plan was unnecessary because the range is used for live ordnance practice, is closed to the public, and is therefore not

available for the resource management purposes identified in the Military Lands Withdrawal Act. Also cited in this decision was the amount of unexploded ordnance on the range. A 1980 Environmental Assessment Report on Bravo-20 stated that 60-75 unexploded bombs may have escaped detection each year since 1950. Many of these unexploded bombs lie below the surface. BLM managers told us they also consider the range too dangerous for BLM employees or the public to enter.

Because no resource plan exists, officials at NAS Fallon have not developed agreements with BLM that address how to conduct resource management on the range. However, they have eight agreements in place with BLM, FWS, and other organizations to address issues such as overflight of public lands by training aircraft and procedures for removing ordnance dropped outside Navy ranges.

NAS Fallon has its own natural resource management plan for the areas it manages. However, the natural resource director at NAS Fallon said that resource management activities will not be conducted on Bravo-20. The 1991 plan took into account NAS Fallon and all four of NAS Fallon's ranges. The plan contains 72 proposed actions in 4 resource areas—land management, including cultural and historical, fish and wildlife, urban forestry and outdoor recreation. According to NAS Fallon's natural resource director, none of the proposed actions are to be implemented on Bravo-20. However, he said the Navy does conduct environmental evaluations of proposed activities on Bravo-20 in accordance with the National Environmental Policy Act, except within the high impact area.

Although the Navy has excluded Bravo-20 from natural resources actions, it is planning for cultural resource surveys on portions of the range. The Navy and FWS are collaborating to develop a model that would allow them to predict where cultural resources may be found throughout all of NAS Fallon's ranges. The natural resource director at NAS Fallon said that as part of this model, the Navy will survey 5 percent of the lands within Bravo-20 in 1994, excluding the high impact areas.

Effect of Resource Management on Military Operations

Military operations on Bravo-20 have not been affected by resource management activities, because BLM and the Navy are not managing resources on Bravo-20. In addition, according to the NAS Fallon assistant range manager and range operations planning officer, current training programs have not been modified or affected due to any resource management concerns.

**Effect of Military
Operations on
Resource
Management**

As can already be seen from the explanation above, military operations have a significant effect on the extent to which resource management can occur on the site. The type of training and the existence of unexploded ordnance have caused both BLM and the Navy to conclude that resource management activities are too dangerous to conduct on the site.

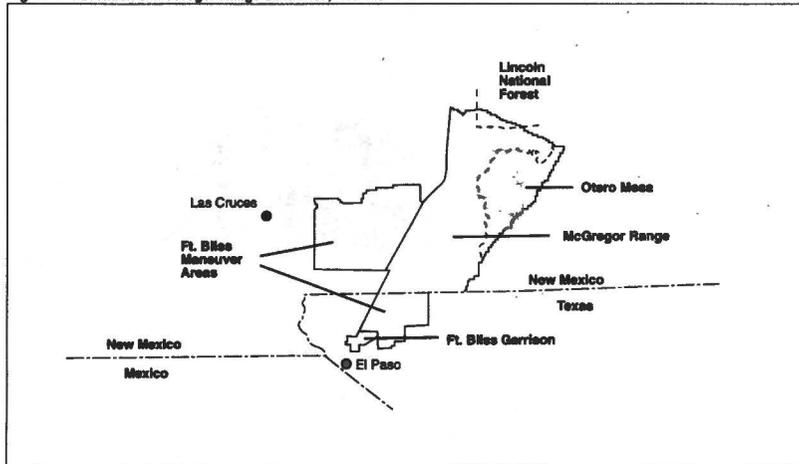
Aircraft flying to Bravo-20 from NAS Fallon also affect resource management on nearby FWS areas. In a 1990 report to the Director on the effects of secondary uses on its refuges, FWS officials listed military air exercises as "harmful" at the Stillwater refuge because the exercises created major wildlife disturbances from noise as well as air and fuel pollution. The manager of the Stillwater Wildlife Management Area said that in the past Navy planes had dumped fuel within refuge boundaries. However, he said that fuel dumping has not been a problem since he met with NAS Fallon and Nevada officials in the late 1980s. He also said the Navy has been responsive to limiting low overflights over the refuge.

McGregor Range, New Mexico

Background

The McGregor Range is located in south-central New Mexico, northeast of El Paso, Texas (see fig. V.1). Originally withdrawn from public domain in 1857 for Army use as an artillery and missile firing range, the range is now a site where U.S. and Allied personnel train in the use of air defense weapon systems, including missiles and conventional air defense weapons. The range is also used for gunnery, bombing, and tactical training for helicopters and fixed-wing aircraft and for troop and vehicle ground maneuvers. Its southwest corner is a maneuver area used by tanks and other vehicles.

Figure V.1: Location of McGregor Range Land Area, New Mexico

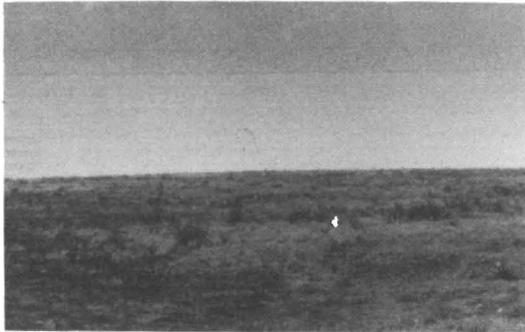


The range includes about 700,000 acres that vary from flat valley floor to foothills and from rolling grasslands to steep mountainous terrain. Most of the acreage is withdrawn public land, but about 72,000 acres is Army

Appendix V
McGregor Range, New Mexico

fee-owned land and about 18,000 acres is U.S. Forest Service land. The range contains a rich assortment of wildlife and other natural and cultural resources, including mule deer and antelope herds, a large area of rare black grama grass, and prehistoric cultural sites. The Otera Mesa area of the range, in particular, has been identified by environmental groups as a location with potentially sensitive habitat areas for plants and wildlife (see fig V.2).

Figure V.2: The Otera Mesa on the McGregor Range



The Army administers military operations on the McGregor Range through Fort Bliss, Texas. Personnel at the Fort Bliss coordinate training operations and control access to the range.

BLM is the land management agency with responsibility for withdrawn public lands on the McGregor Range. It carries out its work on the McGregor Range through the Caballo Resource Area of the Las Cruces District Office. BLM also manages lands adjacent to the McGregor Range, as does the U.S. Forest Service.

Status of Actions Under the Military Lands Withdrawal Act

BLM issued a resource management plan for McGregor Range in September 1990. The plan, designed to cover a 15-year period, included 51 specific action items for 8 categories of resources, including wildlife, livestock grazing, recreation, and cultural resources (see table V.1). BLM's state director and the Fort Bliss chief of staff also signed an agreement setting out the policies, procedures, and responsibilities for implementing the resource management plan. The plan includes an implementation and monitoring strategy in which BLM staff are to annually identify funding priorities, document completed activities, and prepare a report summarizing results.

**Table V.1: Status of Decisions in the
McGregor Range Resource
Management Plan as of November 1,
1993**

Resource	BLM decisions		Status of decisions requiring action		
	No action needed*	Action needed	Not started	Started but not completed	Completed
Lands, realty, access	0	2	0	0	2
Minerals	9	4	0	0	4
Soil, water, air	0	8	5	2	1
Vegetation	0	5	2	2	1
Livestock grazing	11	6	1	3	2
Wildlife	2	19	13	5	1
Recreation	2	3	1	0	2
Cultural resources	1	4	3	0	1
Total	25	61	25	12	14

*Represents a policy decision or general goal requiring no specific BLM actions under the present conditions.

Of the 51 specific actions called for in the plan, BLM had implemented 14 as of November 1993. For example, with regard to minerals, BLM completed steps that would open a portion of the range for mineral and geothermal leases. The Caballo Area manager said BLM offered leases adjacent to McGregor Range to test the level of interest, but because they did not find interested bidders, they have no current plans to offer the McGregor leases. In addition, the Fort Bliss range planner said the Army is concerned that oil and gas exploration would be in conflict with training activities. For the grazing program, which BLM administers on portions of the range, BLM conducted annual monitoring studies of the condition of the vegetation to help ensure that overgrazing does not occur.

For the other resource categories included in the plan, BLM's actions have been more limited. For example, although BLM's plan calls for substantial activity to inventory and monitor wildlife and to develop and implement habitat management plans, less progress has been made in this area. The manager of BLM's Caballo Resource Area said that his office was beginning to prepare plans, starting with the foothills area of the range, that would tie together the management of several resources, including soil, water, habitat, and vegetation. He said that this planning approach will allow BLM to look at present and future range uses and make better management decisions about the entire ecosystem. He added that implementing the resource management plan is usually based on more current resource assessments, and some decisions may not be implemented exactly as described in the plan.

Army staff at Fort Bliss are also involved in resource management activities. For example, the Army has completed a master plan for the range and, according to the range planner, is developing natural resource and cultural resource management plans for Fort Bliss, both of which are expected to include the range. The range planner at Fort Bliss said these plans are being done to ensure compliance with the National Environmental Policy Act and in preparation for the draft environmental impact statement, required by November 1998 for continued withdrawal of the range beyond the period specified in the 1986 act.

Effect of Resource Management on Military Operations

Overall, resource management has not adversely affected military activities on McGregor Range. Discussions with scheduling officials, the range planner, staff responsible for natural and cultural resource issues at Fort Bliss, Army officials who conduct training on the range, and BLM's area manager indicated that training objectives are accomplished. None suggested that a training objective was not met due to resource management constraints.

Several officials expressed concerns, however, about meeting future training needs because of the environmental constraints the Army must meet. For example, Fort Bliss officials are considering expanding training activities on the Otera Mesa area of the range. According to the range planner, the Commander of the 3rd Armored Cavalry Regiment asked Fort Bliss to develop this area for tank maneuvers to provide more realistic long-range tank engagement scenarios. Although Fort Bliss' current strategy is not to allow tracked vehicles on the mesa, it is considering the area for increased truck and troop maneuvers. However, there has been

strong public concern about protecting Otera Mesa. For example, the Army's assessment of the possible environmental impacts from a 1993 training exercise involving Army, Air Force, Navy, and Marine personnel received substantial negative public comment primarily because of the lack of data on the cumulative environmental effects of military operations on the mesa. Fort Bliss officials said they will prepare an environmental impact statement to address potential future uses of the mesa, but they are unsure what training activities ultimately will be allowed.

Effect of Military Operations on Resource Management

The effect of military operations on resource management is unclear, primarily because of limited data. According to Fort Bliss and BLM officials, they have no baseline data on the condition of natural and cultural resources on McGregor, nor have they studied the cumulative effects of military operations on those resources. Although Fort Bliss acknowledged the need to develop baseline data in 1977 as part of an environmental impact statement for withdrawing the land, Fort Bliss officials said the information was never developed. Officials at Fort Bliss are now planning to develop this baseline data as part of the natural resource management plan currently under development. Additionally, the baseline data is expected to be part of the 1998 environmental impact statement the Army must complete in order to seek an extension of the withdrawal from Interior.

In the absence of comprehensive data on resource conditions, officials are of the opinion that military operations both benefit and adversely affect resources. Benefits occur, they said, because military activity restricts public access and thus provides less opportunity for vandalism, damage to soils, and similar effects. In addition, the water rights acquired by Fort Bliss provide water for wildlife that would not otherwise be available on the range, and both mule deer and antelope have flourished. Potential harmful effects cited by those we spoke with included hazards to wildlife, plants, and soils from missiles and other debris falling in the impact area of the range; vehicle maneuvers which impact soils, damage plants, and disturb wildlife; and increased frequency of range fires.

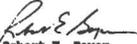
While the effect of military operations on natural and cultural resources was unclear, military operations had a definite effect on the level of resource management activities. The Chief of Fort Bliss' Directorate of Environment said Fort Bliss officials viewed BLM's role on the range as limited to managing the grazing program, assisting with fire suppression if requested, and possibly helping to administer recreation activities. The

Appendix V
McGregor Range, New Mexico

range planner at Fort Bliss said the Army does not share authority with BLM because of a widespread feeling that BLM wants to implement multiple-use activities without regard to the Army's training needs. BLM's Caballo Area manager said he recognizes the Army's authority to limit multiple uses on McGregor, but the Withdrawal Act requires him to develop and implement appropriate resource uses and protections.

BLM expenditures for resource management indicate that the McGregor Range is receiving a proportionate share of BLM funds. According to data provided by BLM, the McGregor Range represents about 23 percent of the land managed by the Caballo Area and in fiscal year 1992 received about 21 percent of the area's funding.

Comments From the Department of Defense

	OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE 3300 DEFENSE PENTAGON WASHINGTON, DC 20301-3300	
ECONOMIC SECURITY	15 MAR 1994	
<p>Mr. Frank C. Conahan Assistant Comptroller General National Security and International Affairs Division U.S. General Accounting Office Washington, DC 20548</p>		
<p>Dear Mr. Conahan:</p>		
<p>This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "NATURAL RESOURCES: Defense and Interior Can Improve Management Under Public Law 99-506," dated February 2, 1994 (GAO Code 392754/OSD Case 9588). The DoD concurs with the report.</p>		
<p>The DoD agrees that liaison activities with Department of Interior agencies should be improved. To that end, the Office of the Secretary of Defense will ensure that the Military Departments continue to refine agreements with Department of Interior agencies so that needed access by Interior officials is assured. The DoD also agrees that baseline data is needed to assess the cumulative effects of current and proposed military operations on range and natural resource conditions. In conjunction with the requirements of Public Law 94-606, by 1999, the Services will be developing baseline information that will enable the assessment to be accomplished.</p>		
<p>The detailed DoD comments on the report recommendations are provided in the enclosure. The Department appreciates the opportunity to comment on the draft.</p>		
<p>Sincerely,</p>		
<p> Robert E. Bayer Deputy Assistant Secretary of Defense for Economic Reinvestment and Base Realignment and Closure</p>		
<p>Enclosure</p>		

Appendix VI
Comments From the Department of Defense

GAO DRAFT REPORT - DATED FEBRUARY 2, 1994
(GAO CODE 392754) OED CASE 9568

NATURAL RESOURCES: DEFENSE AND INTERIOR CAN IMPROVE
MANAGEMENT UNDER PUBLIC LAW 99-606

DEPARTMENT OF DEFENSE COMMENTS ON
THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Secretaries of the Army, Navy, and Air Force to improve liaison activities with Interior agencies to ensure that local Bureau of Land Management and U.S. Fish and Wildlife Service officials have reasonable access to withdrawn lands and military managers. (p. 17/GAO Draft Report)

Now on p. 14.

DOD RESPONSE: Concur. The Office of the Secretary of Defense will ensure that the Military Departments continue to refine agreements with Department of Interior agencies that will provide them access consistent with their needs for timely, on-site management of withdrawn public domain lands. Major commands and installations which have withdrawn lands under their control will maintain open communication with Bureau of Land Management and U.S. Fish and Wildlife officials to ensure that natural resources management requirements are carried out. When access is requested by any of these officials, arrangements are made by the commanding officer of the base for their visit including stopping activities which may be dangerous. In addition, visitors will be escorted to ensure their safety.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense direct the Secretaries of the Army, Navy, and Air Force develop improved baseline data to assess the cumulative effects of current and proposed military operations on range and natural resource conditions. (p.17/GAO Draft Report)

Now on pp. 14-15.

DOD RESPONSE: Concur. As part of the Environmental Impact Statement process required by Public Law 99-606, to be completed by 1998, baseline data will be developed which could be used to assess the cumulative effects of military operations. For example, the Army is currently implementing its Land Condition Trend Analysis Program on approximately 60 installations. That program provides a baseline inventory of natural and cultural resources and monitors trends and conditions as the land is used. The data is then used to make management decisions. The Navy will also be developing baseline data by 1998 for the Bravo 20 Range managed by Fallon Naval Air Station as part of the Environmental Impact Statement process required by Public Law 99-606. The western portion of the Goldwater Range is part of the ongoing multi-year Environmental Impact Statement process for the complete complex of ranges scheduled or managed by the Marine

Appendix VI
Comments From the Department of Defense

Corps Air Station, Yuma, Arizona. Key Interior agencies are participating in this process, providing significant input in the scoping and document evaluation stages. When completed, that document will form a comprehensive baseline for natural and manmade conditions, will examine all significant current operations in regard to site specific impacts and overall effects on the range complex and adjacent areas. For other withdrawn lands, the primary Department of Interior agencies will be invited to participate in the comprehensive environmental planning required for renewals and reviews under the Federal Lands Policy Management Act of 1976. That will provide a logical and time responsive process for ensuring baseline data requirements. The Air Force has undertaken initiatives to inventory wetlands, endangered species, and archeological sites at the Nellis and Goldwater Ranges. These inventories will be used to prepare integrated management plans to ensure proper stewardship. In addition, Goldwater Range is preparing a Troop Orientation Video to inform military personnel of the existence of sensitive resources on the range and the importance of protecting the resources.

Comments From the Department of the Interior



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

MAR 24 1994

Mr. Frank C. Conahan
Assistant Comptroller General
General Accounting Office
Washington, D.C. 20548

Dear Mr. Conahan:

We appreciate the opportunity to review the draft General Accounting Office (GAO) report in response to Congressman Richard Ray who requested that the GAO examine the experience of the Department of Defense (DOD) and other Federal resource agencies that jointly manage lands withdrawn for military use under Public Law 99-606. We find the report substantially accurate and reflective of the current situation. However, a few points were overlooked which reflect upon understanding the partnership between the DOD and the Bureau of Land Management (BLM) at the subject military installations.

Partnership

In the context of Public Law 99-606, the combined efforts and funding of the military services and the BLM should be analyzed, not just the BLM contribution. The military services provide the bulk of the funding while the BLM primarily provides the expertise of its personnel at each of the subject installations. Although this partnership was documented throughout most of the report, it was substantially overlooked in the Alaska portion of the report.

In addition, the BLM and the DOD partnership has been expanding at the national level as a result of Public Law 99-606 and similar legislation, which mandate a partnering of our agencies and express the desire of the Administration that the agencies work together to capitalize on each other's strengths. The BLM has established the position of "Military Programs Coordinator" to provide a single point of contact for all military issues in the BLM. The Army Environmental Center (AEC) and the BLM are negotiating a Memorandum of Understanding (MOU) on mutual resource management support, and the AEC has requested that a BLM employee be located at the AEC as a liaison. In addition, the BLM is considering a U.S. Army Corps of Engineers liaison to be assigned within the BLM headquarters.

Base Line Data

The report mentioned a lack of base line data; but in the context of the subject installations, a lack of base line data is not critical. The installations have been in use since the 1940's and 1950's. Generally, the military impacts during the decades have resulted in a new base line; and it is this base line which must be identified. Any proposed significant changes in the military training regime are

Appendix VII
Comments From the Department of the
Interior

2

measured against this current base line, and the impacts are addressed in individual environmental impact statements (EIS's). It is anticipated that base line data will be developed as a part of the withdrawal extension EIS's, unless completed earlier.

Priorities

Generally, resource management issues on existing military installations, where the training regime is not changing, are not critical. Public access to military installations is controlled, which greatly limits public use impacts on these lands. In addition, the military services manage installation resources with emphasis on mitigating the impacts of the military's use of these lands and resources. Therefore, in the context of the full spectrum of the BLM management responsibilities, military installations have been and will remain a rather low priority for allocations of scarce financial and human resources.

To address the more significant natural resource impacts of military use on the subject installation and surrounding lands, we anticipate an increase in partnering for studies among the BLM, the National Biological Survey, and the DOD agencies.

Recommendation: Establish and monitor schedules for implementing actions called for in resource management plans (RMP's).

The BLM Manual Section 1617.3, Resource Management Plan, Approval, Use, and Modification, provided guidance concerning the implementation and monitoring of RMP's. However, the guidance was subsequently determined to be inadequate. New guidance was prepared as BLM Manual Section 1630, Using Resource Management Plans, and Handbook H-1630-1, Using Resource Management Plans, which were ready for release last summer. The new guidance was not released because a new effort was initiated to revise the planning regulations and all related manual sections and handbooks.

In response to the findings and recommendations in the subject report, the BLM will issue BLM Manual Section 1630 and Handbook H-1630-1 as interim guidance by the end of March 1994. Final guidance will be issued pending complete revision of the BLM planning regulations. The responsible official is the Assistant Director for Support Services.

If you have any questions concerning our response, please call Les Larson, BLM Audit Liaison Officer, at (202) 452-5168 or Dwight Hempel, Military Programs Coordinator, at (202) 452-7778.

Sincerely,



Bob Armstrong
Assistant Secretary, Land and
Minerals Management

Appendix VIII

Scope and Methodology

To develop information on BOD activities at each range, we obtained available documentation on military operations, resource conditions, and resource management activities. We interviewed military officials responsible for planning and scheduling activities on the ranges and those responsible for natural and cultural resource programs. We also interviewed selected officers from operational units that were using the sites to train troops. We visited or observed conditions at all the sites except Bravo-20, where substantial photographic evidence on site conditions was available.

To determine Interior's resource management activities, we interviewed and obtained available documentation from BLM District Office officials with direct responsibilities for resource management at each site. We also interviewed and obtained documentation from FWS officials at the two National Wildlife Refuges which have airspace under military control.

Our work was conducted at the locations listed in table VIII.1.

Table VIII.1: Withdrawn Lands Under Military Lands Withdrawal Act and Responsible Managers

Range	Responsible military base	Responsible BLM office(s)	Responsible FWS office
Greely	Fort Greely, Alaska	Steeze/White Mountains District Office, Alaska	—
Yukon	Fort Wainwright, Alaska	Steeze/White Mountains District Office, Alaska	—
Goldwater	Luke Air Force Base, Arizona Marine Corps Air Station Yuma, Arizona	Phoenix and Yuma District Offices, Arizona	Cabeza Prieta National Wildlife Refuge, Arizona
Nellis	Nellis Air Force Base, Nevada	Las Vegas District Office, Nevada	Desert National Wildlife Refuge, Nevada
Bravo-20	Naval Air Station Fallon, Nevada	Carson City District Office, Nevada	—
McGregor	Fort Bliss, Texas	Las Cruces District Office, New Mexico	—

In addition, we conducted work in Washington, D.C., at the office of the Deputy Under Secretary of Defense for Environmental Security (formerly Deputy Assistant Secretary for Environment) and the headquarters offices for the Air Force, Army, Navy, BLM, and FWS. We conducted our work from

Appendix VIII
Scope and Methodology

December 1992 through November 1993 in accordance with generally accepted government auditing standards.

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NATIONAL GUARD ASSOCIATION OF THE UNITED STATES

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STATEMENT BY

MAJOR GENERAL ROBERT F. ENSSLIN, JR. (RET.)

EXECUTIVE DIRECTOR

of the

NATIONAL GUARD ASSOCIATION OF THE UNITED STATES

to the

NATIONAL PARKS, FORESTS, AND PUBLIC LANDS SUBCOMMITTEE

of the

HOUSE COMMITTEE ON NATURAL RESOURCES

17 June 1994

Mr. Chairman and members of the Committee, the National Guard Association greatly appreciates the opportunity to present testimony on behalf of the members and units of the National Guard. The National Guard Association of the United States is dedicated to ensuring the successful continuation of the unique historic dual federal and state roles of the National Guard. Our goal is to ensure the readiness of the over 527,000 members of the National Guard in over 4,700 communities nation wide to provide a capable, accessible and affordable force.

