

999-A

D36
p94
No. 48
99884

DEFENSE PRODUCTION ACT

PROGRESS REPORT—NO. 48

y4
D36
p94/
no.48

GOVERNMENT
Storage

HEARING

BEFORE THE

JOINT COMMITTEE ON DEFENSE PRODUCTION

CONGRESS OF THE UNITED STATES

NINETIETH CONGRESS

FIRST SESSION

ON

MOBILIZATION PROGRAMS OF THE
BUSINESS AND DEFENSE SERVICES ADMINISTRATION
DEPARTMENT OF COMMERCE

JUNE 23, 1967

Printed for the use of the Joint Committee on Defense Production

KSU LIBRARIES



111900 564507

KANSAS STATE UNIVERSITY LIBRARIES



U.S. GOVERNMENT PRINTING OFFICE

100-200-100

DEFENSE PRODUCTION ACT
PROGRESS REPORT TO SENATE

HEARING
JOINT COMMITTEE ON
DEFENSE PRODUCTION
CONGRESS OF THE UNITED STATES

JOINT COMMITTEE ON DEFENSE PRODUCTION

WRIGHT PATMAN, Texas, *Chairman*

JOHN SPARKMAN, Alabama, *Vice Chairman*

ABRAHAM J. MULTER, New York

WILLIAM A. BARRETT, Pennsylvania

WILLIAM B. WIDNALL, New Jersey

PAUL A. FINO, New York

WILLIAM PROXMIRE, Wisconsin

HARRISON A. WILLIAMS, Jr., New Jersey

WALLACE F. BENNETT, Utah

JOHN G. TOWER, Texas

HAROLD J. WARREN, *Clerk and Counsel*

GEORGE T. AULT, *Professional Staff*

II

KANSAS STATE UNIVERSITY LIBRARIES



U.S. GOVERNMENT PRINTING OFFICE

CONTENTS

WITNESSES

Borum, Rodney L., Administrator, Business and Defense Services Administration, accompanied by A. A. Bertsch, Assistant Administrator, Industrial Mobilization; Arthur U. Sufrin, Director, Mobilization Plans and Control Staff; Thomas Curtis, Director, Industrial Materials Staff; Gerald Stephenson, Office of General Counsel, Department of Commerce.

HEARING INDEX

	Page
Statement of the Chairman.....	1
Business and Defense Services Administration:	
Industry divisions, number of.....	12
Role in support of Vietnam war.....	11
Statement of the Administrator.....	2
Defense Materials System.....	3
Industry briefings.....	3, 14
Priorities.....	3
Set-asides.....	3, 5, 12, 16, 17
Shortages and delivery delays.....	4
Special assistance to defense contractors.....	4
Disposal:	
Copper.....	7
Defense-rated orders.....	7
Hardship cases.....	7
Molybdenum.....	7
Nickel.....	7
Program recommendations.....	7
Emergency supply-requirements:	
High-heat alloys and special property materials.....	14
List of 18 materials reviewed by BDSA.....	15
Industrial defense program.....	10
Cooperation with Office of Civil Defense.....	11
Guidance and leadership to industry.....	11
Industry Evaluation Board:	
Identification of products and industrial services for national security and national emergencies.....	9
Industrial analyses.....	9
Post-nuclear-attack production estimates.....	10
Production bottlenecks.....	16
Material supply difficulties.....	17
Small business problems.....	18
Tool and die industry.....	18
Materials, strategic and critical:	
Aluminum.....	6
Cadmium.....	6
Copper.....	6, 13
Magnesium.....	6
Mercury.....	6
Molybdenum.....	6, 7, 13
Nickel.....	6, 13
Platinum.....	6
Review of stockpile purchase specifications.....	7
Silver.....	15
Special stockpile studies.....	18
Stockpile supply-requirements estimates.....	7

MOBILIZATION PROGRAMS OF OFFICE OF EMERGENCY PLANNING

FRIDAY, JUNE 23, 1967

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON DEFENSE PRODUCTION,
Washington, D.C.

The joint committee met pursuant to recess, at 10:05 a.m., in room 2129 Rayburn House Office Building, Representative Wright Patman (chairman) presiding.

Present: Representative Patman and Representative Widnall.

Also present: Harold J. Warren, clerk and counsel, and George T. Ault, professional staff.

Chairman PATMAN. The committee will please come to order.

Section 712 of the Defense Production Act provides that it shall be the function of the Joint Committee on Defense Production to make a continuous study of the programs authorized in this act and to review the progress achieved in the execution and administration of these programs.

We are glad to have Mr. Rodney L. Borum, Administrator of the Business and Defense Services Administration, Department of Commerce, and his capable staff meet with the committee today. Mr. Borum has had experience with both the Government and private industry, having been previously associated with the General Electric Co.

The Business and Defense Services Administration has been assigned the defense mobilization and emergency preparedness functions which relate to industrial production and distribution, and maintains direct day-to-day contact with American industry through its various divisions.

Title I of the Defense Production Act authorizes the President to establish priorities in the performance of defense contracts and to require the acceptance and performance of such contracts.

Title I of the Defense Production Act also authorizes the President to allocate materials and facilities to promote the national defense. The priorities and allocations powers are administered by the Business and Defense Services Administration, and is accomplished through a series of regulations and orders designated as the Defense Materials System.

In addition to the establishment of priorities for the Department of Defense and atomic energy programs, certain projects such as IRBM, ICBM, and satellite programs, have been specially designated by the President and given preference over other defense programs.

The Industry Evaluation Board operates within the Business and Defense Services Administration, and has the responsibility for identi-

fyng products, services, and supporting facilities which are of exceptional importance to industrial mobilization and national survival. The Executive Reserve unit of BDSA, authorized in the Defense Production Act, would staff an expanded production agency in a national emergency.

Other functions include making recommendations for the purchase and sale of strategic and critical materials, appraising the adequacy of the national industrial plant based upon military and civilian needs in time of emergency, recommending to industry and Government actions to assure the effective utilization of national economic resources for conventional or general war, making recommendations to the Office of Emergency Planning regarding survival items, and preparing necessary orders and regulations to assure effective production and materials distribution during an emergency period.

We are very glad to have you with us, sir.

Will you please identify the people who have accompanied you?

