[H.A.S.C. No. 97–15]

NATIONAL DEFENSE STOCKPILE

HEARINGS

ON

H.R. 2603, H.R. 2784, H.R. 2912, AND H.R. 3364

BEFORE THE

SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
NINETY-SEVENTH CONGRESS
FIRST SESSION

JUNE 2 AND 4, 1981

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SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

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HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SEAPOWER AND STRATEGIC AND
CRITICAL MATERIALS SUBCOMMITTEE,
Washington, D.C., Tuesday, June 2, 1981.

The subcommittee met, pursuant to call, at 10 a.m. in room 2118, Rayburn House Office Building, Hon. Charles E. Bennett (chairman of the subcommittee) presiding.

Mr. BENNETT. The committee will come to order.

We have before us today four bills—one the administration bill, H.R. 2912, to authorize disposal of $2.14 billion in excess materials from the stockpile and to authorize appropriations for the acquisition of more desperately needed stockpile material; another bill, H.R. 2784, to authorize disposal of all 139.5 million ounces of silver in the stockpile, the same amount as in H.R. 2912.

H.R. 2603 would authorize the appropriations for the purchase of silver, platinum and nickel. Then there is H.R. 3364, which would establish a national mineral and materials policy and council.

Title VII of that bill specifically deals with the national defense stockpile and would mandate that all moneys received from the sale of materials in the stockpile be available for acquisition of strategic and critical material and for no other purpose.

The subcommittee will remember that in 1979 our reported legislation was enacted as Public Law 94-61, the Strategic and Critical Materials Stock Piling Act, which set up a special fund, the National Defense Stockpile Transaction Fund, to receive all moneys from the sale of the strategic stockpile material and to be a source of funds for purchases of needed stockpile material.

This legislation, as passed, was essentially the same as approved by this committee, but you will recall under pressure from the administration, a provision was incorporated allowing funds to be removed from that special fund if they were not appropriated for stockpile purchases within 3 fiscal years.

That was a compromise, not something this committee decided, because they felt it was something that could be used as a device not to comply with the real thrust of the bill.

The committee, through me, expressed doubt to the administration that sale moneys would be used for purchases of stockpile material if the law included this 3-year escape clause. What has happened this year indicates that our concern and apprehension was well founded.

This is so because the administration bill, H.R. 2912, in providing for authorization for $2.14 billion of sales and the same amount in purchases, nevertheless has to be looked at in the context of what the administration has requested in purchases for this year. That request totals only $120 million.

To further complicate matters, the Budget Committee has told the Armed Services Committee that as part of the reconciliation

process as required by the First Budget Resolution for fiscal year 1982, H. Con. Res. 115, that the committee shall report changes in laws within its jurisdiction sufficient to reduce budget authority to effect savings of $966 million in fiscal year 1982, $899 million in fiscal year 1983 and $511 million in fiscal year 1984.

I am informed that the Budget Committee arrived at the amounts using Congressional Budget Office estimates of the savings that could be achieved through a change from a semi-annual cost-of-living adjustment for retired military personnel to an annual adjustment and from authorization of sale of excess materials from the strategic stockpile as proposed by the President, even though the President has said that there are more things to be bought in dollars than there are things in the stockpile to be sold, clearly showing an inconsistency.

This action is obviously counter to the intent of the Strategic and Critical Materials Stock Piling Act and will make it even more difficult to add any significant quantity of needed material to the stockpile. You will recall that section 3(b)(1) of the stockpile act states:

"The purpose of the stockpile is to serve the interest of national defense only and is not to be used for economic or budgetary purposes."

Thus, it appears that despite the legislative efforts of this committee and Congress to keep the stockpile from being bled for the purpose of making the budget look good, this practice is being continued.

Therefore, the committee is urged to consider what the best answer is for reconciliation purposes in the current budget.

I would personally urge the committee to strike the 3-year provision of the law which allows the fund to be tapped and the funds transferred to the U.S. Treasury, because that was put in there against our better judgment only as a compromise on the theory that the executive branch would comply with the law, which they have not done.

Since the present system is not working, another thing we could do would be to eliminate the necessity for appropriations but retain the requirement for authorization which would allow the Government to purchase stockpile materials in a more orderly and businesslike manner.

As I understand the purpose of title VII of Mr. Santini's bill, H.R. 3364, it would accomplish this objective and also eliminate the 3-year provision insuring that the sale funds would not be used for any purposes other than stockpile purchases.

The best procedure I have come up with at this time is to consider language which would comply with reconciliation requirements and, at the same time, prevent the use of stockpile sales for nondefense purposes.

You can see that we have some thorny and difficult decisions to make. Therefore, I urge subcommittee members to be present at all subcommittee meetings and to give our most thoughtful attention to how these issues can best be resolved in the national interest.

Ordinarily, when I call a meeting of the committee, I have a clear-cut view myself as to what I would like to propose. I made

some proposals here—they may solve the situation—but I am not of the opinion that I have necessarily solved it.

We thought last year we had solved it by a clear-cut law which says that the stockpile sales shall be used for the purchase of more urgently needed stockpile material, and obviously it is not being done by this administration.

How to get around that to make it tight enough where there cannot be this flaunting of the law is a very real problem. It wouldn't be such a problem if it were not for the fact that there are many more strategic materials to be purchased, more dollars to be spent for things gravely needed for the national defense stockpile than there are materials in the stockpile to be sold.

Some of the materials in the stockpile to be sold are things people don't really like to get rid of; such things as silver, because we have a feeling it is going to go up and the U.S. Government may profit by keeping it there.

On the other hand, we have the problem, the stockpile is not designed to make a profit. It is though a matter of national defense. We are not buying the strategic materials we desperately need for national defense.

That is the clear-cut picture of what we have before us. So I would urge the committee and any members of industry and of the general public, who has an idea how we can make this work to give us good suggestions to help us solve the problem before us this morning.

Otherwise, we just have the alternative of turning down the legislation asked for by the administration. It wouldn't be difficult at all for us to leave here today without passing any legislation, but we would not be acquiring the things needed for the national stockpile. We would not be making sense out of the stockpile fund and the legislation we enacted in 1979.

[H.R. 2603, H.R. 2784, H.R. 2912, and H.R. 3364 are as follows:]

I

97TH CONGRESS
1ST SESSION

H. R. 2603

To authorize appropriations for the purchase of certain strategic and critical materials for storage in the National Defense Stockpile under the Strategic and Critical Materials Stock Piling Act.

IN THE HOUSE OF REPRESENTATIVES

MARCH 18, 1981

Mr. MCDONALD introduced the following bill; which was referred to the Committee on Armed Services

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A BILL

To authorize appropriations for the purchase of certain strategic and critical materials for storage in the National Defense Stockpile under the Strategic and Critical Materials Stock Piling Act.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated for the fiscal year ending September 30, 1981, to the Administrator of General Services for the acquisition of strategic and critical materials for storage in the National Defense Stockpile under the Strategic and Critical Materials Stock Piling Act

(50 U.S.C. 98 et seq.) the sum of $131,000,000 for the acquisition of silver, the sum of $95,000,000 for the acquisition of platinum, and the sum of $12,000,000 for the acquisition of nickel.

97TH CONGRESS
1ST SESSION

H. R. 2784

To authorize the disposal of a certain quantity of silver from the National Defense Stockpile.

IN THE HOUSE OF REPRESENTATIVES

MARCH 24, 1981

Mr. CONTE introduced the following bill; which was referred to the Committee on Armed Services

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A BILL

To authorize the disposal of a certain quantity of silver from the National Defense Stockpile.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President is hereby authorized to dispose of approximately one hundred and thirty-nine million five hundred thousand troy ounces of silver now held in the National Defense Stockpile. Any disposal under the authority of the preceding sentence shall be carried out in accordance with the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.).

I

97TH CONGRESS
1ST SESSION

H. R. 2912

To authorize appropriations for the acquisition of strategic and critical materials for the National Defense Stockpile and to authorize the disposal of certain materials currently held in the stockpile.

IN THE HOUSE OF REPRESENTATIVES

MARCH 30, 1981

Mr. PRICE (for himself and Mr. DICKINSON) (by request) introduced the following bill; which was referred to the Committee on Armed Services

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A BILL

To authorize appropriations for the acquisition of strategic and critical materials for the National Defense Stockpile and to authorize the disposal of certain materials currently held in the stockpile.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Strategic and Critical Materials Transaction Authorization Act of 1981".

SEC. 2. Effective on October 1, 1981, there is authorized to be appropriated the sum of $2,140,000,000 for the acquisition of strategic and critical materials under section

6(a) of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98e(a)).

SEC. 3. The President is hereby authorized to dispose of the following quantities of materials currently held in the National Defense Stockpile established by section 3 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98b), such quantities having been determined to be excess to the current requirements of the stockpile:

(1) 1,000,000 pounds of iodine.

(2) 1,500,000 carats of industrial diamond crushing bort.

(3) 710,253 pounds of mercuric oxide.

(4) 50,000 flasks of mercury.

(5) 6,000,000 pounds of mica, muscovite splittings.

(6) 25,000 pounds of mica, phlogopite splittings.

(7) 139,500,000 troy ounces of silver.

SEC. 4. Any acquisition using funds appropriated under the authorization of section 2, and any disposal under the authority of section 3, shall be carried out in accordance with the provisions of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.).

97TH CONGRESS
1ST SESSION

H. R. 3364

To establish a national mineral and material policy and council, to provide for a secure minerals and materials base for the national economy and national security, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 30, 1981

Mr. SANTINI (for himself, Mr. PRICE, Mr. FUQUA, Mr. ARCHER, Mr. AKAKA, Mr. BLANCHARD, Mr. BREAUX, Mr. BURGENER, Mr. CHENEY, Mr. CLAUSEN, Mr. DAN DANIEL, Mr. DORNAN of California, Mr. DUNCAN, Mr. EMERSON, Mr. EVANS of Georgia, Mr. FORD of Tennessee, Mr. GLICKMAN, Mr. GRAMM, Mr. HUCKABY, Mr. HYDE, Mr. JOHNSTON, Mr. KAZEN, Mr. KOGOVSEK, Mr. LAGOMARSINO, Mr. LEATH of Texas, Mr. LOTT, Mr. MURPHY, Mr. RAHALL, Mr. RHODES, Mr. RUDD, Mr. SIMON, Mr. SKEEN, Mr. STENHOLM, Mr. STUMP, Mr. SUNIA, Mr. WHITTAKER, Mr. WON PAT, Mr. WORTLEY, Mr. YATRON, and Mr. YOUNG of Alaska) introduced the following bill; which was referred jointly to the Committees on Interior and Insular Affairs, Ways and Means, the Judiciary, Armed Services, and Foreign Affairs

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A BILL

To establish a national mineral and material policy and council, to provide for a secure minerals and materials base for the national economy and national security, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

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TITLE I—SHORT TITLE, FINDINGS, AND PURPOSES

SHORT TITLE

SEC. 101. This Act may be cited as the "National Minerals Security Act of 1981".

DECLARATION OF FINDINGS AND PURPOSES

SEC. 102. (a) It is the continuing responsibility of the Federal Government to use all practical means to improve and coordinate Federal plans, functions, programs, and resources to meet the mineral and material needs of the Nation and thereby fulfill the social, economic, and environmental requirements of present and future generations of Americans. The Congress finds that:

(1) The United States does not have a coherent national minerals and materials policy.

(2) The continuity of a strong, healthy domestic industrial base is essential to the economic viability and national security of the United States.

(3) The United States dependence on foreign sources for minerals and materials is detrimental to our economic and national security goals.

(4) The United States knows little about the total mineral and material resource potential of its public lands.

(b) Therefore, the purposes of this Act are—

(1) to develop and implement a national minerals and materials policy for a secure and continued supply of minerals and materials,

(2) to encourage the development of economically sound and stable domestic mining, minerals, and materials industries,

(3) to encourage the orderly development of domestic mineral and material resources,

(4) to increase accessibility of public lands for mineral exploration and development,

(5) to strengthen mineral data collection and analysis, and

(6) to promote and encourage research and development of technology for substitution, recycling, and conservation of strategic minerals and materials.

(c) As used in this Act, the term "materials" has the same meaning given such term in section 2(b) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1601(b)).

TITLE II—MINERAL AND MATERIAL PLANNING AND AVAILABILITY

COUNCIL ON MINERALS AND MATERIALS

SEC. 201. (a) There is established a council to be known as the Council on Minerals and Materials (hereafter in this Act referred to as the "Council"). The Council shall be com-

posed of three members who shall be appointed by the President, by and with the consent of the Senate, to serve at the pleasure of the President. The President shall designate one of the members of the Council to serve as chairman. Each member shall be a person who as a result of training, experience, and attainments is exceptionally well qualified to carry out the duties and functions of the Council.

(b) It shall be the duty and function of the Council—

(1) to monitor, evaluate, and coordinate on a continuing basis the programs and activities of the Federal Government (including regulatory activities) so as to carry out the purposes of this Act;

(2) to identify policy conflicts and propose courses of action to the President for the resolution of such conflicts;

(3) to formulate and recommend to the President national policies designed to improve conditions affecting the mineral and material needs and resources of the Nation, and to meet the social, economic, and national security goals of the Nation;

(4) to advise in the preparation of reports required by this Act, the Mining and Minerals Policy Act of 1970, or the National Materials and Minerals Policy, Research and Development Act of 1980, and any other reports relating to mining, minerals, and materials;

(5) to advise the President of mineral and material trends, both domestic and foreign, the implications thereof to the United States and world economies and to national security, and the effects of such trends on domestic industries; and

(6) to attend the international activities of the United States relating to mineral and material issues, including activities in implementation of international agreements, international exchange programs in the United States and abroad, and other conferences or activities relating to minerals or materials.

(c) In exercising its powers, functions, and duties under this Act, the Council—

(1) may consult with representatives of science, industry, labor, State and local governments, and other groups; and

(2) shall utilize to the fullest extent possible the services, facilities, and information (including statistical information) of public and private agencies and organizations and individuals in order to avoid duplication of effort and expense with the activities of such agencies, organizations, and individuals.

(d)(1) The Council may employ such employees as may be necessary to carry out its duties and functions under this Act, but not to exceed twelve compensated employees.

(2) Notwithstanding section 3679(b) of the Revised Statutes (31 U.S.C. 665(b)), the Council may employ voluntary and uncompensated service in carrying out its duties and functions.

(e) Members of the Council shall serve full time and the chairman of the Council shall be paid at the rate of basic pay payable for level II of the Executive Schedule. The other members of the Council shall be paid at the rate of basic pay payable for level IV of the Executive Schedule.

(f) The Council may accept reimbursements from any private nonprofit organization or from any department, agency, or instrumentality of the Federal Government, or from any State or local government for the reasonable travel expenses incurred by any member or employee of the Council in connection with such member or employee's attendance at any conference, seminar, or similar meeting.

(g) There are authorized to be appropriated to carry out the provisions of this title $300,000 for the fiscal year ending on September 30, 1982, and such sums as may be necessary thereafter.

AGENCY MINERALS AND MATERIALS RESPONSIBILITY

SEC. 202. It shall be the responsibility of the head of any Federal department or agency having jurisdiction over any matter which may have an impact on domestic mining, minerals, or materials industries to carry out the policies of

this Act when exercising authority under such programs involving such matters and to fully cooperate and coordinate with the Council.

TITLE III—DOMESTIC MINERAL RESOURCE POTENTIAL

POLICY AND PURPOSE

SEC. 301. (a) The discovery of new sources of mineral wealth from the public domain is in the best interest of the national economy and security. It is in the public interest to foster, encourage, and promote the exploration and development of domestic mineral resources.

(b) The purpose of this title is to provide the means by which the Secretary of the Interior (hereafter in this Act referred to as the "Secretary") may make available for mineral location and leasing under applicable Federal law those public lands heretofore withdrawn, classified, restricted, or closed to such purposes.

MINERAL REVIEW AND LAND USE PLANNING

SEC. 302. (a) The Secretary shall review within three years after the date of enactment of this Act all land use plans developed under section 202 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1712) before such date of enactment to consider the suitability of lands covered by such plans for mineral location and leasing, and shall revise such plans accordingly.

(b) Any land use plan prepared under such section 202 after the date of enactment of this Act, and any review conducted under subsection (a) of this section, shall (1) contain an estimate of potential mineral resources prepared by the Bureau of Mines and the United States Geological Survey, and (2) consider the development and extraction of any significant mineral deposit as a dominant use.

CLASSIFICATIONS AND WITHDRAWALS

SEC. 303. (a) The Secretary shall determine the number of acres of Federal lands withdrawn, classified, restricted, or closed to mineral location or leasing.

(b) Within three years after the date of enactment of this Act, the Secretary shall report to the Congress on the results of the determination made under subsection (a), and on the number of acres of land made available for mineral location and leasing under the general mining and mineral leasing laws under this title.

NOMINATION OF LANDS

SEC. 304. (a) The Secretary shall publish within six months after the date of enactment of this Act, and at least once every two years thereafter, a notice in the Federal Register requesting the nomination of lands withdrawn, classified, restricted, or closed to be reviewed under this section. Persons submitting such nominations shall include such infor-

mation as the Secretary shall require in support of the nomination.

(b) Upon nomination by any person, lands shall be reviewed by the Secretary to determine the suitability of such lands for mineral location or leasing. Within one hundred and eighty days after the publication of the Federal Register notice requesting nominations the Secretary shall identify those areas receiving a significant number of nominations and may at his discretion hold a public hearing to assess the degree to which mineral location or leasing of such lands is inconsistent and incompatible with the purposes of the withdrawal or classification.

(c) The Secretary shall consult with any agency having authority over lands reviewed under this section for the purposes for which such lands were withdrawn, classified, restricted, or closed.

(d) The Secretary shall make a determination as to whether mineral location or leasing of nominated lands is inconsistent and incompatible with the purposes of the original withdrawal or classification, and issue an order containing such determination within one year after the publication in the Federal Register of the notice described in subsection (a). In making such determination, the Secretary shall consider mineral resource data and information obtained from the Bureau of Mines and United States Geological Survey, infor-

mation contained in the nominations, comments from other agencies, and information gathered at any public hearing held under subsection (b). If the Secretary determines that mineral location or leasing is not inconsistent and incompatible with the withdrawal or classification for such nominated lands, the Secretary is authorized and directed to apply the provisions of the general mining and mineral leasing laws to such lands.

(e) Nothing in this Act shall prevent within withdrawn or classified areas any activity, including prospecting, for the purpose of gathering information about mineral or other resources if such activity is carried on in a manner compatible with public health and safety and with the purposes of the withdrawal or classification.