Events over the past few years have reinforced the need for the National Guard to be available in the first line of defense of this nation. As recently as the Persian Gulf War, 74,000 Guard men and women were mobilized and many served in Southwest Asia alongside our active forces on the ground and in the air to liberate Kuwait. Today, Guard members participate in humanitarian airlift missions in war torn Bosnia and are being prepared for peace keeping missions in the Sinai. Additionally, Guard members have performed in an outstanding manner in support of domestic emergencies, such as the floods of 1993 and the January 1994 earthquake in California. History has shown that the volunteer spirit of the militia is interwoven as an integral part of the fabric of this nation. Members of the Guard carry a proud tradition of service to their country, state and community that dates back over 357 years.

The focus of the National Guard Association will continue to be placed on improving the capability of the National Guard to perform its federal mission through adequate manning, modern equipment and realistic training. To adequately train, Guard units must maintain access to the training areas that are currently under state control and also seek additional training areas to meet the demanding requirements for maneuver areas needed to gain proficiency in modern weapon systems. At the same time, the National Guard recognizes that it must maintain the public trust in keeping these areas environmentally sound.

We understand and appreciate the committees efforts in attempting to develop legislation which would provide protection for public lands and ensure their use for future generations. However, we have serious concerns with several of the provisions of H.R. 2080 which would impact on the ability of National Guard units to train to meet readiness and mobilization requirements.

We believe that provisions of Section 2 would directly interfere with the States ability to train their National Guard forces when in a State or Federal status. We have a number of technical amendments that we consider essential, and will highlight just a few. We believe that the bill should be modified to establish that the Secretary shall issue a general authorization upon the request of a state, where such use is not inconsistent with land-use plans, and that the discretion is only

as to which lands are to be included and as to terms and conditions. The assumption would be that in each state there is at least some portion of public lands suitable and available for National Guard training and other uses. The phrase "shall for each state for which such authorization is requested by the military department of any state" should be substituted for the word "may" in subsection (e)(2)(A).

We are especially concerned that current training areas be "Grandfathered" by being allowed to continue renewals until such time as the states no longer need the area for military training. In addition, restrictions on the use of "off-road or all-terrain vehicles" in subsection (e)(4) should be deleted as most military field training is conducted using what are considered "off-road or all-terrain" tactical military vehicles.

Today's modern and sophisticated equipment requires large areas to conduct realistic maneuver training of ground forces. The administrative withdrawal limit of 5,000 acres in subsection (e)(3)(B) should be raised to 50,000. Using today's modern warfare conditions, the 5,000 acre limit is only half the amount needed even for an infantry brigade. For realistic training, 50,000 acres would provide the necessary flexibility for armored or heavy mechanized brigades.

We are also very concerned about restrictions on Airspace in Section 4 of the bill. Control of airspace should and must remain under a single manager and that should be the FAA. Short notice temporary use of airspace over non-military public lands to support flying training exercises for both the Army and Air National Guard, as well as armor and artillery live firing exercises must be readily available. This can only be done through a single manager of the airspace. Also, we are concerned about the provision in paragraph (c) of Section 4 which would require a determination that military activities, including overflights, do not cause derogation of the resources and values of such lands of visitor enjoyment and other non-military uses of such lands. This section appears to be so broad and vague it may be unenforceable or, if enforceable, create a situation that would prevent military training and overflights over or near non-military public lands which are otherwise legal and approvable. The Association recommends that Section 4 be deleted in its entirety.

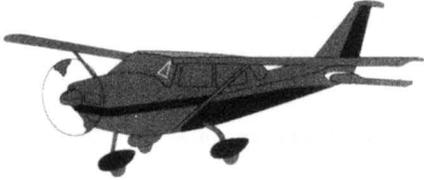
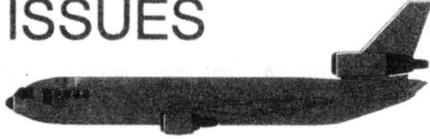
Finally, we recommend that the bill include a provision that no new rights to judicial review are created by the amendments in Section 2, other than that already provided under FLPMA or other applicable law, such as NEPA.

In Conclusion, the National Guard Association is concerned about efforts to limit training areas and the conditions under which

training can be conducted which would limit the ability to provide a ready force. We commend the National Guard for its continuing efforts to develop innovative ways to comply with environmental laws and regulations while maintaining a combat ready force. The National Guard has been in the forefront on environmental compliance and has taken the lead in airspace and training area management. However, we are concerned about erosion of access to training areas and restrictions which would severely hamper the continued training needs of National Guard units. The evolution of weapon systems and combat environment does not allow a concept where training areas will be made available "in time of war or national emergency declared by the Congress or the President." It will be too late; we will be sending untrained soldiers and airmen into battle in hours or days, not months or years.

The Association urges your support to ensure that any changes to the management of public lands for military purposes, or the withdrawal of public lands for such use, consider the needs of the individual states as well as the need for a well trained, National Guard force.

NATIONAL WILDLIFE REFUGE
SYSTEM
AIRCRAFT OVERFLIGHT
ISSUES



Prepared by the Division of Refuges
Branch of Wildlife Management
JANUARY 4, 1994



SUMMARY

AIRCRAFT OVERFLIGHT ISSUES ON
NATIONAL WILDLIFE REFUGES

During April of 1993 the Fish and Wildlife Service Division of Refuges developed reporting procedures for aircraft overflight issues occurring over National Wildlife Refuges. The procedures were developed for refuge managers to document and transmit National Wildlife Refuge System (NWRS) aircraft overflight issues to the Federal Aviation Administration (FAA) for resolution under the auspices of our most recent interagency agreement.

During 1993 refuge managers reported overflight issues occurring on 41 National Wildlife Refuges that could not be resolved locally. These issues were prioritized into three categories:

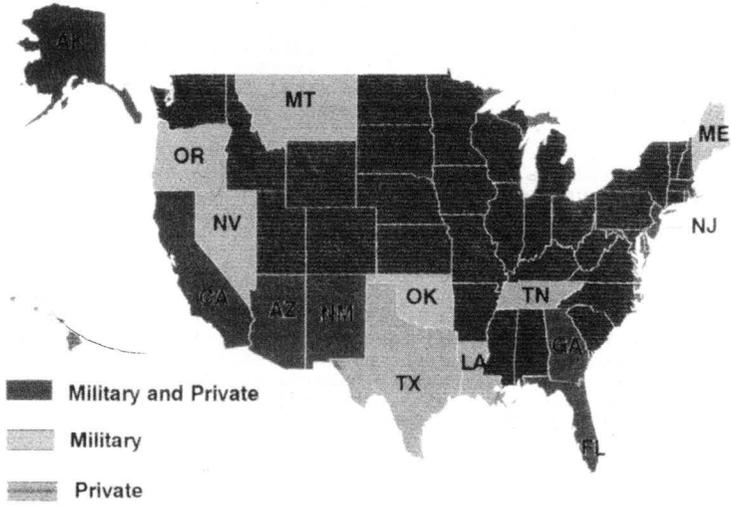
CATEGORY 1 (13 Refuges)
CATEGORY 2 (12 Refuges)
CATEGORY 3 (16 Refuges)

Organization by categories was intended to focus the FAA's efforts at: the best documented issues; issues that have not been elevated for resolution beyond the Regional Office; and those issues associated with human safety hazards or impacts to threatened and endangered species. This effort was further intended to focus the FAA on Category 1 issues to aid in developing a resolution process that can be used to resolve Category 2, 3, and future issues.

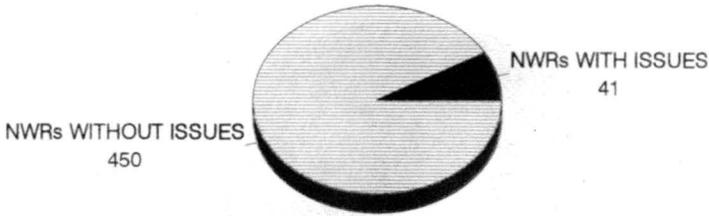
Staff from the Division of Refuges met with FAA Central Office personnel September 22, 1993 to discuss refuge issues. Following this action, all issues were formally transmitted by memo to the Administrator of the FAA by the Fish and Wildlife Service Director November 10, 1993 requesting that:

1. the FAA work with refuge managers and appropriate Regional and Washington Office personnel to resolve these issues;
2. develop a work and resolution schedule for the identified problems.

STATES WITH NATIONAL WILDLIFE REFUGES HAVING
AIRCRAFT OVERFLIGHT ISSUES REQUIRING WASHINGTON
D.C. OFFICE ASSISTANCE TO RESOLVE



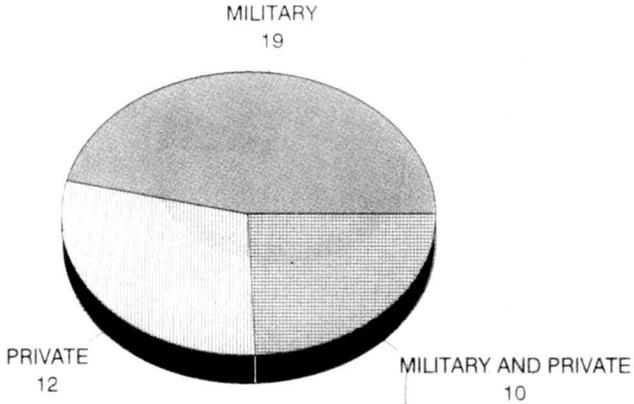
AIRCRAFT OVERFLIGHT ISSUES WITHIN THE NATIONAL WILDLIFE REFUGE SYSTEM



TOTAL OF 491 NATIONAL WILDLIFE REFUGES WITHIN THE NATIONAL
WILDLIFE REFUGE SYSTEM

SEPTEMBER 14, 1993

STATUS OF NATIONAL WILDLIFE REFUGE AIRCRAFT OVERFLIGHT ISSUES

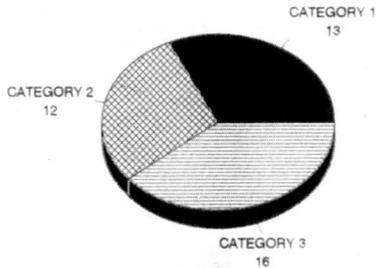


TOTAL OF 41 NATIONAL WILDLIFE REFUGES REPORTING

September 14, 1993

REFUGES WITH DOCUMENTED AIRCRAFT ISSUES

TOTAL OF 41



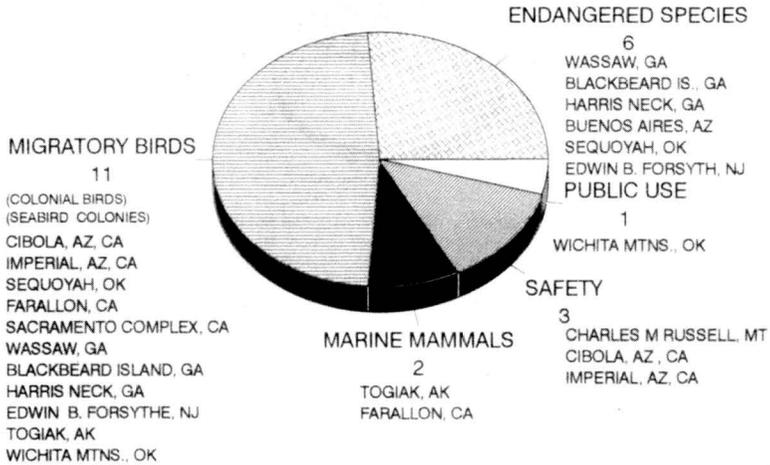
CATEGORY 1 = REFUGE MANAGER MAKES A STRONG CASE THAT CAN BE SUPPORTED WITH DATA AND LITERATURE. RESOURCES AT RISK ARE ENDANGERED SPECIES, MIGRATORY BIRDS, MARINE MAMMALS, PUBLIC USE OR ISSUES THAT INVOLVE PILOT/PASSENGER/EMPLOYEE SAFETY. PROBLEMS ARE NOT CURRENTLY BEING ADDRESSED.

CATEGORY 2 = REFUGE MANAGER CAN MAKE A CASE AND CLEARLY HAS A PROBLEM SUPPORTED BY ANECDOTAL INFORMATION, AND SOME DATA. RESOURCES AT RISK INCLUDE MIGRATORY BIRDS, DESERT BIGHORN SHEEP AND WILDERNESS VALUES. PROBLEMS ARE NOT CURRENTLY BEING ADDRESSED.

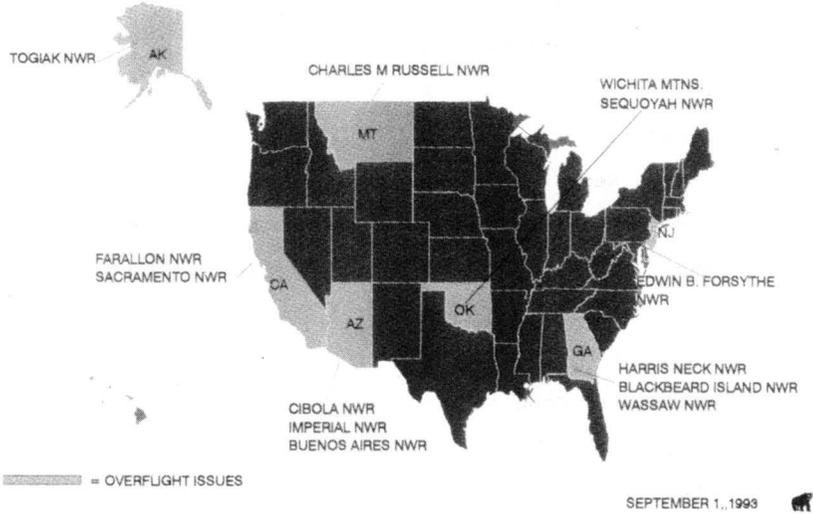
CATEGORY 3 = REFUGE MANAGER SUSPECTS OR HAS A PROBLEM BUT LACKS SITE SPECIFIC INFORMATION TO ADDRESS CONCERN; OR THE PROBLEM IS CURRENTLY BEING ADDRESSED BUT IS NOT FULLY RESOLVED. RESOURCES AT RISK INCLUDE WILDERNESS VALUES, MIGRATORY BIRDS, POSSIBLY ENDANGERED SPECIES, BIGHORN SHEEP AND UNIQUE ECOSYSTEMS.

SEPTEMBER 14, 1990

(CATEGORY 1) - 23 OVERFLIGHT CONCERNS IDENTIFIED ON 13 NATIONAL WILDLIFE REFUGES



NATIONAL WILDLIFE REFUGES WITH CATEGORY 1 AIRCRAFT OVERFLIGHT ISSUES REQUIRING WASHINGTON D.C. OFFICE ASSISTANCE TO RESOLVE



**NATIONAL WILDLIFE REFUGE SYSTEM
MILITARY AIRCRAFT OVERFLIGHT ISSUES**

REFUGE	MILITARY	AIRCRAFT TYPE	
		FIXED-WING	HELICOPTER
1. Charles Russell	X	X	
2. Wichita Mountains	X	X	
3. Cibola	X	X	
4. Imperial	X	X	
5. Harris Neck	X	X	X
6. Blackbeard Isl.	X	X	X
7. Wassaw	X	X	X
8. Buenous Airies	X	X	
9. Sequoyah	X		X
10. Sacramento Complex	X	X	X
11. Farallon	X	X	X
12. Togiak	X	X	X
13. Edwin B. Forsyth	X	X	
14. Ash Meadows	X	X	X
15. Havasu	X		X
16. San Andres	X	X	X
17. Sevilleta	X	X	X
18. Kenai	X	X	X
19. Seal Island	X	X	
20. Petit Manan	X	X	
21. Cross Island	X	X	
22. Bitter Lake	X	X	X
23. Kofa	X	X	
24. Lower Suwannee	X	X	
25. Cedar Keys	X	X	

26. Hart Mountain	X	X	
27. Cabeza Prieta	X	X	X
28. Desert	X	X	
29. Cross Creeks	X	X	
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TOTALS	29	27	14

**NATIONAL WILDLIFE REFUGE SYSTEM
PRIVATE AIRCRAFT OVERFLIGHT ISSUES
August 18, 1993**

REFUGE	PRIVATE	AIRCRAFT TYPE	
		FIXED-WING	HELICOPTER
1. Harris Neck	X	X	X
2. Blackbeard Isl.	X	X	X
3. Wassaw	X	X	X
4. Sacramento Complex	X	X	X
5. Farallon	X	X	X
6. Togiak	X	X	X
7. Breton	X	X	X
8. Delta	X	X	X
9. Key West	X	X	
10. Great White Heron	X	X	
11. Edwin B. Forsyth	X	X	
12. Havasu	X		X
13. Texas Point	X		X
14. McFaddin	X		X
15. Lower Rio Grand	X	X	
16. Arctic	X	X	
17. Kenai	X	X	X
18. Tennessee	X	X	
19. Bitter Lake	X	X	X
20. Laguna Atascosa	X	X	
21. Yukon Delta	X	X	
22. Togiak	X	X	X
TOTALS	---	---	---
	22	19	14

NATIONAL WILDLIFE REFUGE SYSTEM AIRCRAFT OVERFLIGHT ISSUES

CATEGORY 1 ISSUES

1. Charles Russell, Montana
2. Wichita Mountains, Oklahoma
3. Cibola, Arizona & California
4. Imperial Arizona & California
5. Harris Neck, Georgia
6. Blackbeard Isl., Georgia
7. Wassaw, Georgia
8. Buenos Aires, Arizona
9. Sequoyah, Oklahoma
10. Sacramento Complex, California
11. Farallon, California
12. Togiak, Alaska
13. Edwin B. Forsyth, New Jersey

Aircraft Overflight Issues on National Wildlife Refuges

Wade L. Bryant
and
Donald J. Voros

The U.S. Fish and Wildlife Service has legal responsibility to protect fish and wildlife resources on nearly 500 National Wildlife Refuges (NWRs). One area of concern is the impact of aircraft overflights on human, cultural, and natural resources. The purpose of this paper is to provide an overview of issues related to aircraft overflights on National Wildlife Refuges and to describe efforts to resolve these issues.

A wide range of impacts or disturbances to wildlife due to aircraft overflights have been reported in the literature. These include: collision with aircraft (Burger 1985, Dolbeer et al. 1993), flushing of birds from nests or feeding areas (Owens 1977, Kushlan 1979, Burger 1981, Anderson and Rongstad 1989, Belanger and Bedard 1989, Cook and Anderson 1990); alteration in movement and activity patterns of mountain sheep (Bleich et al. 1990); decreased foraging efficiency of desert big horn sheep (Stockwell and Bateman 1991); panic running by barren ground caribou (Calef et al. 1976); decreased calf survival of woodland caribou (Harrington and Veitch 1992); increased heartrate in elk, antelope, and Rocky Mountain Big Horn Sheep (Bunch and Workman 1993); and adrenal hypertrophy in feral house mice (Chesser et al. 1975).

In addition to direct impacts on wildlife resources, other concerns include: the safety of pilots, refuge visitors and personnel; visitor enjoyment; damage to cultural and historical landmarks; debris from crashes; and wildfires caused by crashes, flares, and weapons fire.

Methods

As part of a comprehensive review of secondary uses on NWRs, refuge managers were asked to identify problems associated with aircraft overflights. Each manager submitted a narrative report, on or before July 1, 1993, detailing problems. These reports contain information on the type(s) of aircraft involved (fixed wing or helicopter), ownership (military or civilian), resources at risk, past and ongoing efforts toward resolution, and proposed resolutions. A synthesis of these reports is presented.

Each refuge with overflight issues was assigned to one of three categories based on the severity of the problem and status of resolution. Refuges were designated as Category 1 if problems are not being addressed and were substantiated with site-specific data or published studies on the same species located in other areas. Refuges were assigned Category 2 if problems are not being addressed and were supported with limited data or anecdotal information. Category 3 includes refuges on which cases are being addressed or the refuge manager suspects a problem but lacks supportive data.

Results and Discussion

Problem characterization

Refuge managers on 41 administrative units of the National Wildlife Refuge System reported problems associated with aircraft

overflights. Thirteen refuges were ranked as Category 1, 11 as Category 2, and 16 as Category 3. Table 1 contains a summary of the information including: refuge name, priority assignment, aircraft type(s) involved, and ownership.

Fixed-wing aircraft were cited by 36 refuge managers as the cause of problems while 20 refuge managers cited helicopters. Most problems result from flights less than 2000 feet above ground level (AGL).

Military aircraft (armed forces, Coast Guard, and National Guard) were cited as the cause of problems on 29 refuges. Military aircraft are involved on 12 refuges classified as Category 1. This is reflective of the proximity of many NWRs to military training areas, the numbers of flights involved, the high noise levels produced by low-level jet aircraft, and the difficulty in finding workable solutions that will allow military objectives to be met.

The airspaces above many refuges are designated by the Federal Aviation Administration (FAA) as Military Operations Areas (MOA). MOAs are not off limits to civilian aircraft but limitations are imposed on the type of activities allowed. Over other refuges, Military Training Routes (MTRs) are established with minimum altitudes as low as 500 feet. (e.g. Cabeza Prieta NWR). MTRs are used to conduct low-level military training.

Deviations from established MOAs and MTRs were cited by refuge managers as a major cause of problems. For example, C-130 military aircraft have been observed well below 500 feet AGL in non-training route areas over Kenai NWR. A 1500 foot AGL floor

was established in restricted airspace over Kofa NWR, but jet fighters have been repeatedly observed at levels as low as 100 feet AGL. On other refuges, such as Sevilleta NWR, military aircraft as low as 100 feet AGL have been repeatedly cited inside refuge boundaries even though the airspace is not designated as a MOA. Unfortunately, cases of misuse of airspace or violation of minimum AGL restrictions are common occurrences.

Civilian aircraft were cited as causing problems on 22 refuges. Seven of the 13 refuges classified as Category 1 have problems resulting from overflights by civilian aircraft. This is in spite of the fact that many NWRs and National Parks are marked on VFR Sectional maps and the Federal Aviation Administration (FAA) has a "recommended" minimum AGL altitude of 2000 feet over these areas. For example, a Fish and Wildlife law enforcement agent wrote in regards to flights over the Havasu NWR; "even though all refuges are clearly marked on VFR sectional maps with the 2000 foot AGL minimum recommended altitude, we continue to experience aircraft traffic as low as 50 feet AGL". In some cases, such as Bitter Lake NM, refuges are located near the approach to commercial airports. Other uses of civilian aircraft associated with problems include: support of oil and gas production, crop dusting, law enforcement, "flightseeing", and recreation.

Resources at risk

A large number of resources were cited as potentially being

at risk. Only those with documented impacts or at high risk due to a unique life-history or habitat requirement are discussed. In general, most problems resulted from very low (<1000 ft. AGL) overflights, in areas with heavy air traffic, or involved critical stages in the life history of a particular species. For ease of discussion, 4 broad categories are considered: human safety, birds, mammals, and visitor enjoyment.

Human safety is the foremost concern related to aircraft overflights. Specific instances of unsafe conditions involving aircraft utilized by Service personnel were cited on Charles M. Russell, Cibola, and Imperial NWRs. These cases involve potential collisions between military aircraft and those aircraft used to conduct wildlife surveys or fire fighting activities. Additional human safety concerns include damage to hearing and increased chances of falling from boats, cliffs, or horseback due to startle reactions. Employees on Ash Meadows NWR reported horses being spooked out from under them as a result of low flying Air Force jets.

Several species of birds were cited as being at risk. These include waterfowl, colonial sea birds, shore birds, wading birds, raptors, passerines, upland game, and neotropical migrants.

Many refuges were established to protect migratory waterfowl. Consequently, waterfowl were most often cited as being at risk. Wintering waterfowl are vulnerable to impacts because they tend to congregate in large numbers, are easily flushed, and are in the process of building up energy reserves. Reduced energy intake or increase energy expenditures due to

being flushed can lower fitness.

