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The Adequacy of the National Security  
Council Study for Setting National  
Defense Stockpile Goals

Statement of  
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Before the  
Subcommittee on Seapower and Strategic  
and Critical Materials  
Committee on Armed Services  
House of Representatives



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Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the adequacy of the National Security Council (NSC) study of the National Defense Stockpile.

Our completed work confirms the preliminary assessment we gave you in August 1986, when we reported that the NSC study does not appear to provide a sufficient basis for setting stockpile goals or for other U.S. mobilization planning (GAO/NSIAD-86-177BR, National Defense Stockpile - Adequacy of National Security Council Study for Setting Stockpile Goals, attached). My comments today summarize a draft of our final report, which we recently gave to the Federal Emergency Management Agency (FEMA), Office of Management and Budget (OMB), and NSC for their review and comment. Our report is also supplemented by classified appendixes, which cannot be discussed in this open forum.

You asked us to evaluate the NSC study and to compile the views of agencies that participated in the study. Before describing the results of our evaluation, some background on the stockpile and on the NSC study may be helpful.

#### NATIONAL DEFENSE STOCKPILE

To minimize dependence on foreign supply sources for such materials as cobalt and platinum, the Congress has created a National Defense Stockpile. Stockpile goals represent the difference between projected requirements and estimated supply for each strategic material. The goals have varied widely since the Strategic and Critical Materials Stock Piling Act authorized the present stockpile in 1946. However, goals have been

relatively stable since a major reassessment of stockpile policy and goals which President Ford approved in 1976 and President Carter reaffirmed in 1977. FEMA recalculated stockpile goals in 1979, using then-existing policy guidance, with some changes to improve methodology. The current legislatively-approved goal is \$16.1 billion in May 1985 prices, of which \$10.1 billion is on hand.

In April 1983 the Director, OMB expressed the view that stockpile goals could be reduced by \$10 to \$13 billion. In a May 1983 memorandum, he, the Secretary of the Treasury, and the Chairman, Council of Economic Advisors suggested that the NSC complete a new stockpile review.

In June 1983 the NSC established the "stockpile goals and mobilization planning study." Twelve federal agencies participated: the Council of Economic Advisors, the Central Intelligence Agency (CIA), FEMA, General Services Administration (GSA), NSC, OMB, and the Departments of Commerce, Defense (DOD), Energy, Interior, State and Treasury. The White House announced the NSC results in July 1985.

The classified NSC report recommended that the current \$16.1 billion stockpile goal be reduced drastically to \$0.7 billion. Of the \$10.1 billion of materials in the current inventory, the study identified about \$3.2 billion as surplus available for sale--\$2.5 billion to be sold within 5 years. The three materials with the greatest surplus to sell (tin, silver, and zinc) totaled about \$1 billion in May 1985 prices. Other

major surplus materials included cobalt (\$265 million), chromium (\$203 million), and platinum (\$125 million). Sales receipts were to be used to fill stockpile shortfalls for one material (germanium), or be returned to the Treasury.

The NSC report also proposed retaining about \$6 billion of the current inventory as a supplemental reserve; however, the purposes for this reserve were not clearly defined. For example, much of this supplemental reserve was tin (\$1.8 billion) and silver (\$543 million), and was excess to the existing goals also.

The report also recommended using its assumptions for other mobilization planning, and made additional classified recommendations.

#### GAO'S EVALUATION OF THE NSC STUDY

We found that The NSC study results are far more sensitive to assumption changes than reported, and key study participants questioned such assumptions as the reliability of foreign sources and the planned size of our military force. Also, participants' input was not fairly represented in the report.

#### NSC study assumptions

The Stock Piling Act stipulates two basic principles for use by the President in determining stockpile goals:

- The stockpile is to serve national defense only and not economic or budgetary purposes.
- The materials stockpiled should be sufficient to sustain the United States for not less than 3 years in a national emergency.

Several assumptions used in the NSC study are very sensitive to changes which significantly affect stockpile results.

Significant demand-related assumptions dealt with the

- war scenario (for example, the warning time before onset of hostilities and the intensity of conflict);
- wartime changes to the U.S. economy (for example, rate of growth during the warning and war years, or expected impact of outside factors such as energy limitations);
- sectors of the economy that must be supported by stockpiles (for example, basic industrial investment such as tools needed to produce military equipment); and
- quantities of raw materials industry would need for given levels of output.

