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90TH CONGRESS
2d Session

HOUSE OF REPRESENTATIVES

GOVERNMENT
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PROCUREMENT OF AIRCRAFT ROCKET LAUNCHERS

REPORT

PREPARED BY THE

MILITARY OPERATIONS SUBCOMMITTEE

OF THE

COMMITTEE ON GOVERNMENT OPERATIONS

LC cd 74-600064



NOVEMBER 1968

Printed for the use of the Committee on Government Operations

U.S. GOVERNMENT PRINTING OFFICE

21-396 WASHINGTON : 1968

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PROCUREMENT OF AIRCRAFT ROCKET LAUNCHERS

I. INTRODUCTION

This report represents a case study in sole-source procurement of an important military item. The situation for the Government is made more awkward and painful by the fact that the sole-source producer has been indicted for fraud. The criminal charges will be decided by the courts. The procurement decisions are of proper concern to the committee.

In the past 7 years, of 31 basic contracts for 2.75-inch rocket launchers, worth about $97 million, 26 contracts accounting for 96 percent of the total dollar volume were channeled to this one company on seemingly routine justifications that there was no time to attract competitors or develop alternative production sources. Only now, as fraud charges hang over the heads of company principals, and the Government still must rely on the company for major production, does the search for alternative sources seem more compelling to the Government procurement officials concerned.

Why and how did the Government get so heavily locked in? What should have been done to broaden the procurement base? What lessons are there for Government procurement as a whole? These are some of the questions the Military Operations Subcommittee pursued in its inquiry.

The procurement in question deals with launchers for the 2.75-inch folding-fin aircraft rocket (FFAR), an ordnance item heavily used in Vietnam and required by all the military services for combat readiness in conventional warfare. The launcher is the dispensing mechanism. The rocket is fired from fighter aircraft or helicopters against ground targets, although the weapon also is usable in air defense against enemy aircraft.

There are two basic launcher types—7-round and 19-round. For high-speed Air Force, Navy, and Marine Corps aircraft, expendable launchers made of plasticized paper tubes are used. The Army, firing rockets from slower moving helicopters, prefers a reusable launcher made of aluminum. The Marine Corps has a similar need for its armed helicopters. Reusable metal launchers also are used by all services for training purposes. The mission needs and technical features of the various launcher designs are described more fully in section V.

Procurement organizations of two services are involved: the Naval Air Systems Command and the Army Materiel Command. The Navy buys 2.75-inch rocket launchers for itself, the Marine Corps, and the Air Force. The Army buys its own. On the day the subcommittee commenced its hearings, the Department of Defense approved a change in procurement responsibilities. The Army will become the single procurement agency for all 2.75-inch rocket launchers. The Army already is the single procurement agency for the rockets as distinguished from the launchers. The committee will follow closely the new management setup and will direct its findings and recommendations to the particular attention of the Army agency.

EARLIER DEVELOPMENTS

The 2.75-inch rocket launcher was developed during the early 1950's under Navy auspices. Various small contracts were awarded to engineering companies to investigate promising designs and materials. In 1953, after a pilot-run production, the Navy negotiated contracts with three companies for production of a 7-round launcher known as the Aero 6A. The Air Force modified this design for its own requirements under the designation MA–1, but then procured substantial production quantities of an improved design, the MA–3. Both the Navy and the Air Force also became interested in 19-round launchers and contracted separately for production quantities.

The earlier development and production programs were attended by many difficulties and came under intensive scrutiny by the Military Operations Subcommittee. Hearings were held in 1956, 1957, and 1958, and reports to the Congress were submitted in 1958 and 1960.[1] As part of the background information it is useful to recall that in 1957 a successful bidder on an Air Force procurement of 19-round expendable rocket launchers was Chromcraft Corp., of St. Louis, Mo., a maker of chrome furniture. The launcher under Air Force procurement was designated the LAU–3/A; at the time it signaled a shift of interest from the 7-round to the 19-round launcher with increased firepower.

Chromcraft had troubles with its first contract. The preproduction samples were rejected by the Air Force as unacceptable. New samples were offered incorporating design and material changes, and, after procuring 50 of these, the Air Force cut back the main production contract with Chromcraft from 34,000 to 20,767 launchers. The unit price, as a result of the changes and the lesser quantity under procurement, was increased by one-third. The termination costs to the Government resulting from the cancellation of 13,233 launchers were reported as $133,045. The total costs of the Chromcraft contract, with deliveries completed in 1959, amounted to $3,226,274.[2]

As the decade of the 1950's closed, the Navy and Air Force both decided that they had a sufficient supply of rockets and launchers for

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[1] The hearings by the Military Operations Subcommittee, captioned "Air Force and Navy Rocket Launcher Procurement," were held in the 84th and 85th Congresses on the following dates: May 2, 1956; Feb. 8, 11, 12, Mar. 26, 27, 28, 29, and Apr. 1, 1957; July 14 and 15, 1958.

The following reports were issued: "Rocket Launcher Procurement," H. Rept. 2660, 85th Cong., second sess., Aug. 18, 1958; "Selected Aspects of Military Procurement (Executive Action in Response to Committee Recommendations in H. Rept. No. 2660)," H. Rept. 1627 86th Congress, second sess., May 18, 1960.

[2] Information in subcommittee files.

the foreseeable future and would not seek further production.[3] There was, in fact, a surplus of 3 million rockets, overbalancing the launcher inventories. Quantities of rockets were scrapped, absorbed in military assistance to other countries, or redistributed to the Army, which became a major user of this ordnance item with the development of new mobility concepts and the armed helicopter.[4]

In the early 1960's, the Military Operations Subcommittee was aware of a resurgence of interest in military procurement of 2.75-inch rocket launchers, prompted first by the Berlin crisis and then by the increasing involvement in Vietnam and the need to upgrade conventional warfare capabilities. Chromcraft Corp., despite its earlier production difficulties, was invited back into the rocket launcher business. It performed readily and well, in the judgment of military procurement authorities, and it became practically the sole-source producer of 2.75-inch rocket launchers for the Army, Air Force, Navy, and Marine Corps.

On January 4, 1965, according to information in Government audit reports, the company sold its trademark "Chromcraft" to Mohasco Industries and thereafter took the name Techfab. Then on May 31, 1966, Techfab merged with Alsco, Inc., of Akron, Ohio, Andrew L. Stone, the president of Chromcraft, then of Techfab, became president of Alsco. Hereafter we will use the designation "Chromcraft/Alsco" in referring to Chromcraft and its successor organizations.

Rocket launchers are the principal products of the Techfab Division of Chromcraft/Alsco. Various furniture items also are produced. The Defense Contract Audit Agency (DCAA) reported that for the year ended May 31, 1967, Government business represented approximately 91 percent of the division's total sales.

SUSPENSION OF COMPANY

Sometime after the Chromcraft/Alsco merger, the Navy received information which pointed to possible irregularities in Chromcraft/Alsco dealings with subcontractors. Investigations ensued, and by April 1967, the Navy concluded that the evidence of irregularities was sufficient to warrant suspension if not debarment. Chromcraft/Alsco, its president Mr. Stone, and its affiliates and divisions, were suspended from Department of Defense bidding on April 4, 1967. Suspension was to be in effect until the Government investigation and any consequent legal proceedings were completed. However, the military procurement agencies, believing they had no immediate alternative, continued to do business with Chromcraft/Alsco.

A year later, on April 1, 1968, a special Federal grand jury was convened in Washington, D.C., to consider the Government's find-

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[3] We reported in May 1960: "No further procurement is programed by the Navy or the Air Force of 7-round and 19-round launchers for 2.75-inch rockets. Existing inventories of rockets and launchers are considered adequate to meet all known requirements." (H. Rept. 1627, 86th Cong., second sess., May 18, 1960, p. 7).

[4] In its 1960 report the committee suggested that the Department of Defense consider transfer of excess rockets to NATO and other allies under the military assistance program and to the Army for experimental applications as suppressive firepower on fixed-wing aircraft. At that time the Army saw a combat value in mounting 2.75-inch rockets on fixed-wing aircraft but not on helicopters. Later, when the concept changed, the Department of Defense transferred substantial quantities of 2.75-inch rockets to the Army for helicopter use. Secretary Robert S. McNamara claimed a savings of $41 million over cost of new procurement in this redistribution. See "Department of Defense Cost Reduction Program—First Annual Progress Report," memorandum for the President from the Secretary of Defense, July 8, 1963, p. 3.

ings. Early in May the fact that the Department of Justice had presented a fraud case to a Federal grand jury was reported in the newspapers. Chromcraft/Alsco producer of the 2.75-inch rocket launcher, was mentioned.[5]

At this point the Military Operations Subcommittee decided that hearings were in order to assess the Government situation in procurement of 2.75-inch rocket launchers. In particular, the subcommittee wanted to assure itself and the Congress that the supply of this important ordnance component to our forces in Vietnam would not be impaired. Also, it seemed fitting to update our earlier hearings, review organizational and management changes, and determine what further improvements were needed.

SUBCOMMITTEE HEARINGS

The hearings, held on June 20 and 21, 1968, were in executive session, as Subcommittee Chairman Holifield explained, for two reasons: (1) To permit Department of Defense witnesses to present classified security information on requirements, inventories, and other data relating to military use and need for the equipment, and (2) to avoid prejudice to the issues in the criminal case that the Department of Justice had presented to the grand jury. Subsequently, the record was cleared for publication[6] by deletion of classified information, and Department of Justice as well as Department of Defense representatives were consulted prior to publication of the hearings.

Witnesses from the Army, Navy, and Air Force gave sworn testimony. General Accounting Office staff members, at the subcommittee's request, also testified on the nature and extent of their audit activities at Chromcraft/Alsco and assisted the subcommittee staff in checking certain information. A list of the witnesses appears as section VII of this report.

After the hearings, on August 7, 1968, the Federal grand jury returned an indictment, charging the president of Chromcraft/Alsco and others with conspiracy to commit fraud against the Government. Falsifying cost data in connection with contract pricing and renegotiation, creating a dummy corporation to divert funds, and taking illegal kickbacks from a major subcontractor, were among the offenses charged. The committee report does not deal with any of these allegations, which will be duly heard in court.[7] Our report is concerned with the procurement matters developed in the hearings and in related staff inquiries.

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[5] See, for example, the Washington Post, May 7, 1968.

[6] See "Military Procurement of Airborne Rocket Launchers," hearings before a subcommittee of the Committee on Government Operations, U.S. House of Representatives, 90th Cong., second sess., June 20–21, 1968 (hereafter cited as "Hearings").

[7] The charges were made to the U.S. District Court for the District of Columbia. For newspaper accounts, see New York Times, Aug. 8, 1968, pp. 1–2; Washington Post, Aug. 8, 1968, p. A14. The text of the indictment is printed in Hearings, app. 5, p. 152.

II. SUMMARY OF PROCUREMENT ACTIONS

The subcommittee requested a summary of contract awards for 2.75-inch rocket launchers since 1960 to update information developed in prior hearings.

NAVY CONTRACT AWARDS

The Navy made 19 contract awards since 1960 for 2.75-inch rocket launchers (including fairings) and procured additional quantities by major modifications to several basic contracts. The 19 contracts, including amounts added by modification, are listed in table 1 below. Three of the awards, in each case for 7-round launchers, were made to Radiant Manufacturing Co., Morton Grove, Ill., one of the three companies that produced launchers for the Navy in 1953. The other 16 awards, for various models of 7- and 19-round launchers and components, representing 96 percent of the total value, went to Chromcraft/Alsco. Note that the awards for 1967–68, amounting to $39,809,687, or almost half of the dollar total of contracts awarded to Chromcraft/Alsco, were made after the company was on the suspended bidders list.