Another group of birds at high risk are colonial nesting sea birds. Species that nest on cliff faces and those that lay eggs directly on the ground are vulnerable. If flushed from breeding sites, their eggs or chicks may be crushed or dislodged. In addition, the eggs and chicks are left exposed to predators. Problems with this group of birds were reported on Farallon, Togiak, Petit Manan, Seal Island, and Cross Island NWRs.

The Buenos Aires NWR was established to provide habitat for the endangered masked bobwhite quail (Colinus virginianus). This species is at risk, not because of noise associated with overflights or being flushed, but due to impacts on habitat as a result wildfires started by flares used in military training operations. At least three wildfires have been documented to have been caused by flares on the refuge. These wildfires also pose a threat to the endangered Pima Pineapple Cactus (Genus species) at this refuge.

Loud, sudden noise caused by low-level aircraft pose a significant threat to pronghorn antelope (Antilocarpra americana) and bighorn sheep (Ovis canadensis), particularly during calving season. Previous studies have documented impacts to these species (Calef et al. 1976, Bleich et al. 1990, Stockwell and Bateman 1991). Problems to these species were reported on Desert, Cabeza Prieta, Cibola, Imperial, Kofa, Sevilleta, and San Andres and Hart Mountain NWRs. All of these refuges, except Sevilleta, have airspace designated as MOA or MTR.

Marine mammals, including the threatened Stellar seal lion

(Eumetopias jubatus) are disturbed by overflights on Farallon and Togiak NWRs. One of only two regularly used haul out sites for Pacific walruses (Odobenus rosmarus) in the United States and a large haul out site for harbor seals (Phoca vitulina) and spotted seals (Phoca largha) are located in Togiak NWR. Marine mammals have been reported to stampede into the water in response to low-flying aircraft. In the stampede, pups or young animals may be separated from adults, injured, or killed. Most of the problems reported for marine mammals were the result of commercial or private aircraft, particularly those associated with "flightseeing".

Disturbances to Arctic caribou are well documented (Calef et al. 1976, Harrington and Veitch 1992). Caribou are particularly vulnerable during the calving season. Startle responses such as panic running are a common reaction to low-level aircraft. Many of the reports of disturbances to caribou on Arctic NWR come from subsistence hunters. Private and commercial aircraft involved in air-taxi and "flightseeing" are the major culprits.

Visitor enjoyment is a concern on every refuge, especially those that experience low-level overflights. Of special concern are areas designated as wilderness under the Wilderness Act of 1966. Visitors, including hikers, hunters, fisherman, and wildlife watchers have expectations of solitude but increasingly they are citing low-level aircraft as a cause of disappointment.

Resolution efforts

Refuge managers were asked to describe past and ongoing resolution efforts. Most refuges have a standard procedure for documenting and reporting violations to the FAA or local military authorities. In some cases phone calls or letters to the owner or operator (civilian or military) has alleviated problems. Unfortunately, not all cases can be resolved so easily. Cases involving willful harassment of wildlife or repeated violations are reported to the Division of Law Enforcement.

The most successful efforts are conducted at the local level. Many offending flights are legal, and can be best addressed by changing pilot attitudes through education.

In every case involving military aircraft, refuge managers have attempted to resolve efforts by direct contact with local military officials. Many managers have open lines of communication with local military officials. This is especially true in cases where a Memorandum of Understanding exist between the local installation and the refuge or in cases involving the review of an Environmental Assessment or Environmental Impact.

In some cases meetings with military officials have produced positive results. For example, the Sequoyah NWR has been designated as a "no-fly-zone" by the Joint Readiness Training Command at Fort Chaffee, Arkansas. Following this designation, only occasional overflights would occur when new training groups were aboard and telephone calls to the base always "nipped the problem in the bud".

Not all contacts with military officials have been successful. Some efforts to contact local military personnel

have been suspended due to lack of responses. Comments such as "close working relationships with military installations have brought limited results", "we have made dozens of calls and generally contact has been made with different officials each time", or "we have discontinued the complaint process because it does no good" are all too common. Efforts toward resolution in these cases are best conducted at the regional or national level.

The Service lacks legal authority to regulate the use of airspace above National Wildlife Refuges, therefore it must work through the Federal Aviation Administration (FAA) or the Department of Defense to address negative impacts associated with overflights. In 1993, an Interagency Agreement was established between the FAA and three land management agencies: Fish and Wildlife Service, National Park Service, and Bureau of Land Management. This agreement provides a framework for addressing impacts to human, cultural, and natural resources due to aircraft overflights. Under this agreement a standardized reporting system acceptable to FAA to document instances of low-flying aircraft will be developed. Also, the FAA will communicate to pilots the concerns of the land management agencies, investigate instances of pilot deviations from FAA-requested minimum altitude advisories, and assist in combating problems associated with low-flying aircraft.

Proposed resolutions

Refuge managers recommended additional solutions beyond

those that have been attempted on the local scale. The most commonly suggested resolution was strict enforcement of existing regulations by the FAA, especially the recommended 2000 ft. minimum AGL. Other proposed resolutions included: better research and documentation of impacts to wildlife, cabinet level resolution, establishing permanent or seasonal "no fly zones", increasing minimum AGL to 5000 ft., moving MOAs and MTRs outside refuge boundaries, restricting the use of flares, better labeling of FAA sectional aeronautical charts to show refuges, and increased public education.

Summary

Problems resulting from aircraft overflights over National Wildlife refuges are being addressed by the U.S. Fish and Wildlife Service on the local, regional and national level. These problems include human safety, impacts to wildlife, and visitor enjoyment. Fixed-wing aircraft and helicopters operated by the military as well as civilians are involved. Most problems arise as a result of overflights below the 2000 feet.

Table 1. Summary of aircraft overflight issues on National Wildlife Refuges.

Refuge	Military	Civilian	Fixed-wing	Helicopter

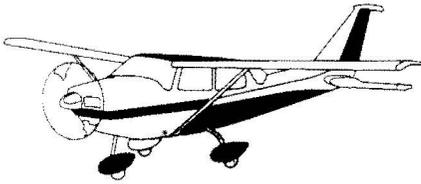
Category 1				
Blackbeard Island, GA	X	X	X	X
Buenos Airies, AZ	X		X	
Charles Russell, MT	X		X	
Cibola, AZ and CA	X		X	
Edwin B. Forsythe, NJ	X	X	X	
Farallon, CA	X	X	X	X
Harris Neck, GA	X	X	X	X
Imperial, AZ and CA	X		X	
Sequoya, OK	X			X
Sacramento Complex, CA		X	X	X
Togiak, AK	X	X	X	X
Wassaw, GA	X	X	X	X
Wichita Mountains, OK	X		X	
Category 2				
Ash Meadows, NV	X		X	X
Breton, LA		X	X	X
Delta, LA		X	X	X
Great White Heron, FL		X	X	
Havasu, AZ	X	X		X
Key West, FL		X		
Lower Rio Grand, TX		X	X	
McFadden, TX		X		X
San Andres, NM	X		X	X
Sevilleta, NM	X		X	X
Texas Point, TX		X		X
Cross Creeks, TN	X		X	X
Category 3				
Arctic, AK		X	X	
Bitter Lake, NM	X	X	X	X
Cabeza Prieta, AZ	X		X	X
Cedar Keys, FL	X		X	
Cross Island, ME	X		X	
Desert, NV	X		X	
Hagerman, TX	X	X	X	X
Hart Mountain, OR	X		X	
Kenai, AK	X	X	X	X
Kofa, AZ	X		X	
Laguna Atascosa, TX		X	X	
Lower Suwannee, FL	X		X	
Petit Manan, ME	X		X	
Seal Island, ME	X		X	
Tennessee, TN		X	X	
Yukon Delta, AK		X	X	

TOTALS	29	22	36	20

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AIRCRAFT OVERFLIGHT ANNOTATED BIBLIOGRAPHY



Prepared by :
U. S. Fish and Wildlife Service
Division of Refuges
Branch of Wildlife Management
January 4, 1994



EFFECTS OF DISTURBANCES DUE TO AIRCRAFT ON FISH AND WILDLIFE:
AN ANNOTATED BIBLIOGRAPHY

by

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The purpose of this document is to provide land managers a reference on the effects of aircraft overflights on fish and wildlife. Land managers should use this bibliography as a tool to determine if a paper or document contains information that would be helpful in assess the effects of overflights on resources under their control.

An extensive list of literature was reviewed, including all pertinent literature from previous reviews, bibliographies, and electronic data bases. The following databases were searched for keywords and titles on aircraft or noise disturbance: Wildlife and Fisheries Review (NISC-Disc, 1971- January 1993), Biological Abstracts (BIOSIS), Dissertation Abstracts, Wildlife Worldwide (NISC-Disc, 1935-May 1993), Agricola (1970-1992), and the Fish and Wildlife Reference Service database. A primary source of information was the literature review and companion annotated bibliography "Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife" (Manci et al. 1988 and Gladwin et al. 1988). The literature cited section of each title in this document was cross-referenced.

If present, the authors's original abstract or summary was included in the bibliography. Annotations other than original abstracts are unlabeled. Excerpts from the original document were used when possible. Additional information was added to some annotations as an aid to land managers using this document.

1. Acoustical Society of America. [Report by Acoustical Society of America for Alaska Eskimo Whaling Commission]. San Diego workshop on the interaction between man-made noise and vibration and arctic marine wildlife, 25-29 February 1980.

The Acoustical Society of America held a workshop in 1980 to assess the potential hazard of man-made noise associated with proposed Alaska arctic (North Slope - Outer Continental Shelf) petroleum operations on wildlife and to prepare a research plan to secure the knowledge necessary for proper assessment of noise impacts. Noise sources identified as most likely to produce effects on wildlife were: seismic pulse generators; helicopters and other aircraft; surface vessels such as tugs and work boats; and vehicles on land and ice. Nesting Common eiders (Somateria mollissima) have been disturbed by low flying, small fixed-wing aircraft and by helicopters. Experiments and experience have shown that lesser Snow Geese (Chen caerulescens) are sensitive to aircraft disturbance. Low-level (150m AGL) aircraft overflights elicited a stronger response from molting, flightless sea ducks, particularly Oldsquaw (Clangula himyalis) than did higher level overflights.

Keywords: Somateria mollissima/Chen caerulescens/Clangula himyalis.

2. Alldredge, A. W. Impact of project Rio Blanco on cliff-nesting hawks and eagles. Colorado-Wyoming Academy of Science. 1974; 7(5): 58-59.

Entire document: Thirteen Red-tailed Hawk, three Golden Eagle and three inactive raptor nests, located on cliffs within a 10 mile radius of the Project Rio Blanco emplacement well, were examined immediately pre- and post-detonation. Three deserted or destroyed Red Tailed Hawk nests found on post-detonation surveys were directly attributable to effects of ground motion from the nuclear detonation. One of these nests had contained two eggs, another contained one egg, and the third had been empty but was lined with fresh nesting material. A fourth Red-tailed Hawk nest, containing two eggs, was found deserted on post-detonation examination, but it was possible that increased human activity in the area caused this desertion. No eagle nests were altered as a result of ground motion. Hawks under observation at the time of detonation immediately flew as they experienced the shock wave, but the female returned to the nest within 10 minutes. The total long-range impact of Project Rio Blanco upon hawks and eagles could not be ascertained from cursory short-term observations.

Keywords: Buteo jamaicensis/Aquila chrysaetos

3. Andersen, David E.; Rongstad, Orrin J.; Mutton, William R. The behavioral response of a Red-Tailed Hawk to military training activity. *Raptor Research*. 1986; 20(2): 65-68.

Author's abstract: From 13 August through 9 November 1982, we systematically radio-tracked an adult male Red-tailed Hawk (*Buteo jamaicensis*) on the Fort Carson Military Reservation in east-central Colorado. Harmonic mean analysis of telemetry data indicated that the bird shifted its center of activity away from areas of high human activity, but returned to those areas after human activity ceased.

Additional Information: No specific mention of aircraft. The area was used periodically during the study for tank maneuvers and heavy artillery firing. Paper included to illustrate the methods used and that disturbance will cause Red-tailed Hawks to shift areas of activity.

Keywords: *Buteo jamaicensis*/Harmonic mean analysis/telemetry/methods.

4. Andersen, David E.; Rongstad, Orrin J.; Mytton, William R. Home-Range Changes in Raptors Exposed to Increased Human Activity Levels in Southeastern Colorado. *Wildlife Society Bulletin*. 1990; 18(2): 134-142.

Author's summary: From 1983 to 1985, we radio-tracked 10 redtailed hawks, 4 Swainsons's hawks, 2 ferruginous hawks, and 2 golden eagles on their nesting grounds in southeastern Colorado. We used harmonic-mean measurements of activity areas, minimum convex polygons, and 95% ellipses to access the changes that occurred in home range characteristics of these birds to initiation of military training activity in the area. Raptors were assigned to 1 of 2 groups based on the presence or absence of military training activity in the bird's home range. Experimental group birds were located in areas that did not experience military training on the Pinon Canyon Maneuver Site. Birds in the experimental group shifted the center of activity areas farther, increased the size of the area the used, and made extra-home range movements more frequently than control group birds. Our results document behavioral responses of birds of prey to increased levels of human activity and we outline methodology to test for changes in home-range characteristics in free-ranging raptors.

Additional information: The military training activity included helicopter overflights, simulation of heavy weapons firing, military traffic and maneuvers, and encampments. The type of aircraft used, noise levels etc. are not reported.

Keywords: *Buteo swainsoni*/*Aquila chrysaetos*/*Buteo regalis*/telemetry/methods/home range/.

5. Andersen, David E.; Rongstad, Orrin J. Response of nesting Red-Tailed Hawks to helicopter overflights. Condor. 1989; 91: 296-299.

Author's abstract: Low-level helicopter overflights of 35 Red-tailed Hawk (Buteo jamaicensis) nests were conducted at two study areas in southeastern and east-central Colorado in 1984 and 1985. Red-tailed Hawks where low-level air traffic was nonexistent prior to 1983 exhibited stronger avoidance behavior than did hawks nesting where helicopter activity had occurred since the late 1950s. Nine (53%) of 17 birds in the first study area flushed from the nest while only one (8%) of 12 birds in the second study area flushed. Age of nestlings at the time an overflight occurred did not influence avoidance behavior, and overflights did not appear to influence nesting success at either study area. Our results are consistent with the hypothesis that Red-tailed Hawks habituate to low-level air traffic during the nesting period. However, naive birds may respond negatively to low-level helicopter activity prior to habituation and other species of raptors may respond differently than Red-tailed Hawks.

Additional information: One overflight a year was conducted at each nest in an Army UH-1 helicopter that flew directly at nests from a distance of at least 500 m at speeds of 45-65 km/hr. Altitude was maintained at 30-45 m above ground level. Study demonstrates that although "habituation" occurs birds will still leave the nest.

Keywords: Buteo jamaicensis

6. Austin, O. L.; Robertson, W. B.; Woolfenden, G. E. Mass hatching failure in Dry Tortugas Sooty Terns (Sterna fuscata). Vous, K. H. Proceedings of the XVth International Ornithological Congress, The Hague, Netherlands; 1905 Aug 30; The Hague, Netherlands. ; 1972: 627.

Entire document: The Dry Tortugas colony of Sooty Terns (Sterna fuscata) and Brown Noddies (Anous stolidus) have enjoyed a phenomenal annual breeding success for more than half a century, thanks largely to protection, first by the National Audubon Society, then by the National Park Service. In 1969, the birds returned in their usual numbers (Approximately 50,000 pairs of Sooty Terns and 2500 of Noddies) in early April, laid their eggs, and started incubating normally. When the authors arrived in mid-June, instead of the usual hordes of Sooty chicks, they found almost none. About half the normal number of adults were still present, and markedly wild and restless. Apparently on a few of the earliest-laid eggs had hatched, a very few were still being incubated, and the rest were deserted, some containing dead, partly-grown embryos. The authors were able to band only 242 Sooty chicks instead of the normal 20,000 - 25,000 chicks. The Noddies, on the other hand, hatched normally and their production of young was highly successful. What made the Sooty Terns fail

halfway through incubation is still somewhat uncertain. We were able to rule out most of the possible causes: there had been no weather abnormalities, no shortage of food in the neighboring waters, no disturbance by natural predators or human visitors to the island. Laboratory examination of the eggs, chicks, and adult tissues for pesticides showed them to contain typically low residues of animals feeding on relatively uncontaminated food. The only unusual elements the authors could discover were an overgrowth of vegetation, which made it difficult for the Sooties to reach their nests in the more populous sectors, and frequent sonic booms by jet planes breaking the sound barrier. The latter were almost a daily occurrence, and some were strong enough to shatter windows on adjoining Garden Key. To the occasional sonic booms of previous seasons the birds reacted by rising immediately in a "panic flight", circling over the island momentarily, and then usually settling down on their eggs again. We have no evidence that sonic booms caused physical damage to the eggs, but it is entirely possible that strong booms occurred often enough to disturb the Sooties' incubating rhythm and cause desertion. Action has been taken to curb planes breaking the sound barrier within range of the Tortugas, as much of the excess vegetation has been cleared. At the time of writing (21 May 1970) the birds were having a good season and hatching was proceeding normally.

Keywords: Sterna fuscata/Anous stolidus/nesting failure.

7. Banner, A.; Hyatt, M. Effects of noise on eggs and larvae of two estuarine fishes. Transactions of the American Fisheries Society. 1973; 102(1): 134-136.

Eggs and larval fishes were exposed to moderate and high noise levels, holding other conditions constant. The noise stimulus was unspecified, broad-band sound similar to ambient ocean noise, but 10-20 db louder at all frequencies. Viability of eggs and resulting Cyprinodon variegatus larvae was significantly reduced in the noisier tank. Growth rates of C. variegatus and Fundulus similis larvae were significantly greater in the quieter tank under two different photoperiods. This study was not designed to investigate aircraft noise but was included as one of only a few studies involving fish.

Keywords: Cyprinodon variegatus/Fundulus similis/fish.

8. Belanger, Luc; Bedard, Jean. Energetic cost of man-induced disturbance to staging snow geese. Journal of Wildlife Management. 1989; 54(1): 36-41.

Author's abstract: We estimated energetic cost of man-induced disturbance to fall-staging greater snow geese Chen caerulescens atlantica) in Quebec. Two responses of birds to disturbance were considered (1) birds fly away but promptly resume feeding following a disturbance (Response A) and (2) birds interrupt feeding altogether (Response B). Daylight foraging time decreased by 4 to 51% depending on disturbance levels. Average

rate of disturbance (1.46/hr) in Response A resulted in a 5.3% increase in hourly energy expenditure (HEE) combined with a 1.6% reduction of hourly metabolized energy intake (HMEI). In Response B, HEE increased by 3.4%; HMEI decreased by 2.9 to 19.4%. Increases in nighttime feeding could compensate for energy losses caused solely by disturbance flights (Response A), but a 32% increase in nighttime feeding was required to restore energy losses incurred in Response B. No increase in daily feeding rate was observed between days with different disturbance levels ($P > 0.05$). We concluded that man-induced disturbance can have significant energetic consequences for fall-staging greater snow geese.

Additional information: Follows Belanger and Bedard 1983, Journal of Wildlife Management 53(3) 713-719. Disturbances included aircraft overflights.

Keywords: Chen caerulescens atlantica/energetic cost/staging

9. Belanger, Luc; Bedard, Jean. Responses of staging greater snow geese to human disturbance. Journal of Wildlife Management. 1989; 53(3): 713-719.

Author's abstract: We studied the effects of human disturbance in greater snow geese (Chen caerulescens atlantica) spring and fall in the Montmagny bird sanctuary, Quebec, 1985-1987. We recorded 652 disturbances (any event causing all or part of the goose flock to take flight) in 471 hours of observation. Rate of disturbance was higher in fall (1.46/hr) than in spring (1.02/hr) ($P \leq 0.001$). The entire flock was disturbed in 20% of cases. Mean time in flight was 56 and 76 seconds in fall and spring respectively ($P = 0.049$). Transport-related activities particularly low-flying aircraft, caused $\geq 45\%$ of all disturbances in spring and fall. In 40% of all cases ($P \geq 0.05$ geese stopped their feeding activities following a disturbance. Mean time to resume feeding was then 726 seconds in fall compared to 122 seconds in spring ($P \geq 0.001$). The level of disturbance that prevailed on a given day in fall influenced goose use of the sanctuary on the following day ($P \leq 0.01$). When disturbance exceeded 2.0/hr, it produced a 50% drop in the mean number of geese present in the sanctuary the next day. Low-level aircraft flights over goose sanctuaries should be strictly regulated.

Additional information: Specifics on aircraft type, elevation, noise level etc. are not given. Only disturbances severe enough to cause geese to take flight were recorded, therefore, these data represent a minimum estimate of the effects of disturbance to staging greater snow geese. Energetic cost of these disturbances is presented in Belanger and Bedard, Journal of Wildlife Management 54(1) 36-41.

Keywords: Chen caerulescens atlantica/staging

10. Berglund, Birgitta; Lindvall, Thomas; Nordin, Steven. Adverse effects of aircraft noise. *Environment International*. 1990; 16: 315-388.

Author's abstract: This is a report from the International Symposium on "Adverse Effects of Aircraft Noise" held at the University of Stockholm, Sweden, April 6-8, 1987. The purpose of the report is to summarize the concerns and interests of the scientific community as represented by the participants about the state of art in aircraft noise research. The report directs itself to authorities and researchers interested in the control of noise pollution and in environmental health. It may also serve as a basis for priorities in research.

Additional information: The report focuses on human health but there are a few references to animals. Sections that may be useful include: Assessment of aircraft noise, physiological and pathophysiological effects/dose-response relationships, and a definition of acoustical indexes.

Keywords: review/physiology/pathophysiology

11. Black, B. B.; Collopy, M. W.; Percival, H. F.; Tiller, A. A.; Bohall, P. G. (Florida Cooperative Fish and Wildlife Research Unit). Effects of low-level military training on wading bird colonies in Florida. University of Florida: Florida Cooperative Fish and Wildlife Research Unit; 1984; Technical Report No. 7. 190.

Author's abstract: During 1983 and 1984 the effect of low level military training flights on the establishment, size and reproductive success of wading bird colonies was studied in Florida. Based on the indirect evidence of colony distribution and turnover rates in relation to military areas (training routes designated to 500 feet or less above ground level and military operations areas), there was no demonstrated effect of military activity on wading bird colony establishment or size on a statewide basis. Colony distributions were random with respect to military areas and turnover rates were within 2% when military and non-military areas were compared. Colony distributions and turnover rates, however, were related to the amount and type (estuarine or freshwater) of wetland respectively.

During two breeding seasons the behavioral responses and reproductive success of selected species were monitored in a non-habituated treatment colony (military overflights) and a control colony (no overflights). Breeding wading birds responded to F-16 overflights at 420 knots indicated airspeed, 82-84 % maximum rpm, 500 feet above ground level and sound levels ranging from 55-100 dBA by exhibiting no response, looking up or changing position (usually to an alert posture); no productivity limiting responses were observed. High nesting Great Egrets responded more than other species, nestling Great Egrets and Cattle Egrets responded significantly ($P < 0.05$) more intensely than adults of their respective species, and adults responded less during incubation

and late chick-rearing than at other times. In addition, no differences in adult attendance, aggressive interactions or chick feeding rates were observed to result from F-16 overflights. No evidence of habituation to overflights was noted. Humans entering the colony or airboats approaching the colony vicinity elicited the most severe responses (flushing and panic flights) observed at both sites. Since relatively little coastal military activity occurs at low levels (≤ 500 ft) and only one Brown Pelican colony (5-6% of the breeding population) was located in such an area, the reproductive success of five, more "exposed" study species (Great Egrets, Snowy Egrets, Tricolored Herons, Little Blue Herons, Cattle Egrets) nesting in interior freshwater colonies was studied. Reproductive activity including such factors as nest success, nestling survival, nestling mortality, and nesting chronology was independent of F-16 overflights but related to ecological factors including colony location, colony characteristics, and climatology. The responses to and effects of F-16 overflights, as reported here, should not be considered representative of military aircraft at lower altitudes or greater noise levels.