STATEMENT OF RODNEY L. BORUM, ADMINISTRATOR, BUSINESS AND DEFENSE SERVICES ADMINISTRATION, ACCOMPANIED BY A. A. BERTSCH, ASSISTANT ADMINISTRATOR, INDUSTRIAL MOBILIZATION; ARTHUR U. SUFRIN, DIRECTOR, MOBILIZATION PLANS AND CONTROLS STAFF; THOMAS CURTIS, DIRECTOR, INDUSTRIAL MATERIALS STAFF, AND GERALD STEPHENSON, OFFICE OF GENERAL COUNSEL

Mr. BORUM. Thank you, Mr. Chairman and members of the committee.

With me today are Mr. A. A. Bertsch, Assistant Administrator, Industrial Mobilization; Mr. Arthur U. Sufirin, Director, Mobilization Plans and Controls Staff; Thomas Curtis, Director, Industrial Materials Staff; and Gerald Stephenson, Office of the General Counsel in the Department of Commerce.

Chairman PATMAN. We are very glad to have these gentlemen who are with you present here today.

Mr. BORUM. Mr. Chairman and members of the committee. I appreciate this opportunity to discuss with you current mobilization activities of the Business and Defense Services Administration, particularly as they relate to the Defense Production Act. I have with me today a few members of my staff who, over the years, have maintained a close association with this committee.

Our responsibilities in defense mobilization are broad and are derived from a number of Executive orders, directives from the Office of Emergency Planning, and assignments to the Department under the Defense Production Act.

In brief, through BDSA's Office of Industrial Mobilization, we administer the defense priority and allocation system; we participate importantly in national stockpile activities; we maintain the largest Executive Reserve of any Federal agency; we utilize the Industry Evaluation Board to identify products, services, and their supporting facilities which are of exceptional importance to national defense; we prepare studies and assessments of postnuclear attack production capabilities; and we assist and encourage managers of industrial organizations to develop plans and programs to insure the continuity of essential production in the event of a nuclear attack.

Stemming from these basic responsibilities and corollary to them, we use the expert knowledge in the BDSA Industry Divisions in the preparation of analyses and studies related to defense which are necessary for a proper evaluation and solution of current problems in defense production and distribution, as well as those difficulties which would be encountered in a full mobilization period.

Thus, the scope of our activities in this field involves much of the BDSA total workload and also contributes significantly to our country's continuing defense posture.

In light of the current deployment of troops in South Vietnam which already exceeds in numbers those engaged in the Korean conflict and in view of the large expansion of military expenditures which affects many areas of the civilian economy, BDSA's administration of the priorities and allocations powers of the President under the Defense Production Act is of outstanding importance at this time.

To carry out this function, BDSA has developed, over the years, a procedure known as the Defense Materials System and Priorities which is intended to maintain schedules of defense production with a minimum burden on industry and Government. The system is based on the Government's authority under the act to establish and to enforce priorities in connection with defense contracts which assure through successive tiers of subcontractors the availability and appropriate scheduling of supplies needed to fulfill the contract.

In addition to this arrangement, there is authority to require producers to set aside or reserve a portion of their output to meet defense requirements. Such a set-aside also provides assurance of the fulfillment of defense orders but it is particularly important in distributing the defense load equitably, when it becomes too heavy, since producers are permitted to refuse defense orders which exceed their assigned quotas.

Furthermore, by establishing such set-asides on a quarterly (or a monthly) basis, it also provides a flexibility for meeting continuing variations in defense production demand. The success of BDSA in enabling industry to meet on schedule the enlarged military demand for munitions, equipment, and supplies and, at the same time, avoiding the imposition of production controls on the civilian economy testifies to the effectiveness of the system under the present difficult situation.

The very substantial expansion of defense procurement orders necessarily involved a large number of firms with little or no experience with the Defense Materials System. For this reason, we have conducted in all the important areas of the country over 60 formal industry briefings designed to educate and to reeducate defense contractors and particularly new subcontractors and those expecting defense contracts, on the procedures and the mandatory nature of the priorities established under the Defense Production Act. To facilitate a better understanding of the operation of the system, we distributed a kit of instructions to each participant in the briefing sessions. We believe this activity has been an important element in the successful operation of the system, since more than 25,000 persons have attended these meetings and their keen interest and questioning indicated the value of this educational program.

As a followup, we distributed to the participants, to industry generally, and to trade associations a booklet entitled, "Questions and Answers—The Defense Materials System and Priorities" which

was based in large part on questions raised most frequently at the meetings. Additional publicity was provided by the daily and trade press and Government publications. The final conference of the series was concluded only yesterday in Honolulu at which the registration exceeded 450 persons.

In administering a program which involves about \$27 billion of defense orders in the present fiscal year, it is inevitable that many problems and difficulties would arise, such as competing orders for a specialized product, conflicting priority orders on an individual supplier's schedule or inadequate facilities to produce the required item. When problems of this nature occur, we provide special assistance to the defense contractors in overcoming them. Such assistance ranges from a telephone call to clarify a supplier's understanding of the system, to the issuance of directives calling for rescheduling of production and deliveries.

In this respect, over the last 11 months, we have taken positive actions on 4,895 cases involving products amounting to \$392 million in value. In addition, we have issued 2,865 authorizations to obtain items not normally covered by the priority rating flow but which are necessary to production; that is, capital equipment such as machine tools, other production equipment, and construction. The effective assistance thus provided is perhaps the most important element contributing to the avoidance of allocation in the civilian area. We are firmly of the opinion that our concentrated effort in handling the special problems that have arisen over the past 2 years has been a most important factor in maintaining a smooth war-production effort.

I believe a few examples of some of the problems we have had to face, and the numerous actions we have had to take to solve them, would be of interest to the members of this committee.

Beginning about a year and a half ago, serious delays in the delivery of rated orders for forgings were reported. Three plants producing almost 100 percent for defense were primarily involved. Shortages of certain types of raw materials, breakdowns of equipment, insufficient capacity and other factors contributed to the difficulties. BDSA staff members visited in each of the plants and obtained lists of all orders in relation to the individual piece of equipment involved. These orders were reviewed with the appropriate agencies of the Department of Defense which used the Master Urgency List to determine the sequence of orders to be filled on the various sizes of forging equipment. After consultation with the firms regarding the feasibility of the delivery sequences, production directives were issued. Thereafter, BDSA made monthly reviews of new or changed orders, cancellations, rejections, and die breakage and, based on these reviews, directives were appropriately amended. By October 1966, the situation had improved to the point where priority orders could be processed on an individual case basis. The entire operation involved full use of priorities and production directives, supplemented by special assistance activities in many areas.