(f) Except to the extent that lands previously withdrawn or classified are made available for mineral location and leasing under section 302 or 304, nothing in this title shall affect the validity of existing withdrawals or classifications for the purposes for which they were withdrawn or classified.

PROTECTION OF EXISTING VALID CLAIMS

SEC. 305. Nothing in this title shall be construed to limit or restrict the rights of the owner or owners of any valid mining claim located prior to the date of withdrawal or classification.

MINERAL EXPLORATION IN WILDERNESS AREAS

SEC. 306. Section 4(d)(3) of the Wilderness Act (16 U.S.C. 1133(d)(3)), is amended by striking out "1983" and "1984" each place they appear and inserting in lieu thereof "1993" and "1994" respectively.

LIABILITY FOR DAMAGE, DESTRUCTION, OR LOSS OF CLAIM

SEC. 307. Mineral location or leasing activities authorized under this title shall be entered into or continued at the financial risk of the individual party or parties undertaking such work. The United States shall not be responsible or held liable or bear any liability for the damage, destruction, or loss of any mining claim, mill site, facility installed or erected, income, or other property or investments resulting from the actual use of such lands or portions thereof for the purposes for which it was withdrawn or classified, except where such damage, destruction, or loss results from the negligence of the United States.

TITLE IV—MINERAL AND MATERIAL DATA ACQUISITION AND ANALYSIS

IMPROVEMENT AND TRANSFER OF FUNCTIONS

SEC. 401. (a) The Secretary shall fully exercise his legal authority to improve and strengthen the capabilities of the United States for minerals and materials data collection, compilation, analysis, and dissemination in a manner that

meets the mineral and material informational requirements of the Government.

(b) The Secretary is authorized and directed to transfer the State Mining and Mineral Resources and Research Institutes to the administrative jurisdiction of the Bureau of Mines.

(c) The Bureau of Mines shall be the principal Federal agency for mineral data collection, compilation, analysis, and dissemination. In fulfilling its functions as principal agency, the Bureau of Mines shall pursue its primary mission to ensure the continued viability of the domestic minerals and materials economy and the maintenance of an adequate minerals and materials base so that the Nation's economic, social, strategic, and environmental needs can be better served. In order to meet these objectives, the Bureau of Mines shall—

(1) gather timely and authoritative information concerning the conditions and trends in the mining and materials segment of the economy, analyze and interpret such information for the purpose of determining whether such conditions and trends are interfering, or are likely to interfere, with the achievement of the policies of this Act, the Mining and Minerals Policy Act of 1970, and the National Materials and Minerals Policy, Research and Development Act of 1980;

(2) conduct investigations, studies, surveys, research, and analyses relating to scientific, technological innovation, and improved recovery and productivity in the mining and materials industries; and

(3) cooperate with the Council in the Council's responsibility under section 201(b)(3) for formulating and recommending to the President national policies designed to improve conditions affecting the mineral and material needs and resources of the Nation, and to meet the social, economic, and national security goals of the Nation.

(d) In carrying out its responsibility to classify the public lands and examine the geologic structure, mineral resources, and products of the public domain, the United States Geological Survey shall—

(1) emphasize minerals, including strategic and critical minerals, and

(2) identify and classify the Nation's areas of potential strategic and critical mineral deposits.

TITLE V—CAPITAL FORMATION AND TAXATION

SEC. 501. TAX-EXEMPT FINANCING.

(a) IN GENERAL.—Section 103 of the Internal Revenue Code of 1954 (relating to interest on certain governmental obligations) is amended by redesignating subsection (h) as

subsection (j), and by inserting after subsection (g) the following new subsection:

"(h) AIR OR WATER POLLUTION CONTROL FACILITIES.—For purposes of this section, the term 'air or water pollution control facilities' means—

"(1) any certified pollution control facility within the meaning of section 169(d),

"(2) mining tailings ponds, dams, and related pipelines and equipment, and

"(3) equipment used for mine reclamation activities.".

(b) EFFECTIVE DATE.—The amendments made by this section shall apply with respect to obligations issued after the date of enactment of this Act with and respect to taxable years ending after such date.

SEC. 502. DEDUCTION FOR POLLUTION CONTROL EXPENDITURES.

(a) IN GENERAL.—Section 169 of the Internal Revenue Code of 1954 (relating to amortization of pollution control facilities) is amended—

(1) by striking out "60-month" in the last sentence of subsection (a) and by inserting in lieu thereof "amortization", and by revising the first sentence of such subsection (a) to read as follows: "Every person, at his election, shall be entitled to a deduction with re-

spect to the amortization of the amortizable basis of any certified pollution control facility (as defined in subsection (d)), based on any amortization period of from one month to 60 months, as is selected by the taxpayer.";

(2) by striking out in subsection (b) "and to begin the 60-month period" and by inserting in lieu thereof ", its choice of amortization period, and its election to begin the amortization period";

(3) by striking out paragraph (4) of subsection (d), by striking out in paragraph (3) of such subsection (d) "Health, Education, and Welfare" and by inserting in lieu thereof "Health and Human Services", and by revising paragraph (1) of such subsection (d) to read as follows:

"(1) CERTIFIED POLLUTION CONTROL FACILITY.—The term 'certified pollution control facility' means land or property of a character subject to depreciation under section 167—

"(A) which is acquired, constructed, reconstructed, or erected for the primary purpose of abating or controlling water or atmospheric pollution or contamination by removing, altering, disposing, storing, or preventing the creation or

emission of pollutants, contaminants, wastes, or heat, and

"(B) which is certified by the Federal certifying authority or the State certifying authority as meeting or furthering Federal or State requirements for abatement or control of water or atmospheric pollution or contamination.

The fact that a portion of the costs of any property will be recovered over its useful life through the recovery of wastes or otherwise in the operation of such property shall not be taken into account in determining under subparagraph (A) the primary purpose for which such property is acquired, constructed, reconstructed, or erected.";

(4) by striking out subsection (e); and

(5) by revising subsection (f) to read as follows:

"(f) AMORTIZABLE BASIS.—For purposes of this section, the term 'amortizable basis' means the adjusted basis (for determining gain).".

(b) INVESTMENT CREDIT.—Section 46(c)(5) of such Code (relating to applicable percentage in case of certain pollution control facilities) is amended to read as follows:

"(5) APPLICABLE PERCENTAGE IN THE CASE OF CERTAIN POLLUTION CONTROL FACILITIES.—Notwithstanding paragraph (2), in the case of property—

"(A) with respect to which an election under section 169 applies, and

"(B) the useful life of which (determined without regard to section 169) is not less than 5 years,

100 percent shall be the applicable percentage for purposes of applying paragraph (1) with respect to the property.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred after December 31, 1980.

TITLE VI—REGULATORY REFORM

RULEMAKING COST EFFECTIVENESS

SEC. 601. (a) Section 553(b) of title 5 of the United States Code is amended by striking out "and" at the end of paragraph (2), by striking out the period at the end of paragraph (3) and inserting in lieu thereof a semicolon, and by adding after paragraph (3) the following:

"(4) a statement of the need for and objectives of the proposed rule; and

"(5) a description of all reasonable alternative public or private means for achieving the objectives of the proposed rule, together with an explanation of how the proposed rule achieves the objectives at lower cost

or with fewer adverse effects than the other alternatives described.".

(b) Such section 553 is amended by redesignating subsections (c), (d), and (e) as subsections (d), (f), and (g), respectively, and—

(1) by inserting after subsection (b) the following:

"(c) If an agency determines that a rule is a major rule, the agency shall also include in the notice of proposed rulemaking a description of the principal facts and assumptions on which the agency intends to rely in its consideration of the rule, and an identification of the reports, documents, studies prepared by staff or consultants as well as other materials considered by the agency.",

(2) by inserting in subsection (d) (as redesignated in this subsection) after the first sentence the following: "If the comments received under the preceding sentence reveal that there are disputed factual issues, the agency shall conduct such additional proceedings as the agency determines are appropriate for the resolution of such issues, including informal public hearings, meetings or conferences, mediation, presentation of witnesses for direct and cross-examination, and additional opportunity for preparation of written rebuttals to any materials required to be included in the notice of proposed rulemaking under this subsection.", and

(3) by inserting after subsection (d) (as redesignated in this subsection) the following:

"(e) Notwithstanding any other provision of law, an agency may only promulgate a final major rule if the agency determines that the relevant matter before the agency as a result of the rulemaking proceedings indicates that the rule will substantially achieve the regulatory objectives set forth under subsection (b)(4) in the manner that best combines low cost and the fewest adverse effects in comparison with alternative means of achieving such objectives set forth under subsection (b)(5).".

(c) Section 706 of title 5 of the United States Code is amended by striking out "and" in paragraph (1), striking out the period at the end of paragraph (2) and inserting in lieu thereof "; and", and inserting after paragraph (2) the following:

"(3) set aside a major rule if it finds (A) that the agency relied upon materials as to which there was no opportunity to comment under subsection (d) of section 553 of this title, or (B) that the agency failed to utilize additional proceedings provided by such subsection and that such failure precluded the full presentation of facts and arguments necessary for a fair determination of the issues in the rulemaking proceeding taken as a whole.".

TITLE VII—NATIONAL DEFENSE STOCKPILE

POLICY

SEC. 701. The uninterrupted availability of strategic and critical materials is essential as a measure of national defense and the goals of the Congress.

AVAILABILITY OF MONEYS

SEC. 702. Section 9(b) of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98h(b)) is amended to read as follows:

"(b) All moneys received from the sale of materials in the stockpile under paragraphs (5) and (6) of section 6(a) shall be covered into the fund. Such money shall be available for the acquisition of strategic and critical materials under section 6(a)(1) and for transportation related to such acquisition but for no other purpose.".

REQUIREMENT OF AUTHORITY FUNDS

SEC. 703. Section 5 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98d) is amended by striking out subsection (a) and redesignating subsections (b) and (c) as subsections (a) and (b), respectively.

TITLE VIII—ANTITRUST RESTRICTIONS

REVIEW OF ANTITRUST LAWS, RULES, AND REGULATIONS

SEC. 801. (a) The Attorney General of the United States shall conduct a review of the antitrust laws, rules, and regulations of the United States to determine the extent to

which they are consistent with the policy set forth in this Act. Such review shall include—

(1) an analysis of the relevance of such laws, rules, and regulations to the mining, minerals, and materials industries,

(2) recommendations on revisions of antitrust policy, both legislative and administrative, necessary to promote cooperative government and industry research and development, participation at international minerals and materials forums, the competitiveness of domestic industries in international markets, and any other goal consistent with the policies set forth in this Act, and

(3) an examination of the effect of the antitrust policies of the United States on productivity and profitability in the mineral and material producing and processing industries, especially to the extent that such policies prohibit or inhibit cooperative research, vertical integration, and joint ventures.

(b) The final product of the review required by subsection (a) shall take such form so as to be available for scrutiny by interested parties.

TITLE IX—FOREIGN POLICY

CENTRALIZATION OF MINERALS AND MATERIALS INFORMATION

SEC. 901. The Secretary shall—

(1) conduct a thorough analysis of the foreign mineral and materials information requirements and resources of all departments and agencies of the executive branch of the United States Government, including an assessment of the possible roles of foreign service officers and resource officers in the State Department in contributing to mineral and material information collection, and make recommendations on methods of improving data collection procedures to better meet such requirements,

(2) direct the centralization of responsibility for the maintenance of a coordinated Federal repository of foreign mineral, material, and related information in the United States Bureau of Mines, and

(3) ensure that the Bureau of Mines maintains its foreign mineral, material, and related information repository to be responsive to the information needs of all Federal agencies.

SECRETARY OF STATE REPORT

SEC. 902. The Mining and Minerals Policy Act of 1970 is amended by adding at the end the following new section:

"SEC. 3. The Secretary of State shall submit to the Secretary of the Interior an annual report on the foreign policy of the United States as it relates to the availability of minerals for domestic use. In such report the Secretary of State shall evaluate—

"(1) whether the foreign policy of the United States is consistent with the national security and the economic interests of the Nation,

"(2) whether such foreign policy promotes a stable foreign environment for United States mineral investments abroad, and

"(3) future initiatives in foreign policy that could improve the minerals security of the United States.

The Secretary of the Interior shall include such report in the report to Congress provided for in section 2.".

Mr. BENNETT. The first witness we have this morning is our colleague, Congressman McDonald, Larry McDonald, Representative from Georgia.

We are very glad to have you, Mr. McDonald. You are a treasured member of this committee and a treasured Member of Congress.

STATEMENT OF HON. LARRY McDONALD, A REPRESENTATIVE FROM GEORGIA

Mr. MCDONALD. Thank you very much, Mr. Chairman.

Let me say it is a pleasure to appear before the committee. I appreciate your making it possible for current scheduling of hearings on this very important subject area.

Mr. Chairman, I have a full statement that is typed out and I believe it is before you. I would like to request unanimous consent that it be included in the record. I will summarize some of the key points before questions from your subcommittee.

Mr. BENNETT. Without objection.

Mr. MCDONALD. Mr. Chairman, let me state at the onset, I would like to express my very strong support for the concept of a strategic stockpile, and I believe that I really bow to no one in my very firm belief that we should get on with the business of correcting the very obvious and glaring deficiencies in the stockpile, the strategic stockpile reserves, particularly in those areas absolutely essential to our national defense.

I think that the Congress in general and administration after administration has been remiss in not correcting what have been really obvious deficiencies in the stockpile.

I say this as a witness before you today, and also as one who has had 5 years on this particular subcommittee.

In my opinion, the whole matter of the stockpile has been neglected for too long, and for 20 years we have failed in the new acquisitions of materials for the strategic stockpile.

In spite of this 20-year period, there has been a tremendous growth in Government, particularly in the areas of transfer payments, and a stagnation in the responsibilities toward our national defense.

One interesting point is that in constant value dollars, we are spending the same thing for defense today that we spent in 1964. However, the nondefense part of the budget has tripled since 1964.

The issue that I would like to address very strongly today is one particular issue, Mr. Chairman, and that is the question of the merits or demerits of a silver sale from the strategic stockpile.

This has been an issue that has come up, I believe, in every Congress since I have been here, and in each Congress since I have been here, it has been, in my opinion, wisely defeated.

But the point is—the central question is this. Is there merit to the silver sale? If silver is indeed surplus to the stockpile, it should be sold, all other considerations aside.

I will agree to that. In my opinion, very clearly the facts show that it is not a surplus item.

In the past, I have strongly supported sales of items that I felt were obviously surplus. For example, the sale of diamonds that had been placed in the stockpile—I think from the State Department—

when diamonds had been received as payments from various Third World countries; then, they really should never have been there in the first place, and the stockpile had been used as simply a convenient dumping ground.

Under those circumstances, I felt that those sales should have taken place, but I have been distressed at the sales that have taken place. The moneys have been put into the general fund to make the deficits look smaller.

To me, this has been a very shortsighted policy, and has benefited those who wish to make hay from the political improvement of a reduced deficit. But it has unfortunately not corrected the areas of deficiencies in the stockpile.

This has had to me the analogy of selling off the last of your grandmother's heirloom jewelry just to make another downpayment on the sports car. I think we have been doing this really in administration after administration. It has been a bipartisan problem.

The stockpile has really no constituency. Very few people have really studied it indepth. I think only in recent months or in the last couple of years has there been a growing appreciation for the great deficiencies that we do have. I think General Slay's presentation to this full committee has called it to our attention.

A recent article in the Reader's Digest has also called attention to the fact that we do have a serious problem in the matter of strategic materials and their sources.

Statements by Brezhnev made in 1973, that the objective is to deny from the West the two great treasure houses—one the Persian Gulf, and the other in Southern Africa. I think these statements are starting to come home to haunt the leadership of the West.

We all know what has happened in the case of the Persian Gulf. We can certainly see adverse changes taking place in Southern Africa, and certainly in Angola, and Southwest Africa (Namibia), as well as in Rhodesia (Zimbabwe).

Decreasing the national deficit has had a very strong vested interest in administration after administration. Naturally, the politicians in office would like to have the deficits look not so great.

There has been a very strong constituency, of course, to sell silver. The silver users, perhaps understandably, would like to be able to buy the cheap silver that is now in the hands of the Government to use for sophisticated electronics, photographic film, medicines, jewelry, silverware, batteries and so forth.

Over the years our Government has sold about 2 billion ounces of silver to the various silver users, not only of this country, but to the world, at a rock bottom price of about $1.29 an ounce, which has to represent one of the great windfall profits in history.

The American people in reality have had a loss of assets to the tune of billions. But this really is of no importance if indeed from the standpoint of this subcommittee—if silver is surplus, as currently reported by GSA and FEMA. I would like to note that other segments of the Government do not agree with the GSA assessment.

At this time we have 139.5 million ounces of silver in the strategic stockpile. As a general rule of thumb, caution has been ex-

pressed, an item has been viewed as a strategic item if we are forced to import 50 percent or more.

With this in mind, we are now importing almost 50 percent of the silver we use.

What has been our past experience with regard to this particular element? In World War II we used 800 to 900 million ounces of silver. A sizable portion was used for the Manhattan Project. Some of it was used for the currency of our allies. But the industrial products and sophisticated weaponry of today are in far greater need of silver than in the 1940's.

The more sophisticated the society, the greater the dependence upon silver.

Also in the last conflict, when dealing with neutral or sometimes hostile territories, as matters of negotiation we used precious metals, gold and silver. I don't think anyone is seriously going to believe that in the case of a massive future conflict that the Third World countries or perhaps slightly hostile countries will be accepting U.S. paper dollars in return for hard commodities.

They certainly did not do that in the case of World War II, and there is even less reason to believe that paper dollars would have a great attraction in the future.

In the Vietnam era we used about 1¼ billion ounces of silver. This supposedly was a rather minor conflict and supposedly did not stretch us too far. If we had a major conflict, we would certainly use more than in the Vietnam era.

Today we mine in the United States a small portion of our silver needs. The shortfall between what we mine and what we need is made up by scrap, by coin melt, by recycled silver from photographic and X-ray film, and from imports.

Now, in the case of imports, it is interesting to note that we depend upon Peru, Mexico, Canada, and Australia. The U.S.S.R. is also a heavy producer of silver, but it is not selling silver, it is buying silver.

The Soviets may sell their gold from time to time, but they don't sell their silver.

Now, looking at Peru, it is the second country in the Western Hemisphere to receive large amounts of Soviet military equipment, Warsaw Pact equipment, with hundreds of T–54 and T–55 tanks, with Czechoslovakian howitzers, with Soviet SAM missiles, and with supersonic fighter attack aircraft.

In the case of Mexico, it may seem like a very friendly and stable neighbor to the South. I can remember just a couple of years ago when Nicaragua was felt to be the toughest nut to crack, so to speak, or the strongest ally that we had in Central America.