Additional information: Copy available through Fish and Wildlife Reference Service.

Keywords: Casmerodius albus/Egretta thula/Egretta tricolor/Egretta cairulea/Pelecanus occidentalis/Bubulcus ibis.

12. Bleich, Vernon C.; Bowyer, R. Terry; Pauli, Andrew M.; Vernoy Robert L.; Anthes, Richard W. Responses of mountain sheep to helicopter surveys. California Fish and Game. 1990; 76(4): 197-204.

Author's abstract: Effects of helicopter surveys on distribution and movements of desert-dwelling mountain sheep, Ovis canadensis, were studied in San Bernardino County, California during April and June 1988. Adult males and females with radio collars moved about 2.5 times farther the day following a helicopter survey than on the previous day. Further, 35-52% of these animals changed polygons (8-83 km²) following sampling from a helicopter, whereas only 11% did so on the day prior to the survey. Likewise, some animals left the study area following surveys. Sampling intensity (0.8min/km² vs 2.0 min/ km²) had little effect on movement of mountain sheep. Similarly, terrain type (steep vs rolling) did not influence movement of female mountain sheep following helicopter surveys. Movement by mountain sheep during a helicopter survey may violate fundamental assumptions of several population estimators.

Additional information: A Bell 206B-III turbine-powered helicopter was used. Due to high topographic diversity, both vertical and lateral distances varied between 50 and 200m. The major focus of the research was to determine if population estimates made using aerial counts were valid.

Keywords: Ovis canadensis

13. Blix, A. S.; Lentfer, J. W. Noise and vibration levels in artificial polar bear dens as related to selected petroleum exploration and development activities. arctic. 1992; 45(1): 20-24.

Author's abstract: The noise and vibration levels resulting from seismic testing, drilling, and transport were measured in artificial polar bear (Ursus maritimus) dens at Prudhoe Bay, Alaska. It was concluded that the dry and wind-beaten arctic snow muffles both sound and vibrations extremely well and it seems unlikely that polar bears in their dens will be disturbed by the type of petroleum-related activities here, providing those activities do not take place within 100 m of the den.

Additional information: Noise and vibration levels resulting from the take off a Bell UH-1B helicopter 3 m from an artificial den were measured. The noise level in the air was 114-116 dB (continuous) and 76-78 dB (continuous) in the artificial den.

Keywords: Ursus maritimus

14. Boomer, Arno S.; Bruce, Robert D. Long-term ambient sound monitoring in National Parks. Sound and Vibration. 1992: 16-18.

The methods used to measure baseline levels of noise in Dinosaur National Monument and Glen Canyon National Monument are discussed. The establishment of baseline ambient data is essential in order to determine the acoustical impact of any proposed developments within or adjacent to parks. Included in database as an example of sound monitoring methods.

Keywords: methods/noise measurement.

15. Bowles, Ann E.; Francine, Jon K. Effects of simulated aircraft noise on hearing, food detection, and predator avoidance of the kit fox, Vulpes macrotis. Journal of the Acoustical Society of America. 1993; 4: 2378.

Entire document: (abstract from paper presented at annual meeting, not peer reviewed) Four kit foxes were captured south of Gila Bend, Arizona, in a area not overflown by aircraft. Hearing thresholds were measured by startle inhibition with a San Diego Instruments Startle Recording System. Shaped 200 ms tone bursts ranging from 100 Hz to 400 kHz in octave steps were delivered using a step-up, step-down procedure. Startle responses were elicited by a 40-psi air puff 30 ms in duration following 100 ms after the tone burst and startle intensity and latency were measured. Threshold at best frequency lay between -10 and -15 dB re: 20 uPa at 2-4 kHz and declined rapidly below 1 kHz and above 20 kHz. Foxes were trained to identify simulated prey and predator noise at the minimum level required for detection. Latencies to respond were measured in the absence and

presence of simulated aircraft noise, simulated by playing recordings of F-4 fighter aircraft played for 40 min at 96 dB re: 20 uPa with onset rate of 25 dB/s. Foxes were also exposed to aircraft noise for 3 h while asleep during the day. Results available to date indicate that foxes can detect signals and respond in the presence of aircraft noise; latencies to response are altered during tests but not after; and no changes in activity are detected during daytime exposures.

Additional information: Preliminary data are presented.

Keywords: Vulpes macrotis

16. Brattstrom, B. H.; Bondello, M. C. Effects of off-road vehicle noise on desert vertebrates. New York: Springer-Verlag; 1983: 167-206. (Webb, R. H.; Wilshire, H. G. Environmental Effects of Off-road Vehicles: Impacts and Management in Arid Regions).

Abstract from Gladwin et al. 1988: This study involved measurement of natural and mechanized sound sources in the California desert and the effects of off-road vehicle (ORV) noise on the behavior and hearing physiology of three species of desert vertebrates: Mohave fringed-toed sand lizard (Uta stansburiana), desert kangaroo rat (Dipodomys deserti), and Couch's spadefoot toad (Scaphiopus couchii). Because critical environmental sounds are often of relatively low intensity (snake crawls and owl swoops), sensitive hearing acuity is essential to the survival of these desert vertebrates. As a result of natural selection, they have evolved the ability to hear low-intensity, low-frequency sounds. The high forces required to operate heavy equipment and drive ORV's through sand and rock generate high-intensity sounds concentrated in the lower-frequencies. These sounds carry farthest in desert air and are known to penetrate distances exceeding 4 km. Animals from quiet, protected sand dunes (Uma and Dipodomys) suffered immediate loss of hearing when exposed to ORV sounds (95 dBA). Recovery of hearing in Dipodomys was gradual and took several weeks, during which time the demonstrated auditory abilities of prey animals to detect predator approach dropped below levels requisite for survival. Recorded motorcycle sounds of intermediate intensity (95 dBA) elicited emergence of spadefoot toads, a potentially deleterious impact on the toad population. Emergence during the wrong season severely stresses toads. They became dehydrated from lack of water, their fat stores depleted, potential prey base may be low or non-existent, and their reproductive cycle is changed. The authors recommend that ORV designated areas should be located away from undisturbed desert habitats, critical habitats, and ranges of threatened, endangered, or otherwise protected habitats.

Keywords: Mohave fringed-toed sand lizard/Uma stansburiana/desert kangaroo rat/ Dipodomys deserti/Couch's spadefoot toad/Scaphiopus couchii/.

17. Brewer, Walter Ed. Effects of noise pollution on animal behavior. *Clinical Toxicology*. 1974; 7(2): 179-189.

This paper reports on field studies conducted by the USAF Environmental Health Laboratory on the effects of sonic booms on range cattle, hatchability of poultry eggs, and two studies using mink as test animals. It was concluded that sonic booms of equal or greater overpressures than are normally created by operational aircraft do not adversely affect the normal development of chick embryos and their subsequent growth. During low-level overflights, which produced sound pressure levels of 85-140 decibels inside poultry houses, there were no panicky stampedes, no piling of poultry in corners of buildings, and no smothering as had been reported by poultry farmers.

Exposed mink received either 3 actual sonic booms or three simulated sonic booms. The number of kits born per female whelping was not significantly different in the three groups. Mean kit weights were not different at 49 days of age.

Keywords: mink/poultry

18. Brown, A. L. Measuring the effect of aircraft noise on sea birds. *Environment International*. 1990; 16: 587-592.

Author's abstract: This paper reports on a procedure which exposes sea birds to acoustic stimuli simulating aircraft overflights, and is one of the first experiments to attempt to quantify the responses of birds in the wild to noise. The experiment, conducted on Australia's Great Barrier Reef, involved presentation of pre-recorded aircraft noise, with peak overflight levels of 65 dB(A) to 95 dB(A), to nesting sea bird colonies. Sea bird responses were videotaped and these tapes were subsequently analyzed by scoring the behavioral response of each bird in the colony. Results of a trial of this experimental procedure for one species, the Crested Tern (*Sterna bergii*), indicate that the maximum responses observed, preparing to fly or flying off, were restricted to exposures greater than 85 dB(A). A scanning behavior involving head turning was the minimum response, and this or a more intense response, was observed in nearly all birds at all levels of exposure. However and an intermediate response, an alert behavior, demonstrated a strong positive relationship with increasing exposure. While the experiment has provided good control on simulated aircraft noise levels, preliminary observations of response of the colonies to balloon overflights suggests that visual stimulus is likely to be an important component to aircraft noise disturbance.

Additional information: The colony used had no prior exposure to low-level overflights. Birds leaving the eggs (laid on bare ground) increase the chance of predation by gulls.

Keywords: Sterna bergii/egg predation

19. Bunch, Thomas D.; Workman, Gar W. Sonic boom/animal stress project report on elk, antelope, and Rocky Mountain Bighorn sheep. Journal of the Acoustical Society of America. 1993; 4: 2378.

Entire document: (abstract from paper presented at annual meeting, not peer reviewed) The animal/noise project was initiated as a result of a proposed extension of the Air Force Gandy supersonic range (MOA) in western Utah and eastern Nevada. The research was conducted at the Utah State University Green Canyon Ecology Center, and at gold Hill, in the desert of northwestern Utah. The experimental animals included elk, antelope, and Rocky Mountain big horn sheep. These animals were instrumented with heart rate and body temperature transmitters, which were surgically implanted in the animals. The animals were released in large enclosures, and in some cases were released to the wild for disturbance tests. This was done to determine effects of various disturbances on heart rate and to establish a baseline physiologic database of normal heart rate and temperature. The animals were subjected to various types of disturbances, including people on foot, motorcycles, four-wheeled vehicles, fixed wing aircraft, helicopters, and F-16 jet aircraft flown subsonic and supersonic, etc. These projects indicated that animals habituated to most disturbances factors in a short period of time. The exceptions included people on foot who entered the research enclosures where the animals were kept; fixed wing aircraft at low levels of flight; and helicopter flights at low elevations near the animal enclosures. The animals habituated to subsonic and supersonic jet overflights after about four passes over the animals. This habituation seemed to be permanent, as these same animals did not respond when tested at a later date.

Additional information: MOA = Military Operations Area airspace designation. The lack of habituation to low-level fixed-wing and helicopters is a very important finding.

Keywords: elk/antelope/Rocky Mountain big horn sheep

20. Burger, Joanna. Behavioral responses of Herring Gulls (Larus argentatus) to aircraft noise. Environmental Pollution (Series A). 1981; 24: 177-184.

Author's abstract: The behavior of nesting and loafing herring gulls (Larus argentatus) was compared when the birds were exposed to supersonic transport (SST), subsonic aircraft, and normal colony noises at Jamaica Bay National Recreational Area. No effects of subsonic aircraft on nesting gulls were noted. However, when supersonic transports flew over, significantly more nesting gulls flew from their nests, and they engaged in more fights when they landed compared to other conditions. Many eggs were broken during these flights, and subsequently eggs were eaten by intruders. At the end of the incubation period there

were lower mean clutch sizes in dense sections (more potential for fights) of the colony compared with solitary nesting pairs of gulls. For loafing gulls, significantly more birds flushed when planes flew over compared with immediately before and after such plane noise.

Additional information: Noise levels ranged from 72 - 101 dBA. At the end of the first week of incubation the mean clutch size in the 100 sample nests (those in group) was 2.76 ± 0.4 while at the end of the incubation period the mean clutch size was 2.06 ± 0.42 and only 60% of these eggs hatched. This is in contrast to solitary pairs (at least 50 m from other nests) that had mean clutches of 2.80 ± 0.34 at the end of the first week of incubation and 2.67 ± 0.32 at the end of incubation (N = 15).

The author proposes that the decrease in clutch size noted for gulls nesting together is greater than normally expected is due to the frequent fights which follow supersonic transports flights rather than from noise or vibration. The author observed eggs being broken when returning adults engaged in prolonged fights. Normally such fights do not occur, because adults return to their nests at different times, but the SST synchronizes these landings and close nesting pairs may land in their neighbor's territory resulting in fights.

Keywords: Larus argentatus

21. Calef, George W.; Debock, Elmer A.; Lortie, Grant M. The reaction of Barren-Ground Caribou to aircraft. Arctic. 1976; 29: 201-212.

Author's abstract: The responses of barren-ground caribou to fixed-wing aircraft and to helicopters were observed in the northern Yukon and Alaska. Effects of aircraft altitude, type of aircraft, season and terrain were determined together with the activity and size of group of the caribou. Panic reactions or strong escape reactions were observed in a high percentage of all groups when aircraft flew at altitudes of less than 60 meters. Flying a minimum aircraft altitude of 150 meters during spring and fall migrations, and 300 meters other periods, would prevent the caribou reacting in the ways most immediately injurious to them.

Additional information: Cessna 185, Beaver, and PA-18 Supercub fixed-wing aircraft were used. A Bell 206 helicopter was used. Caribou response was divided into 5 classes: panic; strong escape; mild escape; stationary; and no visible response. During the study, the reactions of 736 groups of caribou ranging in size from single individuals to several thousand animals were recorded. Altitudes ranged from 100 to > 500 feet. Authors suggest that to avoid potentially injurious reactions by caribou aircraft operate at heights above 500 feet, during spring and fall migration. During the calving period and in early winter, and often during the rut, a substantial percentage of escape responses occurred when the aircraft was flying at 300-500 feet.

To avoid possibility of injury or other immediate effects to caribou at these times, a minimum altitude of 1000 feet was recommended.

Keywords: Rangifer tarandus

22. Chesser, Ronald K.; Caldwell Ronald S.; Harvey, Michael J. Effects of noise on feral populations of Mus musculus. Physiological Zoology. 1975; 48(4): 323-325.

Author's abstract: House mice, Mus musculus, were snap-trapped from two similar fields near Memphis International Airport, Shelby County, Tennessee, the only apparent difference being presence or absence of low-flying aircraft. Airport field noise levels ranged from 80 to 120 dB while rural field levels ranged from 80 to 85 dB. Mice from the airport field had significantly larger adrenal glands than those of the rural field. To determine if noise was the causative stressful factor, mice collected from the rural field were subjected to recorded jet noises at 105 db in the laboratory for 2 weeks. The experimental group had significantly larger adrenals than those of a control group.

Keywords: Mus musculus

23. Cogger, E. A.; Zegarra, E. G. Sonic booms and reproductive performance of marine birds: Studies on domestic fowl as analogues [Technical Report]. Potential effects of space shuttle booms on the biota and geology of the California Channel Islands: Research Reports. J.R. Jehl and C.F.Cooper ed.; San Diego State University: Center for Marine Studies; 1980; 80-1. 163-194.

Abstract from Gladwin et al. 1988: A number of field, laboratory, and library investigations were undertaken between 1978 and 1980 to assess the potential for damage because of concern that the intense sonic booms from the space shuttle might have adverse effects on important biological and physical resources of the Channel Islands. Results of eight studies are included in this report. Topics include historic and current disturbances to natural resources on San Miguel Island; status of the peregrine falcon (Falco peregrinus), seabirds, and pinnipeds on the Channel Islands; effects of impulse noise and sonic booms on sea birds; and possible physiological effects of space shuttle booms on marine mammals.

Low-flying helicopters, humans on foot, sonic booms, and loud boat noises were the most disturbing influences to pinnipeds. Humans at roost sites, helicopter overflights, and sonic booms disturbed birds. "Loud" sonic booms (80-90 dBA SEL) elicited more startle response in animals than did "soft" booms (72-79 dBA). Duration of startle responses to loud booms was shorter than to other disturbances. Among the pinnipeds, harbor seals (Phoca vitulina) were most likely to startle; no serious disturbance was recorded among northern elephant seals.

Historical data indicated that the current level of

disturbance on San Miguel Island does not measurably affect seabird and pinniped populations. Sonic booms from the space shuttle launches may increase the disturbance level by 10%-20%. Avoiding launches during the pupping season, launches and returns during the noon hours should be avoided to prevent exposure to pups and seabird nestlings to excessive heat. Temporary decreases in hearing sensitivity of marine mammals could occur following the few intense booms caused by launches of the space shuttle directly over the islands, but these are not expected to have negligible population consequences. Careful observations of behavioral effects of space shuttle booms on Channel Island marine mammals, coupled with long-term population monitoring, are recommended.

Keywords: pinnipeds/harbor seals/Phoca vitulina/elephant seals/seabirds

24. Conomy, J. T.; Collazo, J.; Flemming, W. J. Effects of aircraft noise on time-activity budgets of wintering Black Ducks. *Journal of the Acoustical Society of America*. 1993; 93(4): 2377.

Entire document: (abstract from paper presented at annual meeting, not peer reviewed) The primary goal of this study was to determine if the activity (TAB) of wintering black duck (Anas rubripes) was significantly altered by military aircraft noise at the U.S. Marine Corps target range in Piney Island, North Carolina. Sound levels were measured concurrently with behavioral observations. Over a sampling period of 81 days, exceedances > 80 dB occurred on 289 occasions, the mean duration of exceedances was 5.09 s, and the mean sound pressure was 85.7 dB. Black ducks spent between 0.2% and 0.5% of their time reacting to aircraft. Correspondingly, the energetic costs of these reactions were low. TABs of black ducks in the high noise environment of Piney Island were within the expected range of those in low noise environments based on published literature. In a follow-up study, captive black ducks were subjected to simulated jet noise at levels approximately those recorded in the field. Measured levels of reactions to noise stimuli indicated that ducks habituated within 1 day. These results suggest that low reaction levels recorded in the field reflect the species' habituation capabilities to some kinds of disturbance.

Keywords: Anas rubripes/habituation

25. Cook, John G.; Anderson, Stanley H. Use of helicopters for surveys of nesting Red-Shouldered Hawks. *Prairie Naturalist*. 1990; 22(1): 49-53.

The utility of using helicopters for nest surveys is discussed. A Bell Jet Ranger helicopter was used with elevations of 5-20 meters above the tree tops. Surveys were conducted in Missouri just prior to leaf out. The article contains a brief discussion of reaction by hawks during survey. "Nest abandonment did not appear to be a problem. Some incubating adults remained

on the nest even after the helicopter had hovered several minutes near the treetops. Several hawks left the nest but remained nearby. Others seemed to be attracted to the nest apparently in response to the disturbance and persistently remained nearby during our observations." "The helicopter also flushed three Cooper's hawks, one osprey, and at least five broad-winged hawks." Important to note that only one overflight per nest was conducted. Authors state that flights must be scheduled just prior to leaf out to maximize nest detection and minimize nest abandonment. The authors also suggest using helicopters with quiet jet engines (compared to piston engines) and avoiding abrupt approaches to reduce disturbance.

Keywords: Buteo lineatus/Accipiter cooperi/Pandion haliaetus/Buteo platypterus

26. Dunnet, G. M. Observations on the effects of low-flying aircraft at seabird colonies on the coast of Aberdeenshire, Scotland. *Biological Conservation*. 1977; 12(55-63).

Author's abstract: The greatly increased use of helicopters and fixed-wing aircraft to support the exploration and exploitation of oilfields in the North Sea gives rise to concern about possible disturbance to seabirds breeding in the flight paths. The observations reported in this paper were made at a mixed colony of fulmars (Fulmarus glacialis), shags (Phalacrocorax aristotelis), herring gulls (Larus argentatus), kittiwakes (Rissa tridactyla), gullmots (Uria aalge), razorbills (Alca torda), and puffins (Fratercula arctica), breeding on the Buchan cliffs about 40 km north of Aberdeen, on two days during egg-laying and early nestling stages of the breeding season.

The number of birds in attendance at nests or nesting ledges were counted before and after passage of aircraft, and general observations were made when the planes were overhead. The number of identifiable nests with 0, 1, or 2 adults was noted since disturbance might be most sensitively detected by the departure of the non-incubating/brooding adults.

No evidence was found to suggest that aircraft flying at heights of about 100 m above the cliff-top affected the attendance of incubating and brooding birds, and there was only a slight indication that a few of the "second adults" at kittiwake nests may have flown off. Groups of kittiwakes resting on nearby cliffs or on the sea did not take to the air in response to the planes, but they also did so frequently in the course of the day with no obvious cause. It is stressed that these findings cannot be extrapolated to other species of seabirds or to different conditions.

Additional information: Piper Aztec (fixed-wing) and Sikorsky S61 (helicopter) were used and heights above cliff tops "about 150 m". Statistical analysis was performed on one set of observations (1 day, kittiwakes and gullmots). Other information presented are observations because data were too few for statistical analysis. No flights below 100 m above cliff

tops.

Keywords: Fulmarus glacialis/Phalacrocorax aristotelis/Larus argentatus/ Rissa tridactyla/Uria aalge/Alca torda/Pratercula arctica

27. Ellis, David H.; Ellis, Catherine H.; Mindell, David P. Raptor responses to low-level jet aircraft and sonic booms. Environmental Pollution. 1991; 74: 53-83.

Author's abstract: We estimated effects of low-level military jet and mid- to high- altitude sonic booms (actual and simulated) on nesting peregrine falcons (Falco peregrinus) and seven other raptors by observing their responses to test stimuli, determining nesting success for the ear following the tests. Frequent and nearby jet aircraft passes: (1) sometimes noticeably alarmed birds, (2) occasionally caused birds to fly from perches or eyries, (3) most often evoked only minimal responses, and (4) were never associated with reproductive failure. Similarly, responses to real and simulated mid- to high-altitude sonic booms were often minimal and never appeared productivity limiting. Eighteen (95%) of 19 sites disturbed in 1980 were reoccupied by pairs or lone birds of the same species in 1981.

We subjected four pairs of prairie falcons (Falco mexicanus) to low level aircraft at ad libitum levels during the courtship and incubation phases when adults were most likely to abandon: all four eyries fledged young. From heart (HR) rate data taken via a telemetering egg at another prairie falcon eyrie we determined that stimulus-induced HR alterations were comparable to rate changes for birds settling to incubate following flight.

While encouraging, our findings cannot be taken as conclusive evidence that jet flights and/or sonic booms will have no long-term negative effects for other raptor species or for other areas. In addition, we did not experiment with totally naive wild adults, rotary-winged aircraft, or low-level sonic booms.

Additional information: Aircraft involved in the study include: A-4 (Skyhawk), A-7 (Corsair II), A-10 (Thunderbolt II), F-4 (Phantom), F-15 (Eagle), F-104 (Starfighter). Noise levels at selected distances are referenced in the document. Species included in the study were: Cooper's hawk (Accipiter cooperii), Common black-hawk (Buteo calurus anthracinus), Harris' hawk (Parabuteo unicinctus), Zone-tailed hawk (Buteo albonotatus), Red-tailed hawk (Buteo jamaicensis), Golden eagle (Aquila chrysaetos), Prairie falcon (Falco mexicanus), and Peregrine falcon (Falco peregrinus). Behavioral responses were divided into three categories: insignificant, significant (biologically) and severe. Early in the study it was recognized that jet passes greater than 500 m from the birds consistently failed to elicit significant responses, so all jet passes use in the analysis were within 500 m.