Another particularly difficult problem resulted from the huge demand for a special defoliant ("Orange") by the Department of Defense. In this case a number of actions became necessary. In the first place, BDSA, with the assistance and cooperation of other claimant agencies, was able to arrange for delivery to DOD of the maximum output of existing capacity. Secondly, BDSA was instrumental in

encouraging several private plant capacity expansions the output of which now goes to DOD. BDSA also secured the cooperation of a Canadian producer in supplying additional quantities of defoliant for military needs. As an additional complication, production of certain components of the defoliant was inadequate to meet this demand. Accordingly, OEP and DOD approved a BDSA recommendation to expand, with the aid of DOD financing, capacity to produce the intermediates as well as the defoliant.

At the same time, BDSA obtained the assistance of Department of Agriculture herbicide experts in providing guidance to civilians in the utilization of substitutes for these materials. Lastly, BDSA encouraged DOD to supplement the supply of "Orange" with a proprietary product, "Tordon 101(R)," until the former was in adequate supply. To facilitate the production of "Tordon 101(R)" at maximum capacity, BDSA provided special assistance to companies making or using the intermediate products necessary for its manufacture.

A third problem involved the inadequacy of certain textiles and garments for Vietnam needs; that is, cotton poplin, sateen, and cotton duck, and cotton tropical combat uniforms. The unfulfilled demand for these items resulted from the rapid buildup of U.S. military involvement in Vietnam in 1966, coupled with a high level of civilian apparel demand.

In order to secure timely deliveries of the poplin, sateen, and duck, representatives of BDSA called together leaders in the textile industry and their trade associations and worked closely with them and, of course, with the Defense Supply Agency on the problem. As a result of these efforts, sufficient productive capacity was transferred from civilian to military work to fill defense rated orders. These steps enabled the industry to deliver the necessary yardages on an accelerated schedule acceptable to defense officials, and directives were not necessary.

Military orders for uniforms were issued at a time of unprecedented civilian demand for apparel. In addition, some uniform items, particularly the cotton poplin tropical combat uniform, required operations which many firms felt they could not perform. The apparel industry is characterized by a large number of small firms, many having limited capital, and few having the specialized machinery needed to produce uniforms to the strict military specifications.

We found a reluctance among apparel producing firms to interrupt civilian production in order to accept military orders and meet the short delivery dates. Although educational meetings with industry and moral suasion were effective in some cases, it was necessary for us to issue 29 directives ordering the companies, having known capability, to produce the vitally needed requirements for military uniforms.

At the present time, military procurement agencies are experiencing no difficulties in obtaining supplies of textiles and apparel. Voluntary bids have been more than adequate to meet requirements in all invitations to bid on military textile and apparel items.

Set-asides under the Defense Materials System have remained relatively stable over the past nine months and on the basis of representations made to BDSA by the Department of Defense are expected to continue at about the current level over the foreseeable

future. The set-aside for domestic refined copper for the first and second quarters of 1967 has been established at 29 percent of the average 1965 monthly production. The set-aside of domestic refined copper at the level noted represents only about 11 percent of the estimated availability of total copper which, of course, includes not only domestic refined but the copper content of scrap, copper from foreign sources, and secondary refined copper.

Aluminum set-asides have continued at approximately 13 percent of anticipated industry shipments or 300 million pounds per quarter.

Set-asides of steel mill products represent about 6 percent of total industry shipments made or anticipated for the quarterly period.

The defense set-aside for nickel has been established at 25 percent of the monthly deliveries of the U.S. suppliers of primary nickel for the first 6 months of 1966. The 25-percent set-aside which was established for the month of April and continued through the current period represents a substantial increase from private sources and such increase was due to the completion of defense deliveries from the U.S. stockpile surplus.

The set-aside procedure on these materials is taken not only to assure timely delivery of such material but assures as well the equitable distribution of the impact of defense orders among materials suppliers.

I would like to comment just briefly on the future outlook of availability of these materials. It is our view that barring dramatic changes in defense requirements there will be adequate steel and aluminum to fulfill both civilian and defense requirements without undue difficulty.

The copper situation, however, while currently providing no problems is in our judgment potentially difficult and such difficulties can be compounded by the possibility of an industrywide strike this summer. Quite naturally, if there is an upsurge in the domestic civilian economy during the latter part of this year, and if military requirements remain firm, serious problems may well arise.

The nickel situation has been difficult over a prolonged period of time and is expected to remain so well into 1968. If, however, expected new production is achieved without a dramatic rise in use either for defense or nondefense purposes, we believe that the serious problems may be overcome by the middle of next year.

Over the past number of years we have encountered short supply situations in a variety of basic industrial items. A few years ago serious shortages appeared in respect to cadmium and more recently respecting molybdenum, magnesium, mercury, and platinum. These shortages were temporary in nature for all except platinum and none of them affected our defense production efforts. The priorities system assured availability of these commodities for defense and the difficulties were encountered only in the civilian use area.

In the stockpiling area, we provide extensive advice to the Office of Emergency Planning, which has overall responsibility for the national stockpile. In this respect, we not only furnish recommendations on policies and procedures but prepare analyses and special reports in many fields which are necessary elements in OEP's review and determination of such policies and procedures.

Our competence in this area stems from our staff's specialized knowledge of industry operations including capacity, techniques, expansion plans, and trends in end-item usage. These are essential

tools for developing requirements estimates, for guidance on the specifications and forms in which stockpile items should be acquired, for noting technological advances which would affect the need for items already stockpiled and for evaluation of market situations when disposal of surpluses are to be undertaken.

The more important of these continuing studies include: (1) preparation of basic data sheets which provide estimates of essential civilian and war-supporting mobilization needs by end-use for each of the 77 materials in the stockpile, (2) review of stockpile purchase specifications which must reflect up-to-date industry practices to assure efficient production in wartime, and (3) reports on present and prospective markets involving surplus stockpile materials to determine what quantities can be sold in a given period of time without impairment of the markets.

In addition, special studies and recommendations are submitted on such matters as adequacy of processing plants to meet potential demands, stockpile storage procedures, supply requirements estimates for items for which stockpiling may be necessary, and changes in usage technology.