Significant supply-related assumptions included the

- reliability of foreign sources of supply, and
- ability to increase domestic availability of materials.

#### Study results

With its initial set of assumptions, the NSC study group computed a stockpile goal of \$230 million. NSC then modified the assumptions to present what it apparently felt was a more conservative position. The NSC increased material requirements for the defense and industrial sectors and reduced world supply. These changes increased the goal to \$691 million.

However, NSC's sensitivity tests were limited. For example, study participants reported that sensitivity tests were not conducted for such factors as oil availability and essential

civilian requirements. Also, the reported adjustments for such assumptions as defense-sector requirements covered only part of the assumptions' plausible ranges.

Sensitivity of goals to assumption changes

Because we did not have access to the econometric models that NSC used, we could not test all its assumptions. However, we were able to do limited sensitivity analyses on six assumptions and found that stockpile goals could range to over \$8 billion within a plausible range for the six assumptions. It is important to note that these tests were only to evaluate the sensitivity of certain assumptions and their impact on stockpile goals, not to compute actual goals.

Two of the assumptions we tested involved the reliability of foreign sources, and the others involved defense sector requirements, industrial base investment requirements, industry factors for materials consumption, and programs to increase domestic material supply.

The following Table shows the results of our sensitivity tests for individually changing the six assumptions. However, the combined impact of changing more than one assumption at once is significantly greater than the sum of individual changes.

Estimates of the Effects of Changes to  
Individual Assumptions in the NSC Study  
(Change From NSC Baseline Goal of \$230 Million)

<u>Assumption change tested</u>	<u>Estimated increase in goal (millions)</u>
Substitute foreign source reliability rating data from 1982	\$1,950
Eliminate one foreign source	190
Increase requirements for defense sector material by 50 percent	750
Add industrial investment requirement (eliminated in the NSC study)	130
Increase material consumption factors by 15 percent (to simulate previous safety factor methodology)	180
Reduce domestic materials supply increases during the first 2 war years	250

To give a better idea of the tests we made, I will describe the two assumptions with the largest dollar impact: foreign source reliability and defense sector requirements.

Foreign source reliability

The reliability of foreign sources is important because the United States relies on imports for many critical materials, such as chromium, germanium, cobalt, and graphite. The NSC study assigned one of three reliability ratings to each of 39 potential exporting countries. Highly reliable supply was assumed to be available for all wartime production, including critical defense items. Fairly reliable supply was assumed to be available for

all production except that of defense. Unreliable supply was assumed to be not available. Unrated sources were also assumed not available in most cases.

To test these assumptions, we compared the NSC study ratings to the otherwise most recent alternative reliability ratings. FEMA developed these ratings in 1982 using survey responses from State Department personnel.

We found substantial differences between the assumptions used in 1982 and those used for the NSC study. For example, NSC rated 17 more foreign sources as highly reliable than was done in 1982. In some cases, the NSC increased the reliability ratings even though input from the State Department raised concerns about the reliability of some of the sources. The reliability ratings and most of the State Department input are classified.

In response to our August 1986 briefing report, the NSC stated that, even though the NSC study had assumed more available imports than in the past, "most of the increase was not needed to meet wartime requirements." However, our tests showed that substituting the 1982 ratings for the NSC ratings could increase the NSC's base stockpile goal estimate of \$230 million by almost \$2 billion. This significant impact indicates that the imports would be needed to meet wartime requirements.

#### Defense sector requirements

NSC and OMB officials told us that stockpile goals were driven primarily by defense planning assumptions. In a September 20, 1986, memorandum to us, the NSC Executive Secretary stated



that the NSC had selected "the most pessimistic war scenario consistent with the statute." However, we found that the NSC had selected the less demanding of two scenarios that it had drafted, using input from the Emergency Mobilization Preparedness Board (EMPB).

The NSC modified past and existing scenarios in a number of ways, but a key way in which the NSC scenario was less demanding than the most demanding of available scenarios was that the NSC study scenario planned for less than total mobilization.