The authors list some broad generalizations based on the study:

- (1) Small (downy) nestlings did not respond noticeably.
- (2) Large nestlings (contour feathers emerging) in exposed nests (e.g. stick nests in trees) were alerted by, and sometimes covered below, the closest aircraft (100 m or less).
- (3) Large nestlings in cavity nests often fled into the cavity and covered in response to the closest aircraft.
- (4) Large nestlings were alerted by distant aircraft (greater than 300 m), but showed no alarm.
- (5) Adults ignored or casually watched craft greater than 500 m distant.
- (6) Adults were normally alerted or alarmed by craft closer than 300 m. Occasionally, adults ignored but some fled from the closest aircraft.
- (7) Non-breeding or pre-breeding prairie falcons were more likely to flush and/or flee in response to test stimuli than pairs attending eggs or nestlings.
- (8) Adult behavior suggesting that site abandonment was imminent was not observed.
- (9) Nestling behavior suggesting that premature fledging was imminent was not observed.

Keywords: Coopers hawk/Accipiter cooperii) / Common black-hawk/Buteo gallus anthracinus) / Harris' hawk/ Parabuteo unicinctus / Zone-tailed hawk/ Buteo albonotatus / Red-tailed hawk/Buteo jamaicensis) Golden eagle Aquila chrysaetos / Prairie falcon/Falco mexicanus / Peregrine falcon/ Falco peregrinus.

28. Espmark, Yngve. Behavior reactions of reindeer exposed to sonic booms. Deer. 1972; 2(7): 800-802.

Author's abstract: 24 reindeer were kept in an enclosure and during three days exposed to 36 sonic booms with levels varying from 0.35 to 7.02 mb. No clear differences in reaction were found between low and high sonic boom strengths, explained partly by a possible adaptation in the animals to the booms and partly to different sensitivity in the animals under different activities. Moderate reactions were found irrespective of boom level. Common reactions were slight startle responses, raising of head, pricking the ears, and scenting into the air. Current activities were interrupted only occasionally and then for only a few seconds. Panic reactions or extensive changes in the behaviour of individual animals of the herd were not observed.

Additional information: Royal Swedish Air Force SAAB-35E reconnaissance aircraft were used. Overflights made at various heights but elevations not given. Based on the discussion, it appears that the overflights could not be classified as low-level. For example, Espmark refers to an elevation of 10,000 meters as not causing significant impacts to reindeer. Important to note the difference between "sonic booms" and low-level aircraft overflights. Also, Espmark warns that this study did not include parts of the yearly cycle, such as rut, gestation, and care of calves, and therefore disturbance by supersonic aircraft could have "some negative influences on reproduction in

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reindeer".

Keywords: reindeer

29. Fancy, S. G. Reaction of bison to aerial surveys in interior Alaska. *Canadian Field-Naturalist*. 1982; 96(1): 91.

The behavioral reactions of bison to low-flying fixed-wing aircraft were recorded during aerial surveys (8 flights between 18 March - 17 June 1980) of the Delta bison herd in Interior Alaska. Cessna 185 or Helio Super Courier aircraft flying between 61 and 150 m agl were used. This introduced herd numbered about 280 adult animals in April 1980. Forty-eight percent of the 59 bison groups encountered were circled once as the pilot and biologists counted and recorded the reactions of the group to the aircraft; 20 % were circled two or more times.

Only two of the 59 different Bison groups encountered showed any visible reaction to the aircraft. One group of 15 adults and yearlings standing on a frozen lake shore ran about 5m as the plane circled once 30 m AGL (above ground level) at a lateral distance of approximately 61 m from the group. The second group of 20 adults and yearlings were lying and dusting on a dirt road as the aircraft approached. The group showed no visible reactions as the plane circled at 91 m AGL, however, as the pilot increased the throttle suddenly to gain altitude, the group stood up and ran for about 1 min. The 57 groups that showed no reaction to the aircraft included lone bulls, groups comprised of adults and yearlings, and groups containing calves; group size varied between 1 and 39 animals. I found no relationship between the reaction of a group to the aircraft and the size of composition of the group. Herd differences in the reactions to aircraft disturbance suggest that the Delta bison have habituated to some degree to human disturbance.

Keywords: Bison Bison

30. Geese, Eric M.; Rongstad, Orrin J.; Mytton, William R. Changes in coyote movements due to military activity. *Journal of Wildlife Management*. 1989; 53(2): 334-339.

Author's abstract: We investigated the response of coyotes (*Canis latrans*) to military activity on the Pinon Canyon Maneuver Site, Colorado, during 1984-1986. Sixteen coyotes responded to military activity by expanding, contracting, abandoning, or not changing their home range during military maneuvers. Three coyotes abandoned their home ranges, with 1 animal returning to its original (i.e. pre-military activity) home range 1 week after maneuvers. Most coyotes that expanded or contracted their home range during military maneuvers resumed their original home range after military maneuvers ceased. Responses appeared to be related to the amount of available cover, topography, and intensity of military activity in a coyote's home range. Coyote activity patterns during the day increased, while activity at sunrise, sunset, and night remained the same during military

activity.

Additional information: Maneuvers consisted of battlefield simulations involving tanks, trucks, jeeps, helicopter and jet fighter overflights, and encampments. Maneuvers occurred during all hours of the day. No attempt to partition out which activity caused the observed changes in home range. The methodology employed could be useful in situations involving aircraft.

Keywords: Canis latrans/methods/home range

31. Gladwin, Douglas N.; Mancini, Karen M.; Vilella, Rita. Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: Bibliographic Abstracts. : U.S. Fish and Wildlife Service; 1988 Jun; AFESC TR 88-14. 78pp. Companion document to Mancini et al. 1988.

Bibliographic abstracts pertaining to animal hearing and the effects of aircraft noise and sonic booms on domestic animals and wildlife are presented. The bibliographic abstracts in this report provide a compilation of the knowledge as it existed in 1988. No attempt was made to evaluate the appropriateness or adequacy of the scientific approach of each study.

32. Harrington, Fred H.; Veitch, Alasdair M. Calving success of woodland caribou exposed to low-level jet fighter overflights. arctic. 1992; 45(3): 213-218.

Author's abstract: Effects on woodland caribou (Rangifer tarandus caribou) of low-level jet training at Canadian Forces Base - Goose Bay (Labrador) were studied during the 1986-1988 training seasons. Calf survival was periodically monitored during 1987 and 1988 in a sample of 15 females wearing satellite-tracked radiocollars. During 1987, each female's exposure to low-level overflights was experimentally manipulated on a daily basis. In 1988, daily exposure was determined by analyzing jet flight tracks following the low-level flying season. Calf survival was monitored by survey flights every 3-4 weeks. A calf survival index, the number of survey periods (maximum = 4) that a cow was accompanied by a calf, was negatively correlated with the female's exposure to low-level jet overflights during the calving and immediate post-calving period and again during the period of insect harassment during summer. No significant relationship between calf survival and exposure to low-level flying was seen during the pre-calving period, during the late post-calving period prior to insect harassment, and during fall. In view of the continued depression of population growth in the woodland caribou population within the low-level training area, jets should avoid overflying woodland caribou calving range at least during the last week of May and the first three weeks of June.

Additional information: Aircraft types included: Alpha-jet, F4, F16, F18, and Tornados. An "overflight" in this study was considered to be a jet within 1 km of a caribou's location. The

distance above ground (AGL) for the flights was not given. In the analysis, the low-level flying season was broken down into seven biologically relevant seasons: precalving, calving, initial post-calving, pre-insect post calving, 2 insect periods (harassment by insects) and fall. This study shows a significant negative correlation between a female caribou's exposure to low-level jet training activity and her calf's subsequent survival. Forty-two percent of the variance in calf survival was explained by exposure to low-level overflights, and for the summer insect period this proportion increased to 48%. The most conservative conclusion from the results presented is that calf survival is affected by frequency of exposure to low-level overflights during and immediately after calving.

Keywords: Rangifer tarandus caribou/calf survival

33. Harrington, Fred H.; Veitch, Alasdair M. Short-term impacts of low-level jet fighter training on caribou in Labrador. Arctic. 1991; 44(4): 318-327.

Author's abstract: The short-term impacts on caribou (Rangifer tarandus) of low-level jet fighter training activity at Canadian Forces Bases Goose Bay (Labrador) were investigated during the 1986-1988 training seasons (April-October). Visual observations of low-level (30m agl) jet overpasses indicated an initial startle response but otherwise brief overt reaction by woodland caribou on late-winter alpine tundra habitat. Between 1986 and 1988, daily effects of jet overflights were monitored on 10 caribou equipped with satellite-tracked radiocollars, which provided daily indices of activity and movement. Half the animals were exposed to jet overflights; the other 5 caribou were avoided during training exercises and therefore served as control animals. In 1988, the control caribou were from a population that had never been overflown. Level of exposure to low-level flying within the exposed population did not significantly affect daily activity levels or distance travelled, although comparison with the unexposed population did suggest potential effects. The results indicate that significant impacts of low-level overflights can be minimized through a program of avoidance.

Additional information: In one population of caribou studied high (300m agl) or wide (>75m) overpasses caused detectable responses 38% of the time. Direct overflights (30 m agl and within 50 m of animals), resulted in overt responses significantly more often (88% of the time).

One series of helicopter passes by a Bell 206L was flown at 30 m agl over a group in 1987 and in 1988 three passes were flown 15 minutes after the last of eight jet passes. In all cases, every caribou reacted prior to the helicopters passing. The animals sighted the helicopter and trotted or galloped away from its path. The group overflown the same day by both jets and helicopter aircraft responded significantly sooner to the helicopter and ran significantly longer and farther than it did in response to the jets.

The observations indicate that the initial response of caribou to low-level jet aircraft is caused by the sound of the overpass, and not the sight of the jet. Results indicate that the greatest impact of low-level jet aircraft will be due to the startle reactions caused by the loud and sudden noise of low, direct overflights. The disturbance footprint of an overpass is probably confined to a width of less than 500 meters. The authors discuss the various impacts that may result from startle responses.

Keywords: Rangifer tarandus

34. Henson, Paul; Grant, Todd A. The effects of human disturbance on Trumpeter Swan breeding behavior. *Wildlife Society Bulliten*. 1991; 19(3): 248-257.

Entire results section pertaining to aircraft: There is regular air traffic over much of the Cooper River Delta consisting primarily of small, fixed-wing airplanes, with smaller numbers of helicopters and large commercial jets. Because many planes passed over the study wetland at altitude of 615 or greater, we only recorded swan reactions to planes passing below this altitude. Aircraft altitude was estimated by sighting off nearby mountains of known elevation.

One or both adults swans at 4 nesting territories reacted to aircraft on 19 of 21 overflights (Commercial airliner -4; fixed-wing-10; helicopter-5). The typical response was for a bird to cease its current activity, assume a head-up (HU) posture for a few seconds to several minutes, and then resume previous behavior once the disturbance was no longer heard or seen. Males reacted with a HU posture on 17 occasions and showed no response 3 times, with 1 unknown response; females reacted with HU 16 times with no response 5 times. Head-up posture was maintained for a mean of 53.9 seconds (range 5-181 seconds, median = 30, SE 14.5, n = 20) for males and 53.6 seconds (range = 5-157 seconds, median 30 SE = 14.9, n = 21) for incubating females. In general, duration of the stimuli (i.e. airplane noise and visible presence) to observers was less than 30 seconds but this figure was not quantitatively measured during all overflights. Birds seemed to be alerted first the engine noise because they often assumed alert posture before the aircraft came into view. Aircraft disturbances never caused incubating females to take DR (rapid nest departures) or broods to seek cover. However, incubating females on 2 occasions took DR of unknown length when we circled the nests in a survey plane at an altitude of about 60m. On another occasion a male swan assumed a hiding posture as a fixed-wing plane passed directly over the wetland. We noticed no differences in response to helicopters, small single propeller airplanes, or large commercial jets.

One swan pair nested within 1.3 km of the main runway of the Cordova Airport. This pair was subjected to the extremely loud landing and takeoff noise of commercial jets 2-4 times per day yet showed little reaction. The male of this pair reacted with a

HU posture to a jet only once, and observations of reactions to aircraft by this pair were discontinued after it became apparent that they had habituated to or were not disturbed by airport traffic.

Keywords: Cygnus buccinator/Trumpeter swans

35. Herter, D. R. Habitat use and harassment of Sandhill Cranes staging on the Eastern Copper River Delta, Alaska [M.S. Thesis]. University of Alaska, Fairbanks; 1982. 170 pp.

Migration and staging activities of Lesser Sandhill Cranes (Grus canadensis canadensis) were studied in spring of 1979 and 1980, and fall 1979, 1980, and 1981 on the eastern Copper River Delta, Alaska. Migrations peaked in late April and early May, and from mid- to late September. All resightings of 43 Lesser Sandhill Cranes color-marked during winter 1980 in California have come from Pacific Flyway states, including 6 resightings on the Copper River Delta. Age ratio observations of crane flocks indicated 7% juveniles in fall 1979 and 1980, and 11% in 1981. Staging cranes fed almost exclusively on the bulbs of arrow grass in habitats dominated by Carex ramenskii and several moss substrates. Aircraft caused greater disturbance of cranes than did humans or eagles, but planes remaining 150 m or higher over feeding crane flocks should result in minor disruption of staging cranes.

Keywords: Grus canadensis canadensis/disturbance

36. Krausman, Paul R.; Hervert John J. Mountain Sheep responses to aerial surveys. Wildlife Society Bulliten. 1983; 11(4): 372-375.

The study was conducted to answer two questions: (1) do overflights by light aircraft disturb mountain sheep enough to cause them to move to new areas and (2) will such movements and area changes caused by the aircraft be detected by aerial observers? The responses of 32 groups of mountain sheep animals in group sizes of 1-18 to low-flying aircraft (Cessna 172 or 182) are reported.

Sheep that continued their pre-survey activities were considered not disturbed. Sheep that moved < 100 m and continued their presurvey activities were considered slightly disturbed. Sheep that moved > 100 m and changed behaviors were considered greatly disturbed. Low-level flights interrupted activities and sheep moved $\geq 100\text{m}$ 19% of the time. Responses varied by altitude: (1) at ≤ 50 m all responses were extreme, involving movements ≥ 1 km from the area of observation; (2) at 50-100 m ag responses were mixed, some (13%) extreme, more (27%) mild; and (3) at > 100 m ag responses ranged from mild (23%) to no overt reaction (77%). Different sex and age-classes reacted in a similar fashion to low-flying aircraft.

Keywords: Ovis canadensis mexicana/mountain sheep/

activity/movement

37. Krausman, Paul R.; Leopold, Bruce D.; Scarbrough, David L. Desert Mule Deer response to aircraft. *Wildlife Society Bulletin*. 1986; 14: 68-70.

It has been suggested that habitat-use data may be misleading if collected from flights <100 m above ground because animals may change habitats while being located. This study was conducted to assess the reliability of habitat-use data determined from aerial locations of radio-collared desert mule deer. The response of radio-collared deer was evaluated weekly from May - September 1984. The deer were located weekly from a Cessna 172, 182, or Maule (M-5-235C). Observers recorded which of 9 habitats deer occupied 30 min prior to, during, and >20 min after the aerial location process. Aircraft altitudes were grouped into 4 categories <50, 50-100, 100-150, and >150m above ground. The deer rarely responded to aerial overflights by changing habitat. Desert mule deer in south-central Arizona appear to have habituated to low-flying aircraft and reliable habitat use information can be obtained from aircraft.

Keywords: Odocoileus hemionus crooki

38. Krausman, Paul R.; Wallace, Mark C.; Wiesenberger, Mara E.; DeYoung, Donald W.; Maughan, O. E. Effects of simulated aircraft noise on heart rate and behavior of desert ungulates. *Journal of the Acoustical Society of America*. 1993; 93(4): 2377.

Entire document: (abstract of paper presented at annual meeting, not peer reviewed) The effects of simulated low-level jet aircraft noise on the behavior and physiology of 6 captive desert mule deer (Odocoileus hemionus crooki) were evaluated. Heart rate and behavior in relation to ambient temperature, number of simulated overflights/day, and noise levels (range = 92 - 112 decibels (db)) that the animals were exposed to were measured. Heart rates during simulated overflights (n=112/treatments/season) were compared to data collected prior to and following treatment periods. Differences between heart rates for animals, noise levels, and number of overflights between seasons were documented. All animals became habituated to sounds of low-altitude aircraft. Although heart rates increased during overflights they returned to resting rates in < 2 min.

Keywords: Odocoileus hemionus crooki

39. Kugler, B. Andrew; Barber, David S. A method for measuring wildlife noise exposure in the field. *Journal of the Acoustical Society of America*. 1993; 4: 2378.

Entire document: (abstract from paper presented at annual meeting, not peer reviewed) The effects of aircraft noise on wildlife have received much attention from the environmental

community, especially when associated with low altitude aircraft overflights. In the past, much of the research on the subject used surrogate information describe noise events in field studies. For example, noise exposure was often measured at an observer location, far removed from the animal under study, or inferred from the presence of aircraft flyovers. This paper describes the development and application of an animal noise monitor (or ANM) that can be mounted on a collar and worn by a subject animal over extended periods of time. The approach allows for measurement of noise exposure of the animal whose behavior is being observed, without external interferences other than initial capture. The device is capable of recognizing aircraft noise events, calculating a variety of acoustic descriptors associated with these events, and retaining the information in memory for up to 6 months until the ANM is recovered from the field. The ANM, in addition to time- and date-stamping of each event, also contains a monitor that can measure and record the activity of an animal during an immediately after a noise intrusion. The ANM is capable of withstanding harsh environments and operates over a wide temperature range. This instrumentation has been used recently on a caribou noise effects study in Alaska.

Keywords: monitoring device/methods

40. Kushlan, James A. Effects of helicopter censuses on wading bird colonies. *Journal of Wildlife management*. 1979; 43(3): 756-760.

Behavioral responses of wading birds to helicopter (Bell 47g-2) overflights were compared to responses to fixed-wing (Lake single engine amphibian) overflights at altitudes of 60 and 120 meters. The colony had been censused via aircraft for over 20 years. Comparison of fixed-wing and helicopter were based on data from 192 observations of great egrets (Casmerodius albus), snowy egrets (Egretta thula), and Louisiana herons (Hydranassa tricolor). Additional observations (28) were made of double breasted comorants (Phalacrocorax auritus) and wood storks (Mcteria americana). In all tests, no bird that left its nest failed to return within 5 minutes. There was no reaction in nearly 3/4 of the 220 observations, and in 90% of the observations a bird either showed no reaction or merely looked up. In 11 of the 12 comparisons made, the helicopter caused the same or less disturbance than the fixed-wing aircraft. The author suggests the following to minimize possible effects of aircraft near colonies: (1) approach gradually by first circling it at a distance and (2) fly around the periphery and not hover over the colony.

Keywords: Casmerodius albus/Egretta thula/Hydranassa tricolor/Phalacrocorax auritus/Mcteria americana

41. Luz, G. A.; Smith, J. B. Reactions of pronghorn antelope to helicopter overflight. *Journal of the Acoustical Society of*

America. 1976; 59: 1514-1515.

The observations were made on Otero Mesa, located in southern New Mexico. Measures of ambient noise levels made at the northern tip and western edge of the mesa showed typical levels between 36 and 40 dBA in 6-12 knot winds. During periods of no wind the levels dropped to the limits of the instrumentation used. Observations were made on a herd of 17 antelope (Antilocapra americana) using a Army OH-58 helicopter. At an altitude of 400 ft and a slant range from the herd of 3000 ft., no reactions could be observed. The animals continued to graze undisturbed. Mild reactions (muscle tensing and interruption of grazing) were observed as the craft moved toward the herd at a descent rate of 200 ft/min and a forward air speed of 40-50 knots. Strong reactions (running) began when the craft was at 150 ft altitude and a slant range of 500 ft. Calculated noise levels of no reaction and strong reaction were approximately 60 and 77 dB, respectively.

Keywords: Antilocapra americana

42. Lynch, Thomas E.; Speake, Dan W. Eastern Wild Turkey Behavioral Responses Induced by Sonic Booms in Effects of Noise on Wildlife, Fletcher and Busnel eds. : Academic Press; 1978; ISBN: 0-12-260550-0

Author's abstract: The nest sites of 8 to 20 wild turkey hens equipped with 164 MHz transmitters were located by telemetric triangulation, and 4 of these were subjected to both real and simulated sonic booms. Hens with young were subjected to simulated sonic booms only. Sonic booms did not cause abnormal behavior that would result in decreased productivity.

Additional information: Sound pressures are reported for both real and simulated booms. Reactions of turkeys included: "stood at attention", "turned and ran toward the woods", and "lifted head". All reactions were short lived (10-20) seconds. Hens did not rise off the nest, flap wings, call out, or do anything to disclose the location of her nest.

Keywords: behavior/Meleagris gallopavo silvestris

43. MacArthur, Robert A.; Geist Valerius; Johnson, Ronald H. Cardiac and behavioral responses of Mountain Sheep to human disturbance. Journal of Wildlife Management. 1982; 46(2): 351-358.

Author's abstract: Telemetered heart rates (HR) and behavioral responses of mountain sheep (Ovis canadensis canadensis) reacting to human disturbance in Sheep River Wildlife Sanctuary, southwestern Alberta, were recorded. Cardiac and behavioral responses of sheep (4 ewes, 1 ram) to an approaching human were greatest when the person was accompanied by a dog or approached sheep over a ridge. No reactions to helicopters or fixed-wing

aircraft were observed at distances exceeding 400 m from sheep. Responses to disturbance were detected using HR telemetry that were not evident from behavioral cues alone. However, mean duration of the HR response (138.6 sec) was not greater ($P > 0.05$) than mean period of the behavioral reaction when sheep were alert or withdrawing from harassing stimuli (112.4 sec). Use of HR telemetry in harassment research is discussed.

Additional information: No HR responses were associated with helicopter or fixed-winged aircraft at distances exceeding 400 m from sheep. However, during 5 direct overflights by Bell 206 or Hughes 500 helicopters at 90-250 m above ground level, HR of 3 ewes increased 2-3.5 x, with recovery times of 20-65 seconds. In each instance, sheep ran for 2-15 seconds prior to attainment of maximum HR. The aircraft overflights did not appear to be part of the experimental design as they were not discussed in the methods. Important part of study was documentation of response in the absence of behavioral cues.

Keywords: Ovis canadensis canadensis/heart rate/behavior

44. MacArthur, Robert A.; Johnson, Ronald H.; Giest Valerius. Factors influencing heart rate in free-ranging bighorn sheep: a physiological approach to the study of wildlife harassment. Canadian Journal of Zoology. 1979; 57: 2010-2021.

Authors abstract: The telemetered heart rates (HR) of unrestrained female bighorn sheep (Ovis canadensis canadensis) were recorded under various behavioral and environmental circumstances. In all ewes HR varied positively with activity level and inversely with distance to a road traversing the study area. The HR recorded from animals moving at night or through timber by day were higher than during daytime movement across open slopes.

Responses to transient stimuli varied greatly. The appearance of free-ranging canids evoked maximal increases in HR in all ewes. Vehicular traffic and aircraft elicited HR responses only at close range (<200 m). Most (78.1%) HR responses to disturbing stimuli preceded or occurred in the absence of overt behavioral reactions. The HR usually peaked within 60 s of the onset of the response and recovered to predisturbance base line in less than 200 s. The appearance and continued presence (1-10 min) of a human within 50 m of the sheep resulted in a 20% rise in mean HR. The significance of these findings is discussed in relation to the behavior, ecology, and bioenergetics of bighorn sheep.

Additional information: Only 2 ewes were monitored and a total of 5 observations made. Approach distances were estimated to be 500-1500 meters on 4 occasions by a Bell 296 helicopter. A single pass by a helicopter directly over one ewe at a height of 150-200 meters resulted in a dramatic 5 fold increase in heart rate.