Today, that unfortunate country is a Cuban-Soviet satellite, and the fate of El Salvador hangs in the balance. Guatemala I think will be next.

I think the present situation in Central America and Mexico may be demonstrating a near-term threat in the future importation of silver. We have already seen irritation coming about over the matter of oil.

Now, it may be very difficult for the typical American to believe that there is a growing anti-American sentiment in present day Canada. The principal reason for this anti-American sentiment

stems from the belief that Americans have wrongly exploited Canada's cheap natural resources.

The Wall Street Journal of June 1—here is a lead article—an article stating that "Trudeau Blocks the Merger of Strane-Canada, Inc. into McCormack & Co.," the spice corporation, because he did not want an American takeover of a Canadian firm.

In Barrons, for June 1, 1981, an editorial commented once again about the growing anti-American sentiment by the current administration in Canada, because of the feeling of exploitation of Canada's resources, and the takeover of Canadian firms by outside interests, particularly American.

In short, we could be facing an OPEC-style silver cartel in a few years. I don't think it is going to be wise to depend upon the Soviets to bail us out.

India, it might be noted, historically has had a large pool of silver—silver reserve—which has primarily been in the form of art objects, personal jewelry, religious objects, and so forth.

Now, India has moved to clamp down on the exportation of silver. So what has been a traditional source in the past is not readily available today.

You might feel in view of the case, since we have silver in this country, we should just simply crank up the mine production and that would solve the problem. It is a very simple answer, of course, but unfortunately it doesn't work.

The reason for this is that the majority of the newly mined silver does not come from silver mines. Perhaps 20 or no more than 25 percent comes from new silver mines. The majority comes as a byproduct of other metal mining—copper, lead, and zinc.

It would be uneconomical to crank up the large production of copper, lead, or zinc mining simply to get the small byproduct of the silver.

Silver is an unusual substance, therefore, in that regardless of the price, the supply of new silver is more or less inelastic.

Now, you might say, well, in view of that what we will do is just cut down on the usage of silver. Unfortunately, the industrial uses of silver are on a steady increase. As I have already mentioned, the more sophisticated the society, the more electronics involved, the greater the need for silver.

Eastman Kodak has spent millions of dollars trying to find a substitute for silver. So far the substitutes have been uneconomical. Small amounts of silver are required for X-ray film. Small amounts are required for given types of photography.

You may feel that the film—you may be able to recover silver from processed film. That has been a growing source of the silver that has been recycled. But we should note that with the Polaroid film or the Instamatic-type film, you do not recover the silver, it ends up in the trash cans of Yellowstone National Park or whatever other places.

When you use the Instamatic-type film or the rapid development film of Kodak or Polaroid, that silver is not recovered.

So, also silver is rather unique in that regardless of the price, the demand for silver is inelastic. The demand stays right with you.

In the area of high quality silver batteries, in spite of the recent price increases of silver last winter, the demand for silver batteries rose during that particular period.

Silver is an unusual element. When it is tarnished by silver sulfide, as in the case of your family silverware, or when it is oxidized into silver oxide, it continues to conduct electricity at a high rate. This cannot be said in the case of copper, in copper oxides.

So, if you are going to have a high reliability electronic-type instrument, you are going to have to use silver in the connections or in the electrical connections rather than copper.

Silver halides are a fundamental necessity in X-rays and photography. Admittedly there are advances in medicine in the area of CAT scan and others, that do not require silver to the same degree as X-ray films.

We still have a very high and growing need in the use of X-rays in industry and in medicine.

Now, the silver users, as I have said, have always been very active in the sale of silver. I think their interest is understandable. The mining interests have been somewhat mixed.

Basically, the mining groups would like to gain a free market situation, in my discussions with them. They would like to see the Government take a firm policy once and for all.

Almost every Congress, the cry comes up, let's sell silver out of the stockpile. Now, it might have been somewhat forgiveable if whatever sales there had been had gone to buy some of the needed items for the stockpile.

I certainly support the chairman very strongly in that belief, and I certainly support the effort to close the door on that third year moratorium where the money then can go into the general fund, Mr. Chairman.

But the mining interests would like to see us gain a stable situation where the Government is firmly going to keep what it has in the stockpile or else go ahead and get rid of what it has in the stockpile, go ahead and create a free market situation so they can do long-range planning with regard to the development of mines and the purchase of mining equipment.

It is pretty obvious to see that perhaps the white metal silver is going to be the first strategic metal the world is going to run out of at reasonably traditional prices. Tantalum may be the second metal that the world is going to run out of at reasonably traditional prices.

Now, speculators or investors have also been concerned about silver. It is pretty easy to see from the supply-demand charts that you have a steady demand, and you have a dwindling supply. This has caused many Americans to realize that there is a good reason for putting assets into something that will not be destroyed by Government-caused inflation.

Now, in my experience one usually views themselves as an investor, and the other fellow as a speculator. It is very difficult sometimes to draw the line of who is the investor and who is the speculator.

But I would like to point out that there are few families that do not have someone in the family who has quietly put away the

silver dimes or silver quarters, silver half dollars, or even kept a few of the large cartwheel traditional American silver dollars in a safe deposit box, in a sock or somewhere.

The American people almost instinctively have understood the unfolding of Gresham's law of economics, that when the king doth control the money supply, bad money driveth out the good.

What we are seeing is just the regulatory reenactment of Gresham's law of economics, which had been demonstrated to the world long before the period of King Henry VIII. It goes way back in history to 400 B.C., in the play entitled "The Frogs," in which it was demonstrated the same thing had taken place in ancient Greece, that bad money drove out the good.

So, you are finding even in this country investors or speculators from the large level, all the way down to the housewife, to the family that would like to maintain its assets in something of value.

Now, if one wished to be truly greedy at the expense of the future, at the expense of national defense or future generations of Americans, the smart thing to do would be to advocate the total sale of 139.5 million ounces of silver—let's get it out, get it sold, get away, get it surplus, let's use the money in whichever way you wish, but let's put it on the market, get rid of it.

You would perhaps depress the world price of silver for maybe a half a year to a year and a half, and then it would be all gone. Then from that point on I think it would be reasonable to expect an explosion in the price of silver, and as silver went into orbit in its price, there would be a tremendous profit made from speculators or investors who would use the opportunity of the silver sale to buy on a depressed market.

Now, the silver sale, in my opinion, is an acceptable position if you are willing to accept one condition in advance—tell your constituents this is your stand; that in the case of a national emergency we, the Congress, we, your elected officials, plan to enact legislation which would call for the confiscation of your family-held silver to meet a national emergency.

If you are willing to accept that as a reasonable route to go, then I think you can certainly go ahead and sell off the remaining small amount in the strategic stockpile.

Now, we have done this in the past. In the 1930's, due to the so-called economic emergency, President Roosevelt asked for the turning in of the privately held gold. We were going to keep it just for the period of the emergency, some may remember. Many Americans remember that. Other Americans certainly can read that.

While they may not have been around at that time, they certainly can read enough, where if we asked them to turn in their sterling silver in the case of emergency, I am not really sure there is going to be a big rush to do so because they are fully aware that the Congress has had ample opportunity to correct that deficiency back in a reasonably tranquil period.

In my opinion, we actively need to purchase silver for the strategic stockpile because the amount that we have now is not going to be sufficient in case of a full national emergency. We would have to place ourselves at an increasing dependency upon others throughout the world.

In the last Congress, I introduced a bill to purchase silver. It had over 70 cosponsors. This year I have introduced a bill to purchase a number of strategic metals, and among those metals, including silver, for the strategic stockpile.

One final point, Mr. Chairman; that is, that it should be noted that the Bureau of Mines a few years ago conducted a study showing the status of minerals between now and the year 2000. The one glaring aspect of that report showed approximately a 5 or 6 billion ounce shortfall in silver in the world between the supply and the demand, in the year 2000.

Well, that shortfall is going to come from some source, but our military needs in the case of a national emergency would be under great stress if we eliminate from the strategic stockpile the small amount of silver we do now have.

Indeed, I would urge that we move to correct that shortfall, based along the lines of the realities demonstrated in World War II, and during the Vietnam War period.

The world is using silver at twice the rate it is being mined. That is a glaring fact that simply cannot be swept under the rug. It leaves a pretty big lump under the rug.

If members of the subcommittee, and indeed Members of the Congress, feel that there is some degree of an oil shortage in the world, then you are apt to lose sleep over the situation of the silver shortage.

That completes my oral statement, Mr. Chairman.

Written Statement of Hon. Larry P. McDonald, a Representative From Georgia

Mr. Chairman, first let me thank you for the scheduling of hearings on this important subject area. A number of national experts are here to testify today and I believe their depth of knowledge will aid this subcommittee in gaining a proper prospective on this important subject.

At the outset, I would like to stress my strong support of a strategic materials stockpile as part of our overall defense program as we are charged by our Constitution. I say this as a witness today and also a member of this subcommittee in my fifth year of service on this subcommittee.

In my opinion, the honest needs of our strategic materials reserves have been too long neglected. While various items have been sold from this stockpile reserve the money received from such sales have gone to the general fund and not to purchase the sizeable strategic reserve deficiencies; furthermore the Congress has failed to appropriate funds for the specific purpose of filling those strategic materials deficits. This has been the pattern for twenty years—years of New Frontier, Great Society, etc.; years of great growth of the federal government as an agency for the forced redistribution of income but stagnation in the areas of national defense.

The other witnesses today also strongly support a strong and fully stocked national defense stockpile. That point is not the issue. The issue today is simply this: Is there merit to the sale of silver from the stockpile?

In the past I have supported the sale of items from the stockpile which have been clearly surplus to our defense needs. Following those sales (such as diamonds), I have been distressed to note that the monies received have been put into the general fund thus making the national deficits not so great. To me this has had all of the folly of selling off the last of our grandmother's heirloom jewelry in order to make another down payment on your sports car.

In the case of this and past proposed sales of silver it is not a matter of simple folly, but dangerous folly. First there is no guarantee that the money will be spent to buy other needed items for our strategic reserve. Past administrations for twenty years have not done so and there is no assurance that the new administration will do so on a dollar for dollar basis. The sad truth is that the strategic reserve has no constituency and is not a politically sexy topic.

In the case of silver, the cry to sell has had a constituency and I might add a very active one. The silver users of this country naturally wish to buy cheap silver for

use in the manufacture of sophisticated electronics, photographic film, medicines, jewelry, silverware, batteries, etc. Over the year our government has sold off about two billion ounces of silver to the silver users of the world at rock bottom prices ($1.29 per oz.). With the price of silver at $10-$11 per oz. this sale represents one of the greatest windfall profits in the history of the world. The American people have had a loss of assets to the tune of billions of dollars.

The above notation is of no importance to this subcommittee, Mr. Chairman, if indeed silver is a surplus item as currently charged by GSA. Other segments of government do not agree with the GSA assessment.

At this time we have 139½ million ounces of silver in the strategic materials stockpile. As a general rule of thumb, a special caution is noted when we import 50 percent or more of a given item. With this in mind it is interesting to note that we now import 50 percent of our silver.

What is the experience in the past with reference to conflicts and the need for silver? In World War II we used 800-900 million ounces of silver. A sizeable portion was used in the Manhattan Project and some was used in the currency of allies, etc. The industrial products and sophisticated weaponry requirements of silver today are much greater than in the World War II era. Too, there is no guarantee that we will not have another Manhattan type project. Silver and gold were used in the last global conflict for special currency needs. Is anyone willing to rely on the Third World acceptance of SDR's or even U.S. paper money in an emergency?

In the Vietnam era we used about 1½ billion ounces of silver. This was supposedly a minor conflict that did not stretch us too much. If we had a major conflict, we certainly would have a greater need than that used during the Vietnam era.

Today we mine in the United States a small portion of our silver needs. The shortfall is made up by reclaimed silver from scrap, coins, recycled silver from photographic film and x-rays, and from imports.

In the area of imports we depend upon Peru, Mexico, Canada, and Australia. The USSR is also a heavy silver producer but it is not selling silver. The Soviets may sell gold from time to time but not silver.

Peru is the second country after Cuba in the Western Hemisphere to be receiving large amounts of Soviet and Warsaw Pact military equipment. Today Peru is loaded with T-54 and T-55 tanks, Soviet SAM missiles, Czech howitzers, Soviet supersonic fighter attack aircraft, etc.

Mexico may seem stable. Just A few years ago Nicaragua was viewed as our strongest ally in Central America. Today that unfortunate country is a Soviet/Cuba satellite and the fate of El Salvador hangs in the balance. Guatemala could be next. Unfortunately the present situation in Central America and Mexico may well be demonstrating a threat to the importation of silver. Unbelieveably there is a growing anti-American sentiment in present day Canada. The principle reason for this development is the belief that the U.S. has wrongly exploited Canada's cheap natural resources.

In short, we could be facing an OPEC style silver cartel in a few years and it is not wise to depend upon the Soviets to bail us out.

As a footnote, it should be mentioned that India has sizeable quantities of silver, but it is mostly in Indian jewelry and art objects. The government of India has moved to clamp down on silver exports so India will not be in a position to bail us out.

You might suggest that the solution is simple: "Just crank up the silver mine production in the United States."

That is simple all right but unfortunately impossible. About 75-80 percent of our new silver comes as a by-product of coppr, lead, and zinc mines. The traditional silver mines are petering out. We cannot mine large quantities of copper, zinc, etc. just to get silver—that would be uneconomical. Regardless of the price, the supply of new silver is more or less inelastic.

You may suggest that we simply cut the usage of silver. Unfortunately the industrial uses of silver are on a steady increase; the more sophisticated the society, the greater the need for silver. Eastman Kodak has spent millions trying to find a practical substitute for silver in photography and to no avail. Regardless of the price, the small quantities of silver required for individual items of high quality electronics are without reasonable substitutes. Regardless of price, the demand for silver is inelastic (or even worse, it is on a steady rise).

Silver is an unusual element. Due to electricity conduction properties even when in the oxide or sulfide form, silver is a necessity in electronics. Due to the mass chain reaction when exposed to light silver halides are necessary for X-rays and photography.

The Silver Users Association has always been supportive of the sale of silver and have worked actively for this point; to a degree, that action is understandable.

The mining interests have been somewhat mixed. Mining groups would like a free market situation for silver so that longrange planning for the purchase of equipment, etc. might be possible. As long as there is the constant talk and periodic efforts of stockpile sales, long range silver mining is frustrated.

Investment interests and speculators have an increasing fascination for silver. A metals investor has to be willfully blind not to see the price potential in silver; the white metal is the first strategic metal the world is going to run out of at traditional prices, etc. Tantalum may be the second.

Speculators have gained a dirty name, but to some degree that word is a matter of perspective. Individuals tend to think of themselves as "investors" and the other fellows as "speculators." As the world silver supply becomes increasingly less, it is only natural that more and more people of all types will look to silver as a hedge against government caused inflation and as the final store of value for an emergency. This aspect is on the dramatic increase, and no political maneuvering will change it.

If anyone in this body wished to be greedy at the expense of the future then that member should rush the sale of silver and follow the GSA evaluation of silver being a 100 percent surplus item. Completely selling off or even planning to would depress the world price for perhaps 1 to 1½ years. After that the price would explode and any national emergency would put the price into orbit. One thinking only of himself or herself might well push for the sale of silver and then heavily invest on the depressed market. The fundamentals of this strategic metal would make it a "cannot lose" investment. The country, of course, would be the loser.

Under one condition only does this proposed silver sale make sense. If we, the members of the Congress, are willing to state now that in case of a national emergency, the federal government will step in to confiscate the sterling silver flatware of its citzens, then this bill is all right. In the mid 1930's President Roosevelt asked for the privately held gold just for the period of the emergency (this sentence reads: President Roosevelt used un-constitutional powers to seize the gold of Americans—gold belonging to the citizens and not the government). Many Americans have memories or can read to a sufficient degree that they will not make that mistake twice. This is especially true since there has been ample opportunity for the Congress to appropriate the funds to complete the stockpile needs.

Completing the stockpile needs also means buying large quantities of silver—not a silver sale. Towards this end in the last Congress, I sponsored a bill to purchase a modest amount of our minimal stockpile silver need. That bill had over seventy cosponsors. This year I have a bill to purchase a number of strategic metals for our defense reserves including silver.

As a final point, it should be noted that the Bureau of Mines has presented a study showing the status of minerals to the year 2000. This deals with the realities of supply and demand. Based on this government study, *there is* a five (5) billion ounce shortfall between the demand and the available silver resources. The world is using silver at twice the rate it is mined and these glaring facts cannot be swept under the rug.

Mr. Chairman and fellow members of this subcommittee, if you are concerned about an oil shortage problem in the world, you will not be able to sleep because of the coming shortage of silver. I urge the strong rejection of the administration proposal to sell silver. It is interesting to note that the push on this bill began before the inauguration of President Reagan and in my opinion, is typical of many misguided approaches to government and national defense needs. The American people gave a resounding rejection of those views in November, 1980, and I urge my fellow subcommittee members to do the same on this foolish and dangerous piece of legislation.

Mr. BENNETT. Any members have any questions to ask? If not, you can join us up here Mr. McDonald.

The next witness will be Mr. Silvio O. Conte. He has a statement to be put into the record. Without objection it will be put in the record.

WRITTEN STATEMENT OF HON. SILVIO O. CONTE, A REPRESENTATIVE FROM MASSACHUSETTS

Mr. Chairman, I appreciate the opportunity you and your subcommittee have made available to me to express my views on authorizing the disposal of silver currently held in surplus in the strategic and critical materials stockpile. As you are aware Mr. Chairman, I first introduced legislation to effect disposal of surplus silver in 1973. Since that time, I have sought to achieve this end, and I have again this

Congress introduced a bill, HR 2784, to dispose of the 139.5 million troy ounces which have been declared surplus to our security needs.

In July of 1976, a National Security Council-directed study on the needs of the strategic and critical materials stockpile, and the policy options available in dealing with the stockpile question, prompted the then Federal Preparedness Agency to set the Nation's silver stockpile goal at zero.

In 1979, at the request of the Senate Armed Services Committee, the General Accounting Office issued a report titled "National Defense Requirements for a Silver Stockpile". The conclusion of that report, following a review of the methodology used by the then Federal Preparedness Agency in establishing national stockpile goals, was that a zero stockpile goal for silver was appropriate.

Today, according to the Federal Emergency Management Agency, the 139.5 million troy ounces of silver presently in the stockpile is still considered surplus to national security requirements because the annual production of silver in the United States, coupled with imports from Canada and Mexico, is ample for defense needs. In addition, officials responsible for maintaining the stockpile feel that in national emergencies, there are other silver sources available which could be drawn on such as Defense and Treasury Department stocks, industrial holdings, and the supplies held in warehouses of the Commodity Exchange and the Chicago Board of Trade.