In mobilizing to support national objectives in time of war, the most demanding mobilization categories are full and total. In full mobilization, the military fills the existing approved force structure. In total mobilization, the military generates additional units and supporting resources to meet total wartime needs.

The President, in his National Security Decision Directive Number 47, dated July 22, 1982, Emergency Mobilization Preparedness, directed that the military should have the capability to "expand the size of the force from partial through full to total mobilization." The Secretary of Defense, in his guidance to the military services, has since consistently directed that planning be done for both full and total mobilization.

In response to our questions, NSC and OMB officials told us they limited the study scenario to the lower level of mobilization because the force structure to plan for a larger

force was not available. DOD planning guidance, however, conflicts with this view.

Considering the larger force size (the details of which are classified) and the capacity of the U.S. Gross National Product (GNP) to increase beyond the NSC's wartime assumptions, our analyses show that the NSC's assumed defense material requirements could plausibly be increased by 50 percent. This change would increase the NSC baseline goal estimate by about \$750 million.

#### PARTICIPATING AGENCY VIEWS

Although on February 24, 1986, you requested that NSC grant us access to the participants' comments on the study, we were denied such access. However, we obtained many comments when we examined agency records. As you will note, in several instances we cannot provide details in our testimony because the comments have been classified by the NSC or the agencies--however, they are discussed in the classified supplemental appendixes to our final report.

Key participating agencies expressed concerns about the NSC study and its recommendations. The stated concerns included matters such as the assumptions NSC used, the way NSC coordinated the study, and the way NSC obtained presidential approval of study results. For example, FEMA and the Departments of Commerce, Defense, and Interior opposed the submission of interim working group reports to the President. The NSC report did not fairly represent the nature or content of participants' input.

The report often did not disclose qualifications and objections of participants, nor did it always identify agency responsibilities accurately. For example, the NSC reported that DOD chaired a working group for the war scenario, but, according to documents in our possession, the group had not yet been formed at the time NSC developed the war scenario.

OMB had significant input prior to the NSC study, during study implementation, and in finalizing the study report. In April 1983, the Director, OMB briefed the Cabinet Council on Economic Affairs and said that revision of prior assumptions and procedures could reduce stockpile goals by \$10 to \$13 billion. Our discussions with study participants indicate close involvement by OMB officials throughout the study. NSC documents indicate that two working groups (on energy and on sealift attrition) were chaired by OMB representatives.

The following are brief descriptions of the types of participation and views of some of the other key study participants.

#### Department of Commerce

The Department of Commerce participated in the study and provided comments on working group reports and the draft NSC report. A representative of the Department's Office of Economic Affairs chaired a working group on U.S. Material Demand.

Commerce did not fully concur with initial working group reports and opposed sending the reports to the President for approval. Commerce also expressed concerns about the final NSC

study report and the manner in which NSC staff were attempting to resolve differences. Commerce's classified comments questioned NSC assumptions on a point-by-point basis, and its comments on the overall study were not fully addressed.

The NSC study included a March 1984 "final" report by Commerce's working group, but did not include a subsequent August 13, 1984, update where Commerce said it had not fully developed and validated the necessary data.

#### Department of Defense

DOD representatives provided input during the study by providing technical data, chairing several working groups, and by commenting on working group reports and the study report. DOD provided defense expenditure data for use in the study's economic model.

During the study, DOD told the NSC that, in spite of the improved methodology, time constraints required many simplifying assumptions and gross estimates. DOD said it had serious reservations that the simplified procedures might not represent the actual behavior of the economy during wartime. DOD said it could not concur in seven interim working group reports that NSC submitted for Presidential approval.

In classified memoranda, the Secretary of Defense provided further comments on the study and draft reports.

The Secretary and other DOD officials also expressed concerns about using the NSC's assumptions and methodology for mobilization planning other than for the stockpile. For example,

the Chairman of the EMPB's Military Mobilization Working Group said a test of civilian agencies' capability to support military mobilization was at an impasse, with NSC and OMB staff opposed to a plan by 17 other federal agencies. The Chairman expressed concern about NSC's demand that only the scenarios and assumptions that were approved specifically for the NSC's ongoing stockpile study be used in the EMPB test.