Keywords: Ovis canadensis canadensis/heart rate/behavior

45. Mancini, Karen M.; Gladwin, Douglas N.; Villella, R.; Cavendish, A. G. Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: A Literature Synthesis. National Ecology Research Center, Fort Collins, Colorado: U.S. Fish and Wildlife Service; 1988 Jun; AFESC TR 88-14. 88pp. Note: Companion document to Gladwin et al. 1988.

Author's abstract: An information base on the effects of aircraft noise and sonic booms on various animal species is necessary to assess potential impacts to wildlife populations from proposed military flight operations. Thus, in a joint U.S. Air Force/U.S. Fish and Wildlife Service effort, the National Ecology Research Center conducted a literature search of information pertaining to animal hearing and the effects of aircraft noise and sonic booms on domestic animals and wildlife. Information concerning other types of noise was also gathered to supplement the lack of knowledge on the effects of aircraft noise. The literature is summarized in this report to provide an overview of current knowledge. No attempt was made to evaluate the appropriateness or adequacy or the scientific approach of each study. A brief overview of the physics of sound and aircraft noise and sonic boom characteristics also is included to familiarize the reader with the terminology and concepts of aircraft noise and sonic boom impact analysis.

Additional information: Effects on animals is presented in 4 major sections: Mammals, Birds, Fish, and Other animal groups (amphibians, reptiles, invertebrates). This paper provides an excellent overview of the issues involved with aircraft noise.

Keywords: review

46. McLellan, Bruce N.; Shackleton, David M. Immediate reactions of grizzly bears to human activities. Wildlife Society Bulletin. 1989; 17: 273-278.

The authors studies reactions of grizzly bears (Ursus arctos) to human activities between 1979 and 1986 in the North Fork of the Flathead River drainage of southeastern British Columbia and northern Montana. Reactions of bears were measured primarily by radio telemetry rather than by direct observations to reduce recording biases caused by cover or bear behavior. Fixed-wing and helicopter overflights were divided into those >150m and <150m in distance. Type, height above ground, noise level etc. were not given. Bear response was divided into four categories: (1) ran > 1km or out of the immediate drainage, (2) ran to visual cover, (3) walked or slowly loped away from stimuli, (4) did not move away. A stronger reaction to fixed-wing aircraft at distances < 150 m from stimulus that when farther away was shown by bears in open habitats.

Keywords: Ursus arctos

47. Miller, Frank L.; Gunn, Anne; Barry, Samuel J. Nursing by muskox calves before, during, and after helicopter overflights. arctic. 1988; 41(3): 231-235.

Nursing bouts by 15 muskox (Ovibos moschatus) were measured to evaluate potential use of nursing behavior as an indicator of muskox response to helicopters. A Bell-296B "Jet Ranger" turbo-helicopter was used to fly sets of passes at altitudes between 240 and 400 m above ground level. Each overflight pass began 8 km away from the herd, went over the herd, then continued for 8 km beyond the herd. Passes were initiated after a time lapse (mean 187.2 +/- 24.69 min). Observation periods were divided into three phases; undisturbed, harassed, and recovery.

The muskox calves nursed 225 times during 313 hours of observation: 63% under undisturbed conditions; 12% when helicopter overflights took place; and 25% following overflights. During exposure to the helicopter, the calf moved to the cow and then sometimes took the opportunity to nurse. Younger calves nursed relatively longer and more often than older calves; they also performed 68% of the nursings that occurred during helicopter overflights. Frequency of suckling by the young calves increased in response to helicopter overflights. Frequency and duration of nursing bouts are known to be related to age of calves. This paper demonstrates that the aspects of nursing vary within or among muskox herds and concludes that observations of nursing at this level of effort cannot be employed with any confidence as a monitoring indicator of muskox responses to helicopters.

Keywords: Ovibos moschatus/behavior

48. Owens, N. W. Responses of wintering Brent Geese to human disturbance. Wildfowl. 1977; 28: 5-14.

This paper describes the effects of human disturbance on Dark-bellied Brent Geese (Branta bernicla bernicla) wintering in Essex (England) in 1973-1974 and 1974-1975 in terms of: (a) the restriction of feeding area; (b) the effects on feeding behaviour and flighting.

Brent geese were particularly susceptible to disturbance by aircraft, and any plane below about 500 M and up to 1.5 km away could put them to flight. Slow, noisy aircraft were especially harmful, and helicopters caused widespread panic. The geese were very slow to become habituated to aircraft, though at Leigh Marsh in January-February they did cease responding to the transport planes that took off regularly from Southend Airport. Other low-flying aircraft continued to cause disturbance throughout the winter.

In 168 hours of observation of geese at the selected sites, human disturbance that caused some birds to fly occurred on average once every 81 minutes. Forty-eight percent of disturbances were by people (mostly on shore), 39% by aircraft

(mostly small propeller-driven planes), 9% by loud noises and 4% by small boats. Disturbance by aircraft on average caused about twice as many geese to take flight as disturbances by people, largely because the area affected by aircraft tended to be larger than that affected by a person on the ground. Taking into account the lesser frequency, aircraft caused about 1.6 times as much disturbance as people. The restriction of low-flying aircraft is more important than restricting humans on foot. Ideally, aircraft should not fly below 500 m over estuaries.

Keywords: Branta bernicla bernicla

49. Platt, J. B. A study of diurnal raptors that nest on the Yukon North Slope with special emphasis on the behavior of gyrfalcons during experimental overflights by aircraft. 1-40. (arctic Gas Biological Report Series; 30 Chapter 2).

50. Stockwell, Craig A.; Bateman, Gary C. Conflicts in National Parks: A case study of helicopters and Bighorn Sheep time budgets at the Grand Canyon. Biological Conservation. 1991; 56: 317-328.

Author's abstract: Wildlife in numerous national parks of the United States experience frequent overflights by aircraft. Such activities may disturb wildlife populations. We analysed time budgets for desert bighorn sheep (Ovis canadensis nelsoni) in the presence and absence of helicopter overflights at Grand Canyon National Park to determine the extent to which food intake may be impaired. Bighorn were sensitive to disturbance during winter (43 % reduction in foraging efficiency) but not during spring (no significant effect). This seasonal difference may have arisen because the sheep were farther from helicopters during the spring after they had migrated to lower elevations. Further analysis indicated a disturbance distance threshold of 250-450 m. The conservation implications of these results are discussed.

Additional information: Helicopter types and noise levels are not given. They were visually determined to be overhead if they were flying at the canyon's rim level or lower and were within a horizontal distance of 400 m.

Keywords: Ovis canadensis nelsoni/foraging efficiency/behavior

51. Travis, H. F.; Bond, James; Wilson, R. L.; Leekley, J. R.; Menear, J. R. (U.S.D.A., A.R.S. Beltsville, Maryland and University of Alaska). Effects of real and simulated sonic booms upon reproduction and kit survival of farm-raised mink (Mustela vison). Proceedings of the International Livestock Environment Symposium; 1974; Lincoln, Nebraska. : American Society of Agricultural Engineers; 1974: 152-172.

Entire document: Studies were conducted on Mitkof Island, Alaska, to determine the effects of real and simulated sonic booms upon late pregnancy, parturition, early kit mortality, and 7-week kit weights of 498 mink mothers and their 1,845 progeny.

Treated animals received either three real or three simulated sonic booms of approximately 290 newtons per square meter overpressure on the date when half of the females had whelped (at expected 80% whelping rate). The control animals were not boomed. Real booms were produced by U.S. Air Force F4E Supersonic Aircraft. Simulated booms were generated by a 4.1 meter diameter exponential horn developed by National Aeronautics and Space Administration. No statistically significant differences were found among treatments in the least squares mean date of last mating (Day 85.77 ± 0.28 , March 26=Day 85), mean length of gestation (46.13 ± 0.20 Days), mean number of kits born per female whelped (4.32 ± 0.11), number of kits born per female whelped at 5 (2.94 ± 0.13), 10 (2.83 ± 0.13), and 49 days (2.55 ± 0.12) and mean kit weight at 49 days (348.8 ± 7.68). Number of kits born alive per female whelped was smaller ($P < 0.05$) for mink receiving the simulated booms (3.29 ± 0.27) than for the control (4.05 ± 0.19) because of the poorer performance of the 2 year old mothers in the simulator group which tended to affect the superior performance of the yearling mothers in the same group.

Keywords: mink

52. Valkenburg, P.; Davis, J. L. The reaction of caribou to aircraft: a comparison of two herds. Martell, A. M.; Russel, D. E. Caribou and human activity. Proceedings of the 1st North American Caribou Workshop; 1983 Sep 28; Whitehorse, Yukon.: 7-9.

53. Ward, David H.; Stehn, Robert A. (U.S. Fish and Wildlife Service Alaska Fish and Wildlife Research Center). Response of Brant and Other Geese to Aircraft Disturbances at Izembek Lagoon, Alaska. : Minerals Management Service Outer Continental Shelf Region 949 E. 36th Avenue, Anchorage, Alaska 99501; 1989 Oct 1. 193.

Parts of Executive Summary: Effects of increased aircraft disturbance and other disturbances on Pacific black brant (*Branta bernicla nigricans*) and other geese were studied at Izembek Lagoon, Alaska. Each fall from September to November nearly the entire Pacific Flyway population of 130,000 brant flies to Izembek Lagoon and feeds on eelgrass (*Zostera marina*) to accumulate fat reserves for non-stop transoceanic migration to wintering areas as distant as Mexico. In 1984, helicopters based in Cold Bay frequently flew over Izembek Lagoon to support offshore oil exploration activities in the North Aleutian Basin. Brant, Canada geese (*Branta canadensis taverneri*), and emperor geese (*Chen canagica*) were observed to interrupt foraging behavior and take flight in response to helicopters. Disturbance caused by aircraft overflights may be harmful to brant.

Spatial distribution, foraging ecology, and normal behavior of brant were determined by extensive field observations made each fall from 1985 to 1988. Response of flocks to aircraft overflights and noise produced by aircraft were also quantified. Behavioral and physiological data were integrated into a model to explore the potential impact of disturbance on the energetic

requirements of fall staging brant.

Response to disturbance usually involved alert behavior followed by flight. After landing, brant remained alert, shifted positions, and engaged in maintenance behavior before they resumed foraging. In 1,912 hr of daylight observations, rate of potential incidental disturbances events occurred at 1.07/hr. Aircraft (0.57/hr) and persons on foot (0.08/hr) were the most frequent human-related disturbances, and bald eagles (Haliaeetus leucocephalus) (0.25/hr) the most frequent natural cause. The entire brant flock responded to 48% of all detectable events and took flight in 35%. Incidental aircraft caused the least response in geese, however, response was highly dependent on aircraft type and proximity to the flock.

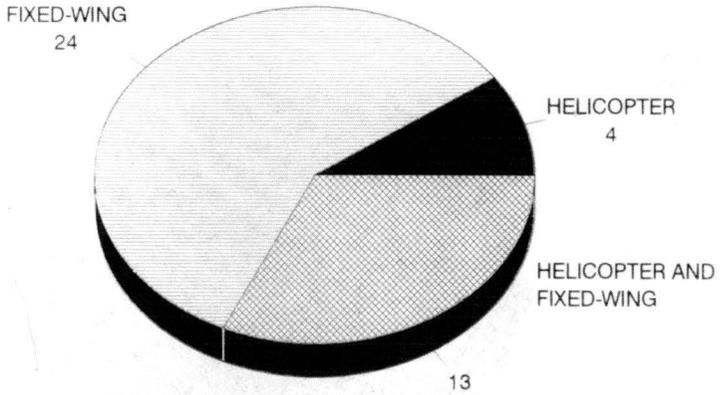
The percent response of flocks was least with the Piper Navajo twin-engine aircraft and greatest for the Bell 295 helicopter. In contrast to fixed-wing aircraft, the response of brant to helicopter overflights did not diminish with increasing altitudes up to 610m.

For various categories of aircraft, altitude, and lateral distance, the degree of behavioral response of brant was correlated with noise levels measured for each aircraft type. Assuming a linear relationship between percent response and maximum noise level, the threshold noise level would be 49 dB for alert response and 58 dB for flight response. The behavioral response of brant and measured noise level both increased as the Bell 205 helicopter flew at greater altitudes at 1.6 km lateral distance. This provided evidence that noise rather than visual cues triggered the behavioral response.

A model was developed to evaluate the potential impact of disturbance on the energetic requirements of brant. For each additional aircraft disturbance that occurred daily throughout the staging period, the predicted total weight gain would be reduced by 7.4 g. The loss of 7.4 g of lipid was equivalent to energy expended in 53 minutes of 73 km of migratory flight.

Keywords: Branta bernicla nigricans/Branta canadensis
taverneri/Chen canagica/behavior/energetics.

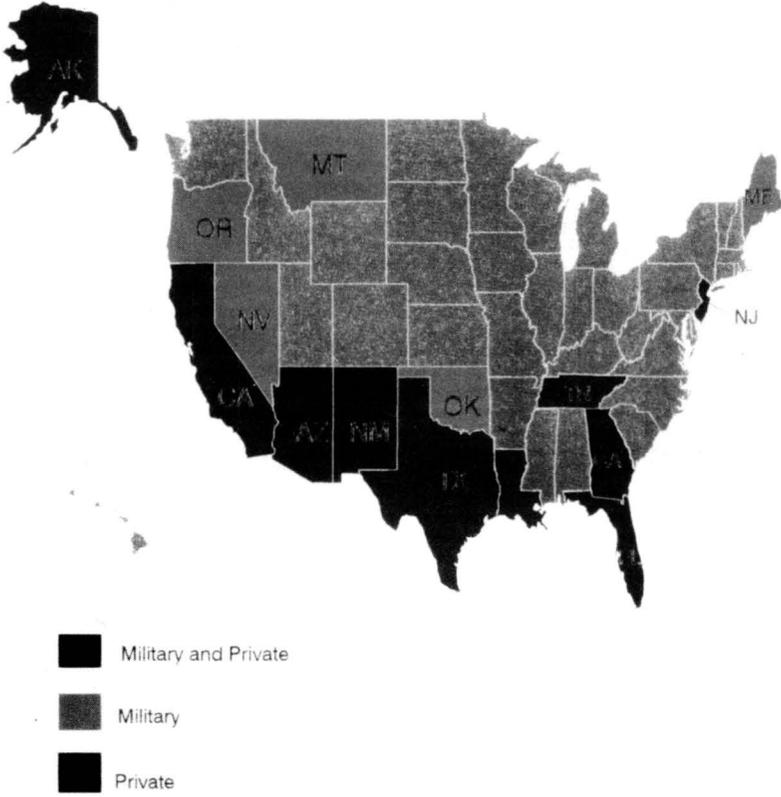
AIRCRAFT TYPE INVOLVED IN OVERFLIGHT ISSUES



TOTAL OF 41 NATIONAL WILDLIFE REFUGES REPORTING

September 14, 1993

NATIONAL WILDLIFE REFUGES WITH AIRCRAFT OVERFLIGHT
ISSUES REQUIRING WASHINGTON D.C. OFFICE ASSISTANCE
TO RESOLVE



UNFRIENDLY SKIES

The Threat of Military Overflights To National Wildlife Refuges



A Report by Defenders of Wildlife
January 1994

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EXECUTIVE SUMMARY

Research by Defenders of Wildlife and a new report by the U.S. Fish and Wildlife Service (FWS) show that military overflights continue to disturb wildlife on at least 35 national wildlife refuges. According to major studies by the General Accounting Office (1989) and the U.S. Fish and Wildlife Service (1990), military overflights are one of the most harmful activities affecting national wildlife refuges (NWRs). While these studies were completed more than three years ago, military overflights continue to pose a serious threat to wildlife and the National Wildlife Refuge System. Since military agencies are not under any clear legal obligation to reduce the impact of their activities on wildlife, FWS refuge managers have been forced to rely on the good will of local military commanders. The responsiveness of these commanders varies widely and their actions have often failed to resolve the concerns of FWS managers. Furthermore, overflight concerns may increase as military agencies continue to request the use of additional airspace from the Federal Aviation Administration (FAA). To resolve overflight conflicts, Congress should require the Department of Defense to avoid or, at minimum, mitigate the effects of overflights on wildlife unless precluded by national security considerations.

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I. OVERVIEW OF THE OVERFLIGHT PROBLEM

At Cross Creeks National Wildlife Refuge in Tennessee, a military helicopter flies at less than 500 feet through a designated no-flight zone, distressing refuge visitors and causing several thousand ducks and geese to take flight. A Navy fighter passes 200 feet over California's Farallon NWR, raising 3,000 murrelets, 20,000 gulls, and 5,000 cormorants. At Georgia's Harris Neck NWR, a low-flying military transport flushes 50 federally endangered wood storks from their nests.

Recent Reports on the National Wildlife Refuge System

While events like these have been frequently documented on national wildlife refuges for more than 20 years, the issue of military overflights on refuges only began gaining national attention with the 1989 General Accounting Office (GAO) publication entitled *National Wildlife Refuges: Continuing Problems With Incompatible Uses Call for Bold Action*. This report found that 90 percent of 428 NWRs had secondary uses occurring on them and that 59 percent had at least one harmful use occurring. Military air exercises were one of the secondary uses most frequently cited as harmful. Refuge managers viewed military air exercises as harmful on 36 (65 percent) of the 55 refuges where they occurred (see Appendix I), and, of the 36 managers, 35 recommended that such air exercises should be discontinued. According to the GAO report: "Conservationists and FWS refuge staff believe that dogfights and bombing exercises, weapons testing, and training, along with frequent sonic booms over refuges adversely affect waterfowl, shorebirds, and other wildlife."¹

¹ GAO, *National Wildlife Refuges: Continuing Problems With Incompatible Uses Call for Bold Action*, 1989, p. 30.

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Following up on the 1989 GAO report, the 1990 FWS study *Secondary Uses Occurring on National Wildlife Refuges* found that military air exercises took place over 96 out of 478 refuges. Furthermore, managers on 70 (73 percent) of these refuges considered the military exercises to be harmful, making overflights the secondary use most often considered harmful (see Appendix I). The 1990 study also noted that FWS had the legal authority to control military overflights in only 2 of the 96 instances.

Efforts to Resolve Overflight Conflicts

Since 1990, the Fish and Wildlife Service has considered the overflight problems on a number of refuges to be resolved. Indeed, the FWS has remedied overflight concerns at several refuges where the agency had the clear legal authority to do so. At Minnesota's Rice Lake NWR, for example, a special use permit which had been issued previously to the Minnesota Air National Guard for "air drop and retrieval activities" was not renewed after 1990. The action appears to have effectively ended the military overflights of the refuge, which were conducted in conjunction with ground exercises. In another case, following significant legal and public pressure from environmental groups, Interior Secretary Bruce Babbitt in August 1993 formally withdrew a 44-year-old letter of permission allowing the Navy to bomb Washington State's Copalis NWR.²

In many instances, however, it appears that the FWS has not completely addressed overflight concerns. A review conducted by Defenders of Wildlife in late 1993 shows that harmful overflights are still occurring on at least some NWRs where the FWS

² Even though these actions represent a clear departure from the *laissez faire* attitude of past Administrations toward military uses of wildlife refuges, the Interior Department is still unwilling to press every overflight concern. Claiming it lacked legal authority, the Interior Department in 1993 failed to support efforts by the FWS manager of Arizona's Cabeza Prieta NWR to limit military training exercises. See "Effort to Protect U.S. Wildlife Refuges Turns Corner Today," *The Washington Post*, October 20, 1993.

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considers the overflight problem resolved. At Utah's Fish Springs NWR, for example, a FWS database³ indicates that "[t]he problem was essentially corrected by 9/30/91;" yet another FWS document dated September 30, 1992 states that "[t]he refuge has documented 15 unnecessary and unsafe overflights of the refuge in the last 9 months."⁴

In other cases, FWS reevaluated the overflight concern and determined that the activity was not as harmful as first believed. On several occasions, however, this determination was apparently made because refuge managers were unable to conclusively prove negative impacts on wildlife, rather than because overflights were proven to be unharmed. At North Dakota's Arrowwood NWR complex, for example, low-level flights by bombers and supersonic flights by fighters were reported to disturb colonial nesting and migratory birds in 1990. However, when the refuge manager was requested to reevaluate the problem in 1991, he reported: "The overall affect of these exercises on concentrated wildlife populations, at present, is unknown."⁵ Overflights at Arrowwood NWR—and at six other refuges in FWS Region 6⁶—were then deemed "[n]o problem on reevaluation."⁷

³ FWS database on "Current Status of Harmful and Incompatible Uses," updated on 8/4/92.

⁴ FWS "Notes for Utah Test and Training Range Meeting September 30, 1992, at Partoun School."

⁵ Memorandum from Refuge Manager, Arrowwood Complex, to Assistant Regional Director, dated May 21, 1991.

⁶ The following states are included in FWS Region 6: Montana, North Dakota, South Dakota, Wyoming, Nebraska, Utah, Colorado, and Kansas.

⁷ FWS "Current Status of Threats and Conflicts" database.

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New Information on Overflights

Despite some limited success, most obviously in the rare cases in which the Fish and Wildlife Service has had clear legal authority to regulate military training exercises, a three-year effort by the federal wildlife agency has failed to resolve most overflight concerns. In many cases, refuge managers appear to have reached an impasse with the military in their efforts to resolve overflight concerns at scores of federal refuges. An August 1993 FWS report⁸ shows that at least 30 refuges continue to be harmed by military overflights and another 11 refuges are affected solely by civilian overflights. In addition, Defenders of Wildlife research indicates continuing military overflight concerns involving at least 5 additional refuges not included in the FWS report (see Figure 1). Additional refuges with continuing overflight concerns are:

- **Seney NWR (MI):** In the FWS' "General Report on Harmful or Non-Compatible Uses" (updated January 24, 1992) the refuge manager reported that "[l]ow level jet training flights [by the Air National Guard] disturb waterfowl and bald eagles. The disturbance effects include a designated wilderness area." A military training route traverses the refuge and flights are designated to go as low as 100 feet. Since the Air National Guard intends to continue to use the route through the refuge, the FWS is currently reviewing ways of reducing disturbance at certain times. For example, in a January 24, 1992 letter to the Air National Guard, the refuge manager requested the military to alter its operations because the period in which most overflights occur (April-October) is also the primary period that bald eagles use the area. As of December 1993, however, military overflights continued to be a problem at Seney.
- **Back Bay NWR (VA):** The FWS' "General Report on Harmful or Non-Compatible Uses" (updated January 21, 1992) indicated that harmful military and civilian overflights were still occurring at Back Bay NWR. According to this report, "[m]ilitary activity is by far the most common" and includes overflights by F-14s, A-6s, and helicopters. The helicopters "fly at extremely

⁸ FWS, *Aircraft Overflight Issues on National Wildlife Refuges*, Division of Refuges, Branch of Wildlife Management, August 1993.

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low levels, often below 300' [feet]—primarily along the beach and dunes. Migratory birds are disturbed by these flights. Snow geese often flush due to aerial overflights—especially those by helicopters." The report recommended prohibiting or limiting overflights, especially over the high concentrations of birds on the barrier spit. As of November 1993, military overflights continued to be a problem at Back Bay.