Mr. Chairman, one of the best supporting arguments to the question of whether or not to sell the surplus silver in the strategic stockpile is that certain critical materials in the stockpile, such as cobalt and titanium, are below the levels where they can be said to be adequate for protection against shortages in times of national emergency. To this extent, it would certainly be in the best interest of our nation to begin procuring those critical materials we know to be in short supply.

It seems to me that one of the ways in which we can generate the resources necessary to procure those badly needed critical materials is through the sale of other materials considered surplus to the stockpile needs. Let me emphasize Mr. Chairman, that I have never quarrelled over the amount of silver necessary for defense purposes. What I have tried to do however, and seek to do now, is encouraged the disposal of those materials considered surplus to the stockpile in accordance with Section 6 of the Strategic and Critical Materials Stockpiling Act. That section of the Act directs the President to provide for the timely disposal of materials which are excess to stockpile requirements in a manner which avoids undue disruption of the usual markets for such materials.

Even with such timely disposals Mr. Chairman, there is a substantial body of opinion which supports the theory that there are not enough materials declared surplus to the stockpile which could be sold to generate funds to buy all of the materials we do need to meet our stockpile goals. To this extent, I think we will ultimately have to address the question of making appropriations from the general fund to make up for the difference between materials in surplus available for sale, and the level of funding necessary to meet stockpile goals.

In summary, Mr. Chairman, let me say that the Defense Industrial Base Panel of the House Armed Services Committee, in a report issued in December of 1980, concluded that the general condition of our defense industrial base has deteriorated. One of the reasons for this deterioration is a shortage of certain strategic and critical materials. In view of these findings, and based on the opinions of various experts, I think it is in the best interests of our country for us here in the Congress to move toward favorable consideration of a bill to grant release authority for the entire amount of surplus silver in the strategic and critical materials stockpile so that we can obtain those resources necessary to procure the strategic materials we do need, and begin to reverse this trend of shortages that threatens our national security.

Again, I thank you for the opportunity to present my views on this subject Mr. Chairman.

Mr. BENNETT. The next witness who is actually physically present is Mr. Dan Marriott, our ranking minority member of the Subcommittee on Mines and Mining, a very distinguished Member of Congress.

You may proceed in your own way.

STATEMENT OF HON. DAN MARRIOTT, A REPRESENTATIVE FROM UTAH

Mr. MARRIOTT. Thank you, Mr. Chairman.

I appreciate being before this committee. I have condensed a 100-page statement into 4 simple pages, if that would meet with the chairman's approval.

Mr. BENNETT. That is fine.

Mr. MARRIOTT. I would like to thank the chairman for having this hearing and inviting me to testify today on this important national defense preparedness issue of strategic and critical minerals and materials stockpiling.

I doubt that there is a person in the room who, having followed the strategic and critical materials, the mineral policy or the defense industrial base debates of recent years, would challenge the need for a strong national defense stockpile.

It is not a question of whether we can afford the cost of meeting our stockpile goals. It is rather a question of whether in the time of a national emergency we can afford to be dependent on South Africa and the Soviet Union for 73 percent of our platinum imports; of whether we can afford to be dependent on South Africa, Yugoslavia, and Zimbabwe for 82 percent of our ferrochromium imports; or whether we can afford to be dependent on Zaire and Zambia for 71 percent of our cobalt import dependency.

The political volatility and unstability of the Southern Africa region leaves the United States particularly vulnerable to short-term supply disruptions of a number of critical defense materials.

The Southern Africa region contains 95 percent of the world's chrome, 86 percent of the world's platinum, 64 percent of the world's vanadium, 53 percent of the world's manganese, 52 percent of the world's cobalt, and 61 percent of the world's tantalum.

Many of these metals are essential alloys used in steel and specialty metals requiring resistance to high temperature, corrosion and erosion.

For example, the Pratt & Whitney F100 turbofan engine for the F-15 and F-16 planes requires 5,366 pounds of titanium, 5,204 pounds of nickel, 1,656 pounds of chromium, 910 pounds of cobalt, 720 pounds of aluminum, 171 pounds of columbium, and 3 pounds of tantalum.

An adequate national defense stockpile is the most effective way to respond to a short-term disruption of these materials during a national emergency.

Unfortunately, I feel Congress has sometimes paid lipservice to the national stockpile program. At present, over half the line items in the stockpile are below goal levels by an average of 60 percent. Cobalt, for example, is about 45 percent of the goal.

As General Alton D. Slay, Commander of the Air Force Systems Command, highlighted in his testimony before the Industrial Preparedness Panel of the Armed Services Committee last November 13, 37 of the 62 materials and family groups within the stockpile do not meet goals, and four meet goals only by crediting.

This former list includes such key materials as aluminum, chromite, cobalt, copper, manganese, and platinum. In addition, General Slay noted, the quality and technical obsolescence of some stockpiled materials limits their use in many of today's sophisticated applications.

There have been no major stockpile purchases since 1960. To the contrary, we have sold off many of the strategic minerals we are now trying to reacquire at greatly increased costs.

Fortunately, the Strategic and Critical Materials Stockpiling Revision Act of 1979, Public Law 96-41, has reaffirmed the intent of the 1939 and 1946 Stockpiling Acts that "the purpose of the stockpile is to serve the national defense only and is not to be used for economic or budgetary purposes."

We must take the need for a full inventoried stockpile seriously and we must work together in working out a practical, phased acquisition program that will provide the funds needed to meet full goal levels as soon as reasonably possible.

A $100 million per year GSA budget line item for stockpile acquisition is just not a sensible approach to funding a $7-$12 billion program.

It seems to me that we ought to allocate at least $1 billion a year for stockpiles with a goal of having a minimum of a 3-year supply in most strategic minerals.

The purpose of today's hearing specifically in regard to H.R. 2603, H.R. 2784, and H.R. 2192 is to discuss whether excess stockpile materials should be sold off, what funding should be appropriated for new acquisitions, and whether we should buy certain materials this fiscal year.

With the current stockpile goal for silver set at zero, I personally cannot support the sale of the full complement of excess inventory at this time. While I feel a significant amount of silver could be made available for sale to offset new acquisition costs, its key use in certain electronic and photographic defense applications warrant its retention as a stockpile item.

The relative stability of our main import sources, Canada and Mexico, however should dictate the need for a much lower goal than the current 139.5 million troy ounce inventory level.

To address the question of stockpile goals and availability of excess materials, I feel the 5-year net import stockpile formula and strategic material classification system previously proposed by Senator McClure in 1977 as an amendment to the Strategic and Critical Materials Stockpiling Revision Act should be examined further at this time.

The amendment would provide a consistent approach to determining stockpile goals while still providing FEMA the flexibility to vary from the formula in special cases, such as titanium or tantalum.

Preliminary estimates suggest that this formula approach would still leave on the order of $3.5 billion to $4 billion in excess materials available for disposal.

With regard to the level and method of funding new stockpile acquisitions, I would like to propose that we examine available off-budget alternatives, such as currently being considered for the strategic petroleum reserve.

Specifically, we should consider establishing a separate stockpile revolving fund within the Treasury, funded by a phased line of credit from the Federal Financing Bank.

Congress could authorize the bank to issue up to a fixed amount, say $8 billion, to be released to GSA in 8 to 10 annual payments for the sole purpose of purchasing stockpile materials.

The authorization would be subject to congressional review every 4 years. The revolving fund would also receive all revenues from the stockpile sales that then would be immediately available to the stockpile manager for new purchases without further authorization.

This approach would give GSA more flexibility in taking advantage of commodity market conditions without being dependent on the annual budget appropriations process for funding.

While there are other off-budget alternatives, such as permitting GSA to issue stockpile bonds or to establish a quasi-government metals and materials stockpile corporation, they all depend on the stockpile operating as an economic stockpile, which we must avoid.

Direct Federal Financing Bank funding, backed by the collateral assets of the stockpile inventory, appears to be a viable alternative, and I offer it for your consideration.

Mr. Chairman, I would just conclude by saying that I think we do face some serious problems with strategic minerals around the world. I think the Soviet Union's intentions are clear. I think some cartels could well be a fact, a reality, in the 1980's.

I would hope that this country would take stockpiling of strategic minerals very seriously and make it a national priority to allocate at least $1 billion a year for stockpiling over at least a 3-year period to achieve some degree of independence over foreign sources.

I thank the chairman for offering me this time.

Mr. BENNETT. Thank you, particularly for your very specific suggestions. Some of them I don't completely understand, but that is not your fault. They are technical and I need to study them to understand them myself.

I have asked the staff to study, particularly the third and fourth pages of your statement. When we start marking up this legislation, I think all the suggestions you have made offer some hope and certainly ought to be very thoroughly considered, and maybe they would be the answer to what we are trying to find.

I don't have a real answer at this moment. Perhaps the things you said will be an answer.

Are there any questions?

Mr. McDonald.

Mr. MCDONALD. Thank you, Mr. Chairman.

I would like to thank my very distinguished colleague from Utah for his very excellent testimony. I appreciate his interest in this very important area. It is an area of growing awakening. I appreciate his testifying today.

I did have a couple of questions regarding a few points.

You mentioned Senator McClure. I know in the last Congress Senator McClure was opposed to the sale of silver from the stockpile and voiced that opposition in the Senate and initially was assured by the Senator from Colorado that there would not be any silver sales, but ultimately that did wind its way into the bill and that was ultimately removed by action on the House floor.

But Senator McClure also made a very interesting point with regard to cobalt in that we have created an artificial dependence upon cobalt because areas of cobalt in this country have been locked up in wilderness areas.

So we have been unable to get at our own natural cobalt because of a wilderness policy and a Government lands policy that has denied to ourselves and in some cases has created a dependence upon foreign sources where indeed that dependence is not a geographic or geological reality.

I wonder if the gentleman from Utah has any comment on that point, that we have locked up some of our own resources.

Mr. MARRIOTT. I would say there is no question about that. I think we have in fact locked up our natural resources. The question is, though, how soon we can get developing those resources, what the cost would be, and how much of our need that would provide.

It still does not relieve us from imports of cobalt. I think we could provide more stockpiling material by having a more flexible use of public lands.

Mr. MCDONALD. Is the gentleman from Utah aware of whether or not there was a sale of cobalt from the stockpile not too long ago, when it was judged as surplus?

Mr. MARRIOTT. I don't know that.

Mr. MCDONALD. Perhaps we will go into this later on in the testimony. My understanding is that at one time we judged that cobalt was surplus and sold over one-half of it at about $2 a pound and now we have the privilege of buying it back at $15 to $20 per pound.

I appreciate, I believe in the last Congress, that the gentleman was a cosponsor on the bill to purchase silver for the stockpile. I am a little bit concerned at the thought of maybe moving into the off-budget areas.

I have been somewhat alarmed in the past that we have kidded ourselves as to what the real deficit is and what the real budget is, simply through the convenience of off-budget sleight-of-hand-type economic wizardry.

But we do have a source of funds that comes from the sale of offshore Government-held oil leases. Up until now that money has been going to purchase new land for Federal parks, Government parks, and now we are moving into urban parks. We are also buying some of the most expensive land around.

The Chattahoochee National Park is an example of moving into purchasing land in the urban areas which goes far beyond anything of the National Park Service concept.

But since the Federal Government now owns more land than there is east of the Mississippi, and that land grows every year rather than shrinks, I was just wondering if the gentleman from Utah would feel that there would be merit in perhaps using the money that we are getting from some of the offshore leases for the purposes of buying material for the stockpile.

In some cases—as an example, cobalt, which I think we locked up one of our only sources of cobalt in a wilderness area in the State of Idaho—I am just wondering if there would be merit possibly [illegible]using some of the moneys gained from the offshore oil lease

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Would the gentleman have any comment or agreement on that oint?

Mr. MARRIOTT. I would certainly think there are ways that we ould find $1 billion a year on-budget to fund the stockpile. I aven't analyzed or studied the offshore situation, but I think it is practical approach.

My concern is that we ought to make $1 billion a year stockpiling fund a national priority. Whether we do it off-budget or on-udget makes no difference to me, as long as we appropriate the unds.

Mr. MCDONALD. I certainly agree with that.

Mr. MARRIOTT. I think there are other areas where we can save money and find the revenue, assuming that Congress and this committee want to make stockpiling a priority. One thing I might mention is Senator McClure and myself are working jointly to develop a new stockpile bill where we set realistic goals, look at each line item independently, and then try to determine the best way to finance the stockpile.

We hope the bill can be forthcoming later this year.

Mr. MCDONALD. Well, I certainly appreciate the gentleman's testimony. I appreciate his concern. I certainly share it and thank him for testifying this morning.

Mr. BENNETT. Are there any other questions?

Thank you.

We will turn to the next witness, who is Bob Wilson, a former Member of Congress. I don't see Mr. Wilson in the audience. His statement will be submitted for the record.

WRITTEN STATEMENT OF HON. BOB WILSON, FORMER REPRESENTATIVE FROM CALIFORNIA

Mr. Chairman and Members of the Committee, I appreciate your giving me the opportunity to comment on the legislation before you. As you know, I was privileged to serve with you on this Subcommittee for almost twenty years, and realize the problems and responsibilities you have in trying to make the right decisions with regard to our Nation's stockpile of critical materials.

You may also know that former Representative Richard Ichord, a distinguished subcommittee chairman on the Armed Services Committee, and Edward F. Terrar, Jr., have joined with me in forming the Washington Industrial Team, also known as WITCO. We are working on problems affecting defense industries, and believe me, the spectre of shortage of strategic and critical materials disturbs us all.

The stockpile grew out of necessity during World War II. Blockades and invasions caught us without sufficient rubber, tin, copper, aluminum, fuel, and many other materials needed in huge quantities to build our defense systems. Rationing, conservation and patriotic appeals for scrap collecting became the order of the day. Substitutes for natural rubber, gasoline, and many metals were hurriedly developed.

After the war much thought was directed toward correcting these problems, and our national stockpile came into being.

Fortunately, we are not at war today, but the threats of war are escalating. It is imperative that our stockpile be carefully studied and put in order for all possible contingencies.

In the more recent past we have worried about whether we were going to have one and a half wars, two wars, six weeks or six month wars and have tried to determine our wartime needs in all sorts of unpredictable scenarios and contingencies.

It seems obvious that we should [illegible] sufficient stocks of those materials that without which our nation would [illegible]rable in the first *year* of any possible contingency short of an all-out [illegible]ge.

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Mr. MARRIOTT.[illegible]

Mr. MCDONALD[illegible] testimony. My un[illegible] cobalt was surplus [illegible] and now we have t[illegible] pound.

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uld store sufficient stocks of those materials that d be vulnerable in the first *year* of any possible lear exchange.

We must be especially prudent in analyzing our wartime surge requirements for strategic metals from politically unstable areas like Africa, Central America, the Middle East and the Pacific Area. We must have true emergency stockpiles of metals or ores such as cobalt, titanium, nickel, tantalum, columbium, and dozens of other txotic but vital necessities for modern military use.

I find it shocking that we have not appropriated funds to acquire stocks of strategic and critical materials whose prices are already escalating off the charts.

I am disturbed that we are often swayed by the marketplace and have dug into our stockpiles to alleviate commercial shortages, when those very shortages should be serving as a warning of trouble ahead.

I realize that stockpiles ebb and flow like the tides, but I believe there ought to be mean low tide lines and mean high tide lines for all critical and strategic materials. I enthusiastically support the Chairman and others who advocate a revolving fund for the stockpile, so that sales of surplus materials can be used to supplement shortages of other materials. I also advocate ample additional appropriations to round out our stockpiles of critical materials, before the need is overpowering.

You in Congress must also examine legislation before other committees, such as renewal of the Defense Production Act, Title III of which contains the legal machinery to allow us to produce more domestic critical materials such as cobalt, titanium, and aluminum.

Encouragement through tax incentives or other means should be offered for private or corporate stockpiles of critical and strategic materials. Commodity trading in such items should be simplified and encouraged.

In some instances such as titanium, our tariff structure should be examined to see that import duties do not affect the increasing costs of this metal so important to aircraft and other defense industries. These are problems within the jurisdiction of other committees, but at times like these, jurisdiction is not as important as total involvement by all of us in working towards a more secure future.

In closing let me emphasize the urgency of your problem. The safest way to keep peace has always been to be ready for any contingency. Thank you again for your courtesy in allowing this testimony.

Mr. BENNETT. In order to make these hearings as brief as possible and still meaningful, the following people can submit statements and then there will be a panel.

These people will come forward—Mr. Markon, Commissioner of Federal Property Resources Services, GSA; Mr. Paul Krueger, Assistant Associate Director for Resources Preparedness Office, Federal Emergency Management Agency; Mr. Richard Donnelly, Deputy Director, Production Resources, Office of the Deputy Under Secretary for Acquisition Policy, Department of Defense; Mr. W. Perry Pendley, Deputy Assistant Secretary for Energy and Minerals, Department of Interior; and Ms. Ann Hollick, Acting Deputy Assistant Secretary, Bureau of Economics and Business Department of State.

Mr. BENNETT. All the statements from all of these witnesses will be submitted for the record. The procedure will be that each of you will make your brief statement, and then we will put the questions to those of the panel that the committee wishes to interrogate.

STATEMENT OF ROY MARKON, COMMISSIONER OF FEDERAL PROPERTY RESOURCES SERVICES, GENERAL SERVICES ADMINISTRATION

Mr. MARKON. Thank you, Mr. Chairman.

It is a pleasure to be back before this subcommittee again to testify for the administration in support of H.R. 2912, which authorizes appropriations for stockpile purposes and also authorizes disposal of materials that have been determined to be excess to stockpile needs.

My statement has been submitted for the record.

The other bills that we are commenting on today we oppose in the sense that they are either inconsistent or not as complete in their purpose.

The bill introduced by Congressman Conte would authorize the sale of the silver but does not provide the additional requirement for authorizations for appropriation or for disposal of other commodities.

Mr. McDonald's bill, although it provides for appropriations for commodities that are in deficit in the stockpile, also provides for appropriations for silver which is excess to the stockpile needs.

We have earlier this year announced through the Federal Emergency Management Agency a priority acquisition for 18 commodities. These commodities are listed in my statement.

Based on the appropriations that we are requesting and we hope to receive, I have included in my statement a hypothetical buy situation. Attached to the statement and as an addendum we have a little chart that shows what we would do if we had the authorization; that is, in lieu of silver, which is unnecessary for stockpile purposes, we would be able to buy those commodities in those amounts that are listed.