#### Department of the Interior

An Interior representative chaired the World Materials Supply working group, and the agency provided technical data to the study. The body of the NSC report included data supplied by Interior's working group, and summaries of the Chairman's qualifications. However, the NSC summary's conclusions and recommendations appeared in some cases inconsistent with the working group's qualifications as expressed in the body of the report. Specific examples are classified.

The Interior Department's National Strategic Materials and Minerals Program Advisory Committee (also known as the "Mott Committee") considered the NSC study and provided recommendations. The Committee included representatives of minerals industries, and some of its recommendations were cited in comments made in January 1985 by the Secretary of the Interior. In his classified comments the Secretary raised serious questions, and suggested alternatives to NSC's recommendations. Only one of the Secretary's major comments appears to have been addressed in the final NSC study report.

### Department of the Treasury

The Secretary of the Treasury was one of the three signers of the May 1983 memorandum which proposed that a new stockpile study be done under revised guidelines.

A Treasury representative chaired the working group on International Supply/Demand Balance and Stockpile Goals. The report of Treasury's working group was incorporated into the NSC study, but not all of Treasury's qualifications were incorporated. For example, the NSC report did not include Treasury's qualification that the report was "the best that can be produced given the time, staff, data and other resource limitations."

### Department of Energy

Energy input dealt primarily with energy supply and with selected stockpile materials needed for the nuclear industry. An Energy representative chaired a subgroup on Oil Supply/Demand/Price Relationship.

The NSC report emphasized that energy shortages would restrict the U.S. economy, thus reducing material needs and stockpile goals. However, the report did not reflect Energy's qualifications. For example, in May 1985, Energy officials stated that their preliminary estimates of energy requirements indicated that energy was not a problem for two reasons:

1. Enough energy was available to support the military, essential civilian, and industrial sectors of the economy.

2. The model used to estimate energy requirements for the NSC study tends to overestimate energy requirements.

#### Federal Emergency Management Agency

Executive Order 12155 delegates responsibility for stockpile oversight to FEMA, but--by NSC direction--FEMA did not have an oversight role in the NSC stockpile study. FEMA provided input prior to and during implementation of the study, and also commented on study results.

In commenting on a draft of the NSC study report, FEMA said that the study included some significant improvements, but raised issues that it believed had not been adequately addressed. FEMA objected to the study's proposed stockpile goals and the recommendation to use study assumptions for other mobilization planning.

#### STOCKPILING ISSUES AND OPTIONS

Notwithstanding our view that the NSC study is not an adequate basis for mobilization planning, keeping existing stockpile goals in place indefinitely is not a reasonable option. Stockpile goals necessarily change with time, and our evaluations of prior stockpile studies also identified weaknesses. We have previously recommended that optional stockpile assumptions be separately priced, so that the options could be better analyzed. Current problems that may hinder accurate assessment of stockpile requirements include the lack of accurate information on raw material demand and supply, and FEMA's reduced capability to fulfill its stockpile planning and management responsibilities.

The Stock Piling Act assigns responsibility to the President, and Executive Order 12155 vests responsibility for planning the stockpile program in the Director, FEMA. However, FEMA had no management responsibility for the NSC study. A July 1986 FEMA memorandum to OMB noted that OMB had directed that FEMA's personnel for stockpile activities were to be cut by 88 percent to a residual level of 2 work years. However, OMB did not relieve FEMA of the responsibilities, and as of today, Executive Order 12155 remains in effect.

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In summary, many of the study's limitations appear to be related to the inadequate recognition of input from the agencies --such as Defense--with subject area responsibility and expertise. The cases where study working groups dealing with specialized issues were not chaired by the agency with expertise (such as an energy policy group chaired first by OMB and then NSC) also appear to have affected study results.

In our opinion, the primary need is to establish an effective process for determining stockpile goals. FEMA, the currently authorized stockpile manager--or DOD, as your bill proposes--should ensure that determining stockpile goals:

1. Involves participants with the necessary experience and expertise, to include industry, and fully represents their input and views.



2. Analyzes a reasonable range of assumptions and provides the sensitivity analyses that Administration decision makers and the Congress may require in their oversight roles.
3. Is done consistently with assumptions and planning factors used for similar purposes.

Mr. Chairman, that concludes my prepared testimony, we will be happy to answer questions that you may have.