MILITARY AND CIVILIAN OVERFLIGHTS	
Harris Neck (GA)	Blackbeard Island (GA)
Wassaw (GA)	Sacramento Complex (CA)
Farallon (CA)	Togiak (AK)
Edwin B. Forsythe (NJ)	Havasu (AZ)
Kenai (AK)	Bitter Lake (NM)
Back Bay (VA)	
MILITARY OVERFLIGHTS	
Charles Russell (MT)	Wichita Mountains (OK)
Cibola (CA/AZ)	Imperial (CA/AZ)
Buenos Aires (AZ)	Sequoyah (OK)
Ash Meadows (NV)	San Andres (NM)
Sevilleta (NM)	Sea Island (ME)
Petit Manan (ME)	Cross Island (ME)
Kofa (AZ)	Lower Swannee (FL)
Cross Creeks (TN)	Cedar Keys (FL)
Hart Mountain (OR)	Cabeza Prieta (AZ)
Desert (NV)	Hagerman (TX)
Salton Sea (CA)	Seney (MI)
Malheur (OR)	Banks Lake (GA)

Fig. 1. National Wildlife Refuges with Aircraft Overflight Issues

(Source: Defenders of Wildlife research and *Aircraft Overflight Issues on National Wildlife Refuges*, 1993, U.S. Fish Wildlife Service).

Note: Refuges listed based on Defenders of Wildlife research are indicated in bold.

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- **Banks Lake NWR (GA):** An Air Force bombing range sits next to Banks Lake refuge. While the FWS and the military had a memorandum of understanding (MOU) under which military agreed to fly at more than 2000 feet above the refuge, in 1990 the refuge manager wrote that "the overflights around Banks Lake are disturbing to resident as well as migratory wildlife species. . . . Our experience in the past on Okefenokee and Banks Lake Refuges has been that the military aircraft utilizing both areas pay little attention to agreements, MOU's, charts, etc. They will invariably 'do as they please' once they are in the air." The MOU with the military expired in 1990, and, as of November 1993, military overflights continued to be a problem at Banks Lake.
- **Malheur NWR (OR):** A military training route near the refuge is designated down to ground level. Military overflights affect sandhill cranes, bald eagles, ducks, geese, and American white pelicans. FWS pilots are also concerned about their own safety while conducting aerial wildlife research. As of December 1993, military overflights continued to be a problem at Malheur.
- **Salton Sea NWR (CA):** According to the 1990 FWS report *Secondary Uses Occurring on National Wildlife Refuges*, military air exercises including "helicopters, aircraft at 500 feet" cause "major wildlife disturbance." A memorandum from the regional director dated May 20, 1991, reported that "[d]irect physical disturbance is readily observable and is believed to create additional stress in migratory waterfowl populations that are suffering from habitat loss and other factors." Although the military has expressed substantial interest in resolving overflight concerns, helicopters still occasionally fly over the refuge causing major disturbances to waterfowl.

II. WILDLIFE AND WILDERNESS CONCERNS

According to refuge manager reports in *Aircraft Overflight Issues*, military overflights can pose a direct threat to the establishing purposes of individual refuges. These purposes include providing habitat for endangered species and maintaining preserves and breeding grounds for migratory birds, waterfowl, and other species. In most cases, overflights disturb nesting or migrating raptors, waterfowl, and shorebird populations.

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Overflights can also disturb mammals such as bighorn sheep, antelope, walrus, seals, and sea lions.

Endangered Species Threatened

Among the many federally endangered species at risk are wood storks at Georgia's Wassaw, Blackbeard Island, and Harris Neck NWRs, piping plovers at New Jersey's Forsythe NWR, interior least terns at New Mexico's Bitter Lake NWR, and bald eagles at several refuges including Oklahoma's Sequoyah NWR and Tennessee's Cross Creeks NWR. Federally threatened Steller sea lions are found at California's Farallon NWR and Alaska's Togiak NWR. The Buenos Aires NWR in Arizona was specifically established under the Endangered Species Act to preserve a mesquite grassland for the reintroduction of the federally endangered masked bobwhite quail, while Nevada's Ash Meadows NWR provides critical habitat for 33 federal or state listed endangered, threatened, and candidate species.

Migratory Birds and Waterfowl Threatened

As the *Aircraft Overflight Issues* report points out, a number of affected refuges are critically important to migrating birds. New Jersey's Forsythe NWR, for example, provides wintering habitat for approximately 10 percent of the Atlantic flyway's black duck population and approximately 15 percent of the Atlantic brant population. Up to two million birds spend at least part of their winter at California's Sacramento NWR complex, including over half of the pintail ducks in North America. Sequoyah NWR in Oklahoma is the main Central Flyway wintering ground for mallard ducks, New Mexico's

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Bitter Lake NWR sees a large portion of the world's population of lesser sandhill cranes, and California's Farallon NWR is home to the largest continental seabird breeding colony south of Alaska.

Effects of Overflights on Wildlife

Relatively few studies have been conducted to assess the biological impacts of overflights on wildlife; however, many refuge managers note that the disruption of feeding, resting and nesting of birds can lead to their fatigue and stress and has the potential of either increasing mortality or leading to the abandonment of an area. At California's Farallon NWR and Alaska's Togiak NWR, overflights occurring during the nesting season result in the loss of hundreds of seabird eggs and chicks as startled adults knock them from their nests and leave them vulnerable to predators.⁹ Refuge staff at Togiak NWR believe that "[o]ne major disturbance has the potential of severely impacting the reproductive success for the entire year."¹⁰ At New Jersey's Forsythe NWR, the refuge manager stated that the disruption of feeding and occasional flushing of snow geese and Atlantic brant "impacts winter survival and overall condition of the population."¹¹ Similarly, in a January 10, 1989 letter to the Federal Aviation Administration, the supervisor of the FWS Raleigh, North Carolina, field office wrote: "The acoustical and visual impacts of low flying aircraft may result in a drain on the energy reserves of wildlife due to the reduction in feeding and resting time. . . . Breeding activities may be disrupted. . . . Wildlife may vacate a habitat entirely." In fact, at both Tennessee's Cross Creeks NWR and Oklahoma's Sequoyah NWR, refuge

⁹ Ibid.

¹⁰ Ibid.

¹¹ Memorandum from Forsythe Refuge Manager to New Jersey field office, no date.

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staff believe that overflights led bald eagles to abandon their nests, and at New Mexico's Bitter Lake NWR, the refuge manager reported: "The endangered least tern has exhibited a pattern of seemingly dissatisfaction with its former nesting territory. Low flying, or otherwise noisy aircraft may be partly to blame."¹²

The effects of overflights on mammals are less clear. Their reactions to overflights tend to be less conspicuous than the reactions of large flocks of birds, and research on mammals has generated conflicting reports. For example, while some research has suggested that desert bighorn sheep can adapt to overflights in certain situations, other studies have shown a reduction in foraging efficiency.¹³ At Sevilleta NWR in New Mexico, refuge staff believe that overflights raise stress levels in deer and antelope and that during periods of environmental stress or during the fawning season they can actually cause mortality.¹⁴ Refuge staff at Alaska's Togiak NWR have observed hundreds of walrus, seals, and sea lions stampeding in reaction to overflights, and although there has been no documented evidence of mortality, individual animals can be trampled by such stampedes.¹⁵

¹² Memorandum from Bitter Lake Refuge Manager to FWS Branch of Refuges and Wildlife, Albuquerque, dated March 1, 1991.

¹³ See Mancini, K.M., et al. 1988. *Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: A Literature Synthesis*. USFWS. NERC-88/29, and Stockwell, C.A. and G.C. Bateman. 1991. "Conflicts in National Parks: A Case Study of Helicopters and Bighorn Sheep Time Budgets at the Grand Canyon." *Biological Conservation* 56: 317-328.

¹⁴ *Aircraft Overflight Issues*.

¹⁵ *Ibid.*

Impact on Wilderness

Several refuges affected by military overflights also contain federally-designated wilderness. The Kenai NWR in Alaska, for example, has 1.35 million acres of designated wilderness within its boundaries. More than half of the 5,600-acre Blackbeard Island NWR in Georgia is designated wilderness, as well as 77 percent of Arizona's Kofa NWR. There are also wilderness areas at Forsythe NWR and at Oklahoma's Wichita Mountains NWR. Congress intended "wilderness" to be a highly protective designation. However, despite the 1964 Wilderness Act's definition of wilderness as an area "untrammelled by man . . . retaining its primeval character and influence, (with) outstanding opportunities for solitude," military overflights continue to disturb wildlife and visitors to these pristine areas.

III. EXISTING MECHANISMS FOR RESOLVING OVERFLIGHT CONFLICTS

The primary legal instrument addressing military overflights of public lands is an interagency agreement between the FWS, National Park Service (NPS), Bureau of Land Management (BLM) and the Federal Aviation Administration (FAA).¹⁶ The agreement was signed in January 1993 but is virtually identical to a previous agreement, which did little to help resolve overflight problems while it was in place from 1984 to 1989. While noting that the FAA has requested a 2,000 foot above ground level (AGL) minimum altitude for aircraft flying above refuges and other lands administered by the Department of the Interior, the agreement makes it clear that compliance is entirely voluntary.

¹⁶ "Interagency Agreement between National Park Service, Fish and Wildlife Service, Bureau of Land Management, and Federal Aviation Administration," signed January, 15 1993. Appendix II contains a copy of the agreement.

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[The agencies] desire to act in cooperation to reduce the incidence of low-flying aircraft . . . over NPS, FWS, and BLM administered land by seeking *voluntary cooperation* [emphasis added] with the 2,000 feet [sic] AGL minimum altitude advisory.

As part of the agreement, the Federal Aviation Administration agreed to communicate National Park Service, Fish and Wildlife Service, and Bureau of Land Management concerns to pilots, to investigate instances of pilot deviations from the FAA-requested minimum altitude, and to take action to "discourage deviations." Regarding military overflights, the agreement merely requires the FAA "to assist the NPS, FWS, and BLM in communicating with the various agencies of the Department of Defense with regard to military aircraft operations over NPS, FWS, and BLM administered areas."

Since FWS lacks control over the airspace above its refuges and the Defense Department is under no legal obligation to mitigate overflight conflicts, refuge managers have relied primarily on personal negotiations with local military bases to solve their overflight problems. Of the 30 refuges reporting military overflight problems in the 1993 FWS report, at least 19 have been in contact with local military bases (Appendix III summarizes FWS efforts to resolve overflight concerns).

The good will of local military commanders is often insufficient, however. In some cases, the military has been unresponsive to FWS efforts to resolve problems. At Arizona's Buenos Aires NWR, for example, refuge staff have "made at least a dozen calls and . . . in frustration, we have discontinued the complaint process."¹⁷ In other cases, the military has been generally cooperative. Some military bases have voluntarily agreed to restrict airspace over refuges by designating an acceptable minimum altitude of

¹⁷ *Aircraft Overflight Issues*.

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flights over refuges or designating no-fly zones. Unfortunately, these restrictions are evidently not always sufficient, or, more often, they are frequently violated.

Refuge managers have particular difficulties in dealing with violations. As the 1989 GAO *Refuge* report states: "Even when conditions are negotiated . . . the conditions are frequently violated because refuge managers have little capability to enforce them." Identification of violating aircraft and what base they are from can be difficult, and reports of violations often lead to only temporary respites. At Tennessee's Cross Creeks NWR, for example, a 1991 agreement restricts National Guard flights to above 2500 feet and totally prohibits flights from a local army base, yet "the problem persists. . . . Unless we can provide identifying aircraft numbers, they cannot enforce their own regulations. . . . The status of the situation is that there are 'no flight' and 'restricted area' regulations in effect that are basically worthless except as a documentation of 'good faith' on their part."¹⁸

Most of the refuges harmed by overflights are located near or below a regular military operations area or military training route. A military operations area (MOA) is a type of special use airspace (SUA), a broad category describing airspace where certain kinds of aircraft activities must be confined due of the nature of those activities or where limitations must be imposed on aircraft that are not part of the activities.¹⁹ Only non-hazardous activities are conducted within MOAs, and they are not off-limits to civilian aircraft. Military training routes (MTRs) are not a type of special use airspace, but are non-restrictive FAA-designated aerial highways used by the military to conduct low-

¹⁸ "Secondary Use Report Form: Military Activities," from Cross Creeks NWR, dated December 17, 1991.

¹⁹ DOD/DOT, *Report on the Joint Review of Special Use Airspace*, Report to Congress, 1989.

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altitude navigation and tactical training at speeds greater than 250 knots.²⁰ MTRs are the military's most prevalent use of airspace and can be designated down to the surface, up to 30 miles wide, and hundreds of miles long.

FWS documents indicate that many refuge managers would like to see the military either change MOAs and MTRs so that they avoid refuges or agree to mandatory or stricter altitude restrictions (see Appendix III). While some refuge managers believe that a 2000-foot restriction would be sufficient, others see the need for a 5000-foot restriction. Seasonal restrictions may also be suitable for some refuges. Regardless of the method of mitigation used, refuge reports in *Aircraft Overflight Issues* make it clear that agreed flight levels are only worthwhile if adhered to vigorously. A number of refuge managers say that pilots must be better educated about the restrictions, and violations must be seriously pursued by military commanders.

Congress recently supplemented the national interagency agreement on airspace with language in the Senate report accompanying the 1993 Defense Authorization Bill. The Senate report instructs the Secretary of Defense and the Secretary of Interior to establish a procedure, including a mechanism for dispute resolution, "whereby DOD and DOI can achieve their mutual goals of training and stewardship."²¹ Although such a mechanism may improve communication between the FWS and DOD, like the national interagency agreement, it does not impose a formal obligation on DOD to avoid or mitigate overflight conflicts.

²⁰ Ibid.

²¹ S. Rep. No. 112, 103rd Cong., 1 Sess., p. 127, (1993).

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IV. NEW RISKS FROM ADDITIONAL MILITARY AIRSPACE DESIGNATIONS

While existing military overflights pose a problem for many refuges, proposals to use even more of the nation's airspace for military training purposes are likely to increase disturbances to some refuges and create new threats to others. In Alaska, for example, a recent major flying exercises proposal will increase supersonic operations over 20,050 square miles and expand low-level training by 33,155 square miles, including areas covering Yukon Flats NWR and Innoko NWR and Wilderness area.²² In another expansion, a recent transfer of two fighter squadrons to Moody Air Force Base in Georgia will increase sorties in its training routes by 40 percent.²³ Three of these training routes pass over Florida's Lower Swanee and Cedar Keys NWRs, where flights less than 500 feet above ground level are already frequent. Additional military training route expansions have also been proposed for the northeast, Colorado, Idaho, Nevada, New Mexico, and Utah.

Recent government studies and private groups have been critical of the FAA's allocation of airspace to the military.²⁴ Two complaints are common. First, while Federal agencies must address the environmental impacts of their decisions as stipulated by the National Environmental Policy Act (NEPA), the FAA has traditionally allowed the military to be responsible for its own environmental assessments and has not been involved in substantially reviewing or evaluating the assessments. In passing the

²² USAF, *Environmental Assessment: Major Flying Exercises in Alaska*, February 1993.

²³ Letter from FWS regarding Endangered Species Information for Moody Air Force Base Environmental Assessment, dated December 15, 1992.

²⁴ The Rural Alliance for Military Accountability, an advocacy group based in Carson City, Nevada, is a leading advocate for reforming the procedures governing the designation of military airspace. See especially their 1989 report *The Military Invasion of America's Skies, A Report from Skyguard*.

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responsibility for NEPA compliance to the Department of Defense, the FAA has left a large amount of room for military bias to enter the assessments. In particular, as stated in *Report on the Joint Review of Special Use Airspace*, a document prepared by the Department of Defense and the Department of Transportation, "[a] common concern . . . was that DOD did not adequately consider environmental issues when it sought to establish SUA [special use airspace], and it did not reassess those issues when new operations or equipment were introduced into existing SUA."²⁵ After this report, FAA and DOD signed a Memorandum of Understanding regarding NEPA compliance in connection with designation and modification of SUA. Unfortunately, this document apparently gave FAA no new substantive duties and even went so far as to state that FAA will accept DOD's determination that certain actions relating to the designation of SUA are categorically excluded from environmental review "without regard to whether the proposed action would be subject to a categorical exclusion under FAA regulations."

A second common complaint is that the FAA has not been effectively managing special use airspace to ensure that it is efficiently or appropriately used. According to a 1988 GAO report, *Airspace Use: FAA Needs to Improve Its Management of Special Use Airspace*, the FAA does not have adequate utilization data for special use airspace nor has it established guidelines to help eliminate special use airspace that is inefficiently or inappropriately used. The FAA has taken some steps to address these shortcomings by requiring data on military use of SUA and establishing standards to measure the effectiveness of SUA use. Despite these efforts, there is no sunset provision for SUA designations and, in as many as 25 cases, SUA designations will apparently continue despite the fact the military bases they were originally established in conjunction with are

²⁵ DOD/DOT *Report on the Joint Review of Special Use Airspace*, 1989, p. 13.

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being closed.²⁶ Moreover, because military training routes (MTRs) are not a type of SUA, they are unaffected by FAA's closer examination of SUA designation.

V. FINDINGS AND RECOMMENDATIONS

There is a clear need for Congress to establish a formal and legally binding process for minimizing conflicts between military overflights and national wildlife refuges. Military overflights continue to harass wildlife and undermine conservation efforts on scores of refuges in the National Wildlife Refuge System. Refuge managers spend valuable time and limited resources dealing with local military bases. Despite its role as the federal agency primarily responsible for regulating air traffic over the nation's skies, the FAA has not exercised vigorous oversight on the military's use of airspace over national wildlife refuges. (In fact, civilian aircraft also pose a threat to a number of refuges.) Communications with the military, flight restriction agreements, and enforcement of agreements depend heavily upon the good will of local military commanders, which varies widely from base to base. Although FWS has attempted to enlist the help of the FAA in resolving specific issues identified in a recent FWS report,²⁷ FAA's willingness to press these concerns with the military is questionable. Moreover, conflicts between the military and refuge managers are likely to increase as the military expands its use of airspace in Alaska and elsewhere. Judging from past history, these expansion proposals may not receive careful or effective scrutiny by the FAA.

²⁶ Personal communication with Grace Bukowski, Rural Alliance for Military Accountability, January 1994.

²⁷ On November 10, 1993, FWS Deputy Director Richard Smith wrote to FAA Administrator David Hinson to state that a copy of *Aircraft Overflight Issues on National Wildlife Refuges* would soon be sent to FAA and to request that the agency develop "a resolution schedule for the problems."

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Legislation reported out of the U.S. House of Representatives Committee on Interior and Insular Affairs in 1992 and re-introduced by Congressman Bruce Vento (D-MN) in 1993 would help improve the accountability of agencies of the Department of Defense, particularly with respect to the designation of additional airspace for training purposes. H.R. 2080 would require DOD to solicit and consider the views of the Secretary of Interior or the Secretary of Agriculture before establishing airspace over non-military public lands. The Governors of affected states, affected Indian tribes and other members of the public must also be given the opportunity to comment on the proposed establishment of military flight zones. If the airspace is more than 5000 acres, the legislation would require that Congress be notified. Furthermore, the bill would give the Secretaries of Interior and Agriculture the right to monitor the effects of overflights and actively seek the assistance of the Secretary of Defense and others to resolve any concerns related to overflights.

A more direct and effective means of reducing current conflicts between overflights and national wildlife refuges would be to require DOD agencies to avoid or, at minimum, mitigate the effects of their activities on federal refuges. Congress could give the Department of the Interior lead responsibility for identifying refuge conflicts and, in conjunction with DOD, identifying measures necessary to avoid or mitigate the impact of overflights on refuges. Most important, the Department of Defense should be required to implement those measures. Such a requirement would, for the first time, formally hold DOD accountable and assure that the agency makes a serious and diligent effort to reduce the impact of its activities on some of the nation's most important wildlife habitats. To avoid any potential conflicts between required mitigation measures and a compelling national security consideration, the President could be given broad discretion to grant a case-by-case basis exemption. The exemption would relieve any Defense Department agency from implementing a mitigation measure if the measure was found

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in direct conflict with national security objectives. In view of the military's poor record of adequately resolving overflight concerns, such a regulatory scheme appears to be a vitally needed means of reasonably reconciling two important national priorities: protecting federal wildlife refuges and assuring military preparedness. Moreover, Congress could easily establish such a regulatory mechanism as an amendment to legislation currently pending in Congress to improve the management of the National Wildlife Refuge System.²⁸ If enacted with such an amendment, this legislation would be the first time Congress has addressed the impacts of military overflights on public lands through national legislation.

Pending legislative initiatives give Congress important opportunities to craft an effective solution to the problem of military overflights of national wildlife refuges. Given Congress' heightened interest in affording greater protection to the National Wildlife Refuge System, the necessity of remedying one of the most substantial threats to that system should not be overlooked.

²⁸ In 1993, Senator Bob Graham (D-FL) and Rep. Sam Gibbons (D-FL) introduced S. 823 and H.R. 833, companion bills entitled the National Wildlife Refuge System Management and Policy Act.

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SOURCE: Secondary Uses Occurring on National Wildlife Refuges, U.S. Fish and Wildlife Service, 1990, p. 26.

Table 9

Use	Number of Considered Harmful Times Reported		Number	Percent
	Number	Percent		
Military Air Exercises	80	76	73	
Gas/Oil Extraction	42	30	71	
Airboats	20	13	65	
Off-Road Vehicles	35	18	51	
Water Skiing	37	18	51	
Gas/Oil Exploration	64	29	45	
Mining	29	12	41	
Grazing	183	76	41	
Beach Use/Swimming	90	27	30	
Haying	145	39	27	
Right-of-Way	304	76	25	
Farming	171	36	21	
Commercial Fishing	71	15	21	
Mineral Exploration	5	1	20	
Rental of Facilities (i.e. cabins)	15	3	20	
Boating (Motorized)	184	34	18	
Waterfowl Hunting	202	32	16	
Recreational Fishing	268	34	13	
Camping	181	11	11	
Military Ground Exercises	29	3	10	
Field Trials	35	3	8	
Small Game Hunting	159	11	7	
Boating (Non-motorized)	213	13	6	
Picnicking	150	8	5	
Wildlife Observation	403	15	4	
Wildlife Tour Routes (Motorized)	108	4	4	
Wildlife Trails (Non-motorized)	160	5	3	
Walking/Hiking	328	10	3	
Commercial Trapping	91	3	3	
Photography	382	13	3	
Timber Harvesting	66	2	3	
Upland Game/Bird Hunting	174	5	3	

SOURCE: Continuing Problems With Incompatible Uses Call for Bold Action, U.S. General Accounting Office, 1989, p. 20

Use	Number of refuges where use occurs		Viewed as harmful by refuge managers*	
	Number	Percent	Number	Percent
Mining	26		22	85
Off road vehicles	37		28	76
Airboats	36		25	69
Military air exercises	55		36	65
Water skiing	53		31	58
Large power boats	114		59	52
Fights of way	211		101	48
Beach use/swimming	96		39	41
Small power boats	148		60	41
Grazing	151		55	36
Military ground exercises	29		10	34
Commercial fishing	76		26	34
Hunting dog field trials	56		18	32
Camping	83		22	27
Waterfowl hunting	163		41	25
Haying	132		30	23
Picnicking	192		38	20
Farming	150		26	17
Horseback riding	115		20	17
Logging	79		13	16
Recreational fishing	244		38	16
Nonmotorized boats	193		26	13
Small game hunting	162		18	11

*Specific uses that were viewed as harmful by 10 percent or less of refuge managers are not listed in this table

Interagency Agreement
between
National Park Service,
Fish and Wildlife Service,
Bureau of Land Management,
and Federal Aviation Administration

This interagency agreement is among and between the National Park Service of the Department of the Interior (NPS), the Fish and Wildlife Service of the Department of the Interior (FWS), the Bureau of Land Management of the Department of the Interior (BLM), and the Federal Aviation Administration of the Department of Transportation (FAA).

WHEREAS, it is the purpose of the NPS to administer Federal parks, monuments, and reservations, to conserve the scenery, the natural and historic objects, and the wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations as provided for in the Act of August 25, 1916 (16 U.S.C. Section 1 et seq.)