For example, we have heard testimony this morning that we are vulnerable and dependent upon bauxite, cobalt, platinum, tantalum, titanium, chromium, and manganese. In the stockpile we have chromium at 82 percent of the required goals, titanium only 17 percent, bauxite 50 percent, and cobalt 54 percent.

With the appropriations we can increase the percentage needed for emergency purposes by the figures indicated on the chart that is over there on my left and is attached to my statement.

We feel that we need these commodities a lot more than we need silver. There are no silver bullets or silver missiles in our arsenals, but there are airplanes—as the Congressman from Utah testified—that require large amounts of these commodities.

Without these commodities——

Mr. McDONALD. Mr. Chairman, I am sorry.

Could you repeat that sentence, Mr. Markon? There are no silver what?

Mr. MARKON. No silver bullets or silver missiles. We don't have requirements for silver.

Mr. McDONALD. We don't have silver missiles?

Mr. MARKON. In our arsenals.

Mr. McDONALD. Do we have any cobalt missiles?

Mr. MARKON. We have cobalt in the missile.

Mr. McDONALD. Do we have silver in the missiles?

Mr. MARKON. The silver that we have is available for wartime purposes and is adequate to meet the requirements——

Mr. McDONALD. That is not your sentence, Mr. Markon. You said we do not have any silver missiles in the arsenal. I was going to ask you if you had any cobalt or titanium missiles in the arsenal. I didn't recognize we were making any missiles out of solid substances.

Mr. MARKON. Let me rephrase that. Whatever silver we have in our missiles or require in our missiles is available from assured sources in a wartime scenario. Whatever cobalt we need in a wartime scenario is not available to us.

We are vulnerable and dependent on foreign sources of supply. That is why we need the cobalt rather than the silver.

WRITTEN STATEMENT OF ROY MARKON

Mr. Chairman and members of the subcommittee, I am Roy Markon, Commissioner of the Federal Property Resources Service. On behalf of Mr. Gerald Carmen, Administrator of the General Services Administration, I want to thank you for this opportunity to appear before you to tesify on H.R. 2912 and other bills related to stockpiling of strategic and critical materials.

H.R. 2912 will authorize the disposal of seven commodities such as iodine, mica, mercury and silver, excess to National Defense Stockpile needs. Proceeds from projected sales of these commodities wer estimated at approximately $2.1 billion. funds generated by the sales will be deposited into the National Defense Stockpile Transaction Fund as required under Section 9 of the Strategic and Critical Material Stock Piling Act (Pub. Law 96-41) and, if appropriated, to acquire strategic and critical materials for which there is a deficit. H.R. 2784 would authorize the disposal of silver and H.R. 2603 would authorize additional appropriations in the amount of $238 million to acquire silver, platinum and nickel for the stockpile.

The Administration strongly supports enactment of H.R. 2912, and opposes enactment of H.R. 2603 and H.R. 2784. The disposals provided for in H.R. 2912 are essential in order to generate funds for future acquisitions. Without this legislation, we may not have adequate funds to purchase the budgeted acquisitions for fiscal year 1982.

In the aftermath of the oil embargo and the political disruptions in some developing countries, the vulnerability of this nation's industrial and defense capabilities to supply cutoffs in strategic and critical materials has become a matter of broad concern. General Alton D. Slay, the now retired former head of the Air Force Systems Command, expressed these concerns when he testified in November 1980, before the House Armed Services Industrial Preparedness Panel. He said, "It is abundantly clear to me that shortages of critical materials and our dependence on foreign sources for many of them are two of our most critical defense industrial base problems. Without an adequate and dependable resource base, solutions to these problems will be of little help in solving the total industrial base problem."

Congressional intent addressing these concerns is evident in the enactment of the Strategic and Critical Materials Stock Piling Act of 1979, Public Law 96-41. This revised policy act provides in Sections 3(b)(1) and 3(b)(2) for a National Defense Stockpile that would meet U.S. strategic and critical materials needs for at least three years in the event of a war or national emergency. A key provision in the 1979 Act is found in Section 9 which established in July 1979, the National Defense Stockpile Transaction Fund. As previously mentioned, receipts from authorized sales of excess commodities must be deposited in the fund and with congressional authorization and appropriation, such monies may be used to acquire those strategic and critical materials for the stockpile which are below the approved goals. With this mechanism, Congress has provided the means of restructuring the stockpile to meet approved needs with funds that are generated by the program itself.

As the government's stockpile manager, conducting both its commodity brokerage and warehousing functions, I am here today to request your approval of H.R. 2912, which would continue the National Defense Stockpile restructuring efforts that are needed to meet future defense and industrial preparedness needs.

H.R. 2912, if enacted, would permit the disposal of specified quantities of seven items that are excess to stockpile program needs. After reviewing stockpile goals closely with DOD, GSA, and other concerned agencies, the Federal Emergency Management Agency (FEMA) has determined that these items are no longer essential for industrial readiness purposes. H.R. 2784 relates only to the disposition of excess silver, and does not go far enough towards meeting the goals of the Administration.

With stockpile program total goals calling for nearly $20.4 billion worth of materials, present goal (inventory) deficits stand at an estimated $12.9 billion. The excesses are valued at $4.9 billion. Nearly $4.5 billion of the $4.9 billion represents the values of the excess tin, tungsten and silver. Of the total excesses that could be sold to generate funds for acquisitions, silver represents more than one third of the total value. H.R. 2912 would permit GSA to conduct authorized sales for more than half of the declared stockpile excesses as follows:

Commodities	Estimated prices	Quantity	Value in millions
Diamonds industrial, crushing (carats)	$2.79	1,500,000	$4.2
Iodine (pound)	5.31	1,000,000	5.3
Mercuric oxide (pound)	7.0	710,253	5.0
Mercury (flasks)	410.0	50,000	20.5
Mica, muscovite splittings (pound)	2.0	6,000,000	12.0
Mica, phlogopite splittings (pound)	2.0	25,000	.1
Silver (troy ounce)	15.0	139,500,000	2,092.5
Total			2,139.6

At this point, I must stress that the above prices are based on published information, surveys and transaction results, but are subject to change due to domestic and international market conditions.

Pursuant to Sections 6(a) and 6(b)(1) and 6(b)(2) of Pub. L. 96-41, sales of these items would be carried out so as to ensure no undue market disruption, and provide a fair return to the U.S. Government. In some instances, the authorized disposal may take several years due to market conditions at the time of authorization and sale. A good example of the length of time required to execute sales is the current sales of tin, which have lagged far behind projections because of the soft market for tin. We need this authority to be able to sell these commodities as market conditions permit.

Funds derived from such sales, if authorized and appropriated, would be used to acquire needed priority materials announced by the Administration on March 13 of this year. Strategic and critical materials identified by FEMA for priority acquisition are: Agricultural—Based Chemical Intermediaries, such as Castor Bean; Oil and Pyrethrum; Aluminum Oxide; Bauxite; Cobalt; Columbium; Cordage Fibers; Fluorspar; Manganese Dioxide; Medicinals (including Opium Salts); Nickel; Platinum Group Metals; Rubber (including Guayule); Tantalum; Titanium (including Rutile); and Vanadium.

The Administration announced its intention to acquire cobalt as our first purchase for the stockpile restructuring program under the present law. While we are attempting to obtain options to buy up to 5.2 million pounds of the metal in this fiscal year, we are also seeking options to obtain another 5 million pounds in 1982. At current world price levels, this could cost $100 million in fiscal year 1982. If we are able to take advantage of a market situation that is drastically different from several years ago when consumers in this country were on allocation and spot prices soared to $50 a pound, we may be able to buy cobalt at a discount.

If the program does not obtain additional disposal authorities and the related authorization for appropriations, we will not be able to continue program acquisitions much beyond the end of fiscal year 1982. Public Law 96-175 permitted GSA to sell tin and diamonds and authorized up to $237 million in appropriations. If the 1982 fiscal year request of $120 million is appropriated, then we will only have $17 million remaining for which we might obtain appropriations for acquisitions in fiscal year 1983.

In addition to cobalt, other items have been identified as needed for the stockpile which may cost more than $8.5 billion to acquire. Actual purchases will be determined by proceeds of sales of excess materials, the level of authorization and appropriations of necessary funds and the market constraints that we may encounter in attempting to buy these strategic and critical materials. We have not yet announced any additional material purchases nor indicated planned acquisitions for fiscal year 1982. We believe that this type of information should be confidential until we are ready to buy, because of the effect of such information on normal markets.

For illustrative purposes only, I have provided the subcommittee a table to indicate how proceeds from the sales of $2.1 billion worth of the excess materials cited in H.R. 2912 could be spent for priority acquisitions. I wish to emphasize that the table is provided as an example of what can be achieved and does not represent our specific acquisition plans.

For example, based on U.S. Bureau of Mines data, we import 93 percent of our cobalt, a commodity which has a stockpile goal of 85.4 million pounds. We could use an estimated $275 million to fulfill 13 percent of the goal in the next several years. The platinum group metals have import dependencies of 87 percent. $112 million could be spent to meet 9 percent of the goal for this material and improve our readiness posture.

Again, I wish to emphasize that these examples are for discussion purposes only.

HYPOTHETICAL STOCKPILE ACQUISITION PROGRAM

[Based on H.R. 2912 estimated receipts]

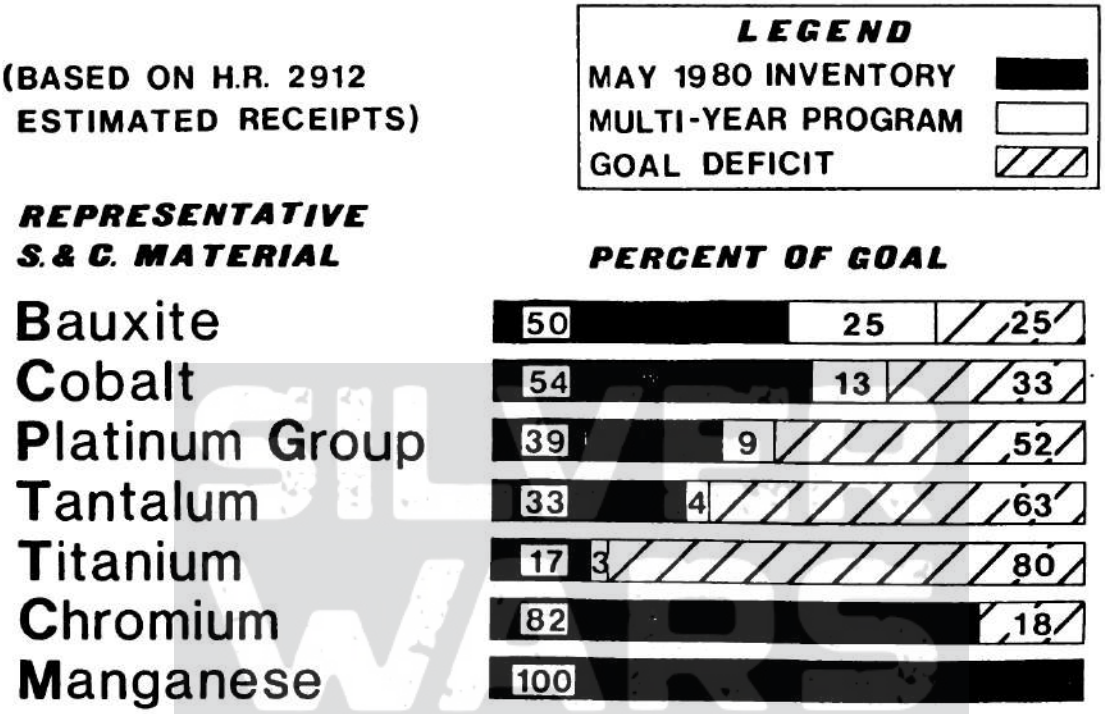
Commodity and unit	May 1980			Multiyear acquisitions	Remaining deficits	Deficit as percentage of goal
	Goals	Inventory	Goal deficits			
Bauxite (long ton)	29,250,000	14,642,025	14,607,975	7,225,000	7,382,975	25
Castor oil (pound)	22,000,000	5,009,697	16,990,303	3,000,000	13,990,303	64
Cobalt (pound)	85,400,000	40,802,393	44,597,607	11,000,000	[1] 28,397,607	33
Columbium (pound)	5,600,000	2,928,424	2,671,576	600,000	2,071,576	37
Cordage fibers (pound)	215,000,000	0	215,000,000	18,000,000	197,000,000	92
Fluorspar (short dry ton)	3,100,000	1,307,721	1,792,279	500,000	1,292,279	42
Manganese dioxide (short dry ton)	25,000	3,011	21,989	1,500	20,489	82
Nickel (short ton)	200,000	0	200,000	40,000	160,000	80
Opium salts (ounce)	130,000	71,303	58,697	45,000	13,697	11
Platinum group metals (troy ounce)	4,408,000	1,724,635	2,683,365	390,000	2,293,365	52
Pyrethrum (pound)	500,000	0	500,000	75,000	425,000	85
Rubber (long ton)	850,000	119,208	730,792	75,000	655,792	77
Rutile (short dry ton)	106,000	39,186	66,814	66,814	0	0
Tantalum (pound)	8,400,000	2,882,491	5,577,509	300,000	5,277,509	63
Titanium (short ton)	195,000	32,331	162,669	6,000	156,669	80
Vanadium (short ton)	7,700	541	7,159	3,000	4,159	54

[1] Reflects purchase of up to 5.2 million pounds of cobalt in fiscal year 1981.

Note.—This table is provided as an example of what can be achieved and does not represent specific acquisition plans or commitments.

HYPOTHETICAL STOCKPILE ACQUISITION PROGRAM

(BASED ON H.R. 2912 ESTIMATED RECEIPTS)



NOTE: THIS TABLE IS PROVIDED AS AN EXAMPLE OF WHAT CAN BE ACHIEVED AND DOES NOT REPRESENT SPECIFIC ACQUISITION PLANS OR COMMITMENTS.

Enactment of H.R. 2912 will be the prime source funds for a number of years to help overcome the potential material shortages our defense activities may encounter in a future national emergency. It is essential that the disposal authorization be granted for all the commodities listed in the proposed legislation.

Finally, as to H.R. 2603, a bill to authorize appropriations in the amount of $238 million to buy silver, platinum and nickel, we recommend against approval.

I am aware of the debate regarding silver. In 1979 I testified before this committee seeking authority to dispose of silver and before the Appropriations Committee to speak against proposals to appropriate funds to buy additional silver. The Senate acted favorably on our request but the disposal authorization reported out of the Armed Services Committee deleted silver. The Appropriations Subcommittee voted unanimously to reject H.R. 4665, a bill to appropriate additional funds to buy silver. Although silver for photography and electronic purposes is essential in war, our emergency scenario indicates available supplies would be more than adequate for our needs. We do not have silver missiles or silver bullets in our arsenals. It is far more important for us to have adequate supplies of cobalt, chromium, manganese or titanium than it is for us to maintain excess stocks of silver in our inventory.

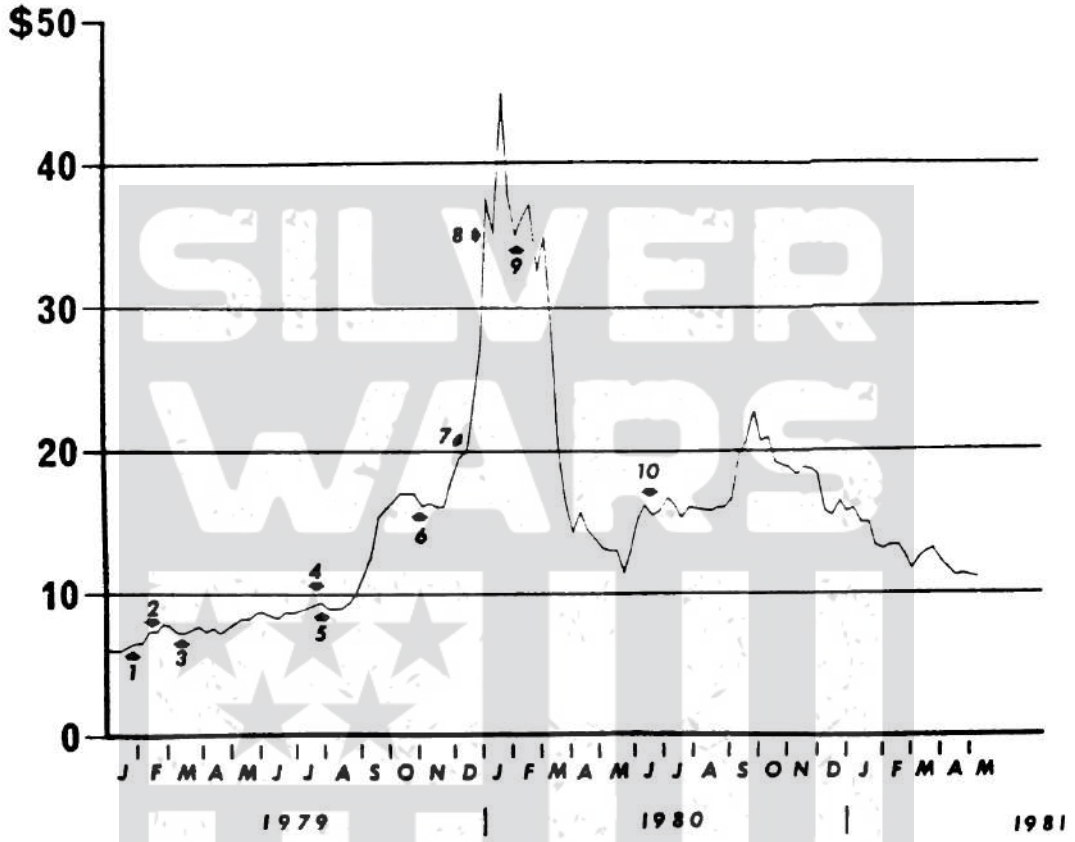
If the disposals the Administration seeks are not authorized and the projected revenues are not appropriated, additional ways of funding this essential aspect of our industrial readiness base would be necessary. Without an adequate cash flow from sales, the National Defense Transaction Fund would be ineffective to support program requirements within a reasonable period of time.

Mr. Chairman and members of the subcommittee, this concludes my statement, I would be pleased to answer any questions you may have.

SILVER

HANDY & HARMAN

AVERAGE WEEKLY PRICES
($ PER TROY OUNCE)



SILVER CHART

(1) January 31, 1979: March Commodity Exchange (COMEX) silver contracts stood at 27,545 representing 137.725 million troy ounces. COMEX warehouse stocks stood at 52.189 million troy ounces. The silver squeeze begins.