TABLE 1.—NAVY CONTRACTS FOR 2.75-INCH ROCKET LAUNCHERS, 1960–68

Contract No.[1]	Date	Type of equipment[2 3]	Amount	Contractor
1. 62–0520	Dec. 20, 1961	Aero 6A, LAU–32/A	$2,001,848	Radiant.
2. 62–0638	Feb. 5, 1962	3A/A	2,480,450	Chromcraft.
3. 64–0035	July 12, 1963	3/A	598,843	Do.
4. 64–0154	Oct. 25, 1963	3/A	1,755,289	Do.
5. 64–0190	Dec. 9, 1963	32A/A	505,392	Do.
6. 64–0233	Jan. 28, 1964	32/A	755,063	Radiant.
7. 64–0313	Feb. 14, 1964	32A/A, 3A/A	1,904,125	Chromcraft.
8. 64–0692	Feb. 29, 1964	32/A	708,000	Radiant.
9. 64–0609	June 3, 1964	32A/A, 3A/A	2,819,497	Chromcraft.
10. 64–0689	June 25, 1964	32A/A, 32B/A	1,684,514	Do.
11. 65–0121	Sept. 1, 1964	3/A	3,429,913	Do.
12. 65–0547	May 3, 1965	56/A, 3A/A, 3/A, 32B/A	12,018,225	Do.
13. 65–0472	May 11, 1965	Fairings only	197.828	Do.
14. 66–0082	Aug. 10, 1965	32A/A, 3/A, 32B/A	5,191,710	Do.
15. 66–0307	Jan. 4, 1966	3/A, 32B/A	1,150,503	Do.
16. 66–0435	Apr. 5, 1966	3A/A	4,797,000	Do.
17. 67–0120	Oct. 5, 1966	56/A, 60/A, 3/A, 59/A	8,588,323	Do.
18. 67–0621	June 16, 1967	32A/A, 60/A, 3/A, 59/A, 68/A, 69/A, 61/A	[4] 25,890,599	Do.
19. 68–0562	July 22, 1968	69/A, 68/A, 61/A, 59/A, 60/A, 3/A	[4] 13,919,088	Do.
Total			90,416,210	

[1] Contracts 1 to 16 are NOw series, 17 to 19 are in N00019– series.
[2] Launchers are designated LAU unless otherwise indicated.
[3] 6A, 32A/A, and 56/A are 7-round disposable launchers; 3/A, 3A/A, 60/A and 69/A are 19-round disposable; 32B/A, 68/A, and 59/A are 7-round reusable; 61/A is a 19-round reusable.
[4] Price indicated is ceiling authorized in letter contract plus later modifications.

ARMY CONTRACT AWARDS

Army contract awards, starting at a later date, also went largely to Chromcraft/Alsco, as shown in table 2. Of 12 contracts (including add-ons and modifications) all but two, accounting for 94 percent of

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the dollar value, went to Chromcraft/Alsco. The two exceptions came after the company was placed on the suspended bidders list, but the Army as well as the Navy found it necessary to place contracts with Chromcraft/Alsco after the suspension. In fact, 67 percent of Chromcraft/Alsco's total Army business came after the company was suspended.

TABLE 2.—ARMY CONTRACTS FOR 2.75-INCH ROCKET LAUNCHERS, 1960–68

Contract No.[1]	Date	Type of equipment [2]	Amount	Contractor
1. 12839	June 29, 1965	XM–157, 159	$801,535	Chromcraft.
2. 13791(f)	Nov. 12, 1965	M–158	629,069	Do.
3. 14127(f)	Jan. 17, 1966	XM–157	291,224	Do.
4. 67–C–0607	Oct. 20, 1966	XM–159	251,500	Do.
5. 68–C–0096	Aug. 2, 1967	XM–157	168,932	Do.
6. 68–C–0118	Aug. 9, 1967	XM–159	491,012	Do.
7. 68–C–0861	Nov. 20, 1967	M–158	187,440	Brown Engineering.
8. 68–C–1038	Dec. 22, 1967	M–158	168,146	A.C. Electronics.
9. 68–C–1057	Dec. 27, 1967	XM–157	271,773	Chromcraft.
10. 68–C–1029	Dec. 29, 1967	XM–159	1,158,429	Do.
11. 68–C–2131	June 26, 1968	XM–157/B	329,000	Do.
12. 68–C–2130	June 28, 1968	XM–159/C	1,592,757	Do.
Total			6,340,817	

[1] Contracts 1 to 3 are in series DA–01–021–AMC; all others are in DAAH01 series.
[2] XM–157, XM–157/B, and M–158 are reusable 7-round launchers; XM–159 and XM–159/C are reusable 19-round launchers.

Not a single one of the Navy or Army procurements was advertised. Procurement law and policy call for advertised bidding whenever practicable. Decisions to negotiate instead of to formally advertise must be made in writing, with citations to the permissive statutory exceptions.[8] In the years 1961–68 Navy officials made some 22 determinations (on contracts and contract modifications) that advertising was not practicable. In 18 of these, the finding was that "public exigency" would not permit the delay. The Army similarly cited public exigency for negotiating every one of its contracts.

GESTURES TOWARD COMPETITION

Sole-source contracting characterized the procurement actions of both services. Even when, in a few cases, the Navy or the Army made an award to a contractor other than Chromcraft/Alsco, the selection again was usually on a sole-source basis. Some gestures were made toward competition, but these were occasioned more by circumstance than choice. A recital of the circumstances will make this clear.

(1) In May 1965 the Navy awarded to Chromcraft/Alsco a $12 million contract, one of the biggest in the period before 1967–68. This contract, including five modifications, called for various models and quantities of rocket launchers and fairings (nose and tail covers). For some reason, not altogether clear to the subcommittee, the Navy decided that the third modification, adding a quantity of 12,000 LAU–3/A launchers, should be set aside for small business. Previously the Navy had solicited no firms, big or small, other than Chromcraft/Alsco or Radiant on a sole-source basis. Chromcraft/Alsco (prior to the merger) was in the small business category, eligible to bid, and already in receipt of large orders awarded a few weeks before. The time

[8] 10 U.S.C. 2304(a), 2310; ASPR 1–300.2, 3–102(a), 3–200, 3–205.

allowed for bidders to submit proposals (June 10–21, 1965) was less than 2 weeks on a $2 million procurement. Six firms were solicited; only one submitted a proposal besides Chromcraft/Alsco, which won the award. As a small business set-aside, technically this was a negotiated rather than an advertised procurement, but curiously the Navy cited "public exigency" rather than the clause applicable to small business set-asides.[9]

(2) In June 1967 Chromcraft/Alsco, now big business through merger and despite being on the suspended list, was about to receive the biggest single award of its career, exceeding $25 million, on a sole-source basis, when a small business firm intervened. This company, Portsmouth Electronics, requested a chance to make an offer. Navy procurement officials decided they had better not ignore the request, particularly since they had been directed by higher authority, because of Chromcraft/Alsco's suspension, to seek a second source for a portion of the launcher buy in fiscal 1967. According to Navy testimony, the 19-round LAU–3/A launcher requirements of the Air Force were divided into two lots of 71,000 and 9,704. The smaller quantity, which carried a lower priority, was believed suitable for small business. A request for proposal was sent to Portsmouth. Navy officials said that Portsmouth quoted on three launcher items but did not cover all requirements in the request. In any case, Chromcraft/Alsco quoted a lower price than Portsmouth and received the award.[10]

(3) In May 1965 the Navy bought a quantity of fairings to refurbish some 19-round Aero 7D launchers used in training. At least a year elapsed between the determination to buy and the contract award. This was handled as a total set-aside for small business,[10a] even though there was only one established producer of fairings, Western Molded Fibre Products, Inc., a subcontractor to Chromcraft/Alsco. Both the prime and the sub then ranked as small business, and they alone were invited to submit offers. Chromcraft/Alsco bid $17.000 lower (later negotiated to $27,000 lower) than Western, obtained the award, and then proceeded to hand the contract over to Western. Navy counsel Albert H. Stein acknowledged that "it sounds like an unusual arrangement."[11] James S. Tassin, the purchasing expert, said: "It was known in advance of the negotiations that the fairings would be produced by Western Molded Fibre."[12] His explanation was that Chromcraft/Alsco owned special tooling in Western's plant for the fabrication of the fairings, and the Navy wanted to see whether a better price could be obtained directly from the subcontractor if he acquired additional tooling of his own. Mr. Tassin called this a "test of the market," which resulted in a lowering of Chromcraft/Alsco's price.[13]

(4) Again, before the $25 million award to Chromcraft/Alsco in June 1967, the Navy solicited separate quotes on fairings. The reason for this effort, it appears, was the suspension of Chromcraft/Alsco

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[9] The "public exigency" exception is contained in 10 U.S.C., 2304(a)(2); the "small business" exception in subpar. (a)(17). of the same section. The latter permits negotiation when "otherwise authorized by law," and set-asides are authorized by sec. 15 of the Small Business Act (15 U.S.C. 644).

[10] Hearings, pp. 21–22, 35–37.

[10a] In connection with Navy procurement of cork plugs for cartridge cases in 1965, the Small Business Administration determined that Western Molded Fibre Products, Inc., was not a small business, after the company had submitted one of two bids and bids were opened. (See Comptroller General decision B–157411, Nov. 4, 1965.)

[11] Hearings, p. 47.

[12] Ibid.

[13] Hearings, pp. 47–48.

and the directive from higher authority, which recommended not only a second source on the LAU–3/A launchers but separate purchase of the fairings as Government-furnished equipment.[14] Furthermore, Western, the approved subcontractor for the fairings, was aware of the Government investigation of Chromcraft/Alsco and asked for the opportunity to quote directly to the Government.[15] As in the earlier case, Chromcraft/Alsco and Western were the only two firms solicited on the fairings, but this time there was no set-aside, presumably since both had become big business subsidiaries or divisions. And again Chromcraft/Alsco won out and handed the contract back to Western. The complexities of Chromcraft/Alsco's relationships with subcontractors, we may note, are involved in the fraud charge.

(5) In 1965 the Army, after awarding a sole-source contract to Chromcraft/Alsco for 7- and 19-round launchers adapted from Navy designs, decided to solicit various firms for quotations on a new 7-round launcher (M–158) developed with Army funds. Thirteen firms, including Chromcraft/Alsco, submitted offers. Again Chromcraft/Alsco won the award, which was made on a negotiated fixed-price basis. At this point in time, Chromcraft/Alsco was the only firm actively engaged in producing 2.75-inch rocket launchers.

(6) After Chromcraft/Alsco became big business by merger and was placed on the suspended bidders list, the Army selected two companies in Huntsville, Ala., near the Army Missile Command, to continue production of the M–158, albeit at substantially higher unit prices. This launcher was still to be qualified for use in Hueycobra helicopters and was being purchased in relatively small quantities. One award was made on a sole-source basis to Brown Engineering Co., the second low bidder on the earlier procurement of the M–158; and another award to A.C. Electronics, Inc., as the low bidder on a small business set-aside. Brown and A.C. Electronics supply parts to each other but have no business affiliation.

It is apparent from these circumstances that competition was limited and sporadic at best, mainly induced by requests for small business participation or by the awkward circumstance of dealing with a suspended contractor. Set-aside quantities were relatively small. The Government was unsuccessful in finding anyone to best Chromcraft/Alsco's offers. It was a case of newcomers without experience in making this item, without tooling or an established production line, trying to compete with the only established producer.