WHEREAS, it is the purpose of the FWS to operate and maintain certain Federal lands for the betterment of fish and wildlife resources, and for fish and wildlife research and fish culture, as provided for in the National Wildlife Refuge System Administration Act (16 U.S.C. Section 661 et seq.), and the Fish and Wildlife Act of 1956 (16 U.S.C. Section 742a et seq.).

WHEREAS, it is the purpose of the BLM to administer designated wilderness areas for the permanent good of the whole people, and for other purposes, as part of the National Wilderness Preservation System, as provided for in the Wilderness Act of September 3, 1964 (16 U.S.C. Section 1121, 1131-1136), and the Federal Land Policy and Management Act of 1976 (43 U.S.C. Section 1701).

WHEREAS, it is the function of the FAA to manage the safe and efficient use of the navigable airspace of the United States, as provided for in the Federal Aviation Act of 1958 (49 U.S.C. app. Section 1301 et seq.)

WHEREAS, the NPS, FWS, and BLM manage lands for the purposes of wilderness preservation, protecting natural, cultural, and wildlife resources, and for promotion of the public enjoyment and use of these resources.

WHEREAS, the FAA, recognizing the values for which NPS, FWS and BLM lands are managed, has established 2,000 feet above ground level (AGL) as the requested minimum altitude for aircraft flying in airspace over lands administered by the NPS, FWS and BLM.

WHEREAS, the auditory and visual intrusion of aircraft flying at low altitudes is the source of public complaint in certain areas administered by the NPS, FWS, and BLM.

WHEREAS, aircraft flying at low altitudes may pose a potential hazard to wildlife in certain areas administered by the NPS, FWS, and BLM.

WHEREAS, aircraft flying at low altitudes over large concentrations of migratory birds may pose a potential safety hazard to pilots and passengers in certain areas administered by the NPS, FWS, and BLM.

WHEREAS, the FAA, NPS, FWS, AND BLM, while recognizing the public freedom of transit of the navigable airspace, desire to act in cooperation to reduce the incidence of low-flying aircraft, including fixed-wing aircraft, helicopters, ultralight vehicles, balloons, and gliders over NPS, FWS, and BLM administered land by seeking voluntary cooperation with the 2,000 feet AGL minimum altitude advisory.

NOW THEREFORE:

- I. The NPS, FWS, and BLM agree:
 - A. To identify specific field units where low-flying aircraft may constitute an adverse impact on resources and to convey specific information to the FAA for appropriate action as described in this agreement.
 - B. To develop and implement a standardized reporting system acceptable to the FAA to document instances of low-flying aircraft over NPS, FWS, or BLM administered lands. This reporting system will provide for transmittal of such documentation in a timely manner to the appropriate FAA Flight Standards District Office.
 - C. To develop training programs and instructional materials for NPS, FWS, and BLM field personnel to enable them to recognize and report instances of low-flying aircraft in a competent and professional manner. The appropriate training programs of the NPS, FWS, and BLM will expand to incorporate this subject matter into in-service training requirements. All agencies will seek the assistance of FAA to help develop training curriculums.

- D. To make personnel available from the respective agencies to meet with the FAA and affected pilots to discuss resources management objectives and issues associated with low-flying aircraft quarterly.

II. The FAA agrees:

- A. To communicate to pilots the concerns and objectives of the NPS, FWS, and BLM about low-flying aircraft in specified areas, using advisories, bulletins, the FAA publication FAA Aviation News, the ongoing "Accident Prevention Program" for routine pilots contact, and other means of communication with pilots. To impress upon pilots that pilot participation is strongly encouraged to ensure protection of resources and the enjoyment of natural areas by the public.
- B. To investigate instances of pilot deviations from the FAA-requested minimum altitude over areas administered by the NPS, FWS, and BLM and take action to discourage deviations with the objective of reducing or eliminating such incidents in these areas.
- C. To assist the NPS, FWS, and BLM in communicating with the various agencies of the Department of Defense with regard to military aircraft operations over NPS, FWS, and BLM administered areas.
- D. To make available to the NPS, FWS, and BLM, at the FAA Flight Standard District Offices, the status and results of the FAA's investigation of instances reported by the NPS, FWS, and BLM.
- E. To enlist the support of all aviation groups and organizations by requesting they disseminate information about problems associated with aircraft operating at low altitudes over areas administered by the NPS, FWS, and BLM.
- F. To assist NPS, FWS, and BLM personnel in combating problems associated with low-flying aircraft by participating in appropriate meetings at field and regional levels.

III. The FAA, NPS, FWS, and BLM agree jointly:

- A. To assess severe situations where impacts of aircraft operations upon human, cultural, or natural resources are sufficiently serious to

warrant consideration of site-specific action by the FAA to minimize or eliminate the causes of such problems.

- B. To prepare public informational materials, including printed matter and audio visual programs, for communication to pilots using existing FAA pilot-contact meetings and programs, aviation periodicals, and other means of generating pilot understanding of NPS, FWS, and BLM resource management objectives. Where appropriate, the FAA, NPS, FWS, and BLM will share information on techniques of conducting scientific studies and data collection to facilitate understanding of the impact of aircraft operations on affected resources.
 - C. All the parties will work to define procedures for use at National Headquarters and field office levels to address overflight issues over public lands area.
- IV. For the purposes of facilitating communications in implementing this agreement, each party has identified the following key contact officials:

FAA
 Harold W. Becker
 Manager, Airspace-Rules and
 Aeronautical Information Division, ATP-200
 (202) 267-3731

NPS
 Wesley Henry
 Visitor Services Division
 Branch of Ranger Activities
 (202) 208-4874

FWS
 David L. Olsen
 Assistant Director
 Refuges and Wildlife
 (202) 208-5333

BLM
 Keith Corrigan
 Wilderness Branch
 (202) 208-6064

- V. If any of the parties determines that it is necessary to modify this MOU, the other parties shall be notified in writing of the specific change(s) desired, with proposed language and the reason(s) therefore. The proposed changes shall become effective upon agreement of all parties.
- VI. This MOU shall become effective on the last signature date below and shall remain in effect until December 31, 1999, or unless otherwise rescinded by all signatory parties.
- VII. Any party to this agreement may terminate involvement in the agreement by providing 60 days written notice to the other parties.

Jim Denour
Director, National Park Service

12/21/92
Date

John F. Turner
Director, Fish and Wildlife Service

NOV 18 1992
Date

Ken Cook
Director, Bureau of Land Management

12/10/92
Date

James C. Bernardi
Administrator, Federal Aviation Administration

1/15/93
Date

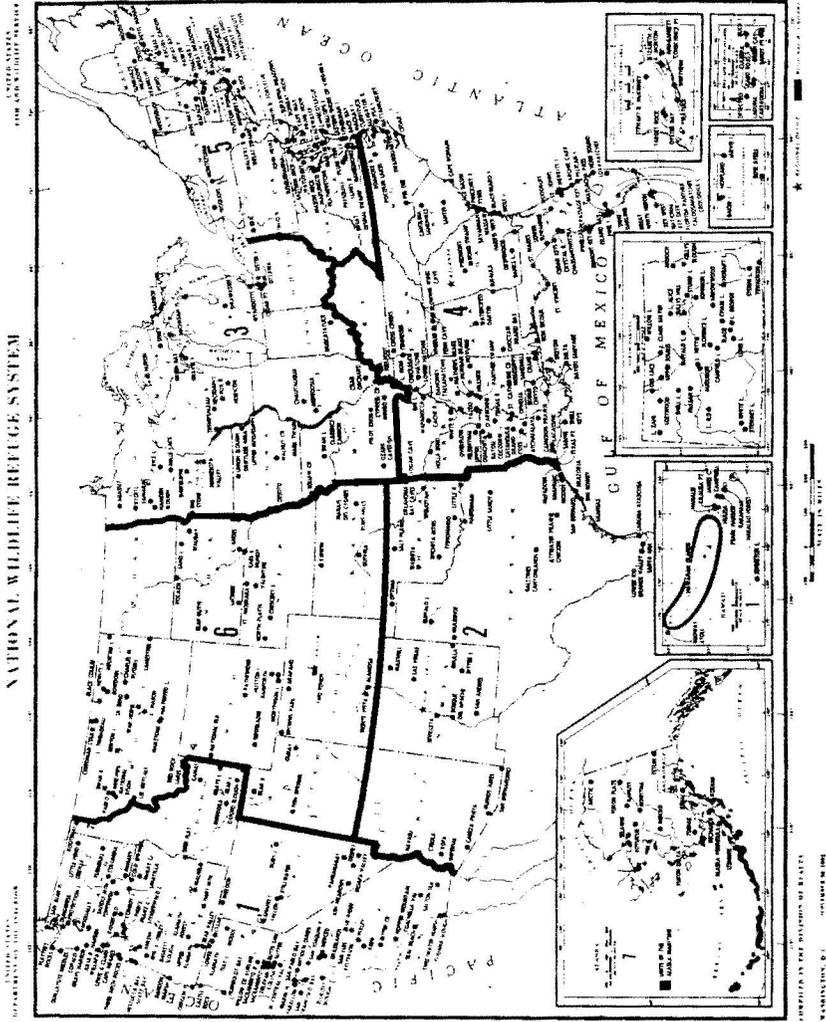
Acting Deputy

APPENDIX III: ATTEMPTS TO LOCALLY RESOLVE MILITARY OVERFLIGHT PROBLEMS ON NATIONAL WILDLIFE REFUGES
(Source: *Aircraft Overflight Issues on National Wildlife Refuges*.)

REFUGE	IMPACTS	RESOLUTION	EFFORTS		FWS		SUGGESTED	RESOLUTIONS
		Has refuge been able to open dialogue with the military?	Has refuge reached a formal agreement with military?	Should military move current MOA or MTR?	Should there be stricter altitude restrictions?			
C.M. Russell (MT)	FWS pilot safety	n/a (military not contacted)			yes, or —>	raise floor of MOA to 1000'	need single military contact to report violations to	Other FWS suggestions
Wichita Mts. (OK)	waterfowl harassed	yes			yes		need better pilot education; more wildlife research	
Cibola, Imperial (AZ/CA)	waterfowl disturbed, FWS pilot safety	yes				2000' restriction		
Harris Neck, Blackbeard Is., Wassaw (GA)	wood storks, colonial nesting birds and wintering waterfowl disturbed	no			yes, or —>	mandatory 2000' restriction		
Buenos Aires (AZ)	military-caused wildfires threaten endangered species	no			yes	5000' restriction	eliminate use of flares; need single military contact to report violations to	
Sequoyah (OK)	geese and bald eagles disturbed	yes	refuge designated no fly zone				need better pilot education	
Sacramento (CA)	geese disturbed	yes					need better pilot education	
Farallon (CA)	seabirds and marine mammals disturbed	yes				2000' restriction is adequate, but currently cannot be enforced	need better pilot education	

REFUGEE	IMPACTS	RESOLUTION		EFFORTS	FWS		SUGGESTED	RESOLUTIONS
		Has refuge been able to open dialogue with the military?	Has refuge reached a formal agreement with military?		Should military move current MOA or MTR?	Should there be stricter altitude restrictions?		
Toiyak (AK)	scabirds and marine mammals disturbed	yes	seasonal 2000' restriction in place along one area					Other FWS suggestions need better pilot education; designate more seasonally restricted areas
Forsythe (NJ)	migratory shorebirds disturbed	no			yes, or --->		5000' restriction	need single military contact to report violations to; military should consult FWS under Sec. 7 of ESA
Ash Meadows (NV)	waterfowl disturbed	no			yes, or --->		2000' restriction	
Havasu (AZ/CA)	migratory birds disturbed	n/a					2000' restriction	
San Andres (NM)	may impact desert highhorn sheep	yes	current MOU does not mention overflights				want MOU to include 5000' restriction	
Sevilleta (NM)	may impact highhorn sheep	n/a					current FAA recommendation of 2000' is acceptable	
Cross Creeks (TN)	migrating waterfowl and bald eagles disturbed	yes	Air Nat'l Guard has 2500' restriction; Army has no fly zone					need better enforcement of existing restrictions; need Cabinet level resolution
Seal Is., Petit Manan, Cross Is. (ME)	may impact colonial nesting birds	n/a						need to notify military of sensitive nesting season

REFUGE	IMPACTS	RESOLUTION		EFFORTS		FWS		SUGGESTED	RESOLUTIONS
		Has refuge been able to open dialogue with the military?	Has refuge reached a formal agreement with military?	Should military move current MOA or MTR?	Should there be stricter altitude restrictions?				
Bitter Lake (NM)	Geese, ducks, cranes, least terns disturbed	yes	FWS review of EAs for major military activities have led to some restrictions; daily routine flights are still a problem					Other FWS suggestions	step up efforts to meet with military; need more research on overflights
Kola (AZ)	may impact desert bighorn sheep	yes	there is currently a 1500' MOA over the refuge						need better pilot education and better enforcement
Lower Swamnee, Cedar Keys (FL)	may impact migratory birds and bald eagles	unknown (regional office has expressed concern for endangered species in their review of a recent military E/A)							keep low level flights to minimum and avoid eagle nests
Hart Mt. (OR)	may impact bighorn sheep and raptors	yes							increase monitoring of pilot violations
Kenai (AK)	may impact wildlife	n/a					possibly		must increase compliance of 2000' restriction
Cabeza Prieta (AZ)	may impact wildlife	yes	MOU allows flights of 1500'				MOU should be raised to 2000'		military must seriously investigate pilot violations
Desert (AZ)	may impact desert bighorn sheep	no	MOU gives military use of 52% of refuge			withdraw "Alamo" flight corridor	impose strict 2000' limit on lands outside those in MOU		



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Karen Werbelow
Executive Director

Statement by

FOUNDATION FOR NORTH AMERICAN WILD SHEEP

regarding

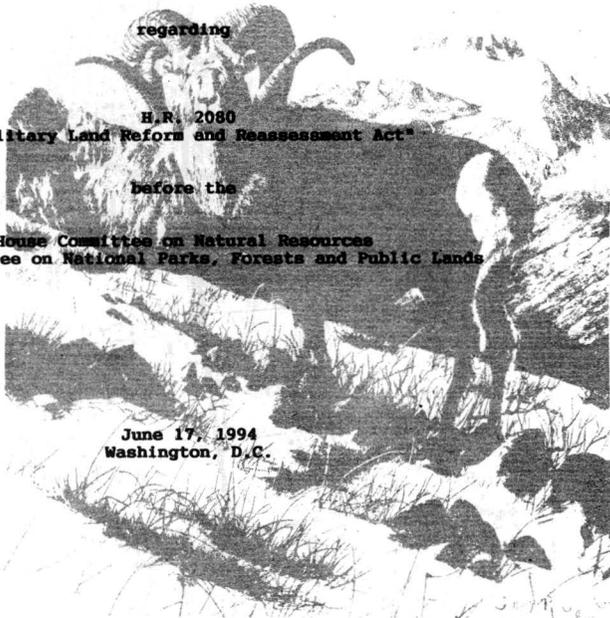
H.R. 2080

"Military Land Reform and Reassessment Act"

before the

House Committee on Natural Resources
Subcommittee on National Parks, Forests and Public Lands

June 17, 1994
Washington, D.C.



Mr. Chairman, it is a pleasure to address the Subcommittee on National Parks, Forests and Public Lands concerning H.R. 2080, the "Military Land Reform and Reassessment Act." My name is Bob DiGrazia and I am a member of the Foundation for North American Wild Sheep. I am speaking before the Subcommittee today on behalf of this organization concerning its membership with the Owyhee Canyon Lands Coalition. This coalition is the most diverse coalition of public interest groups ever assembled in the State of Idaho for a public lands issue. Included in this coalition are hunting groups, conservationists, peace activists, Native Americans, outfitters and guides, and ranchers. These groups came together to protect a high desert ecosystem that exists as it did 200 years ago. These groups are facing a proposed Air Force electronic combat and bombing range which would forever destroy this pristine place in southwestern Idaho.

The Foundation for North American Wild Sheep supports H.R. 2080, the "Military Land Reform and Reassessment Act." We believe that this legislation will protect this nation's public lands from impacts of military activities.

Across this great nation, our military, including the National Guard, has been transferring and obtaining public land under the jurisdictions of the U.S. Forest Service and the Bureau of Land Management (BLM). Such has been done quietly and secretively, avoiding compliance to the Engle Act. These transfers have been executed without furnishing for public assessment the need for such transfers. Also unavailable to the American public is evidence depicting the value, or lack thereof, with existing training capabilities. It has been carte blanche raid of public lands.

Mr. Chairman, we are informing you publicly of the situation in Southwestern Idaho involving the Owyhee Canyon Lands and the proposed bombing range. We firmly believe that the Governor of Idaho and the Air Force are deliberately trying to avoid the Engle Act to obtain 25,000 acres of BLM land in this area. In an elaborate ruse this acreage would be exchanged between the State of Idaho and BLM to avoid compliance with this Act. The Idaho National Guard would have jurisdiction over the bombing range, but it would be leased to the U.S. Air Force for training exercises by the Composite Wing stationed at Mountain Home Air Force Base, Idaho. We firmly believe, and the Governor of Idaho has stated, that this range is being created to protect MHAFFB from scrutiny of the upcoming Base Closure and Realignment Commission. The need is not military in nature, but pure Idaho economics and politics. We firmly believe that H.R. 2080 will prevent future Department of Defense activities, as this, to be initiated without a national assessment of need. Congressman Vento through records of the Army Corp of engineers millions of dollars have been appropriated in this process alone for protocol, document preparation, and hearings. This is a waste of taxpayers funds.

The Foundation for North American Wild Sheep has been instrumental in establishing with the Idaho Department of Fish and Game, the

largest free roaming herd of bighorn sheep in the continental United States in the Owyhee Canyon Lands. In 1963 there were no California Bighorns left in this area. The last documented sighting was in 1939. In 1963 through the generosity of the British Columbia Government, approximately 20 sheep were trapped and relocated to this area. Today there are nearly 3000 sheep in the Owyhee Canyon Lands. These sheep are now transplantable stock to nine western states. They provide hunting opportunities to 36 hunters both resident and non-resident of Idaho. Further, they are providing watchable wildlife opportunities to thousands of non-hunters.

Concerning this specific military action, we sought the opinion of Dr. Vaerius Geist. Dr. Geist is the most accepted authority on wild sheep behavior in the world. Dr. Geist stated this range, if established, would have short, intermediate and long term detrimental effects to this specific herd. Interestingly though, the authors of the Draft Environmental Impact Statements failed to recognize Dr. Geist's literature.

In other areas of military activity where resource management involving sheep is critical, we have had tremendous difficulty. The China Lakes Naval Air Station in California has restricted the use of radio telemetry collars for sheep management. They asserted that jets have targeted these sheep rather than the electronic emitter sites. In Nevada, Air Force jets destroyed a water catchment for Desert Bighorns. In Nevada, Arizona, New Mexico and California, access by natural resource personnel is restricted or even denied because of the lack of security clearances. These concerns and incidences were recently confirmed by the United States General Accounting Office. GAO/NSAID 94-87.

H.R. 2080 will provide Congressional oversight to military withdrawal. It will force the military to provide a national assessment of need. It will provide protection to the nation's public lands and biological resources from the impacts of military activity. It will provide assurances to diverse interests like those associated with the Owyhee Canyon Lands Coalition and it will ensure that our democratic process conserves these resources. Thank you for the opportunity to address the Subcommittee this morning. The Foundation for North American Wild Sheep urges you to pass H.R. 2080, the "Military Land Reform and Reassessment Act."



Snake River Alliance

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June 22, 1994



Subcommittee on National Parks and Public Lands
Room 812
O'Neill Building
Washington, DC 20515



Re: Written Comment on H.R. 2080 - Military Land Reform and Reassessment Act of 1993.

The following comments are being submitted for the hearing record on behalf of the members of the Snake River Alliance, an Idaho-based citizens organization. The Snake River Alliance works for peace and justice, the end of nuclear weapons production, and responsible solutions to nuclear waste and contamination.

As part of our commitment to peace, we are very concerned with the military plans for expansion in this time of military down-sizing. Our primary concern in this regard is the current proposal by the Air Force to construct a two-part bombing range in southwestern Idaho, which would essentially open 3.2 million acres of public land to military use.

Although the proposal calls for 25,000 acres of actual bomb impact zone, the remaining several million acres would be subjected to flares, chaff, and low-level and supersonic flights on a continual basis. The proposed area includes "swapping" 21,000 acres of federal BLM land for state lands in order to secure the numbers of acres the Air Force says it needs. Congress mandated that the Air Force do military needs assessments on special use airspace several years ago, but to date none have been produced. In addition, according to the Engle Act, Congress must approve any military withdrawal of public lands over 5,000 acres. We question why the Engle Act does not apply in this case.

The area under proposal for this new bombing range (which the Air Force has said it does not need) includes significant Native American archeological sites, numerous endangered and rare species (including bald eagles, peregrine falcons, California bighorn sheep, and prong-horn antelope), wetlands, up to 15 Wilderness Study Areas, several candidate wild and scenic rivers, the largest un-roaded area in the lower 48 states, access to some of this country's most dynamic and challenging white water rafting, and undoubtedly a national treasure of unparalleled beauty. It would be a tragedy to destroy all this for an unnecessary bombing range.

We fully support H.R. 2080, requiring an inventory of all public lands withdrawn for military purposes and assessments of future needs for withdrawals of public lands for military purposes. The decisions on how much and which Federal lands and national airspace should be placed under control of military agencies should be standardized.

Submitted by:

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June 24, 1994

Subcommittee on National Parks & Public Lands

Rm 812

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Please include the enclosed editorial from
the Twin Falls Times-News of Twin Falls, Idaho
in the hearing record for the recent hearing
on HR 2080, the Military Land Reform and
Reassessment Act of 1993.

Thank you.

Sincerely,
Brian Goller

Editorial

Let Air Force explain range need to Congress

Word from Washington is that the proposed Idaho bombing range – a boondoggle of Jurassic proportions – has fallen into a bureaucratic tar pit. Good place for it.

An Interior Department official said last week that Interior and the Air Force can't agree on whether to proceed with the 150,000-acre Owyhee County range. So the whole process is stymied.

For the moment, the Air Force can't ride roughshod over the wildlife managers, recreationists and Duck Valley Indians who cherish the site's nonmilitary value.

Meanwhile, some in Congress are talking about putting decisions of this kind under congressional review. Good idea.

The Pentagon already uses nearly 22 million acres of publicly owned forests and deserts. It is looking at adding another 4.7 million – even though the nation is at peace, the Soviet Union has collapsed and the United States is the world's undisputed top dog.

The military's ambition for acquisition doesn't make sense to some congressmen, including Minnesota Democrat Bruce Vento, chairman of the House subcommittee on national

parcs, forests and public lands. Vento wants Congress to have the last word on big land transfers such as the Idaho proposal.

Vento is right. Maybe our shrinking military really does need more training space, as the Pentagon asserts. But if it does, that need is a significant issue of national defense policy. It deserves Congress' attention.

So far, the public has not seen persuasive evidence of the Air Force's need for the Idaho site. Instead we've had shifting explanations and vague threats about the future of Mountain Home Air Force Base – along with a nagging feeling that the Pentagon is strong-arming us to further some unexplained objective.

Congressional oversight would force an honest, public review. Congress, and only Congress, has the power to demand straight answers.

And don't say Congress would make the process too political. It's already as political as it can get, pitting Mountain Home's economic fears against the environmental concerns of other Idahoans.

We like Vento's idea. Absent of the kind of review he proposes, the range proposal is welcome to languish in the tar.

The Times-News

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