(2) February 12, 1979: Chicago Board of Trade (CBOT) raises margin requirement on 5,000 troy ounce silver contracts, the variable limit maintenance being raised to $1,500, up from $800 while other margin requirements were almost doubled.

(3) July 9, 1979: (PL 96-2) authorizes GSA to dispose of 978,563 Carson City Silver dollars.

(4) Hearings on S-1397 before the Senate Armed Services Stockpile Subcommittee. S-1397 was to authorize the disposal of materials from the National and Supplemental Stockpiles.

July 25, 1979: Hearings on HR-1325 before the House Armed Services Committee, Subcommittee on Seapower and Strategic and Critical Materials. HR-1325 was introduced into the House on January 25, 1979 to authorize the disposal of 139.5 million troy ounces of silver. Hearings on HR-3385 before the House Armed Services Committee, Subcommittee on Seapower and Strategic and Critical Materials. HR-3385 was introduced into the House on April 2, 1979 to authorize the disposal of 15 million troy ounces of silver.

(5) July 30, 1979: (PL 96-41) the Strategic and Critical Materials Stockpiling Revision Act of 1979 is signed into law.
(6) October 26, 1979: COMEX raises the margin requirements on 5,000 troy ounce silver contracts from $20,000 to $50,000 per contract.
(7) December 4, 1979: The House tables HR-4665, a proposal to purchase $513 million worth of silver.
(8) December 29, 1979: (PL 96-175) Strategic and Critical Materials Transaction Authorization Act of 1979 is signed, excluding silver disposal authorization.
(9) February 8, 1980: GSA sells the Carson City Silver dollars.
(10) CBOT votes to establish a 1,000 silver contract pending Commodity Futures Trading Commission approval.

HANDY AND HARMAN AVERAGE MONTHLY SILVER PRICES

[Dollars per troy ounce]

	1979	1980	1981
January	6.2545	38.2563	14.7514
February	7.4172	35.0850	13.0239
March	7.4452	24.1333	12.3382
April	7.4925	14.5000	11.4371
May	8.3735	12.5329	.....
June	8.5383	15.7476	.....
July	9.1350	16.0593	.....
August	9.3339	15.8971	.....
September	13.9592	20.1438	.....
October	16.7807	20.1814	.....
November	16.6026	18.6482	.....
December	21.7928	16.3933	.....
Annual average	11.09418	20.63157	.....

Source: Metals Week.

[The following questions were submitted to the witness to be answered for the record:]

Question 1. Your best estimate of the quantity of the seven excess items that could be disposed of in fiscal year 1982.
Answer:
Iodine—750,000 pounds.
Industrial diamond crushing bort—500,000 carats.
Mercuric Oxide—100,000 pounds.
Mercury—15,000 flasks.
Mica, muscovite splittings—1,000,000 pounds.
Mica, phlogopite splittings—50,000 pounds.
Silver—25,000,000 troy ounces.

Question 2. Your estimate of the time required to dispose of the items proposed for sale in H.R. 2912.
Answer:
Iodine—2 years.
Industrial diamond crushing bort—3 years.
Mercuric Oxide—7 years.
Mercury—4 years.
Mica, muscovite splittings—11 years.
Mica, phlogopite splittings—1 year.
Silver—6 years.

Question 3. Without identifying quantities of the 18 items you list for purchase, how much will it cost to purchase these items.
Answer. The 18 items listed for purchase would cost more than $8.5 billion to acquire.

Question 4. Your recommendations for other methods of generating revenue for the purchase of more desperately needed defense stockpile material.
Answer. Other methods for generating revenue could be direct appropriations out of the Department of the Treasury with Congressional approval. We realize that the existing excess materials in the National Defense Stockpile are not sufficient to generate enough revenue to purchase needed defense commodities. I would recommend that money set aside from funds created by royalties payments from leases on

Federal owned lands, might be used to acquire needed materials for the National Defense Stockpile.

Question 5. Your views on the desirability of stimulating production of stockpile material under the Defense Production Act.

Answer. The Federal Property Resources Service (FPRS) is not directly responsible for the Defense Production Act; it is the responsibility of FEMA.

Question 6. Your views on bartering excess and surplus U.S. commodities and equipment for strategic or stockpile materials from foreign governments.

Answer. The use of barter exchange approaches to help restructure the stockpile is in the best interest of the government. Because of the complexity involved in dealing with open competition, particularly with foreign governments and obtaining a fair return to government in such matters, the preferred method for long term use is direct cash transactions. FPRS is in the process of preparing a draft solicitation for a pilot exchange program, which will be issued shortly to the industry.

Question 7. Your recommendations for changes in existing law or policy to restructure the defense stockpile to meet military, industrial, and essential civilian needs of the U.S. for a period of three years in the event of a national emergency.

Answer. The use of the fund needs to be expanded to cover more of the program activities other than acquisitions and the transportation directly related to those acquisitions, such as, exchange, testing, upgrading and sampling. These revisions are needed in the law to make the program more useful in meeting the needs of restructuring the defense stockpile.

Question 8. Your views on charges that there are many items in the stockpile that don't meet current specifications.

Answer. Many of the materials in the stockpile have been there for a minimum of 20 years. At the time of their purchase the materials did meet then existing specifications. The specifications may have changed due to technology, processing, production or market changes. Some materials could be upgraded to meet current requirements. For example, to upgrade ores or concentrates would require nearly $220 million and could cover processing of five materials.

Mr. MARKON. I would ask the colleagues here at the table from the State Department, Interior Department, Department of Defense, and from the Federal Emergency Management Agency to make their opening statements at this time.

Mr. BENNETT. We do have a list here. We might as well follow the list. Mr. Krueger first.

STATEMENT OF PAUL KRUEGER, ASSISTANT ASSOCIATE DIRECTOR FOR RESOURCES PREPAREDNESS OFFICE, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. KRUEGER. Mr. Chairman and members of the subcommittee, thank you for this opportunity to discuss with you the national defense stockpile program. I am Paul Krueger, Assistant Associate Director for Resources Preparedness of the Federal Emergency Management Agency. Within FEMA I have the responsibility related to stockpile policy and to expansion of domestic supply through the Defense Production Act.

Mr. Chairman, I am personally aware of your longstanding commitment to a strong stockpile program. This has had a significant impact on current emphasis toward strategic and critical materials.

I commend your leadership with regard to the Strategic and Critical Material Stockpiling Act which was passed on June 30, 1979, and also your leadership and initiative in passing the authorization which allows the current stockpile purchases.

The administration wants to add even more material to the stockpile in the future. Additional revenues will be necessary in order that we can accomplish this, and this according to law must be accomplished by sales of excess stockpile materials within our inventories.

Mr. BENNETT. Let me interrupt you there. You did not say that according to law it must come from the stockpile fund, did you, because that is not so, it could come from general appropriations. The stockpile fund is to provide funding for the things in short supply, but there is nowhere near enough money to obtain from the stockpile to buy the things that are needed for the stockpile.

Mr. KRUEGER. I stand corrected on that point.

For the immediate future, most of the excesses are concentrated in just two materials, tin (the committee has previously authorized the disposal of tin), and silver, which is before us today.

We would like to use these revenues to buy in the future those more critical materials we need.

Our current inventory is valued at about $15 billion. Of this, approximately $8 billion is in materials we need for the stockpile, and approximately $7 billion is excess to our needs.

We feel that about half of our remaining shortage can be acquired through the sale of excess materials.

Mr. BENNETT. Appropriations would have to be made in addition to the sales of surplus material in order to make up what is needed in the stockpile. That is what you just said. So I should probably have corrected you before. Thank you.

Mr. KRUEGER. Because of this, we support the legislation currently before the committee, H.R. 2912. This bill would provide for the disposal of seven materials excess to the stockpile, and also authorize $2 billion for future appropriations.

The administration believes that these stockpile acquisitions are important. At the current acquisition level, as previously stated, it would take us approximately 100 years to fill our stockpile goals. Clearly this is inadequate, and the pace must be quickened.

Because of this, the administration does not support the bill sponsored by Representative Conte because it does not provide for any of these future acquisitions. It just provides for disposal of material.

The argument is made that we should retain the silver as a national asset, a store of value. A 140-million-troy-ounce inventory, however, would not help us put one more jet fighter in the air and would not send one more ship to sea or place one more man in the field in time of national emergency.

On the other hand, not having additional cobalt, titanium, and other strategic materials reduces the size of our Armed Forces, because we cannot build the additional jet fighters we need; we cannot build ships that we need; we cannot provide the infantry in the field with the necessities.

In fact, the lack of cobalt, titanium, and other strategic materials significantly hampers our ability to pursue defense programs during an emergency.

For this reason, the administration strongly opposes the bill which would authorize additional purchases of silver.

There was a GAO report of a couple years ago which investigated the administration's procedures in how we calculate silver goals in particular and stockpile goals in general. This GAO report quite strongly said the administration used conservative procedures in calculating what these requirements would be. In spite of taking a

very conservative attitude on this, there was no need for silver in the stockpile.

The final bill before the committee is H.R. 3364. You have asked us to address our feelings on section 7. We oppose the bill as currently written because, as we understand it at least, it would eliminate the possibility of appropriations from other than the stockpile transaction fund and does not address the $5 billion inventory shortfall that we cannot meet through the sales of stockpile materials.

Mr. BENNETT. Well, if it does have that fault of not allowing you to buy from any other source, it will not come out of this committee with that provision in it. I am not sure that it does. But if that is what you are objecting to, we would certainly join your objection.

Mr. KRUEGER. We feel that many of these stockpile shortfalls can be filled through enhanced domestic production. To the extent that we can increase domestic production of items like cobalt and titanium, for every additional annual ton of capacity, we can reduce our need for the stockpile by 3 tons. That may be a far more cost-effective way of reducing our material vulnerabilities than the alternate way of providing for additional stockpile inventories.

Often a mixed program of both stockpile and domestic production would provide the most balanced cost-effective way to reduce our raw material vulnerabilities.

FEMA has under consideration four separate proposals under title 3 of the Defense Production Act which would enhance or provide incentives to increase domestic capacity for cobalt, titanium, guayule, which is a type of natural rubber, and refractory bauxite. I would hope as time goes on we see strong initiatives in this area.

The administration led by President Reagan recognizes the need for a strong stockpile program. The President, on March 13, specifically endorsed stockpile acquisitions. At that time he stated, and I quote, "In addition to strategic stockpiling, I am considering other measures to decrease this Nation's vulnerability, including ways to expand domestic capacity to produce strategic and critical materials. This acquisition program is a necessary first step." He is referring to the acquisition program which was recently announced.

It is expected that larger purchases——

Mr. BENNETT. That was enacted in the last Congress, was it not?

Mr. KRUEGER. That is correct.

Mr. BENNETT. The announcement was made in this Congress, but it was enacted last year.

Mr. KRUEGER. It is expected that larger purchases will be made as funds from sales of excess materials build up in the stockpile fund.

In addition, the Secretaries of State, Defense, Commerce, the Interior, as well as the Director of Central Intelligence, have cited the direct relationship between raw material vulnerabilities and the national security. The executive branch and the Congress must work together to insure that these vulnerabilities are corrected in a timely fashion.

That completes my opening remarks.

Mr. BENNETT. Thank you very much.

WRITTEN STATEMENT OF PAUL K. KRUEGER

Mr. Chairman and Members of the Subcommittee. Thank you for this opportunity to discuss with you the National Defense Stockpile Program.

I am Paul K. Krueger, Assistant Associate Director for Resources Preparedness at the Federal Emergency Management Agency. I have the responsibility within FEMA for designating which materials should be in the stockpile, how much we should have of each material, and I chair the Annual Materials Plan Steering Committee which draws up the shopping list that GSA uses to make purchases. I also have the responsibility for developing alternative programs to reduce national resource vulnerabilities using Title III of the Defense Production Act.

Mr. Chairman, I am personally aware that your long-standing commitment to a strong stockpile program has had a significant impact on the current emphasis toward strategic and critical materials, in general, and stockpiling, in particular. I commend your leadership with regard to the amendments to the Strategic and critical materials stock piling act that were passed on July 30, 1979. For the first time in the history of the program, we have a legislated 3-year stockpile planning period. A transactions account from which sales receipts can be used for purchases, and a strong congressional endorsement to barter for needed materials.

The Administration also recognizes your initiative in the authorization process that ultimately resulted in an appropriation of $100 million for fiscal year 1981 for stockpile purchases.

The Administration wants to add even more materials to the stockpile in future years to strengthen the defense of this Nation. To do this. Additional revenues must be generated through sales of excess stockpile materials. Unfortunately, most of the value occurs in just two excess commodities—silver and tin.

A substantial restructuring of the $15 billion stockpile is necessary. To fill all of the goals would require purchases valued at about $13 billion. The existing stockpile inventory contains $8 billion in needed materials and $7 billion that are excess to our defense needs. Therefore, about one-half of the needed materials can be acquired with funds from the sale of excess materials. Of the $7 billion in excess materials, as of September 30, 1980, approximately $6 billion or 85 percent consisted of excess silver and tin. Clearly, we must sell silver and tin if we are to effect any meaningful or significant restructuring of the stockpile. Since we already have sufficient authorization for the disposal of tin, we now need similar authorization to dispose of excess silver. In addition, we support legislation that would permit the disposal of excess mercury, mercuric oxide, diamonds, iodine, and mica, as provided for in H.R. 2912. This bill also would authorize the appropriation of $2 billion for future acquisitions. The Administration believes that stockpile acquisitions are important. At current acquisition levels, it would take 100 years to achieve the stockpile goals. I believe we must quicken the pace. Because of this, the Administration does not support H.R. 2784, which only authorizes the sale of silver and does not provide for future acquisitions.

The argument is made that we should retain the silver as a national asset and a store of value. Our 140 million troy ounce inventory, however, would not help us to put one more jet fighter in the air, or send one more ship to sea, or place one more man in the field in time of national emergency. On the other hand, additional cobalt, titanium, or our other high priority items that we would like to purchase for the stockpile would help to accomplish these defense priorities. In fact, the lack of cobalt, titanium, and other stockpile materials seriously hampers our ability to pursue defense programs during an emergency. Well-intentioned people who would prevent the sale of silver (citing the interest of the national defense) are indeed preventing these needed enhancements to the national security. For this reason. The Administration strongly opposes H.R. 2603, which would authorize the appropriation of $131 million for the acquisition of silver.

Mr. Chairman, the Administration is also opposed to Section VII of H.R. 3364. This provision would restrict stockpile acquisition monies to those generated by stockpile sales. With this limitation we could not fill out the stockpile. Of course, even better than a fully restructured stockpile, is increased domestic self-sufficiency in strategic and critical materials. To the extent that U.S. production capability can be increased, stockpile goals can be reduced. For this reason, FEMA is exploring projects to expand the domestic capacity to produce cobalt, titanium, refractory bauxite and guayule (a source of natural rubber). All of these materials have a direct impact on the mobilization capability of our industrial base. The authority for our initiatives is found in Title III of the Defense Production Act of 1950, as amended. This Act authorizes the use of Government loans, loan guarantees, purchase commitments, guaranteed production levels, and guaranteed prices to achieve the goals. During the 1950's and 60's, over $9 billion of industrial projects were funded using these authorities at a cost of $500 million.

President Reagan recognizes the need for a strong stockpile program. On March 13, 1981, he specifically endorsed accelerating stockpile acquisitions. At that time he stated:

"In addition to strategic stockpiling, I am considering other measures to decrease the Nation's vulnerability, including ways to expand domestic capacity to produce strategic and critical materials. This acquisition program is a necessary first step. It is expected that larger purchases will be made as funds from sales of excess materials build up in the stockpile fund."

The Secretaries of State, Defense, Commerce and the Interior, as well as the Director of Central Intelligence, have also cited the direct relation between raw material vulnerabilities and the national security. The executive branch and the Congress must work together to ensure the vulnerabilities are corrected.

This completes my prepared statement. I would be happy to answer any questions the members of the subcommittee may have.

[The following questions were submitted to the witness to be answered for the record:]

Question 1. A brief description of the annual materials planning process. Your views on the next schedule for any modifications to the plan.

Answer. The Annual Materials Plan (AMP) process is a major effort on the part of several agencies to develop each year a prioritized list of materials for stockpile acquisition or disposal reflecting national security requirements and market constraints. The process is designed to encourage maximum interagency participation. All of the agencies represented on the Annual Materials Plan Steering Committee review and may recommend revisions to the proposed list of materials in the light of their respective areas of interest.

The National Defense Stockpile Policy Division of FEMA provides a list of goals, shortfalls, excesses, and priorities to the Market and Technical Services Division, Federal Property Resources Service, General Services Administration (GSA). After an evaluation of the market outlook, the Market and Technical Services Division proposes quantities of commodities for acquisition or disposal. These proposals are provided to the four AMP subcommittees, which furnish to the full committee their suggested revisions. Differences in these proposals and revisions are then resolved by the Steering Committee and submitted to the Director of the Federal Emergency Management Agency (FEMA) for approval.

The four AMP subcommittees and highlights of their duties are:

Strategic implications.—Chaired by the Department of Defense. The designated members are the Department of Energy (ERDA), Central Intelligence Agency and FEMA. The primary function of this subcommittee is to determine if any of the materials proposed for the AMP will be affected by anticipated changes in defense requirements.

International economic and political impacts.—Chaired by the Department of State. The designated members are the Departments of the Treasury, Commerce, Interior, Defense and FEMA. This subcommittee determines the impact that stockpile activities could have on foreign exchange earnings of international producers and producer countries, trade patterns, and international agreements.

Market impact.—Chaired by the Department of Commerce. The designated members are the Departments of the Interior, State, Treasury, the GSA and FEMA. Responsibilities of this subcommittee include the evaluation on a case-by-case basis of the effects that stockpile acquisitions and disposals will have upon domestic and international commodity markets. Significant trends and areas where stockpile activities could lead to a commodity market disruption are examined. This subcommittee develops market impact statements with assistance from the Department of the Interior (Bureau of Mines) and the Department of Commerce (Industry and Trade Administration).

Economic and budgetary impact.—Chaired by FEMA. The designated members are the Departments of Commerce, State, and Treasury, the Office of Management and Budget, and the GSA. This subcommittee examines the revenue and cost projections of proposed stockpile actions. Additional duties include the identification and analysis of economic factors affecting the rate and scheduling of procurement.

The preliminary AMP is furnished for review to the agencies involved in its development. These agencies provide their comments and recommended revisions to the Director of the FEMA who approves any changes.