At first glance it seems rather anomalous that the Army and the Navy would jump from sole-source to restricted procurement through set-asides, if competition were the primary aim. Where sole-source production dominates, the first obligation of the services is to broaden the production base, after which it may be timely to consider small business set-asides.

Actually there were only two formal set-asides for rocket launchers [16] in this whole series of procurements, one Navy and one Army. In the Navy's case, Chromcraft/Alsco was eligible to bid as small business and won the award. The Army set-aside went to another firm after

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[14] Hearings, p. 49.
[15] Hearings, p. 46.
[16] As noted in the text, there was a Navy set-aside for fairings separate from launchers; also an unsolicited request by a small company to be allowed to bid on a Navy procurement, which was not a formal set-aside.

Chromcraft/Alsco had ascended to the big business category by merger in May 1966. In both instances, the set-aside was justified on grounds of "public exigency." [17]

Judging from the frequency of its use, the "public exigency" justification seemed to be more a ready excuse than the result of careful evaluation. No doubt fund availability, as in most procurements, dictated the timing and quantity of procurements to a considerable extent. Also we recognize that there were crisis situations, directives to upgrade conventional war capabilities, and material priority ratings which would justify a "public exigency" label. Nevertheless, it is difficult to make much sense, from the standpoint of orderly procurement, of the rocket launcher buys.

AIR FORCE REQUISITIONS

The short time scale for acting on priority requests was said to be a contributing factor to the exigent aspects. According to Navy witnesses, the procurement agency sought to be responsive to fluctuating demands from military users in Vietnam and elsewhere. The servicing of demands piecemeal as they emerged, rather than on the basis of orderly procurement planning, was attributed in part to the fact that the Navy was buying for the Air Force and was not in a position to regulate the demands or question the priorities of its brother department.[18]

The Air Force representative before the subcommittee expressed complete satisfaction with the Navy's performance in rocket launcher procurement. Mr. Hugh E. Witt, a procurement policy official in the Air Force secretariat, said: [19] "They have consistently given us a quality product at reasonable prices, with commendable deliveries, and I personally believe they have done an outstanding job." At the same time Mr. Witt acknowledged that the Air Force compounded the Navy's problems by the inability to accurately forecast demand and the sporadic nature of the procurement requests. He laid the cause to the rapidly changing force structure and sortie rate occasioned by the step-up in Vietnam operations.[20]

The subcommittee attempted to obtain information tracing Air Force procurement actions on 2.75-inch rocket launchers from start to finish, to determine their frequency and the impact on the procuring activity. Procurement actions were initiated by the Air Force to fulfill programed quantities, which were developed to support yearly budget estimates and funding apportionment requests, and these quantities were adjusted with changes in the situation. Ultimately the procurement actions came to the Navy in the form of military interdepartment procurement requests (MIPR's) for specific quantities of rocket launchers to be purchased. There were MIPR's for sizable quantities of rocket launchers, mainly the LAU–3/A 19-rounder, additional MIPR's ordering small quantities for the military assistance program (MAP), and various amendments requesting changes in specifications, packaging, or delivery schedules.[21]

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[17] See footnote 9.
[18] Hearings, p. 16.
[19] Hearings, p. 62.
[20] Hearings, pp. 66–67.
[21] Hearings, pp. 40 ff.

So far as we could ascertain, neither the Air Force on the transmitting end nor the Navy on the receiving end did very much to rationalize the requisitioning and procurement processes. The MIPR's of the Air Force generally carried a priority designation which automatically entitled them to the "public exigency" label. The Navy filled some requests as they came in, others were bunched or combined, and there were a few other explainable or unexplainable delays. In one case, presumably due to the fact that the Government was investigating the contractor for alleged irregularities, an Air Force MIPR was not incorporated in a contract until a year later—from June 1966 to June 1967. If "public exigency" has any meaning in these circumstances, it reflects administrative delay as much as military need.

BARGAINING POWER IN CONTRACTOR

This erratic ordering and buying was compounded by the fact that there were two separate buying centers, the Army for itself and the Navy for itself, the Marine Corps, and the Air Force. Both buying organizations, without any discernible coordination between them, resorted to the same producer, Chromcraft/Alsco. The company could depend on large and frequent orders from two Government sources to arrange its material purchasing and to organize its engineering and production resources to best advantage, without necessarily passing the benefits of continuous production and quantity purchasing to the Government. Each Government buyer might believe he was making a good deal on a particular procurement, but because of the bifurcated buying arrangements and the succession of orders, the strongest bargaining power resided not in the Government relative to the contractor, but in the contractor relative to his suppliers and vendors.

The Navy, the largest buyer, had the most complicated transactions with the contractor. Multiple procurements for various launcher models would be covered in a single contract, or a single procurement package in multiple contracts. There were numerous contract modifications and price adjustments. The mix of models in a single contract sometimes covered the requirements of the Air Force, Navy, and Marine Corps; in other instances the Air Force (and MAP) requirements were placed separately under contract or allocated among different contracts. It is difficult to get a clear picture of the contract situation or to understand the rationale of the procurement sequences.

The procurement agencies continued in their fashion, doing what they did before, making almost every request urgent and running to the same source, until the day came when the producer got into serious trouble through his business dealings, and some hard thinking had to be done.

The Navy's first reaction to the trouble, understandably, was to look for second source possibilities, but it was too deeply entrenched with Chromcraft/Alsco to back out quickly. For 1967 and 1968, when almost $40 million worth of Navy/Air Force business was placed with the suspended firm, the procurements momentarily took on the appearance of large yearly buys rather than immediate servicing of user requests. To the outsider, the "public exigency" seemed to reflect less the crisis in Southeast Asia than the crisis in Chromcraft/Alsco. The results of the 1967–68 buy will, according to Navy testimony, take care

of all expected requirements for the Navy and Marine Corps until fiscal 1970.[22]

The Navy still will procure rocket launchers for the Air Force during fiscal year 1969. The Air Force has continued to forward MIPR's to the Navy for placement on contract. However, at Navy request, the Air Force will specify how it wants the procurements to be handled.

The subcommittee was informed that 18,000 LAU–3/A's, to cost about $3.5 million, will be procured as add-ons to the fiscal year 1968 program (i.e., sole source from Chromcraft/Alsco). As of mid-September, the funded program for fiscal year 1969 covered 54,000 LAU–3/A's and 8,418 LAU–59/A's; however, program changes already processed will raise the Air Force LAU–3/A procurement to over 110,000, with a total estimated cost (including the LAU–59/A's) of about $23 million for the 1969 fiscal year.

For a time, the Air Force planned to direct that 29,976 launchers required on urgent priorities for the 1969 program be procured sole source from Chromcraft/Alsco. However, that quantity plus a remaining 81,000 will now be handled as an open competitive procurement to be conducted by the Navy. The production schedules are to be specified so that there will be time for competition at the start, and continuous production until 1970, when the Army will have to take over the program.

The Army placed most of its contracts with Chromcraft/Alsco during the 1967–68 time period, although the contract quantities and dollar amounts are more modest than in the Navy's case. Of 10 basic contracts awarded by the Army to Chromcraft/Alsco, six came after the company was suspended. By dollar volume, 67 percent of Army awards to Chromcraft/Alsco was made after suspension.

Possibilities for future procurement on a competitive basis are reviewed in section IV.

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[22] Hearings, p. 5.

III. ADMINISTRATION OF CONTRACTS

In keeping with its desire not to interfere with the Government legal action involving Chromcraft/Alsco, the subcommittee has not attempted to retrace the investigations of alleged criminal practices or to delve separately into these matters. However, certain aspects of contract administration in connection with the rocket launcher procurements are relevant to our inquiry and will be treated here. It seems quite plausible to us that if procurement and contract administration employees of the Government had been more alert and responsive to repeated warning notices from Navy and GAO auditors, the difficulties afflicting the company might well have been reduced or avoided to the mutual benefit of both the Government and the contractor.

SOLE SOURCE A RED FLAG

Sole-source procurement, especially for so extended a period and for total Government needs of an important item, should be a red flag to the contracting officer. He should devote more than routine attention and resources to examining and auditing sole-source proposals and performance. We recognize that these numerous procurements were on a fixed-price basis, that there is more latitude on the part of the contractor and less intrusion on the part of the Government when a fixed-price agreement has been made and the company is committed to delivery on that basis. Sole-source procurement, however, puts the fixed-price contract in a somewhat different category. Certainly compliance with the Truth in Negotiations Act, which applies generally to negotiated procurements, should be fully required of the sole-source contractor and subcontractors making a specialized article for the Government. Procurement and contracting officials were lax in this regard.

Both the Army and the Navy procurement spokesmen expressed their full satisfaction with Chromcraft/Alsco's production performance and its pricing behavior.[23] We are less ready to accept their judgment on the pricing than on the production. In the first place, the contractor's accounting system and his dealings with vendors left much to be desired in terms of identifying costs. Secondly, the Government negotiators had nothing but the company's own pricing history as a guide in the absence of genuine competition. Whenever a gesture was made toward soliciting other producers, Chromcraft/Alsco unexceptionally was able to beat all offers. The gestures were represented to the committee as "testing the market," but we do not see that the quotations of companies who never made this product, or who were paid premium prices for entry, were any test of the validity of Chromcraft/Alsco's pricing. After all, that company was the primary if not exclusive producer for all military requirements for 2.75-inch

[23] Hearings, pp. 25–26, 73.

rocket launchers for the better part of a decade. No other company ever was given the opportunity to produce in economic quantities.

The Navy procurement agency, in fact, never made a serious effort to establish other production sources. Not enough time was allowed for solicitation of competitive proposals, and such solicitations as were made were restricted to small business when even big business would find it difficult to compete with Chromcraft/Alsco. The absurdity of the situation perhaps is best exemplified in the testimony which showed that the Navy procurement agency imagined it was testing the market for fairings when it sought price quotations not only from Chromcraft/Alsco but from its sole-source subcontractor, the only known and established producer of the fairings.[24]

Regarding the company's reported good performance, we did not attempt to go behind the testimony and examine delivery schedules or the results of sample tests on production. The Army testimony indicated that Chromcraft/Alsco was late on some deliveries, early on others.[25] We would make this additional observation: In sole-source procurements of this nature, prejudice to the Government's interest can be more subtle and less noticeable when a contractor performs well than when he performs poorly. The Government has speedy recourse in requiring the correction of faulty production or in defaulting a contractor and placing the procurement elsewhere. The sole-source producer who performs well—as the services reported in the case under inquiry—is easily favored by procurement personnel anxious to serve user demands with items that are well made and will do the job. The user understandably is not greatly concerned with the way in which the contractor keeps his books or the niceties of competition and the play of the marketplace. The buyer who responds to that attitude asks himself: Why seek out an unknown vendor without experience or production resources for the particular item under procurement when there is a known, established, reliable source?

The need for vigilance on the part of procurement authorities is amply demonstrated by this case. Warning flags were raised by auditors at an early date and ignored. The contractor's position steadily grew stronger and the Government's position weaker in the bargaining, as exemplified by the ultimate embarrassment of having to award contracts to a company suspected of, then indicted for, fraud against the Government.

The fraud indictment which was returned by a Federal grand jury concerns Chromcraft/Alsco's activities only in connection with performance on Navy contracts. The Army contracts, so far as we know, were not directly involved. Maj. Gen. Roland B. Anderson's testimony showed the Army had no fault to find with Chromcraft/Alsco:[26]

> With respect to deliveries, although Chromcraft has not always met their initial schedules, they have exceeded their schedules in some cases and must be characterized as an excellent producer.