Using basic guidelines provided by OEP, we were able to develop by the end of 1966 estimates of requirements in a nuclear war situation for all stockpile items and we are scheduling reviews of requirements in a nonnuclear war for these items during fiscal year 1968. At the same time, we have been working with industry representatives and other Government agencies to complete, by the end of this fiscal year, about 25 reviews of stockpile purchase specifications and related special stockpile instructions. We have also reviewed during the year the possible need for stockpiling of eighteen materials in light of their supply-requirements potential and we submitted recommendations regarding 20 surplus disposal programs.

With regard to the disposal programs, three of the items—copper, molybdenum, and nickel—were in such short supply that BDSA, at the direction of OEP, provided the General Services Administration with allocation instructions for use in filling defense-rated orders and to assure an equitable distribution of a designated quantity to hardship cases, with an emphasis on the needs of small businesses. To meet the latter requirement, hardship criteria had to be established and all applications had to be reviewed in light of the criteria.

In the case of molybdenum, the 14 million pounds authorized for sale was released over the four quarters ending in June 1967, with about 50 percent going to hardship cases. Allocation of 24.5 million pounds of nickel released for sale in December 1966 was spread over 3 months with 10 percent being set aside for hardship cases and the balance distributed for defense orders. In the case of the 150,000 tons of copper cathodes and wire bars released in December 1966, BDSA's program for distribution was restricted to defense orders only over a 9-month period ending in September. Because of this limitation, the material was sold to domestic producers of refined copper from domestic ores for resale at no profit.

The activities I have discussed to this point relate more to present defense production problems than to mobilization planning as such. However, we also have a number of responsibilities which involve primarily the latter category.

One of the more important of these responsibilities is the National Defense Executive Reserve program. We consider this of high import-

ance because it is essential to our proper administration of those areas of production, construction, and distribution assigned to us in a mobilization period. In this program BDSA, under the authority of the Defense Production Act Amendments of 1955, has developed a trained manpower pool of 1,435 executives, primarily from industry, for employment in positions of responsibility in periods of national emergency. BDSA has the largest Executive Reserve complement in the Federal Government with nearly 40 percent of the Government total.

Two types of emergency are planned for: (1) nuclear attack on the United States, under which our reservists would report automatically to predetermined emergency facilities located throughout the country, and (2) limited war not involving such an attack, when selected reservists would be called upon for emergency service, the majority being assigned to the Agency's headquarters in Washington.

Because of the Vietnam war, recent training has emphasized limited war problems and concepts, a departure from previous training programs which dealt primarily with nuclear war situations. Over 50 local Reserve meetings and a series of seven Regional Executive Reserve training conferences were held throughout the country this past year. Hypothetical problems similar to those of an emergency production agency during limited war were developed for the BDSA reservists in attendance at the regional conferences, giving them valuable insights into the types of situations they could encounter and regarding the tools available to them as Government officials for developing solutions.

In addition to the training provided through formal meetings, through a series of orientation and training bulletins we have described and explained the principles and procedures of the Defense Materials System and other aspects of resource management for limited or nuclear war. For reservists with the time and inclination for still further training, BDSA has made arrangements with the Industrial College of the Armed Forces (Washington, D.C.) to make selected ICAF courses and study materials available. A number of reservists have applied for the correspondence courses in National Security Management and Management in the Department of Defense.

Several refinements have been made in BDSA's Executive Reserve staffing and recruitment programs. Individual staffing patterns were developed for the 42 field offices, eight regions, and the national headquarters in terms of industrial location and concentration where applicable. Thus estimated executive manpower requirements were developed to parallel the patterns of concentration of the direct defense, defense supporting and essential civilian industries throughout the country. At the national level staffing objectives were broadened to include personnel other than production specialists. New recruitment plans, which will ultimately increase to 2,500 the number of BDSA reservists, concentrate on the specified manpower deficits.

Recruitment will be concentrated on reservists in the 35- to 55-year age bracket and retirement from the active BDSA Executive Reserve will be compulsory at age 70. We feel that the new recruiting policies and programs will help to insure a functional, decentralized operation following nuclear attack and will also provide an Executive force having the skills and training needed for centralized limited war operations.

Some attrition in Reserve membership is expected this fall due to expiration of the 3-year terms of appointment of a large number of reservists and the implementation of a 70-year age limit on reservists. Most reservists will be reappointed as is permitted under Executive Order No. 11179, which provides for the National Defense Executive Reserve.

Each of the 42 Department of Commerce field offices has an emergency relocation facility from which it would perform delegated emergency production functions with the assistance of executive reservists following an attack on the United States. A study is currently in progress to establish new standards of adequacy for sites in terms of vulnerability and operational suitability. Substandard sites will be upgraded.

Additionally, arrangements are being made with the responsible agencies for provision of supplies and administrative services at the relocation facilities in an emergency situation. Thus, we plan to have the manpower and facilities to perform our emergency readiness responsibilities under any contingency that we can now conceive. The facilities available for this purpose include the Mobilization Data Centers established at a number of hardened or classified sites which contain industrial reference material essential to decision making under emergency conditions.

Another area of special significance to effective mobilization planning is the identification of products and industrial services of exceptional importance to the national security and an evaluation of the national capability to provide adequate supplies of such products and services in various types of national emergencies. In carrying out this function, BDSA prepares analyses which involve such items as national supply data, estimated requirements under emergency conditions, technological aspects of production which might limit output and end-use distribution patterns, existence and availability of substitutes, and especially production and capacity data for individual producing facilities. These analyses are submitted to the Industry Evaluation Board for final approval, a group shared by the Department of Commerce and consisting of representatives from eight other agencies concerned with such mobilization problems. The approved analyses are integrated into many Federal programs devoted to industrial mobilization, national defense and postattack production planning. Each analysis provides basic information in a concise and uniform arrangement which serves as a foundation for further action, as needed. In addition, the development of end-use patterns and key equipment requirements in groups of related analyses provide more complete data concerning the industrial intermesh in the U.S. economy.

Within the past year the Board acted upon industrial analyses covering about 100 different products or segments of industry which are of major importance to the national security. Among these were such basic chemicals as benzene, sulfuric acid, chlorine, and the alkali chemicals, without which virtually no manufacturing is possible. A recent example of unusual interest is an analysis of the electrical wire and cable industry which, for the first time, organizes and defines the thousands of different kinds and sizes of wire and cable in such manner that the production capability of a facility can be determined for each type and size. Other examples include analyses covering the construction, repair, and maintenance of all types of oceangoing ships of 300

feet and over in size, the telephone and telegraph communications equipment industry, and the production of numerous drugs and medical and surgical supplies.