The AMP is submitted by the FEMA Director to the National Security Council. Simultaneously, a copy is provided to the Office of Management and Budget. Any further revisions are made jointly by the National Security Council, Office of Management and Budget, and FEMA. The final plan is provided to the Armed Services Committees of the Senate and the House of Representatives. At the begin-

ning of the fiscal year, a "Purchase Directive" reflecting the AMP decisions is issued to the General Services Administration by the Director, FEMA. The Administrator's budget request for purchases of strategic materials is formulated on the basis of AMP priorities.

Question 2. Your views on the potential restructuring of stockpile goals because of renewed interest in defense preparedness.

Answer. The Reagan Administration has endorsed the current stockpile planning process and policy guidance. While some fine tuning in this guidance may occur, we do not anticipate any substantial change in our goal calculation methodology or planning process. In the President's March 13, 1981, announcement he specifically indicated the out of balance stockpile would be redressed at a faster pace than under previous administrations.

Question 3. According to your June 2nd testimony, the current defense requirement for silver is 140 million ounces for a 3 year emergency. This is an increase of 25 million ounces over the 1976 requirement of 115 million ounces. What is the total silver requirement of a 3 year emergency (defense, essential civilian, and general civilian uses)? Your comments on the reasons why FEMA considers its entire silver stocks excess to stockpile requirements.

Answer. Three year wartime direct defense requirements for silver total 141 million troy ounces. Total wartime national security requirements are 517 million ounces once essential civilian and basic industry (formerly called general civilian) uses are added. While wartime requirements have increased since 1976, North American supply has increased at a faster rate. In fact, in 1980 the United States was a net exporter of silver.

As detailed in the attached table, 692 million ounces of domestic U.S. and reliable foreign supplies of silver are more than adequate to cover estimated 1980–82 wartime silver consumption of 517 million ounces. In comparison to actual 1980 U.S. silver consumption, projected 1980 wartime requirements are almost 50 percent higher, but are estimated to decline slightly throughout the war. Expected U.S. wartime silver supplies, however, are larger by 45 to 75 million ounces in each war year and exhibit an increasing trend.

Normal U.S. silver supplies are derived largely from safe supply sources. Domestic silver ores have supplied a steady 20–25 percent of normal U.S. industrial consumption. Fed by "old scrap" recycling, secondary U.S. silver production has grown to supply another 50–65 percent of U.S. silver consumption. While foreign sources supply the remaining fraction, the U.S. was a net silver exporter in 1980. About ⅔ of 1976–79 U.S. imports of silver came from Canada (42%) and Mexico (24%). During 1980 the U.S. imported 78 million ounces of silver, but exported 90 million ounces.

DOD requirements comprise between 22 and 31 percent of annual wartime consumption. Even if FEMA econometric estimates of wartime silver supply were too optimistic or consumption estimates were too low, a zero silver goal would still result. Due to excess wartime silver supply, the zero silver goal contains large margins for error. In addition, U.S. silver luxury consumption uses, a low wartime priority, could be deferred to prevent a silver shortage for defense-related uses. Eighteen percent of 1980 U.S. silver consumption represented sterling and electroplated ware, jewelry and commemorative coin uses. Recent high silver prices have encouraged technology causing permanent substitution away from silver in photographic and other uses. Additional potential U.S. silver supplies exist in the form of inventories—double 3 year wartime consumption. Total U.S. visible commercial and government stocks of silver were estimated at 333 million ounces as of October, 1980. Handy and Harmon forecast another 662 million ounces as existing in stocks of U.S. silver coins. Therefore, the Administration supports H.R. 2912 which authorizes the disposal of silver.

UNITED STATES SILVER DATA

[In millions of ounces]

	Actual 1980	Projected wartime		
		1980	1981	1982
Consumption	120	179.0	174.0	164.0
DOD consumption	6	39.4	50.6	51.3
Total supply	201	252.0	262.0	273.0
U.S. production	125	120.0	123.0	125.0
Total stocks	1,170			
Reported stocks	333			

UNITED STATES SILVER DATA—Continued

[In millions of ounces]

	Actual 1980	Projected wartime		
		1980	1981	1982
Unreported stocks	175			
U.S. silver coins	662			

Question 4. The U.S. used 1.25 billion ounces of silver during the Vietnam conflict (a deficit of 355 million ounces over available supply). This deficit was met primarily by the sale of 305 million ounces of Treasury stocks. Today only 39 million ounces of Treasury stocks remain. Is the Department of Defense in agreement with FEMAs estimate of your defense requirements for silver during a 3 year emergency? Secondly, are you confident that defense and essential civilian needs can be met if the 139.5 million ounces of silver in the stockpile is sold?

Answer. While it is true that the U.S economy consumed 1.22 billion ounces of silver from 1965 to 1972, only a small fraction of 1.22 billion ounces was related to defense production for Vietnam. In fact, U.S. industrial silver consumption fell from 1965 to 1972. The Treasury sale of 305 million ounces was the consequence of U.S. certificate and coin demonetization policies of the 1960s. During the 1965–72 time frame, the U.S. exported a total of 480.1 million ounces of silver. The so-called deficit of 355 million ounces is more than covered by these exports.

The following table covers the eight year period from 1965 to 1972. Over one-third of consumption was in luxury uses such as jewelry, silverware and medallions. A little over one-quarter of silver consumption was consumed in photographic applications, most of which was for recreational purposes. Even some of the silver consumed in the electrical and industrial sectors was for toys and games. Thus, less than one-half of the alleged "Vietnam wartime consumption" went for essential uses, and an even smaller amount (perhaps 10 percent) went to direct defense uses.

VIETNAM WAR SILVER CONSUMPTION 1965–72

[In millions of troy ounces]

	1965	1966	1967	1968	1969	1970	1971	1972	Total	Percent distribution
Luxury	63.5	68.7	63.3	57.4	46.9	44.8	45.2	54.5	444.3	36.4
Photography	47.4	48.4	50.3	41.6	41.4	38.0	36.1	38.2	341.4	28.0
Electrical	39.9	45.0	37.9	28.8	32.1	27.6	29.8	36.9	278.0	22.8
Other industrial	19.7	21.6	19.5	17.5	21.2	18.0	18.0	21.4	156.9	12.8
Total	170.5	183.7	171.0	145.3	141.6	128.4	129.1	151.0	1,220.6	100.0

Source: U.S. Bureau of Mines, "Minerals in the U.S. Economy," 1975.

As shown below current DOD wartime requirements for silver increase eight fold compared to peacetime. DOD weapons expenditure patterns, wartime planning assumptions and weapons technology (including silver requirements) are provided by DOD and directly used as inputs into the FEMA econometric and input-output models used the derive silver goals. Model results are provided to DOD for comment and coordination in AMP interagency committees before goals become operative.

Under present war planning assumptions, 3-year consumption would decline from 179 to 164 million ounces by 1982. Direct and indirect defense requirements for silver under these assumptions would range from 39 to 51 million ounces, or about 22 to 31 percent of total consumption.

Total U.S. supply during the war would increase from 252 to 273 million ounces. U.S. primary and secondary silver production would account for 45–50 percent of the total supply. U.S. production alone, therefore, is over two and a half times direct and indirect defense requirements.

The remainder of U.S. wartime supply would be imports, which would range from 132 to 148 million ounces. Canada, Mexico and Peru together account for 84 percent of normal imports.

An indication of the lack of risk to national security can be obtained from the following table. The table compares variations in expected wartime supplies from

only the most secure sources with requirements for the defense, essential civilian and basic industrial stockpiling sectors. Three-year totals are used.

[In millions of ounces]

	Expected 3-year supply totals by source	Net 3-year sector requirements			Total
		Defense	Essential civilian	Basic industrial	
United States only	368	141.3	323.9	51.8	517.0
United States and Canada	511	141.3	323.9	51.8	517.0
United States, Canada, and Mexico	624	141.3	323.9	51.8	517.0

Thus, production from the U.S., Canada and Mexico alone is more than sufficient to safeguard the U.S. economy in wartime. If Mexico, for any reason, were lost as a wartime supply source, the general civilian (Basic Industry) requirements would be minimally impacted, but there would be no impact on defense or essential civilian requirements at all. If both Canada and Mexico were lost as supply sources, defense requirements would still be covered by a factor of more than 3, although essential civilian requirements would be impacted 30 percent.

Question. 5. Your best estimate of the quantity of the seven excess items that could be disposed of in fiscal year 1982.

Answer. We estimate that the following quantities of the seven excess materials listed in H.R. 2912 could be disposed of during Fiscal Year 1982:

Industrial Diamond Crushing Bort—1,500,000 carats.
Iodine—500,000 pounds.
Mercuric Oxide—50,000 pounds.
Mercury—12,000 flasks.
Mica, Muscovite Splittings—1,000,000 pounds
Mica, Phlogopite Splittings—150,000 pounds
Silver—52,000,000 troy ounces.

Question. 6. Your estimate of the time required to dispose of each of the items proposed for sale in H.R. 2912.

Answer. We estimate that the materials proposed for sale in H.R. 2912 could be disposed of over the following periods of time:

Iodine, 1,000,000 pounds—2 years.
Ind. diamond crushing bort, 1,500,000 carats—one year.
Mercuric oxide, 710,253 pounds—more than 5 years.
Mercury, 50,000 flasks—four years
Mica, muscovite splittings, 6,000,000 pounds—6 years
Mica, phlogopite splittings, 25,000 pounds—less than 1 year.
Silver, 139,500,000 troy ounces—three years.

Question. 7. Your views on bartering excess and surplus U.S. commodities and equipment for strategic or stockpile materials from foreign governments.

Answer. We believe barter arrangements can be negotiated to trade excess and surplus U.S. commodities and equipment for strategic and critical materials from foreign governments. Such arrangements would not only fill our stockpile goals without use of scarce dollars but could enhance our foreign policy interests by enabling friendly governments to obtain badly needed U.S. surpluses. Barter has been a part of the stockpile program from the beginning. Between 1949 and 1971 over 60 materials valued at $1.6 billion were acquired for the stockpile in exchange for surplus agricultural products.

Question 8. Your recommendations for changes in existing law or policy to restructure the defense stockpile to meet military, industrial, and essential civilian needs of the U.S. for a period of 3 years in the event of a national emergency.

Answer. The Strategic and Critical Materials Stock Piling Act already provides a sound basis and authority for restructing the stockpile. Passage of H.R. 2912 would provide monies for future acquisitions. In the recent past the Congressional Appropriations Committees have failed to pass Administration budget requests for the stockpile. Had these monies been appropriated for fiscal years 1978, 1979, and 1980, some of the more urgent requirements would have been already met.

Question 9. Your views on charges that you are stockpiling ores instead of metals, therefore deferring the expenditure of energy and manpower required to convert the ore to metals during a national emergency.

Answer. The policy of holding stockpile materials in the most basic form of ore rather than an upgraded form of metal or alloy is based on several considerations:

very conservative attitude on this, there was no need for silver in the stockpile.

The final bill before the committee is H.R. 3364. You have asked us to address our feelings on section 7. We oppose the bill as currently written because, as we understand it at least, it would eliminate the possibility of appropriations from other than the stockpile transaction fund and does not address the $5 billion inventory shortfall that we cannot meet through the sales of stockpile materials.

Mr. BENNETT. Well, if it does have that fault of not allowing you to buy from any other source, it will not come out of this committee with that provision in it. I am not sure that it does. But if that is what you are objecting to, we would certainly join your objection.

Mr. KRUEGER. We feel that many of these stockpile shortfalls can be filled through enhanced domestic production. To the extent that we can increase domestic production of items like cobalt and titanium, for every additional annual ton of capacity, we can reduce our need for the stockpile by 3 tons. That may be a far more cost-effective way of reducing our material vulnerabilities than the alternate way of providing for additional stockpile inventories.

Often a mixed program of both stockpile and domestic production would provide the most balanced cost-effective way to reduce our raw material vulnerabilities.

FEMA has under consideration four separate proposals under title 3 of the Defense Production Act which would enhance or provide incentives to increase domestic capacity for cobalt, titanium, guayule, which is a type of natural rubber, and refractory bauxite. I would hope as time goes on we see strong initiatives in this area.

The administration led by President Reagan recognizes the need for a strong stockpile program. The President, on March 13, specifically endorsed stockpile acquisitions. At that time he stated, and I quote, "In addition to strategic stockpiling, I am considering other measures to decrease this Nation's vulnerability, including ways to expand domestic capacity to produce strategic and critical materials. This acquisition program is a necessary first step." He is referring to the acquisition program which was recently announced.

It is expected that larger purchases——

Mr. BENNETT. That was enacted in the last Congress, was it not?

Mr. KRUEGER. That is correct.

Mr. BENNETT. The announcement was made in this Congress, but it was enacted last year.

Mr. KRUEGER. It is expected that larger purchases will be made as funds from sales of excess materials build up in the stockpile fund.

In addition, the Secretaries of State, Defense, Commerce, the Interior, as well as the Director of Central Intelligence, have cited the direct relationship between raw material vulnerabilities and the national security. The executive branch and the Congress must work together to insure that these vulnerabilities are corrected in a timely fashion.

That completes my opening remarks.

Mr. BENNETT. Thank you very much.

Written Statement of Paul K. Krueger

Mr. Chairman and Members of the Subcommittee. Thank you for this opportunity to discuss with you the National Defense Stockpile Program.

I am Paul K. Krueger, Assistant Associate Director for Resources Preparedness at the Federal Emergency Management Agency. I have the responsibility within FEMA for designating which materials should be in the stockpile, how much we should have of each material, and I chair the Annual Materials Plan Steering Committee which draws up the shopping list that GSA uses to make purchases. I also have the responsibility for developing alternative programs to reduce national resource vulnerabilities using Title III of the Defense Production Act.

Mr. Chairman, I am personally aware that your long-standing commitment to a strong stockpile program has had a significant impact on the current emphasis toward strategic and critical materials, in general, and stockpiling, in particular. I commend your leadership with regard to the amendments to the Strategic and critical materials stock piling act that were passed on July 30, 1979. For the first time in the history of the program, we have a legislated 3-year stockpile planning period. A transactions account from which sales receipts can be used for purchases, and a strong congressional endorsement to barter for needed materials.

The Administration also recognizes your initiative in the authorization process that ultimately resulted in an appropriation of $100 million for fiscal year 1981 for stockpile purchases.

The Administration wants to add even more materials to the stockpile in future years to strengthen the defense of this Nation. To do this. Additional revenues must be generated through sales of excess stockpile materials. Unfortunately, most of the value occurs in just two excess commodities—silver and tin.

A substantial restructuring of the $15 billion stockpile is necessary. To fill all of the goals would require purchases valued at about $13 billion. The existing stockpile inventory contains $8 billion in needed materials and $7 billion that are excess to our defense needs. Therefore, about one-half of the needed materials can be acquired with funds from the sale of excess materials. Of the $7 billion in excess materials, as of September 30, 1980, approximately $6 billion or 85 percent consisted of excess silver and tin. Clearly, we must sell silver and tin if we are to effect any meaningful or significant restructuring of the stockpile. Since we already have sufficient authorization for the disposal of tin, we now need similar authorization to dispose of excess silver. In addition, we support legislation that would permit the disposal of excess mercury, mercuric oxide, diamonds, iodine, and mica, as provided for in H.R. 2912. This bill also would authorize the appropriation of $2 billion for future acquisitions. The Administration believes that stockpile acquisitions are important. At current acquisition levels, it would take 100 years to achieve the stockpile goals. I believe we must quicken the pace. Because of this, the Administration does not support H.R. 2784, which only authorizes the sale of silver and does not provide for future acquisitions.

The argument is made that we should retain the silver as a national asset and a store of value. Our 140 million troy ounce inventory, however, would not help us to put one more jet fighter in the air, or send one more ship to sea, or place one more man in the field in time of national emergency. On the other hand, additional cobalt, titanium, or our other high priority items that we would like to purchase for the stockpile would help to accomplish these defense priorities. In fact, the lack of cobalt, titanium, and other stockpile materials seriously hampers our ability to pursue defense programs during an emergency. Well-intentioned people who would prevent the sale of silver (citing the interest of the national defense) are indeed preventing these needed enhancements to the national security. For this reason. The Administration strongly opposes H.R. 2603, which would authorize the appropriation of $131 million for the acquisition of silver.

Mr. Chairman, the Administration is also opposed to Section VII of H.R. 3364. This provision would restrict stockpile acquisition monies to those generated by stockpile sales. With this limitation we could not fill out the stockpile. Of course, even better than a fully restructured stockpile, is increased domestic self-sufficiency in strategic and critical materials. To the extent that U.S. production capability can be increased, stockpile goals can be reduced. For this reason, FEMA is exploring projects to expand the domestic capacity to produce cobalt, titanium, refractory bauxite and guayule (a source of natural rubber). All of these materials have a direct impact on the mobilization capability of our industrial base. The authority for our initiatives is found in Title III of the Defense Production Act of 1950, as amended. This Act authorizes the use of Government loans, loan guarantees, purchase commitments, guaranteed production levels, and guaranteed prices to achieve the goals. During the 1950's and 60's, over $9 billion of industrial projects were funded using these authorities at a cost of $500 million.

President Reagan recognizes the need for a strong stockpile program. On March 13, 1981, he specifically endorsed accelerating stockpile acquisitions. At that time he stated:

"In addition to strategic stockpiling, I am considering other measures to decrease the Nation's vulnerability, including ways to expand domestic capacity to produce strategic and critical materials. This acquisition program is a necessary first step. It is expected that larger purchases will be made as funds from sales of excess materials build up in the stockpile fund."

The Secretaries of State, Defense, Commerce and the Interior, as well as the Director of Central Intelligence, have also cited the direct relation between raw material vulnerabilities and the national security. The executive branch and the Congress must work together to ensure the vulnerabilities are corrected.

This completes my prepared statement. I would be happy to answer any questions the members of the subcommittee may have.

[The following questions were submitted to the witness to be answered for the record:]

Question 1. A brief description of the annual materials planning process. Your views on the next schedule for any modifications to the plan.

Answer. The Annual Materials Plan (AMP) process is a major effort on the part of several agencies to develop each year a prioritized list of materials for stockpile acquisition or disposal reflecting national security requirements and market constraints. The process is designed to encourage maximum interagency participation. All of the agencies represented on the Annual Materials Plan Steering Committee review and may recommend revisions to the proposed list of materials in the light of their respective areas of interest.

The National Defense Stockpile Policy Division of FEMA provides a list of goals, shortfalls, excesses, and priorities to the Market and Technical Services Division, Federal Property Resources Service, General Services Administration (GSA). After an evaluation of the market outlook, the Market and Technical Services Division proposes quantities of commodities for acquisition or disposal. These proposals are provided to the four AMP subcommittees, which furnish to the full committee their suggested revisions. Differences in these proposals and revisions are then resolved by the Steering Committee and submitted to the Director of the Federal Emergency Management Agency (FEMA) for approval.