The committee has also indicated an interest in the pricing of the sole-source contracts awarded to Chromcraft. In short,

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[24] Hearings, pp. 48–49.

[25] Hearings, p. 73. There were also indications that early deliveries by the contractor caused storage problems and a dispute with the Government about costs. See hearings, pp. 30–31.

[26] Hearings, p. 73.

we are satisfied that the Government has received a fair and reasonable price.

In support of this position, negotiations have been conducted with the benefit of audit support and complete cost and price submissions under Public Law 87–653, sometimes referred to as the Truth in Negotiation Act. Indicated profits have likewise been supported by the weighted guidelines profit policy.

General Anderson also testified that the Defense Contract Audit Agency (DCAA), at Army request, had conducted "several" audits on proposals from Chromcraft/Alsco, and that in these pricing reviews he saw no evidence of any deficiencies in cost or pricing data submitted by the company to Government contracting officials.[27] The Army's contentment with Chromcraft/Alsco's pricing may reflect the fact that the company charged $352 a unit for the M–158 launcher compared with the $568 the Army had to pay for accelerated production on a sole-source contract with Brown Engineering, a new producer of rocket launchers.[28]

CONTRACTOR'S ACCOUNTING SYSTEM

More to the point, however, were limitations on audit review imposed by the nature of the contractor's cost accounting system. As the DCAA reported in connection with Chromcraft/Alsco's proposal which led to the $25 million award in June 1967, costs were not segregated or accumulated in the accounting system by work order, item, or contract. The records made available to the auditors reflected costs incurred in the rocket launcher division as a whole without identification of particular rocket launcher models. Production costs were related to finished work and work in process. The auditors could not identify from the available records the actual cost performance for any previously completed contracts or the unit costs incurred in the production of any particular type of rocket launcher. The weighted guideline formula, as set forth in ASPR 3–808.2, apparently enabled the company to set a 12-percent profit rate (before income taxes).

The Navy, procuring for the bulk of the military launcher requirements, should have known, almost from the start, that Chromcraft/Alsco might present pricing and contract administration problems. A Navy audit report of December 1963 carried this warning about the company (then called Chromcraft):

> Actual contract costs cannot be obtained from the contractor's accounting system.

This statement was repeated in a June 1965 audit report, and the auditors added:

> The contractor's accounting system was not considered acceptable for performing under other than fixed-price contracts.

These notations were carried in at least six subsequent audit reports. Since fixed-price contracts characterized the launcher procurements,

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[27] Hearings, p. 104.
[28] Hearings, pp. 84–85.

presumably there was no bar to doing business with the company or to checking vendors quotations and other cost or pricing data when available. The audit reports disclosed that relevant data were not always available, and the audit agency plainly conveyed that the contractor did not keep books and records in such a way as to clearly identify the costs of contract performance.

The GAO took note of the Navy audit reviews in the course of field work commenced in June 1965, when it began to make its own audit examinations of Chromcraft/Alsco. At this time some 10 contracts, aggregating about $27.5 million, had been awarded to the company. According to a statement by Earl J. Ogolin, a GAO field auditor: [29]

> Our objective in performing work at Chromcraft beginning in June 1965 was to ascertain whether prices paid by the Navy for rocket launchers appeared to be fair and reasonable and whether the contracts between the Navy and Chromcraft were effectively managed. This was done as a part of our responsibility under Public Law 87–653.

Mr. Ogolin said that the contractor's proposals for six contracts were compared with prices recommended by Navy auditors and with those ultimately accepted by the contract negotiators. Material costs with high dollar value were selected to compare the prices proposed by the contractor and identified in his records to see whether current data were being used. According to Mr. Ogolin's statement: [30]

> Our tests indicated that Chromcraft had not requested cost and pricing data in support of various quotations from sole sources and used in its proposals. Also, Chromcraft consistently did not include cost and pricing data clauses in its subcontracts as required by terms of its contract with the Navy and as set forth in the ASPR. Further, we were unable to ascertain from Chromcraft's records whether or not the most recent subcontract price reductions had been considered during negotiations.
>
> Moreover, Chromcraft did not fulfill one of its contractual obligations since it did not include in a number of its subcontracts the examination of records clause required by both the prime contract and ASPR 7–104.15.
>
> We found also, that one item of the launcher assembly was shipped direct from the subcontract vendor to military installations under GBL's while Chromcraft included such costs in its proposals and they were accepted by the Navy.
>
> We recommended that the Navy make a thorough review of Navy contracting at Chromcraft. We suggested this review be directed at assuring that mandatory clauses are included in Chromcraft's subcontracts and that prices negotiated were reasonable in relation to cost or pricing data available to Chromcraft at the time of negotiations. We recommended also that the freight costs included in negotiated prices be considered for recovery.

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[29] Hearings, p. 106.
[30] Hearings, pp. 106–107.

GAO REPORT TO NAVY

A GAO letter report to the Navy procurement agency was drafted in the fall of 1965. Various revisions and reviews of the letter were made at the regional and Washington offices of the GAO. Finally, on August 15, 1966, the letter report, signed by the Kansas City regional manager, was sent to Rear Adm. Allen M. Shinn, Naval Air Systems Commander at the Navy Department in Washington, D.C.[31]

Referring to the Navy audit reports of 1963 and 1965 on two specific contracts, which found, among other things, that the company was not requesting cost and pricing data from sole-source subcontractors nor inserting required data clauses in the contract documents, the GAO letter observed:

> * * * Navy auditors brought to the attention of Navy officials that the contractor was not complying with the above requirement. However, we found no evidence that contracting officials took any action to require compliance by Chromcraft.

At the hearings Navy witnesses readily admitted that the contracting officials should have received and used the reports in question. Mr. James S. Tassin, senior civilian purchasing officer in Naval Air Systems Command, testified that he had not been shown the audit reports.[32] Apparently the reports never surfaced above the level of the negotiators immediately concerned with a particular contract. After perusal at this level the reports were filed and forgotten, so far as we could infer from the testimony.

Certainly these reports should have been available to procurement policy officials at all levels and to the Army, which was contracting separately with Chromcraft/Alsco. The Army, for its part, when it commenced its procurement with Chromcraft/Alsco in 1965, should have checked to see what previous audit reports existed and what precautions could be taken to prevent the deficiencies noted by the Navy auditors.

Regarding Chromcraft/Alsco's failure to include in its subcontracts the clause granting GAO access to books and records for a 3-year period, as noted in the GAO letter report, we do not necessarily assume that the failure to include such clauses limits or forecloses any Government access rights, since the clause is required to be in the contract by statute. However, it was sloppy procurement practice on the part of the prime contractor and the Government, violative of a contractual obligation, and perhaps indicative of the contractor's desire to be as free as possible from Government audit.

This deficiency had not been previously reported by the Navy auditors. When DCAA took over these contract audit responsibilities, it began checking on compliance in this particular matter. DCAA's first report mentioning audit access was submitted on September 28, 1966, in connection with a price proposal of $8 million on new procurements. DCAA reports said that none of the subcontracts let by Chromcraft/Alsco by that date included either the price reduction

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[31] For text of letter, see hearings, pp. 126–127.
[32] Hearings, pp. 26–27.

clause for defective data or the GAO access-to-records clause, and recommended certain remedial action.

GAO staff contacted the DCAA regional office to ascertain whether the required clauses presently are being included in Chromcraft/Alsco subcontracts. Because of the pending prosecution the check of subcontractors was incomplete. Later, the Navy advised the subcommittee "that those items reported by the GAO that we have been able to confirm have been the subject of corrective action." [33]

The committee believes, however, that the Navy should have made a more timely response to the GAO letter report and that, apart from matters covered in the Government investigation, the Navy properly could have responded on issues of contract administration raised in the report. Usually, a reply to a GAO letter report is made by a Government agency within a period of 30 to 60 days. Naval Air Systems Command acknowledged receipt of the August 15 letter to Admiral Shinn by memorandum to the GAO regional office dated September 13, 1966. It stated that the contents were under study by procurement and other cognizant personnel in the command, and that before the office could respond to the issues, more information would have to be obtained from the field. DCAA regional staff conferred with GAO counterparts but nothing more was heard for months.

A letter of inquiry dated December 20, 1966, from the GAO regional office asked Naval Air Systems Command when a reply could be expected, so that the office could organize its work program for the next quarter. By letter of January 9, 1967, the GAO regional office was advised that the Navy contracting parties had scheduled a meeting with the contractor for January 13, 1967, and that a reply to the report would be submitted by February 3. By letter of February 9 the GAO regional office was informed that on February 2 the Department of Justice had advised the Naval Air Systems Command that Chromcraft/Alsco's contractual relationships with a subcontractor were under investigation and that contacts with either company should be deferred until further notice. For that reason the Navy would defer its reply to the GAO report. No additional explanation was received by the GAO in response to its letter report.

VALUE ENGINEERING CLAIM

The 1967 and 1968 contracts, awarded to Chromcraft/Alsco by the Navy in letter form, probably reflected the Navy's anxiety to buy ahead while maneuvering to extricate itself from exclusive dealings with the company. The June 1967 contract is still in letter form after 15 months and may never be definitized. The rub is the company's claim for $1.5 million as its share of savings allegedly due to value engineering. The value engineering incentive clause calls for a 50–50 sharing by Government and contractor of any direct reductions in cost of contract performance, and 90–10 percent sharing by Government and contractor in collateral savings estimated for 1 year's operational use of the item.

The July 1968 letter contract, incorporating revisions in the value engineering clause, specifies that the contractor's share of collateral cost savings will be 35 percent of the unit cost reduction multiplied by

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[33] Hearings, p. 28.

the quantity of LAU–69/A, 68/A, 59/A, and 3/A rocket launchers and fairings which utilize the contractor's cost reduction proposals, and which are scheduled for delivery within 2 years after the last scheduled delivery. The "unit cost reduction" signifies a cost reduction computed by the contracting officer, spread over the entire production quantity of items utilizing the contractor's improvements. The same royalty is to be paid on any contracts in existence at the time of the cost reduction proposals. The clause thus appears to be retroactive to the 1967 contract.

The 1967–68 contracts are not the first to include the value engineering clause, but Navy witnesses testified that Chromcraft/Alsco had never claimed or received any value engineering payments before.[34] Such clauses are mandatory for contracts over certain amounts, and they have valid objectives in creating contractor incentives for cost reduction, with the benefits to be shared between contractor and Government. However, we seriously question the routine inclusion of such clauses in contracts which have been sole source for an extended period of time and where the contractor has virtually complete control of the technical processes and data. Whereas the Navy for so long had congratulated itself that the contractor was improving the product by development work at no cost to the Government, now the value engineering clause appears to be a possible recoupment device on development costs for the contractor. As noted earlier, the Navy does not recognize the validity of the contractor's claim.

CONTRACTOR PROTECTION CLAUSE

The bending of laws and regulations to meet the contractor's demands is suggested by a clause in the 1967 contract to protect the contractor from possible termination losses due to the Department of Justice investigation. According to Navy counsel Stein, the provision, though undesirable to the Navy, was insisted upon by the contractor and considered to be legal.[35] The language in question reads as follows:

> In the event of termination of the performance of work, or any part thereof, pursuant to the termination clause set forth in this contract, or pursuant to this clause for failure of the parties to execute a definitive contract within the prescribed time, the contractor shall be paid in accordance with the provisions of such termination clause, provided reimbursement of allowable costs and payment of profit shall not exceed the amount set forth in the "limitation of Government liability" clause of this contract.