One of the most difficult and complex areas of mobilization planning involves estimates of postnuclear attack production capabilities; yet rationally derived assessments of the availability of vital civilian and military production immediately after a nuclear attack on the United States, and at various stages thereafter, are of critical importance to strategic military and survival plans. Such assessments are also essential to preattack calculations of inventory, stockpiling, and other methods of provision for civilian and military survival. Nuclear attack emphasizes the fundamental distinction between available capacity and the production obtainable from that capacity. The capability to produce vital end products depends not only upon the survival of the production facilities for these products, but also upon their suppliers of materials, components, and services. In the event of a break in the chain of suppliers to producers, production may well be substantially less than available capacity for particular end products.

In 1960 at the direction of the Office of Defense Mobilization (now the Office of Emergency Planning), BDSA undertook, through a private research organization, the development of a methodology for determining for planning purposes the postattack capability to produce certain end products in the wake of a nuclear attack upon the United States. "Vertical" analyses of three drugs were completed under this project. A test of this methodology and criteria was developed which resulted in the preparation of analyses of 15 additional items which confirmed the criteria established by the pilot project and developed a methodology which could be readily programed for computer analysis. Further research by the staff, after the termination of the contract, yielded a solution to the obstinate problem of incorporating competing demand into the methodology for assessing postattack production capabilities.

In brief, an assessment would proceed through three stages: (1) determining in depth the dependency of a specific end-product industry upon its suppliers of materials, components, and services; (2) determining through mathematical calculations, with the aid of data processing procedures the probable effect of a nuclear attack upon the end-product industry and its sources of suppliers; and, (3) determining where remedial measures should be applied in order to lessen the severity of shortages.

A postattack production capability analysis is now in progress on vehicles and other equipment required for the major modes of transportation. This study was initiated at the request of the Office of Emergency Transportation in the Department of Transportation.

The Industrial Defense Program is another aspect of mobilization planning for which BDSA has a major responsibility. Under Executive Order No. 10999, the Secretary of Commerce is required to "provide industry (with) protection guidance materials adapted to the needs of assigned facilities and promote a national program to stimulate disaster preparedness and control in order to minimize the effects of overt or covert attack and to maintain continuity of production and capacity to serve essential users in an emergency." In addition, the order requires that such guidance be prepared and

distributed "in consonance with national civil defense plans, programs and operations of the Department of Defense." The Secretary of Commerce has delegated this function to BDSA.

Basically the objective of the Industrial Defense Program is to furnish guidance and leadership to industry in the development of programs which would insure continuity of essential production in the event of an enemy attack. Necessarily such planning would include protective measures against the effect of nuclear weapons. In such matters, we cooperate closely with the Industrial Participation Staff of DOD's Office of Civil Defense.

Our principal effort at this time is directed to the publication and dissemination of industrial defense planning manuals and brochures that will assist the managers of specific industries in carrying out their programs. This information in the manuals deals primarily with the threat of a nuclear attack but information and guidance with regard to minimizing the effects on industry of natural disasters is also included.

Since the scope of BDSA's responsibilities covers 90 percent of all manufacturing industries, we must depend on the cooperation of industry to produce guidance in developing practical measures for protection. In this respect, the specialists in our Industry Divisions work closely with knowledgeable industry experts as well as appropriate Federal agencies. Through this procedure, manuals can be tailored to the special problems of individual industries. Presently, we are working on seven manuals and four brochures.

To supplement this work, we have prepared an "industrial defense kit" which contains a number of recent issuances and publications of the Office of Civil Defense and of BDSA, and which we believe will be of significant interest and assistance to business and industrial executives in developing their emergency and disaster plans. We have distributed this information through 600 chambers of commerce and the 42 field offices of the Department of Commerce, and we have sent a kit to each of the 1,400 members of the BDSA unit of the National Defense Executive Reserve. We expect this distribution will serve to stimulate and maintain industry's interest in helping to insure the continuation of the national industrial plant and its output.

It is a source of satisfaction to us that we are able to report to the Joint Committee on Defense Production on the progress of our activities in the administration of title I of the Defense Production Act and our mobilization planning efforts under the Executive Orders issued by the President. Both the current efforts in support of Vietnam and mobilization planning for even greater emergencies have occupied us fully in BDSA for a number of years. During the past 2 years, however, the emphasis has quite naturally and properly been placed on the industrial needs in support of our engagement in Vietnam. Despite the substantial extent of our involvement in Southeast Asia, with its increasing and accelerating rate of military procurement we have been able, from the application of the experience gained during past emergencies and our planning endeavors, to assure the necessary flow of materials, components, equipment, and supplies into the defense effort with only minimum disruption of national civilian production. As has been pointed out by the Secretaries of Defense, Treasury, and Commerce never in our history have we been engaged in an effort of this magnitude, demanding national resources at this great level, without the necessity of imposing of controls over the civilian economy.

We are justifiably proud of our role in this program and appreciative of the cooperation in the administration of this program that has been afforded to us by the other agencies of Government, notably, Department of Defense and the Office of Emergency Planning. We are constantly reviewing the impact of defense procurement on the industrial community and revising or placing into effect such rules and regulations which will permit us to continue our efforts without extension of controls into those areas we have heretofore avoided.

The manpower resources within BDSA available to accomplish this effort are not unlimited and they are, at the present time, being strained to accomplish our national objectives without additional staff. If, however, national defense requirements increase and national problems due to the expected increase in gross national product create difficulties in production and distribution which must be met by more stringent means, we will keep this committee fully informed and will solicit its assistance and advice.

We are greatly encouraged by the continuing interest taken by the Joint Committee on Defense Production and trust that our association on the many problems involved in national production efforts can be solved by our concerted effort.

Mr. Chairman, because of the wide range of our mobilization activities I have of necessity had to speak in general terms. My colleagues and I, however, shall attempt to answer any specific questions you may have regarding particular aspects of our important program.

Chairman PATMAN. Thank you very much for your very fine statement, Mr. Borum.

I would like to ask you a few questions. And Mr. Widnall, too, would like to ask you some questions.

How many industry divisions do you now have in the Business and Defense Services Administration?

Mr. BORUM. We have 26, Mr. Chairman.