According to the testimony, the purpose of the clause was to assure the contractor that he would be paid for work completed under the letter contract, and that any termination would be for Government convenience and not for default.[36] The difference, of course, is that termination for default may carry penalties for the contractor and damages up to the difference in cost of procuring items from an alternate source. The 1968 letter contract does not contain such a provision.

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[34] Hearings, p. 13.
[35] Hearings, p. 29.
[36] Ibid.

IV. TECHNICAL DATA PROBLEM

Throughout the testimony, particularly of the Navy representatives, several types of justifications were cited for negotiated awards, made predominantly sole source to Chromcraft/Alsco. Since "public exigency" was cited most frequently, the Navy was more or less obliged to stand on its formal findings that time was of the essence.[37] Nevertheless, there were repeated suggestions in the oral testimony that the Government could not seek competition because it lacked technical data, which resided in Chromcraft/Alsco and was not available to others.[38]

A review of the 22 formal determinations made by the Navy to justify negotiated (largely sole source) awards shows that only in one instance was lack of data formally cited as a justification for proceeding in this manner, although as much was stated or implied in declarations resting on other statutory exceptions. The Navy formally cited lack of data when, in December 1965, it proposed to buy quantities of LAU–3/A and LAU–32B/A rocket launchers.[39] The contract was awarded to Chromcraft/Alsco in January 1966.

TECHNICAL DATA PURCHASES

In testimony the Navy insisted that technical data on the LAU–3/A were available since 1965.[40] The contract summaries submitted to the subcommittee show that the Navy paid sums of money for reproducible drawings and technical publications on the LAU–3A/A, the Navy version of the 19-rounder, as part of the $1.9 million contract awarded in February 1964; and additional sums for data and a technical manual on the LAU–3/A, the Air Force version, in a $3.4 million contract awarded September 1, 1964.[41] However, by including in the 1966 contract a quantity of LAU–32B/A launchers, for which it did not have proprietary data, along with the LAU–3/A launchers, for which it did, the Navy was able to fall back on the lack of data as justification for sole-source procurement. The formal determination, incidentally, did not distinguish between the two types of launchers as far as the lack of data was concerned.[42]

Even where the military services alleged that data were available for competitive procurement, as in the case of the 19-round LAU–3/A—a launcher design first standardized between the Navy and the Air Force in 1959—successive procurements were negotiated with Chromcraft/Alsco on a sole-source basis. There were two limited and tentative exceptions as described earlier: a set-aside of a quantity for small business in 1965, and an unsolicited inquiry and subsequent pro-

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[37] Hearings, p. 55.
[38] Hearings, pp. 5, 17, 55–57.
[39] Hearings, p. 145.
[40] Hearings, p. 153.
[41] Hearings, pp. 130, 131.
[42] Hearings, p. 145.

posal by another small business firm in 1967. Each time Chromcraft/Alsco walked away with the contract.

For two variations on the 7-round launcher design, the LAU–32/A and LAU–32A/A, the Navy testified that technical data also were available for competitive procurement.[43] The contract information shows that the Navy paid sums of money to Radiant Manufacturing Co. for publications and reproducible drawings on the LAU–32/A as part of a $2 million contract let in December 1961 (NOw–62–0520–i), and as part of a $755,000 contract awarded January 28, 1964 (NOw–64–0233–i).[44] Payments for reproducible drawings and technical publications on the LAU–32A/A were included as part of a $1.9 million contract awarded to Chromcraft/Alsco on February 14, 1964 (NOw–64–0303–f).[45] In any case, all the procurements of these models have been sole source with Radiant or Chromcraft/Alsco under the "public exigency" clause.

It is clear that Government possession of technical data, whatever its adequacy, is no inducement to seek competition in rocket launcher procurement. And even that data which the Government bought and paid for, but hardly ever used, is outdated, for the military services are shifting to improved launcher models.

The situation is illustrated by the $25 million procurement placed with Chromcraft/Alsco in 1967. This was a particularly touchy issue, since Chromcraft/Alsco now was on the suspended bidders list. On the one hand, it appeared that the Navy wanted a big procurement to replenish inventories and buy ahead because of Chromcraft/Alsco's uncertain future with the Government; on the other hand, the procurement agency was directed to seek second sources and limit, in whatever way it could, the commitment to Chromcraft/Alsco.

The 1967 procurement called for five basic launchers. As noted above, the attempt to break out a portion of the LAU–3/A buy and the fairings for second-source procurement came to naught. Thus these items were subject to sole-source negotiated procurement, even though technical data presumably was available to solicit other firms.

Included in the Air Force portion was an improved 7-round launcher (LAU–59/A) for which the Government had no data.[46] The listing of items on a contract awarded in November 1966 to Chromcraft/Alsco called for, among other things, data for LAU–59/A rocket launchers, but either these were not obtained or were not sufficient for purposes of competitive procurement. There was no attempt to make up for those deficiencies in the next year's buy. When representatives of the Navy procuring agency were asked why no provision for data acquisition was made in the 1967 letter contract with Chromcraft/Alsco, the rejoinder was that the Air Force had not "requested, authorized, or funded" the data acquisition.[47]

In the 19-round launcher category, whereas the Air Force was still ordering the old LAU–3/A, the Navy had moved to a new design, the LAU–69/A, a launcher 10 inches longer to accommodate a barrier against shipboard radiation hazards. This and two other launcher

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[43] Hearings, pp. 53–54.
[44] Hearings, pp. 129, 130.
[45] Hearings, p. 130.
[46] Hearings, p. 56.
[47] Hearings, p. 57.

models (LAU–68/A and LAU–61/A) were in the Navy portion of the buy for 1967. According to Navy testimony, the 1967 contract with Chromcraft/Alsco called for drawings, publications, and technical data for the "complete data and design disclosure on these new articles." [48] However, the 1967 contract has not yet been made final and the data still remain with Chromcraft/Alsco. The company apparently puts a value of $500,000 on the data intermingled with a $1.5-million claim for incentive payments on value engineering, as noted in the preceding section.

At the time of the hearings the Army also was trying to work out an arrangement with Chromcraft/Alsco for acquisition of data relative to the procurement of its version of the 19-round launcher, the XM–159.[49] The company had adapted earlier launcher designs to fit Army helicopter requirements, and until Chromcraft/Alsco's suspension the Army had not raised an issue about acquisition of the data for competitive procurement. The Army did sponsor, as noted above, the M–158 as an alternative development to the 7–round XM–157/B and acquired data to support contract awards for modest quantities to two small firms. In July 1967 the Army also initiated design work at the Army Missile Command on a new 19-round launcher, the XM–160, and since this is an in-house design effort, there should be no question about availability of the data in the event of follow-on production.[50]

According to Army testimony, Chromcraft/Alsco had not quoted a price for the data on the XM–159/C sought by the Army; therefore the Army had to come in with its own estimate (which was not made public). General Anderson of the Army secretariat testified:

> We have asked them for a proposal to acquire these rights and drawings, whatever those rights are, and to at the same time identify to us what rights it is that we bought, if any, plus the drawings.[51]

Neither the Army nor the Navy, judging by the testimony, knows precisely where it stands in relation to the availability of rocket launcher data for competitive procurement. The Army is asking the contractor to advise it what data it should have and at what cost. The Navy was quick to assert that technical data had been procured for three launcher models (LAU–3/A, LAU–32/A, and LAU–32A/A) but acknowledged at the same time: "There have been adaptations of these basic launchers on which the Navy does not have the information relating to the improvements or adaptations that have been made." [52] And as we have seen, even that data which was available was not used in any significant measure.

LOSS OF GOVERNMENT CONTROL

The data problems stem in large part from the fact that the contractor made many design variations, purportedly in the interest of improving the equipment, and these variations became so numerous

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[48] Hearings, p. 12.
[49] Hearings, p. 95.
[50] Hearings, p. 108.
[51] Hearings, p. 95. Subsequent to the hearings, General Anderson advised that when he made this statement he was conveying the thought that if and when the Army purchased the rights, it would make sure exactly what rights were involved. Also the Army would purchase the drawings needed for manufacture.
[52] Hearings, p. 90.

and complicated that the Government procuring agencies lost control of the technical data and specifications. This is not unfamiliar in Government procurement. The committee has encountered similar situations, in which design changes in the interest of product improvement are gladly accepted, but the price that the Government pays is complete dependence on the contractor as the only procurement source.

The procurement agency could have maintained control of the data if systematic arrangements had been made to procure not only the original data package for each basic launcher design, but successive increments of new data as design changes were made. Admittedly this is not an easy process to control and requires extra care and negotiating effort by Government contracting officers. Nevertheless, there is no alternative if monopoly holds on critical Government procurements are to be avoided and the advantages of competition are to be obtained.

In another sense, undue reliance on the contractor for design changes and technical advances raises questions as to the adequacy of Government management of research and development programs to improve the equipment and adapt it to differing and changing service needs. To let these technical development responsibilities lie with the contractor and be absorbed in the cost of the finished product may save time and budget dollars in a program office, but it enhances ultimate contractor control over the source and price of the product.

Typically, in such cases, the contractor takes the initiative, performing the liaison and coordinating functions among the services as to technical requirements and new developments, which ordinarily they might be expected to perform themselves. Did the Army need a rocket launcher tube 10 inches longer to accommodate a new and bigger warhead? The contractor could offer a longer tube because it was already part of a radiation hazard "fix" designed for the Navy. Even a simple dimension change might give rise to a whole family of changes. The process was described by a Navy officer:[53]

> Basically it was a dimension change that was involved; but at the same time, because of potential interference in rocket fins, causing possible fin separation and damage, the length of the interval of launching the rockets from the launcher was changed, and this created a new intervalometer; in other words, a family of improvements took place, better springs, better intervalometer, better strength bulkhead, better contact spring, as well as a lengthening. All of this led to basically a much different launcher when the longer size evolved.

No doubt the process appeared mutually beneficial. From the Government standpoint the contractor showed responsiveness to military requirements and made needed improvements at his own expense. For the contractor, every design change helped to turn the key which locked in the Government. In the end the Government might try to disentangle itself from the proprietary maze and to seek other production sources, but costs would be entailed, perhaps more than if the Government had firmer control of design and specifications from the

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[53] Hearings, p. 11.

outset and had successively acquired the data necessary for competitive procurement.

ALTERNATIVE APPROACHES ON DATA

One expedient which the Navy considered as an alternative to the messy problem of sorting out and acquiring the data in possession of the contractor was "reverse engineering." By this process, the equipment of interest is examined and reconstructed in an engineering sense. In the process of learning how the equipment works and possibly how it can be built by the others, presumably one can develop sufficient new data for competitive procurement.

The Honorable Barry J. Shillito, Assistant Secretary of the Navy (Installations and Logistics), testified that "we have gone out to industry informally to determine the possibility of obtaining an adequate data package through reverse engineering of models of the various launchers now in use by the Navy and Marine Corps. We felt this was an area that should be explored, even though we recognized that it presents problems in time consumed and money required." Mr. Shillito said that "some 13 indications of interest" had been received from manufacturers, reflecting initial costs in the neighborhood of $250,000 and a time span of 8 to 12 months for the development and production of test hardware. These cost estimates were predicated upon the receipt of a follow-on production contract of at least 100,000 units preceded by a 1-year development effort. Tooling costs for the test samples were to be absorbed in the unit price of the 100,000 launchers. If the development effort were to be separate from a guaranteed follow-on production contract, $50,000 to $100,000 and 4 to 6 months would be added to the money and time costs of the program.[54]

Rather than pursue this alternative, the Navy opted for large production contracts with Chromcraft/Alsco even after the suspension. The 1967 and 1968 procurements will cover its anticipated 1969 requirements and afford the Navy some breathing room to continue the development of a new series of launchers supervised by the China Lake Naval Weapons Center.

The Naval Weapons Center developed in-house designs, commencing in 1966, and procured competitively a few test models of improved 7- and 19-round rocket launchers, designated, respectively, LAU–70 and LAU–71. Two series of tests showed designs to be faulty, and after several revisions a contract for final test hardware was placed with a single firm, Lasko Products Co.

The Navy seeks through this development a metal launcher strong enough to be reliable but cheap enough to be expendable. In this way it hopes to achieve a measure of standardization as between functions and service uses. Assistant Secretary Shillito expressed the hope that acceptable new launcher designs would be available in September of this year, together with drawings and other necessary data, as a basis for future competitive procurements.[55]

The Air Force, for its part, is interested in the LAU–70 and LAU–71 as possible replacements for the LAU–59/A and LAU–3/A but is not yet prepared to say whether these Navy developments will meet its own

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[54] Hearings, p. 6.
[55] Hearings, pp. 9, 51.

requirements.[56] The "70" series launcher is 10 inches longer than the one used by the Air Force, since the Navy needs the extra dimension to protect against electromagnetic radiation aboard ship. The Air Force has not yet tested any of these models to determine whether the longer type will pose any problems for its aircraft in flight. In the meantime the Air Force has generated large new procurement requests beyond those included in the July 1968 Navy contract with Chromcraft/Alsco. New requests will be placed in part with the same sole-source contractor while alternative, hopefully competitive, sources are sought.

The Army, in one sense, was more successful than the Navy in getting out from under Chromcraft/Alsco's umbrella. It used the data procured from Chromcraft/Alsco as a part of the production contract for the M–158, to bring in two new firms. The Army testimony indicates that no unusual production problems have been encountered, but that premium prices were paid in this effort to broaden the production base.[57] The Office of the Army Chief of Research and Development reports that M–158 qualification testing now is complete, and formal approval for Army helicopter use of this launcher soon will be obtained.

The M–158 effort does demonstrate that additional sources can be developed in a short time if the Government is sufficiently determined. On the other hand, as noted above, the major Army procurements of 7- and 19-round launchers still are placed with Chromcraft/Alsco.

At the hearings, Army testimony indicated that in-house design work on the XM–160, a new 19-rounder, had not progressed very far.[58] Later the subcommittee was advised that a decision had been made to move further with the development of that repairable/reusable 19-round launcher. The designation XM–160 has been changed to XM–200 to avoid confusion with another weapon system. The technical data package developed in-house at the Army Missile Command has been turned over to A. C. Electronics in Huntsville, Ala., for production of test items. A letter contract was signed on September 4 for the production of four prototype items (contract price $21,179) to be delivered by October 17, 1968.

If preliminary tests are successful, more items will be procured for engineering and service tests, after which the design can be standardized and regular procurement instituted in lieu of the XM–159/C. The Army believes that the chances for quick and successful tests are good because of the favorable experience with the M–158.

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[56] Hearings, pp. 63, 65.
[57] Hearings, pp. 82, 84.
[58] Hearings, p. 108.

V. PROCUREMENT ASSIGNMENTS AND STANDARDIZATION

In the late 1950's when the Military Operations Subcommittee examined procurements of the 2.75-inch rocket launcher, we found that the Navy and Air Force maintained separate procurement organizations and technical testing facilities and arrangements for similar rocket launcher programs. We found also that requirements were not well planned and that there was an imbalance between launcher and rocket inventories. Coordination between the services was limited, there was no systematic and authoritative interchange of procurement information, and there were marked differences in procurement and contracting practices, including the handling of proprietary data.[59]

The Department of Defense concurred generally in the committee's earlier findings and instituted some corrective actions. However, regarding the committee's recommendation that the development and procurement programs for 2.75-inch rocket launchers of both services be coordinated and possibly consolidated, the Department of Defense replied in December 1958 through the Assistant Secretary of Defense (Installations and Logistics), as follows:[60]

> With respect to procurement programs, this office is informed that there is no present intention on the part of either the Navy or the Air Force to effect new procurements of the launchers referred to in the committee report. Consequently, no action is being taken at the present time with regard to coordination of the procurement of those specific launchers. However, should there be further procurement of those launchers or any new launchers, the military departments have indicated that they would agree to single department procurement. This is subject to the proviso that new launchers progress beyond the development stage before arrangements are made for single department procurement.

NAVY PURCHASES FOR AIR FORCE

The Navy was the first to reactivate its rocket launcher procurement in the early 1960's. When the Air Force followed suit in 1963, it decided that the most suitable arrangement would be to let the Navy do the buying job. This decision, the subcommittee was advised, was based on the fact that the "rocket launchers were basically the same; they had been developed by the Navy; and were essentially noncomplex equipment."[61] Another reason given by the Air Force was that the Navy had been working actively with industry on launcher programs, although the Navy had let only two contracts, one in 1961

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[59] H. Rept. 2660, 85th Cong., second sess., Aug. 18, 1958: H Rept 1627, 86th Cong., second sess., May 18, 1960.
[60] H. Rept. 1627, p. 26.
[61] Hearings, p. 64.

(Radiant) and one in 1962 (Chromcraft), before a MIPR was transmitted in early April 1963 for the first Air Force buy under Navy auspices.

The MIPR method has been used by the Air Force until the present day, depending on the Navy for all procurements of 2.75-inch rocket launchers, although the Air Force maintains its own development and test facilities. Nominally the MIPR arrangement places the buying responsibility in the Navy for both services, but no formal assignment of single procurement responsibility to the Navy for rocket launchers ever was made. The Navy responded to Air Force MIPR's as they came in, combining Air Force requirements with its own when it could, handling the Air Force requirements individually or fractionally when it couldn't.

The Air Force resorted to the MIPR device in the belief that "cost savings would occur through consolidation of requirements and a single point procurement commodity monitorship." [62] However, we found no evidence of systematic consolidation of requirements, orderly contracting, or other practices which might be expected with procurement centered in one agency.

When the Army came on the procurement scene in 1964 as a new user, initially it developed a MIPR to the Navy, which was withdrawn. The Army decided to work through its own development and procurement organizations. There was no single point of monitorship as between the Army and Navy, except such as was provided by the single-source contractor.

NEW ASSIGNMENT TO ARMY

On June 4, 1968, about 10 days after the Military Operations Subcommittee advised the Secretary of Defense that hearings would be held, the Assistant Secretary of the Army (Installations and Logistics) recommended that the Army become the single manager for triservice procurement of 2.75-inch rocket launchers.

An Army Materiel Command memorandum of April 16, 1968, submitted by Assistant Secretary Robert A. Brooks, said that on the basis of preliminary information eight launcher models now being procured could be reduced to four with only minor differences in the electrical systems. The savings in cost, time, and effort attendant on standardization were outlined. Procurement by a single manager would eliminate competition between Government agencies for limited production resources and reduce the number of contractual actions required. Potentials for reduced unit cuts were seen in fewer launcher variations, single agency monitorship of procurement, and uniform inspection and testing requirements. According to the memorandum, the Government also should be able to achieve more savings through increased volume purchases and possibly multi-year procurements. In the distribution and supply area, a single main pipeline should suffice for each theater, and through the standardization efforts, inventories and administrative work could be reduced. A triservice manager also would be able to better coordinate the work of the several services toward getting more reliable and longer-life equipment.

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[62] Hearings, p. 65.

The Army memorandum said that if the mission is approved as a responsibility of the Army Materiel Command, the management task would be assigned to the project manager for aircraft weaponization. This was based on the logic that the launchers are oriented more toward aircraft weapons than toward production of ammunition. This assignment also would have the advantage of avoiding delays in establishing a new project office.[62a]

The Army memorandum also pointed out that coordination between the technical and operational aspects of rockets and launchers could be better achieved through a central control system.

The Secretary of Defense, through the Office of the Assistant Secretary of Defense (Installations and Logistics), approved the recommendation on the grounds "that there are benefits in terms of standardization, cost, and procurement flexibility to be achieved in placing the responsibility for procurement of all service needs under a single manager." [63] This approval was given on June 20, 1968, the day that the subcommittee's hearings commenced. The assignment is to be effective with the fiscal year 1970 procurement program. In the interval, the Navy will attempt to wind up outstanding procurement actions and to resolve its contract difficulties with Chromcraft/Alsco.

The new rocket launcher assignment will parallel the Army's present responsibility for triservice procurement of 2.75-inch rockets, rocket motors, and associated equipment other than the launcher. This earlier responsibility was assigned by the Assistant Secretary of Defense in a memorandum of November 1, 1966. According to Army testimony, the logic of the added assignment is "the marrying together of the entire weapons system, the rocket and its launchers." [64] Otherwise it would be difficult to rationalize the assignment, since the Air Force, not the Army, is the biggest user of launchers; and the Navy, not the Army, was earliest in development work in this area. However, the embarrassing complications of the investigation and indictment of Chromcraft/Alsco for fraud possibly were a motivating factor for the change of procurement responsibilities. Although the Army, too, has been tied in with Chromcraft/Alsco on sole-source contracting, it has done somewhat more than the Navy in seeking other sources and a more competitive arena. Also, as we observed before, the Army contracts are not involved in the legal proceeding against Chromcraft/Alsco.

General Anderson observed that the Army, as the central procurement agency, still would have to get the requirements of the other services on MIPR, but he believed "that the centralization of this management might put the impetus upon the manager to seek these requirements if he did not get them." [65] The Army will be on its mettle to develop an efficient procurement organization and to overcome many of the difficulties which have plagued this procurement area. In this regard, the Army will have to examine possibilities for equipment standardization, to permit better control of the data and competitive purchasing as well as economies in stockage of equipment and components which are interchangeable among the services.

[62a] The committee was advised that instead of the project manager for aircraft weaponization, the assignment will go to the AMC project manager for the 2.75-inch rocket, at Picatinny Arsenal, Dover, N.J. This will still avoid the need for a new project office, but is based on the need to assure that launcher designs and procurement will be fully coordinated with the 2.75-inch rocket program.

[63] Hearings, p. 81.

[64] Hearings, p. 99.

[65] Hearings, p. 80.

DIVERSITY OF LAUNCHER MODELS

The committee is aware of past attempts to develop a degree of standardization and interchangeability in the face of continuing pressures toward proliferation of launcher models and designs. Ten or fifteen years ago one of the main obstacles to standardization was the simple fact that the Navy and the Air Force had different attachment devices on their aircraft. The Air Force utilized a three-point suspension system and the Navy a two-point system. The Navy's Aero 6A and the Air Force's MA–3 were different models of 7-round launchers adapted to their particular suspension devices.[66]

When interest in both services shifted toward the 19-round launcher, the Navy sponsored development of the Aero 7D which the Air Force adapted, with minor changes, for its own use as the LAU–3/A and placed under contract with Chromcraft as predecesser to Alsco. The committee's earlier criticism of unnecessary duplication and lack of interchangeability prompted the services to develop a single specification for the 19-round launcher. The Department of Defense reported to the committee in December 1958 "that presently the standard 19-round launchers of both the Navy and the Air Force are completely interchangeable physically between the two services, and that the only point of departure at present is that the Navy launchers might not be suitable for use at the highest speeds expected operationally in Air Force planes."[67] However, this degree of standardization was achieved just about the time when both services believed that they would have no more requirements for the 2.75-inch launcher.[68]

In the 1960's, changing world events, starting with the Berlin crisis, drastically changed the outlook. When the Navy sought out Radiant Manufacturing Co. for a sole-source contract late in 1961, it said in a formal finding: "This procurement is a part of the national defense buildup as authorized by Congress and directed by the President in the light of the international situation."[69] In this case the Navy procured the Aero 6A/2, a 7-round launcher which Radiant had produced along with two other companies in 1953 under the designation Aero 6A/1. The services had decided to retain 7-round launcher types (mainly for training) along with the 19-rounder.