Chairman PATMAN. Twenty-six?

Mr. BORUM. Yes.

Chairman PATMAN. Would you indicate the extent to which the Department of Defense and other departments and agencies consult with you in the operation of the Defense Materials System?

Mr. BORUM. I would like to refer that to Mr. Bertsch to answer the question.

Chairman PATMAN. All right. Mr. Bertsch.

Mr. BERTSCH. We consult with the Department of Defense and the other defense agencies continuously, even on an hourly basis.

Chairman PATMAN. Let me ask you, Do you have complete cooperation?

Mr. BERTSCH. Complete cooperation.

Chairman PATMAN. Has the operation of the Defense Materials System enabled current defense and atomic energy production to remain on schedule?

Mr. BORUM. Yes; it has.

Chairman PATMAN. What percentage of industry shipments of copper, nickel, aluminum, and steel are being set aside for defense purposes?

Mr. BORUM. Eleven percent of the total copper production is set aside; 29 percent of the domestic refined copper; a little less than 6 percent on steel; some 12 to 13 percent on aluminum; and on nickel, 25 percent.

Chairman PATMAN. Has there been any improvement in the supply of copper?

Mr. BORUM. There has been some improvement and we expect even more in the coming months. Of course we are faced presently this month with a potential strike situation in 90 percent of the domestic copper industry.

Chairman PATMAN. Are there any ammunition shortages at present?

Mr. BORUM. None to our knowledge.

Chairman PATMAN. None to your knowledge?

Mr. BORUM. None.

Chairman PATMAN. Would you indicate whether export controls are in effect for nickel scrap?

Mr. BORUM. There are no short-supply export controls, as such, presently. We do require a validated license for the shipment of nickel scrap. We are looking into the matter, however, after meeting with the industry last week, as to the future needs for export controls.

Presently we are reviewing the situation by making a survey of inventories by receiving reports from consuming industries and nickel distributors.

Chairman PATMAN. Are there adequate supplies of molybdenum?

Mr. BORUM. There are. Some 100 million pounds are produced on a yearly basis and the U.S. industry is able to provide all that is needed in the United States as well as to ship some 30 percent abroad.

Chairman PATMAN. Are you encountering any shortages or serious problems as a result of the Vietnam war or the situation in the Middle East?

Mr. BORUM. None, so far as the Vietnam situation is concerned. Of course we are presently concerned about nickel. I might point out, however, that defense production, through the operation of the Defense Materials System has not suffered and we are looking, as I have mentioned, into what we should do about nickel exports.

Another difficult area is herbicides; namely, "Orange," a defoliant, which consists mainly of two principal chemicals, 2-4-D and 2-4-5-T. Presently Defense is taking the total production of one of those chemicals, 2-4-5-T and some 40 percent of 2-4-D. We are presently surveying the industry to see what the impact is on 2-4-D and other formulations using this particular chemical.

Chairman PATMAN. Your report to this committee for the quarter ending March 31, 1967, referred to numerous special assistance actions relating to aircraft, missiles and space, ships, tank-automotive, weapons, ammunition, electronics and communications, and construction. Has the number of special assistance actions increased or decreased in the current quarter?

Mr. BORUM. I will ask Mr. Bertsch to answer that question.

Mr. BERTSCH. In the current quarter they have remained relatively constant as compared to the previous three quarters. There has been a slight diminution during the month of May, perhaps due to some vacations and so forth, but we believe that they will remain relatively constant for the next couple of months. They have increased, as you know, Mr. Chairman, from about 3,800 last fiscal year to approximately 8,000 to 9,000 this fiscal year and we expect them to stay at that rate or to increase slightly during fiscal year 1968.

Chairman PATMAN. Thank you, sir.

How many meetings have been held in recent months to explain the operation of the Defense Materials System to industry representatives?

Mr. BORUM. Over 60 since the beginning of last year. The last one was held yesterday in Honolulu.

Chairman PATMAN. Would you outline your findings in the review of the survival items program?

If you would like, you may insert that into the record.

Mr. BORUM. We would like to do that.

Chairman PATMAN. That will be fine.

(The information follows:)

Many of the items listed in the official List of Essential Survival Items, published as an appendix to Defense Mobilization Order 8500.A1, are expressed in very general terms, often as large basket categories of related commodities. These vary among each other in importance under the austere conditions of postnuclear attack survival. Within the past year we have made considerable progress in determining the specific components of a basket which should properly be considered essential survival items. We have also succeeded in defining certain survival items which had been listed in a somewhat indefinite manner. As a consequence of these determinations, all of the listed survival items have now been assigned to Standard Industrial Classification (SIC) codes.

In furtherance of the BDSA contribution to the Essential Survival Items Program, we have established the policy of limiting survival item studies, and the industry surveys upon which they are based, to commodities for which there are relatively few producers, or which are made in costly, long leadtime facilities, for which there are peculiar production problems. A resulting survival item study provides the names and locations of all producers on a plant-by-plant basis, current production rate for each plant, production capacity per plant, normal plant inventory, and production runout; that is, the quantity of the given product which could be produced with materials normally on hand. In the recent past 15 industry surveys have been made covering a much larger number of products. For instance, the survey on "Selected Medical Items", contained required data on 32 products.

The BDSA is responsible only for providing information on production capability of survival items. Claimant agencies for these items are responsible for the development of postattack requirements for these survival items.

Chairman PATMAN. In your report to this committee for the quarter ending March 31, 1967, you indicated you had completed an annual review of the supply-requirements situation for high-heat alloy and special property materials in an emergency. What is the emergency supply-requirements situation for high-heat alloys and special property materials?

Mr. BORUM. I would like to furnish that for the record.

Chairman PATMAN. That will be satisfactory.

(The information follows:)

Our annual review of 18 high-heat alloy and special property materials did not reveal any new requirements or supply problems that would warrant a detailed analysis of wartime supply-demand. Four materials, however, have been identified as presenting potential

problems requiring continued surveillance; that is, hafnium, tantalum, titanium, and zirconium.

Atomic reactor cores for naval vessels will continue to use virtually the entire supply of hafnium which has discouraged research efforts leading to consumption in other fields. New applications could cause a shortage of hafnium.

The demand for tantalum in miniature electronic capacitors has increased greatly in the past 2 years. The deficit supply of tantalum from limited sources has been eased to some extent by releases of surplus columbium-tantalum minerals from government inventories. The increased consumption of tantalum will be reflected in the next review of the stockpile objective scheduled for the latter part of 1967.