The 19-round LAU–3/A has been the Air Force's basic launcher for operational use for the past 5 years. The Navy version, the LAU–3A/A, incorporates a barrier against radiation hazards aboard ship due to the presence of radars and other equipment and which could cause rockets to fire.

When the Army developed new mobility concepts and the armed helicopter, the LAU–3/A was reworked by Chromcraft/Alsco for Army use under the designation XM–159. Nose and tail fairings were eliminated, since the slower moving helicopter did not need them. Also the launcher was made with aluminum rather than treated paper tubes, since the Army was interested in a reusable launcher which could be fired many times. The other services, using high-performance aircraft, preferred expendable launchers, to get rid of their weight and drag as soon as the rockets were fired, and to jettison

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[66] H. Rept. 2660, 85th Cong., second sess., Aug. 18, 1958, pp. 14–16.
[67] H. Rept. 1627, 86th Cong., second sess., May 18, 1960, p. 34.
[68] Ibid., p. 26.
[69] Hearings, p. 135.

unused stores if jumped by enemy aircraft or before a return landing.

In the Army version, further, there was no need for the launcher to carry the intervalometer, the mechanism which controls firing. The Army helicopter mounts the intervalometer in the cockpit as part of the aircraft equipment, to permit selective firing by the pilot in contrast to the ripple type firings usually executed on high performance aircraft. The XM–159 was qualified for both a 6- and 10-pound rocket warhead.

Successive variations in the Army's 19-rounder, the XM–159, were labeled the XM–159/A, XM–159/B, and XM–159/C, the last of which is the 19-round model now under Army procurement from Chromcraft/Alsco. The "C" version is 10 inches longer than prior models, and the same length as the Navy LAU–69 and 70/71 models.

In the 7-round category, the LAU–32/A is the basic launcher, which was a redesignation of the Navy's Aero 6A–2, used by both the Air Force and the Navy. There is a LAU–32B/A aluminum tube (reusable) version, and a LAU–32A/A paper tube (expendable) version. The latter model in Navy use had radiation protection; the Air Force version did not.

The Army helicopter version, adapted by the contractor from the same LAU–32 model, is the XM–157. Like the 19-round XM–159, the XM–157 has aluminum tubes but no fairings or intervalometer. The XM–157 launcher also was qualified for both the 6- and 10-pound warhead.

Design variations on the Army's XM–157 were the XM–157/A and the XM–157/B. The latter lengthened the tubes 10 inches and is certified to accommodate a new 17-pound rocket warhead. This is the model which the Army has under contract with Chromcraft/Alsco and is attempting to replace with the XM–158 from other sources.

NEW SERIES

Beyond the 19-round and 7-round models described, the Air Force and Navy have tried to develop several new series of rocket launchers.

There was a "50" series consisting of the LAU–50/A and LAU–51/A (disposable and reusable models of the 19-round launcher), and the LAU–59/A (reusable 7-round to replace the LAU–32 models). The Air Force has proceeded with the LAU–59/A and has converted the entire production of Air Force 7-round launchers to the LAU–59/A in the current contract with Chromcraft/Alsco. (There were also interim models termed LAU–49/A, an Air Force disposable 7-tube model, and LAU–56/A, a Navy disposable 7-tube model.)

In a series of "60" models developed by the contractor, there is the LAU–60/A, an expendable 19-round Navy launcher with radiation fix, and frangible fairings both forward and aft; the LAU–61/A, a reusable 19-round Navy launcher with a radiation barrier, frangible forward and reusable aluminum aft fairings; the LAU–67/A, an expendable 7-round Navy launcher with radiation fix and frangible forward and aft fairings; the LAU–68/A, a reusable 7-round Navy launcher with radiation barriers, frangible forward fairings and reusable aluminum aft fairings; and the LAU–69/A, an expendable 19-round Navy launcher with radiation barriers, frangible forward fairings and aluminum aft fairings. Initial quantities of the LAU–61/A, LAU–68/A and LAU–69/A were purchased in 1967. The alumi-

num fairing is cheaper than the frangible fiber fairing; its design is part of the Chromcraft/Alsco value engineering claim.

The "60" series, all contractor-developed items, was proposed by the Navy for the purpose of greater standardization, assuming the Air Force were willing to test and accept these designs. There is, however, no known intention on the part of the Air Force to adopt these models. The "70" series, as noted earlier, are the latest candidates for Navy-Air Force standardization.

The Army models XM–157 and XM–159, referred to above, are designated experimental and nonstandard. The Army has developed the M–158 to replace the XM–157 (7-round) launcher. The M–158 has a Government-owned data package, although Chromcraft/Alsco was the only producer of the item until the end of 1967. The M–158 is being tested for, and will be used mainly in, the AH–1G Hueycobra helicopter. Since the M–158 has passed these qualification tests, it may become Army standard, and the XM–157 supplies can be used up without reprocurement.

As noted in section IV, the Army also has been working on the XM–160, a 19-round model to replace the XM–159. The XM–160 design, like the M–158, is "repairable" in concept. The difference between "reusable" and "repairable" in the Army lexicon means that "repairable" rocket launchers can have repairable or replaceable tubes or frames or parts, while a "reusable" launcher might simply be capable of reloading and firing until failure of the launcher. The problem is that the cost of keeping parts and repairmen can exceed the cost of a reusable item, considering the whole system. The Army must evaluate the cost of the repair concept at the same time as it evaluates the proposed design for the XM–160.

SHIPPING AND LOADING

Differing service requirements are reflected not only in design but in the shipping and loading operations. The Air Force customarily has handled launchers and rockets as separate items of supply. These are crated and shipped to points of use, where military personnel inspect the rockets before loading them into the aircraft. The Navy has a different method, set by constraints on shipboard use. With limited storage and handling space, the Navy has followed the practice of shipping launchers already loaded with rockets. The launcher is designed to serve also as a shipping container. However, white phosphorus rockets, which present a special fire hazard, are shipped without launchers and given special handling aboard ship.

The Air Force has studied the preloading operation to determine if significant economies can be achieved by following the Navy practice. The logistics studies, made last year, lead to the conclusion "that there were definite monetary advantages to shipping preloaded launchers, providing they were protected by a shipping container." However the Air Force found that the savings were offset by certain operational factors. Consequently the Air Force will initiate a field test at selected bases in Southeast Asia to determine if the monthly consumption rate for the duration of the Vietnam conflict warrants the shipping of preloaded LAU–3/A launchers.[70]

[70] Hearings, p. 63.

VI. FINDINGS AND RECOMMENDATIONS

FINDINGS

1. For more than 7 years the Department of Defense has been locked in with a single producer for the bulk of its requirements for the 2.75-inch aircraft rocket launcher. Since 1961, of 31 basic contracts awarded by the Army and the Navy, aggregating $97 million in rocket launchers and components, 26 contracts, valued at about $93 million, or 96 percent, went to Alsco, Inc., formerly Chromcraft Corp.

2. Awards of more than $44 million, almost half of the total dollar amounts received by Chromcraft/Alsco, were made in 1967 and 1968 after the firm was placed on the suspended bidders list on evidence of irregular dealings with subcontractors. Subsequently the company was indicted by a Federal grand jury on charges of fraud against the Government.

3. The Army and the Navy have maintained separate buying organizations for the 2.75-inch rocket launcher, with little or no coordination between them. Both have dealt largely with the same contractor. On June 20, 1968, the day the subcommittee hearings commenced, the Assistant Secretary of Defense for Installations and Logistics approved a shift of responsibilities, so that the Army Materiel Command will procure 2.75-inch rocket launchers for all services after fiscal year 1969. No adequate guidelines were set for fiscal year 1969 procurement actions.

4. The Naval Air Systems Command, as the major buying organization for 2.75-inch rocket launchers, serviced Air Force as well as Navy and Marine Corps demands. Neither the Air Force requisitioning nor the Navy buying agencies made any discernible effort to institute orderly procurement planning which would allow time and opportunity for competitive purchasing and other advantageous procurement practices.

5. Not a single one of the contracts was awarded through advertised bidding. Formal determinations were made in most cases that the "public exigency" would not permit the delay incident to advertising. At the same time, it was usually declared that no other company could produce the items. These determinations seemed mechanical and routine rather than the result of careful evaluation of the circumstances.

6. Some gestures toward competitive solicitation were made by the procurement agencies—less on Government initiative than in response to outside inquiries, small business efforts to participate, and embarrassment over Chromcraft/Alsco's difficulties with the Government. Because of its advantageous position as a sole-source producer with continuing production runs and an overwhelming share of Government business, Chromcraft/Alsco was able to outbid other offerors in the few instances when the latter were solicited by the Government.

7. Repeated Government declarations that Chromcraft/Alsco was the only company capable of producing rocket launchers within required delivery schedules were not necessarily true, as shown by the Army's ability to bring in new producers, although at premium prices, after Chromcraft/Alsco was put on the suspended bidders list. The Navy made no serious effort to investigate or establish additional production sources, although in 1966 the Navy did commence a new design effort for possible competitive procurement in the future.

8. As justification for sole-source procurement, the Government procurement agencies cited not only compressed time factors but lack of technical data on newer launcher models for purposes of competitive procurement. Although the Navy bought and paid for technical data on some of the older models, these were not used for competitive procurement and probably are outdated. Neither the Navy nor the Army is quite certain what data it owns and whether that data is adequate for competitive procurement.

9. The 2.75-inch rocket launcher has been described as "noncomplex" equipment, which is manufactured in several basic designs. The sole-source contractor rather than the Government has taken the initiative in developing new designs and improved versions to suit individual service needs and for other reasons. These have become so numerous and complicated that the Government, in effect, has lost technical control of the item. The design variations served to lock in the Government more tightly with the contractor.

10. The Government and the contractor are in an impasse on the procurement of data for newer launcher models. The company has put a value of $500,000 on the data requested in a 1967 Navy contract and claims $1,500,000 as its incentive share of value engineering under the same contract, which claims the Navy does not believe to be valid. Originally the contract was issued in letter form while the company was on the suspended bidders list. It has not yet been definitized after more than 15 months of negotiation. A second letter contract was issued in 1968.

11. Reports by Navy and GAO auditors on the limitations of the sole-source contractor's accounting system and his failure to include necessary clauses in subcontracts relating to cost or pricing certificates and access to records, which are required by procurement law and policy, either did not come to the attention of, or were not acted upon by, procurement policy officials. The Navy believed it was not in a position to respond to the criticisms in the GAO letter because the Government was then investigating the contractor; but the Navy advised the subcommittee of corrective action taken in connection with contracts awarded subsequent to the date of receipt of the GAO report.

12. This case affirms the need for special vigilance on the part of Government procurement personnel in dealing with contractors who have a sole-source or monopoly position. Even if it is shown that the product is good and the performance timely, such considerations should not blind contracting officials to the necessity for careful scrutiny of costs and other relevant data, and tight contract administration.

13. The Navy and the Army are sponsoring development work in an attempt to achieve a greater measure of standardization in launcher models and to acquire technical data as a basis for competitive procurement in the future. Test results, though promising, are not yet conclusive.