Titanium usage increased 25 percent in 1965 and 50 percent in 1966 primarily as a result of growing demand for aircraft engines and airframes. Industry will be hard pressed to meet requirements over the new few years. Titanium producers are expanding present facilities and construction of new plants to meet the increased demand. A recent review of titanium supply-demand resulted in the expected larger stockpile objective.

The use of zirconium in nuclear powerplants has resulted in substantial increases in consumption of this metal. Thirty percent of current supply comes from AEC inventory, but current and planned expansion of zirconium producing facilities should ease the situation.

The following items comprise the list of 18 materials examined during this review.

Beryl	Indium
Boron elemental	Silicon, high purity
Cerium	Rhenium
Cesium	Rubidium
Columbium	Tantalum
Gallium	Tellurium
Germanium	Titanium
Graphite (artificial-special grades)	Tungsten
Hafnium	Zirconium

Chairman PATMAN. Would you indicate the number of textile contracts placed with the textile industry under authority of the Defense Production Act?

Mr. BORUM. I would like to furnish that for the record.

Chairman PATMAN. That will be satisfactory.

(The information follows:)

During fiscal year 1967 the Defense Personnel Support Center placed 1,756 prime contracts for textiles and 1,107 prime contracts for apparel. All of these contracts carried the priority rating required under DMS regulation 1 and, in that sense, were placed under the provisions of the Defense Production Act of 1950. Receivers of these prime contracts are authorized to extend the priority rating to their suppliers or subcontractors. However, we have no means of determining the number of cases in which the rating was so extended.

Chairman PATMAN. Are there shortages of any textiles required for defense purposes at this time?

Mr. BORUM. There are none.

Chairman PATMAN. Are the industrial requirements for silver continuing to increase? Do you have any projection for the industrial requirements for silver in the years ahead?

Mr. BORUM. I would like to furnish that for the record.

Chairman PATMAN. That will be satisfactory.

(The information follows:)

Industrial consumption of silver, 140 million ounces in 1965, will continue to increase in future years. Consumption is expected to reach approximately 195 to 200 million ounces by 1970—an increase of about 5 percent per year.

Chairman PATMAN. The 16th annual report of this committee indicates that one purpose of Industry Evaluation Board studies is to reveal potential industrial bottlenecks. Have recent studies revealed any potential bottlenecks?

Mr. BORUM. I would like to furnish this for the record.

Chairman PATMAN. That will be satisfactory.

(The information follows:)

Within the past year several such bottlenecks have been found. To identify them in a public document would involve a breach of security. However, this information can be made available to the committee under appropriate security restrictions.

Chairman PATMAN. Would you indicate the number of members in your Executive Reserve unit? I believe that you answered that in your statement.

Mr. BORUM. 1,435.

Chairman PATMAN. Mr. Windall, would you like to ask some questions at this time?

Representative WIDNALL. Yes, sir, Mr. Chairman.

Thank you, Mr. Borum, for coming here today. We appreciate your testimony.

What adjustments in the Defense Materials System may become necessary to accommodate a further buildup of our Vietnam forces?

Mr. BORUM. The changes that would perhaps be needed will turn mainly in the area of set-asides. I am, of course, speaking here in terms of increasing them in the four controlled material areas. Of course we should expect to see a continuation of increased special assistance cases. In fact, we have estimated that in the forthcoming year it may rise to 11,000 or 12,000 in number.

Representative WIDNALL. Has there been any substantial change in the Commerce Department's policy on the use of the priorities and allocations authority since the Secretary of Commerce appeared before this committee in October 1965?

Mr. BORUM. There has been no change.

Representative WIDNALL. Can we continue to superimpose the military procurement upon the civilian economy without serious disruption of industry?

Mr. BORUM. The expenditures are running something like 9 to 10 percent of our gross national product and we believe that this compares to, say, something like 14 percent of the gross national product during the Korean conflict. I think that in this light, with some of the products and the difficulties that we have outlined here today, we can continue to operate with the system as we know it, that is, with the Defense Materials System.

Representative WIDNALL. What segments of the industrial economy are encountering material supply problems? What steps are being taken by BDSA to solve these problems?

Mr. BORUM. This would be very difficult to estimate. For example, if you look at the control materials areas themselves we are getting expanding production in nickel, copper, as well as in aluminum and steel. And so looking to the future we should be able to absorb increases in these areas easily.

Representative WIDNALL. With respect to critical materials, to what extent do imbalances in world supply and demand affect our defense industry and our ability to provide the hardware needed in Vietnam?

Mr. BORUM. Congressman, would you repeat the question?

Representative WIDNALL. With respect to critical materials, to what extent do imbalances in world supply and demand affect our defense industry and our ability to provide the hardware needed in Vietnam?

Mr. BORUM. Here again the impact on the defense industry is not significant. They do, of course, get their take. The impact is on the civilian side. We are witnessing some of this impact now with nickel, for example.

Representative WIDNALL. Under the controlled materials program as conducted by BDSA for the Department of Defense, what changes are anticipated in military set-asides of copper, nickel, aluminum, and steel?

Mr. BORUM. No changes are anticipated at this time. We have announced the set-asides for the next quarter, except nickel which we are doing on a month-to-month basis. We anticipate no change whatever in that area.

Representative WIDNALL. Is it the same for copper?

Mr. BORUM. It is. For the third quarter which has been announced, the set-asides for domestic refined copper were reduced from 29 to 26 percent. In this present quarter it has been 29 percent.

Mr. WIDNALL. What segments of the industrial economy are accounting for material supply difficulties?

Mr. BORUM. Forgings, to some degree. Chemicals, as far as the herbicides are concerned. And I guess that in general we can say foundries. Other users of nickel and perhaps copper to some extent; that is, nickel plating.

Representative WIDNALL. You mentioned nickel plating?

Mr. BORUM. Yes, nickel plating.

Representative WIDNALL. Do you think it will become necessary to set aside other materials to fill defense rated orders?

Mr. BORUM. This could arise. We do not anticipate any additional at this time.

Representative WIDNALL. Regarding the current effort to bring new domestic copper mines into production, has BDSA been successful in assuring the delivery of mining equipment and thus to insure an increase in copper production?

Mr. BORUM. Yes; we have, at least in two particular cases. We are able to improve the schedule significantly.

Representative WIDNALL. Can you identify any specific production bottlenecks which may exist today and what specifically is BDSA doing to overcome these bottlenecks?

Mr. BORUM. Well, in the forging industry they are still faced with a large backlog. However, they are operating rather smoothly. It is just a matter of time and scheduling.

Representative WIDNALL. Has there been any effort toward expansion or are these just taking their normal course?

Mr. BORUM. There has been expansion.

Representative WIDNALL. Has this been with the aid of the BDSA?

Mr. BORUM. No; it has not been. That has primarily been the Department of Defense.

Representative WIDNALL. This committee was informed last June 30 that BDSA was formulating a system of controls or regulations and orders to be instituted at the Presidential direction in an emergency. What progress has been made in developing such a system?

Mr. BORUM. I will ask Mr. Bertsch to answer that question.

Mr. BERTSCH. The emergency regulations are in existence. They, of course, have not been issued but they are ready for issuance when needed. We continually update them and revise them and keep them on the shelf for any possible emergency and to be ready for it.

Representative WIDNALL. Is that completed?

Mr. BERTSCH. They are never completed per se, because of changes in our national industrial plant and different kinds of controls, and the institution of different kinds of systems, when you go into more serious emergencies than we are in at the present time. We continually review our orders, but they are ready for issuance with minor revisions; depending, of course, upon the time of issuance.

Representative WIDNALL. Can you identify special small business problems in the light of increasing commitments in support of Vietnam?

Mr. BORUM. Yes. We are faced with one right now, with plating and the foundry industry which uses nickel. Of course we have supported the present bill that is in Congress asking for a release of 60 million pounds of stockpile nickel. And as I have mentioned we are reviewing the need for export control on that product.

Representative WIDNALL. You identified the problem as one of allocation?

Mr. BORUM. That is correct. We know of no capacity problem.

Representative WIDNALL. Do you have any other problems?

Mr. BORUM. In general, no. I would say that perhaps the tool and die industry needs some assistance in obtaining loans for capital expansion.

Representative WIDNALL. In what special stockpile studies is BDSA participating at the present time?

Mr. BORUM. I would like to ask Mr. Curtis to answer that question.

Mr. CURTIS. We are awaiting at this present moment up-to-date guidelines, general guidelines from the Office of Emergency Planning, which are the foundations from which we develop our estimate of the assistance for supporting requirements. This is the primary area in which BDSA operates in regard to the stockpile.

We expect, Congressman Windall, that these guidelines will be available in the very near future and that we will then undertake a schedule of review of all of the stockpile items requirements in a conventional war. As you probably know, we have completed our estimate of the requirements for all of the stockpile items in a nuclear war as of the end of 1966. We believe that we will be completing these studies on an average rate of about six, seven studies per month in the very near future.

Representative WIDNALL. You are awaiting action by another agency before you do take any action?

Mr. CURTIS. At this moment there are one or two special ones about which, for certain reasons, we have to do something in anticipation of this schedule. One of them is on palladium which we have about completed.

Representative WIDNALL. What is the supply-demand situation as regards high-heat alloy and special property materials which might be in short supply and for which stockpiling would be feasible?

Mr. CURTIS. We did complete a review last December of about 18 materials, and upon a preliminary examination of the 18 materials we did not find sufficient evidence of the potential of a deficit situation to warrant proceeding further.

Representative WIDNALL. That is all. Thank you.

Chairman PATMAN. I have a few more questions. And if any of you want to submit answers for the transcript, that will be satisfactory.

In making supply-requirements studies do you make projections ahead for any specified number of years?

Mr. CURTIS. Yes, sir. We do cover only a 3-year period of prospective mobilization which begins a year or two from now. Assuming the war begins a year or two from now then we project the supply requirement situation for the assumed mobilization years.

Chairman PATMAN. Is there any current problem relating to the supply of missile fuels?

Mr. CURTIS. What kind?

Chairman PATMAN. Missile fuels.

Mr. CURTIS. There have been difficulties in some of these propellant fuels which cannot readily be stockpiled or are not readily susceptible to stockpiling, such as liquid hydrogen and liquid oxygen. There has been considerable activity in arranging and rescheduling output of the various types all over the country. As I understand it, there have been no problems that we could not solve in that manner.

Chairman PATMAN. Thank you. In the 16th annual report to this committee you stated that near the end of the fiscal year critical situations began to appear in items such as helicopter gears and bearings, aircraft fasteners, carbon steel balls, and certain screw machine products. Has there been an improvement in the supply of these items?

Mr. BORUM. There has been some improvement. We are currently making a survey of this situation to determine what if anything needs to be done.

Chairman PATMAN. Do you have representatives on duty at the National Resource Evaluation Center?

Mr. BORUM. BDSA does not.

Chairman PATMAN. Is the information on industrial production and mobilization available to the Business and Defense Services Administration on file with the National Resource Evaluation Center?

Mr. BORUM. Yes, it is.

Chairman PATMAN. In connection with your responsibility for estimating production capabilities for medical supplies and drugs, and the needs for Vietnam and medicare programs, would you state whether there are any shortages of capacity for medical supplies and drugs?

Mr. BORUM. I will defer the answer to that question to Mr. Curtis.

Mr. CURTIS. Mr. Bertsch can handle it.

Mr. BERTSCH. With respect to the Vietnam situation there is no shortage of capacity.

With respect to our postattack plans for drugs and related items there are some areas in which capacity might very well be short.

Chairman PATMAN. Thank you, sir. There are some members who could not be present at this time, you may well understand, due to other assignments. Would it be satisfactory for them to submit any questions that they might have to you in the next 2 or 3 days for answers?

Mr. BORUM. By all means.

Chairman PATMAN. That may be by Tuesday or Wednesday. And you can answer them when you look over the transcript.

Mr. BORUM. Yes, sir.

Chairman PATMAN. If you will do so, that will be fine.

We thank you gentlemen very much for your appearance and for your testimony. It has been rather revealing and interesting and it has been very much appreciated.

Mr. BORUM. Thank you, Mr. Chairman.

Chairman PATMAN. We will now recess until 10 o'clock in the morning.

(Whereupon, at 11:05 a.m. the committee adjourned to reconvene at 10 a.m., Saturday, June 24, 1967.)



[The following text is a faint, mirrored bleed-through from the reverse side of the page and is not legible.]