RECOMMENDATIONS

We recommend to the Department of Defense, and to the Department of the Army when it assumes triservice procurement responsibilities for 2.75-inch rocket launchers, that appropriate steps be taken in furtherance of the following objectives:

1. Broaden the production base and induce competitive procurement of launchers and components. Pending the assumption of Army responsibility for triservice procurement of 2.75-inch rocket launchers, immediate steps should be taken by the Navy to obtain more competition in procurement of rocket launchers, with breakout of components for separate competitive procurement where feasible.

2. Obtain control of technical data and insure its availability and sufficiency for competitive procurement.

3. Improve procurement planning in terms of requirements determination, timing of procurement requests, and suitable combinations of items for competitive solicitation and favorable market effect.

4. To discourage routine determinations of "public exigency" or other statutory exceptions to advertised competitive bidding, develop an Armed Services Procurement Regulation provision which would require that, in connection with each request for a formal determination, information be provided on the cumulative number of exceptions applying to the same or similar procurement item within a reasonable time.

5. Develop and execute a program for standardizing to the maximum practical extent launcher models, components, inventories, and supply distribution methods.

6. Develop procedures for scrutinizing more closely the cost data and pricing practices of sole-source contractors and their dealings with subcontractors in producing specialized equipment for the Federal Government.

7. Disseminate relevant information in contract audit reports to procurement policy officials as well as contracting officers immediately concerned, in accord with the committee's recommendation No. 2 in House Report 1132, 90th Congress, second session, February 29, 1968, page 31.

The committee intends to observe closely the reorganization of procurement responsibilities which has been projected in this field and will expect to receive followup reports on its recommendations at appropriate times.

We suggest also that Department of Defense officials concerned with the subject matter of this report examine our previous reports on the subject (H. Rept. 2660, 85th Cong., second sess., Aug. 18, 1958; and H. Rept. 1627, 86th Cong., second sess., May 18, 1960), not only for background information but for consideration of those matters still relevant and applicable to the present situation.

VII. LIST OF WITNESSES

DEPARTMENT OF THE NAVY

Hon. Barry J. Shillito, Assistant Secretary of the Navy (Installations and Logistics).
Capt. E. E. McMorries, U.S. Navy, Director of Procurement, Office of the Assistant Secretary of the Navy (Installations and Logistics).
Albert H. Stein, Deputy General Counsel, Office of the General Counsel of the Navy.
Capt. D. H. Jay, U.S. Navy, Airborne Weapons Project Manager, Naval Air Systems Command.
Comdr. Martin J. Katcher, U.S. Navy, Office of the Program Manager for Airborne Weapons, Naval Air Systems Command.
Lyman Bothwell, Assistant Counsel, Naval Air Systems Command.
James S. Tassin, Purchasing Assistant to the Assistant Executive Director for Purchasing, Naval Air Systems Command.
Judd Erhardt, Armament Negotiations Section, Purchasing Division, Naval Air Systems Command.
Lee Morgan, Armament Division, Naval Air Systems Command.
Richmond D. Chambers, Production Branch, Armament Division, Naval Air Systems Command.
Comdr. Joseph W. Brown, Jr., U.S. Navy, International Logistics Division, Office of the Chief, Naval Air Operations.

DEPARTMENT OF THE AIR FORCE

Hugh E. Witt, Deputy to Assistant Secretary of the Air Force (Installations and Logistics).
Col. William R. Manning, U.S. Air Force, Office of the Assistant Secretary of the Air Force (Installations and Logistics).
Lt. Col. John W. Dickens, U.S. Air Force, Office of Director of Supply and Services, Deputy Chief of Staff.
Lt. Col. Stanley V. Sharling, U.S. Air Force, Production and Programing.

DEPARTMENT OF THE ARMY

Maj. Gen. Roland B. Anderson, U.S. Army, Director of Materiel Acquisition, Office of Assistant Secretary of the Army (Installations and Logistics).
Col. Paul D. Hickman, U.S. Army, Program Manager, 2.75-inch Rocket.
John J. Harrity, Jr., Deputy Program Manager, 2.75-inch Rocket.
Col. Mose E. Lewis, U.S. Army, Project Manager for Aircraft Weaponization, Headquarters, Army Materiel Command.
Jose A. Ramirez, Office, Project Manager for Aircraft Weaponization, Headquarters, Army Materiel Command.

Lt. Col. William F. Gurley, U.S. Army, Headquarters, Army Combat Developments Command.
William C. Watson, Research and Development Directorate, Army Missile Command.
Paul K. Schaeppi, Deputy Director, Procurement and Production, Army Missile Command.
Lt. Col. Elswick Newport, U.S. Army, Aircraft Division, Office of the Assistant Secretary of the Army (Installations and Logistics).

GENERAL ACCOUNTING OFFICE

Earl J. Ogolin, Audit Manager, St. Louis Suboffice, Kansas City, Regional Office.
Mr. Ogolin was accompanied by the following persons:
LeRoy H. Zenk, Auditor, St. Louis Suboffice.
Robert McArter, Auditor, Defense Division.
Sidney Wolin, Defense Division.

APPENDIX

Documents Relating to Army Procurement Assignment for 2.75-Inch Rocket Launchers

JUNE 4, 1968.

Memorandum for the Assistant Secretary of Defense (Installations and Logistics).

Subject: Establishment of a triservice manager for 2.75-inch aircraft rocket launchers.

There is forwarded for your consideration the attached recommendation for establishment of a triservice manager in the Army for 2.75-inch aircraft rocket launchers.

I concur in the recommendation and request your approval to implement the establishment of the subject office. I also concur in Mr. Shillito's recommendation of May 16, 1968, that legal matters in which the Navy is involved with Alsco and the Department of Justice remain with the Navy until the trend of events can be more thoroughly assessed.

ROBERT A. BROOKS,
Assistant Secretary of the Army
(Installation and Logistics).

DEPARTMENT OF THE ARMY,
HEADQUARTERS U.S. ARMY MATERIEL COMMAND,
Washington, D.C., April 16, 1968.

Subject: Establishment of a triservice manager for 2.75-inch aircraft rocket launchers.

Through: Chief of Staff, U.S. Army, Department of the Army, Washington, D.C.

To: Assistant Secretary of Defense (Installations and Logistics), Department of Defense, Washington, D.C.

1. The purpose of this letter is to recommend establishment of a triservice manager under the Secretary of Army for 2.75-inch aircraft rocket launchers. This manager is to be responsible for coodinated development, procurement, and logistical support of 2.75-inch aircraft rocket launchers for all services.

2. The Army, Navy, Marines, and Air Force utilize the 2.75-inch aircraft rocket launchers. Existing procedures are such that each service independently budgets, funds, and programs its launcher efforts to include development and procurement. Each service exercises its own test and quality inspection standards or interprets the accepted uniform criteria in a different manner. At the present time each service procures these rocket launchers in a variety of configurations.

Preliminary contacts indicate that four basic rocket launchers could be employed with only minor electrical differences to satisfy all services.

3. Savings attendant to such standardization in cost, time, and effort are outlined below:

a. *Standardization.*—As noted on enclosure 1, four 2.75-inch rocket launchers could be developed which would satisfy the requirements of the Army, Navy, Marines, and Air Force.

b. *Procurement.*—Procurement of all 2.75-inch launchers through a single manager would eliminate competition between Government agencies for limited production resources and reduce the number of contractual actions required. Reduced unit costs would inevitably result from increased volume and possible exploitation of multiyear procurement. Intensified standardization efforts resulting from the designation of a single triservice manager would further increase potential savings in the procurement area.

c. *Production.*—Considerable potential for further unit cost reductions will occur due to a reduction in launcher variations, uniformity of direction and guidance from a single Government agency, and uniformity of QA inspection and testing requirements.

d. *Logistics.*—Distribution and supply could be accomplished through a single main pipeline for each theater, with appropriate requisitioning procedure within the theater. Success of the standardization efforts will reduce the number of launchers maintained in inventory with resultant savings in stockage and maintenance of stock records.

e. *Equipment improvement.*—Improvements to launchers to better increase reliability and longevity would not be inhibited by the creation of a triservice manager. The available talent and experience from all services would be better directed and coordinated by a single manager. A central launcher control office would best satisfy development/improvement requirements by determining which service can perform the required functions most quickly and economically.

f. Interface problems arise between the technical and operational characteristics of the 2.75-inch rocket and rocket launcher. Since triservice management for the rockets is vested in the Army, it follows that interface coordination would be expedited if launcher management were also vested in the Army. The relationship of the launcher with the wide variety of aircraft utilizing 2.75-inch rocket systems (rotary wing, fixed wing, high speed, and low speed) dictates that the launchers be managed by an office that is aircraft weapons oriented rather than one oriented only toward production of the ammunition item.

4. In conclusion, it is my opinion that there is a strong case for designation of a triservice manager for 2.75-inch aircraft rocket launchers. If the mission is approved as a responsibility of AMC, I plan to assign this task to the Project Manager for Aircraft Weaponization. This office has the technical expertise in launcher design and procurement to accomplish the mission, and such assignment would avoid the serious delays which would be incurred in establishing a new project office.

WILLIAM B. BUNKER,
Lieutenant General, U.S. Army,
Deputy Commanding General.

2.75-INCH ROCKET LAUNCHERS

A. CURRENTLY UNDER PROCUREMENT

Tubes		Model No.	User
No.	Materiel		
7	Paper	LAU–32A/A	Air Force.
7	Aluminum	LAU–59/A	Do.
7	do	LAU–68/A	Navy.
7	do	XM–157B	Army.
7	do	M–158	Do.
19	Paper	LAU–3/A	Air Force.
19	Aluminum	LAU–69/A	Navy.
19	do	XM–159/C	Army.

B. NUMBER NEEDED TO SATISFY REQUIREMENTS

7	Paper	LAU–32A/A	Air Force.
7	Aluminum	LAU–68/A,[1] XM–157B	Army/Navy.
19	Paper	LAU–3/A	Air Force.
19	Aluminum	LAU–61/A,[1] XM–159/C	Army/Navy.

[1] Basically identical launchers except for wiring, connectors, and Navy requirement for RAD-HAZ barriers. Development effort could achieve 1 launcher to satisfy both users.

ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., June 20, 1968.

Memorandum for—
The Assistant Secretary of the Army (I. & L.),
The Assistant Secretary of the Navy (I. & L.),
The Assistant Secretary of the Air Force (I. & L.).

Subject: Procurement responsibility for 2.75-inch rocket launchers.

By memorandum of June 4, 1968, the Assistant Secretary of the Army (Installations and Logistics) recommended that a single manager for triservice procurement be established within the Department of the Army for 2.75-inch aircraft rocket launchers.

Based upon our discussions of the merit of the recommendation, I conclude that there are benefits in terms of standardization, cost, and procurement flexibility to be achieved in placing the responsibility for procurement of all service needs under a single manager. I, therefore, approve the establishment within the Department of the Army of a single manager for triservice procurement of the 2.75-inch rocket launcher, to be effective with the fiscal year 1970 procurement program and to parallel the scope of the 2.75-inch rocket system responsibility as currently assigned to the Department of the Army.

The Assistant Secretary of the Army (Installations and Logistics) is requested to coordinate the development of necessary details for achieving this transfer of responsibility with the Departments of the Navy and Air Force. Such details, including time schedule, proposed project charter, and if necessary, proposed personnel adjustments, should be provided to this office by August 31, 1968.

THOMAS D. MORRIS,
Assistant Secretary of Defense
(Installations and Logistics).

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