The four AMP subcommittees and highlights of their duties are:

Strategic implications.—Chaired by the Department of Defense. The designated members are the Department of Energy (ERDA), Central Intelligence Agency and FEMA. The primary function of this subcommittee is to determine if any of the materials proposed for the AMP will be affected by anticipated changes in defense requirements.

International economic and political impacts.—Chaired by the Department of State. The designated members are the Departments of the Treasury, Commerce, Interior, Defense and FEMA. This subcommittee determines the impact that stockpile activities could have on foreign exchange earnings of international producers and producer countries, trade patterns, and international agreements.

Market impact.—Chaired by the Department of Commerce. The designated members are the Departments of the Interior, State, Treasury, the GSA and FEMA. Responsibilities of this subcommittee include the evaluation on a case-by-case basis of the effects that stockpile acquisitions and disposals will have upon domestic and international commodity markets. Significant trends and areas where stockpile activities could lead to a commodity market disruption are examined. This subcommittee develops market impact statements with assistance from the Department of the Interior (Bureau of Mines) and the Department of Commerce (Industry and Trade Administration).

Economic and budgetary impact.—Chaired by FEMA. The designated members are the Departments of Commerce, State, and Treasury, the Office of Management and Budget, and the GSA. This subcommittee examines the revenue and cost projections of proposed stockpile actions. Additional duties include the identification and analysis of economic factors affecting the rate and scheduling of procurement.

The preliminary AMP is furnished for review to the agencies involved in its development. These agencies provide their comments and recommended revisions to the Director of the FEMA who approves any changes.

The AMP is submitted by the FEMA Director to the National Security Council. Simultaneously, a copy is provided to the Office of Management and Budget. Any further revisions are made jointly by the National Security Council, Office of Management and Budget, and FEMA. The final plan is provided to the Armed Services Committees of the Senate and the House of Representatives. At the begin-

ning of the fiscal year, a "Purchase Directive" reflecting the AMP decisions is issued to the General Services Administration by the Director, FEMA. The Administrator's budget request for purchases of strategic materials is formulated on the basis of AMP priorities.

Question 2. Your views on the potential restructuring of stockpile goals because of renewed interest in defense preparedness.

Answer. The Reagan Administration has endorsed the current stockpile planning process and policy guidance. While some fine tuning in this guidance may occur, we do not anticipate any substantial change in our goal calculation methodology or planning process. In the President's March 13, 1981, announcement he specifically indicated the out of balance stockpile would be redressed at a faster pace than under previous administrations.

Question 3. According to your June 2nd testimony, the current defense requirement for silver is 140 million ounces for a 3 year emergency. This is an increase of 25 million ounces over the 1976 requirement of 115 million ounces. What is the total silver requirement of a 3 year emergency (defense, essential civilian, and general civilian uses)? Your comments on the reasons why FEMA considers its entire silver stocks excess to stockpile requirements.

Answer. Three year wartime direct defense requirements for silver total 141 million troy ounces. Total wartime national security requirements are 517 million ounces once essential civilian and basic industry (formerly called general civilian) uses are added. While wartime requirements have increased since 1976, North American supply has increased at a faster rate. In fact, in 1980 the United States was a net exporter of silver.

As detailed in the attached table, 692 million ounces of domestic U.S. and reliable foreign supplies of silver are more than adequate to cover estimated 1980–82 wartime silver consumption of 517 million ounces. In comparison to actual 1980 U.S. silver consumption, projected 1980 wartime requirements are almost 50 percent higher, but are estimated to decline slightly throughout the war. Expected U.S. wartime silver supplies, however, are larger by 45 to 75 million ounces in each war year and exhibit an increasing trend.

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Answer. We estimate that the materials proposed for sale in H.R. 2912 could be disposed of over the following periods of time:

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Mercury, 50,000 flasks—four years
Mica, muscovite splittings, 6,000,000 pounds—6 years
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Answer. We believe barter arrangements can be negotiated to trade excess and surplus U.S. commodities and equipment for strategic and critical materials from foreign governments. Such arrangements would not only fill our stockpile goals without use of scarce dollars but could enhance our foreign policy interests by enabling friendly governments to obtain badly needed U.S. surpluses. Barter has been a part of the stockpile program from the beginning. Between 1949 and 1971 over 60 materials valued at $1.6 billion were acquired for the stockpile in exchange for surplus agricultural products.

Question 8. Your recommendations for changes in existing law or policy to restructure the defense stockpile to meet military, industrial, and essential civilian needs of the U.S. for a period of 3 years in the event of a national emergency.

Answer. The Strategic and Critical Materials Stock Piling Act already provides a sound basis and authority for restructing the stockpile. Passage of H.R. 2912 would provide monies for future acquisitions. In the recent past the Congressional Appropriations Committees have failed to pass Administration budget requests for the stockpile. Had these monies been appropriated for fiscal years 1978, 1979, and 1980, some of the more urgent requirements would have been already met.

Question 9. Your views on charges that you are stockpiling ores instead of metals, therefore deferring the expenditure of energy and manpower required to convert the ore to metals during a national emergency.

Answer. The policy of holding stockpile materials in the most basic form of ore rather than an upgraded form of metal or alloy is based on several considerations:

(1) The basic ore form is much less expensive, per unit of material, to acquire and store than the upgraded form. An example might be used from the aluminum metal group where the cost of the entire goal in metal form would be approximately $10,868 million vs. approximately $1,084 million for holding the equivalent metal units as bauxite ore.

(2) The possibility of technological obsolescence of upgraded forms is a very real problem. Recent technology changes in the usage of ferrochromium alloy compositions, tantalum metal capacity powder sizes and metal purity requirements would have rendered a substantial quantity of stockpile materials obsolete had they been held in the upgraded forms. Holding materials in the basic ore form allows them to be processed by the latest technology into the most desirable form.

(3) There exists considerable domestic capacity to process imported ores. To the extent that these normal imports are unavailable during wartime, we should stockpile ores.

The structuring of stockpile materials into groups or families allows for the provision of (a) upgraded material to be available for surge requirements (b) material to meet requirements over and above domestic capacity to produce and; (c) basic ore feedstock to supply the domestic industry during the emergency period.

Mr. BENNETT. Our next gentleman is Mr. Donnelly, Deputy Director of Production Resources, Department of Defense.

RICHARD DONNELLY, DEPUTY DIRECTOR, PRODUCTION RESOURCES, OFFICE OF THE DEPUTY UNDER SECRETARY FOR ACQUISITION POLICY, DEPARTMENT OF DEFENSE

Mr. DONNELLY. I would like to provide my statement for the record and summarize my remarks.

Mr. BENNETT. All right.

Mr. DONNELLY. I appreciate this opportunity to appear before you in connection with your deliberations on House bills 2603, 2784, 2912, and 3364 relating to the national defense stockpile.

The Department of Defense and the administration strongly support passage of H.R. 2912. The provisions of these bills relate primarily to the Federal Emergency Management Agency, FEMA, General Services Administration, agencies that are responsible for coordinating stockpile policies and managing acquisitions and disposals. However, I do have a few brief general remarks on these bills and on the national defense stockpile.

We are closely involved with FEMA and other Federal departments as they develop stockpile policies and procedures. We are actively seeking improvement in the condition of the national defense stockpile.

Mr. Chairman, as you know, the present stockpile is badly out of balance. Out of $15 billion of materials presently in inventory, about $7 billion of those materials are excess to any reasonable wartime scenario.

So the Department of Defense supports prompt disposal of the excess commodities and use of the funds derived from the sale to purchase these badly needed materials.

I would like to provide our views on each of the bills under consideration. First is H.R. 2603, which is the bill to acquire silver, platinum, and nickel. The Department of Defense does not support this legislation primarily because the quantities of silver in the stockpile is excess to documented national security needs, and none needs to be acquired.

The second bill, H.R. 2784, proposes to authorize disposal of silver in the stockpile because the silver is excess to the national security requirements. We agree with the intent of this legislation. However, since the bill does not authorize disposal of other excess

commodities and because it does not contain an authorization to acquire needed materials, we do not support this legislation.

As I stated earlier, we support H.R. 2912, which would authorize appropriation for the acquisition of materials for the stockpile and for the disposal of certain excess commodities. It provides the authority to sell iodine, industrial diamond bort, mercury, mercuric oxide, mica, and silver. Funds from the sales of these materials can be then deposited into the national defense stockpile transaction fund and can be used, if appropriated, to acquire other badly needed commodities identified by the annual material plan process.

You also asked for our views on title VII of H.R. 3364. This provision would effectively place the stockpile transaction fund outside budgetary control, limiting the authority of Congress and the executive in this area. So, therefore, the administration opposes that portion of the legislation.

It would also restrict acquisitions to those materials generated by sales. With this limitation we would not be able to ultimately fill all the stockpile goals.

Mr. Chairman, in summary I wish to reaffirm the Department of Defense's strong desire for prompt sale of materials no longer needed and acquisition of materials for which high-priority deficiencies exist. Said simply, the acquisition of needed materials can be managed efficiently through the use of funds generated from sales of material which are clearly excess to national defense requirements. Improvement in the condition of the national defense stockpile is clearly an important objective in the Department of Defense action plan to improve industrial responsiveness. We believe it is time to move forward and implement these long overdue stockpile improvements which will enhance our industrial readiness and the national defense.

This concludes my statement.

Mr. BENNETT. Thank you.

WRITTEN STATEMENT OF RICHARD E. DONNELLY

Mr. Chairman and members of the subcommittee, I appreciate this opportunity to appear before you in connection with your deliberations on House bills 2603, 2784, 2912 and 2364 relating to the national defense stockpile.

The administration strongly supports passage on H.R. 2912.

The provisions of this legislation relate primarily to the Federal Emergency Management Agency (FEMA) and the General Services Administration, the agencies responsible for coordinating stockpile policies and managing stockpile acquisitions and disposals respectively. However, I would like to make some general remarks on these bills and on the national defense stockpile.

We work closely with FEMA and other agencies in the development and implementation of stockpile policies through the interagency annual materials plan process. As the name implies, this is an annual effort, recently established, to review changes in national security planning and product and market conditions as they affect stockpiling needs. More specifically, under this process the Defense Department provides estimates of emergency materiel requirements, military scenarios characteristics and other information which are used by interagency teams in their efforts to develop wartime supply and demand data. This in turn is used to develop stockpile inventory goals, the policies to meet these goals, and priorities for acquisition and disposal of materials.

Mr. Chairman, the present stockpile is badly out of balance. Of the $15 billion of materials presently in inventory, $7 billion are not needed to support national security requirements. The Department of Defense supports prompt disposal of the excess commodities and use of funds derived from sales to acquire needed materials in their proper form and condition.

I would now like to provide our views on each of the bills under consideration by the subcommittee. First is H.R. 2603, a bill to appropriate funds to acquire silver,

platinum and nickel. The Department does not support this legislation because the quantity of silver currently in the stockpile is excess to documented national security needs and none needs to be acquired.

The second bill is H.R. 2784. It proposes to authorize disposal of the 139.5 million troy ounces of silver now in the stockpile. Because the silver is excess to national security requirements, we agree with the intent of this legislation. However, since the bill does not authorize disposal of other excess commodities and because it does not contain an authorization to acquire needed materials, we do not support this legislation.

The third bill, H.R. 2912, would authorize appropriations for the acquisition of materials for the stockpile and for the disposal or certain excess commodities. We strongly support this legislation. It provides authority to sell excess iodine, industrial diamond bort, mercury, mercuric oxide, mica and silver. Funds from the sales of these materials can then be deposited into the national defense stockpile transaction fund and can be used, if appropriated, to acquire other badly needed commodities indentified by the annual material plan process.

The administration opposes title VII of H.R. 3364. This provision would effectively place the stockpile transaction fund outside budgetary control, limiting the authority of Congress and the Executive in this area.

In summary, I wish to reaffirm our desire for prompt sale of materials no longer needed and acquisition of materials for which high priority deficiencies exist. Simply stated, the acquisition of needed materials can be managed efficiently through the use of funds generated from sales of materials which are clearly excess to national defense requirements. Mr. Chairman, improvement in the condition of the national defense stockpile is an important objective in the Department of Defense action plan to improve industrial responsiveness. It is time to move forward and implement these long overdue stockpile improvements which will enhance our industrial readiness and the national defense.

This concludes my statement. I will be pleased to respond to any questions the subcommittee may have.

[The following questions were submitted to the witness to be answered for the record:]

Question 1. Describe DOD's role in the development of the annual materials plan. Describe the input DOD provides during this planning process.

Answer. Defense provides DOD estimates of expenditures for various categories of items such as aircraft, ammunition, ships, missiles and support required to meet a specific scenario. This data is expressed as an annual requirement in total dollars for each category and covers one year of peacetime mobilization and three years of wartime needs. The information is used by an interagency team to develop wartime supply and demand data which in turn is used to develop stockpile inventory goals.

Question 2. In your June 2nd testimony, you stated, "The present stockpile is badly out of balance." Considering the new administration's emphasis on defense preparedness, what would be the first materials you would want to purchase and in what quantities? What would be your priority for acquisition for the stockpile at this time?

Answer. Two of the most important materials required to meet our needs are cobalt and titanium. However, the complete break-out of material needs and quantity required should be provided by FEMA because the essential civilian needs must be considered along with our requirements.

Question 3. What are your views on the present or anticipated bottlenecks which might develop due to a lack of availability or increased prices for materials needed for the stockpile?

Answer. The supply of titanium sponge is currently inadequate to meet forecasted demand. In addition, the cobalt supply/demand balance is being closely monitored because of previous supply shortfalls from Southern Africa accompanied by substantial price increases. There are a number of other raw materials and semi-finished commodities which are being carefully watched such as platinum, manganese, titanium forgings, electronic materials and sub-assemblies. The potential for bottlenecks depends among other things upon how well the economy responds to various economic recovery measures, the status of trade with supplier nations and, the efficacy of use of the Defense Production Act.

Question 4. Are there other materials not included in the stockpile that could cause bottlenecks in our defense industry and that should be included in the stockpile?

Answer. Not to my knowledge. However, we believe there are distinct advantages to upgrading the form of materials presently in the stockpile. For example, stocking amonium-paratungstate instead of tungsten ore would lessen energy requirements

during an emergency and maintain inventories in a form closer to the ultimate need which, in this case is a munitions penetrator.

Question 5. Congress is in the process of authorizing almost $220 billion for defense for fiscal year 1982. Will you give the committee some examples of stockpile materials that will be needed to produce the equipment being authorized, such as tanks, guns, aircraft, ships, munitions, etc?

Answer. The Department of Defense does not plan to use any of the materials contained in the National Stockpile to produce the systems and items authorized in the fiscal year 1982 budget. We only use material from the stockpile when an emergency situation occurs and then only when we cannot obtain the material through normal supply sources.

Question 6. What are your views on the feasibility of bartering surplus military equipment or supplies for critical materials for the stockpile?

Answer. We may support barter of surplus military equipment for strategic and critical materials depending upon the type of equipment, and U.S. policy with respect to the supplying nation. A more attractive bartering arrangement, however, would be bartering with commodities (e.g., tin for titanium or tungsten ore for quartz crystals).

Question 7. I understand a National Security Council study was completed regarding U.S. dependence on selected minerals from South Africa.

Answer. The National Security Council Study that is looking at this area has not been completed as of this date. However, we are working very closely with other agencies on this effort and when the Study is completed, I am sure the results can be made available to Congress.

Question 8. Your recommendations for other methods of generating revenue for the purchase of more desperately needed defense stockpile materials.

Answer. The method of bartering may be appropriate under certain circumstances however, the preferred method is by sale of excess materials in the stockpile or by Congressional appropriation of funds.

Question 9. The U.S. used 1.25 billion ounces of silver during the Vietnam conflict (a deficit of 355 million ounces over available supply). This deficit was met primarily by the sale of 305 million ounces of Treasury stocks.

Today only 39 million ounces of Treasury stocks remain.

Is the Department of Defense in agreement with FEMA's estimate of your defense requirements for silver during a 3 year emergency?

Secondly, are you confident that defense and essential civilian needs can be met if the 139.5 million ounces of silver in the stockpile is sold?

Answer. Yes. The requirements for defense, essential civilian and basic industrial needs of the nation are developed by an interagency team under the Annual Materials Plan process. We fully participate in this process. We are confident that the needs of the nation can be met if the silver in the stockpile is sold. The basis for the question may create the erroneous impression that 1.25 billion ounces of silver was used to support the Vietnam conflict. This is not the case. Defense requirements were only about 4 percent of total demands of the economy during that period.

Mr. BENNETT. Mr. Pendley.

STATEMENT OF W. PERRY PENDLEY, DEPUTY ASSISTANT SECRETARY FOR ENERGY AND MINERALS, DEPARTMENT OF THE INTERIOR

Mr. PENDLEY. Thank you, Mr. Chairman.

It gives me pleasure to appear before you this morning to strongly support H.R. 2912 which, if enacted, could be a major step in restructuring the balance of our national defense stockpile. President Reagan on March 13, 1981, when he directed the first acquisition of strategic and critical materials for the stockpile in over 20 years, clearly emphasized the irrefutable link between adequate emergency stockpiles and national defense preparedness.

Secretary Watt has expressed deep determination to assure that policy planning at the national level take up long-term minerals adequacy as a fundamental component in the long-run improvement of the national economy. We firmly believe that the Nation's best mineral insurance is a strong, competitively productive domes-

tic industry. Stockpiled materials, located at or near the ultimate point of use, represent storage of the built-in costs of processing, transportation, energy, capital, and time—all of which are likely to be critical at a time of emergency.

With respect to the specific legislation currently under consideration by this committee, the administration again wishes to express its strong support for H.R. 2912. We have worked closely with FEMA, which has primary responsibility for the Nation's stockpiling program, in determining the quantities and qualities of materials to be stockpiled, the rates of feasible acquisitions and disposals, and the planning for the proper use of the stockpile in periods of national emergency.

Further, I should like the committee to note that a highly important piece of legislation, the extension of the Defense Production Act, which is currently scheduled to expire September 30 of this year, is an essential element of our defense planning, and that senior representatives of the Departments of Defense, Commerce, Interior, and the Federal Emergency Management Agency have already testified before the Subcommittee on Economic Stabilization of the House Committee on Banking, Finance and Urban Affairs as to the necessity for extending the Defense Production Act for 5 years—the cornerstone of our defense readiness planning. I am certain that the members of this committee will also look favorably upon this longer extension of that legislation.

Thank you, Mr. Chairman.

Mr. Chairman, I did fail to note that I am accompanied by Dr. John Morgan, who is the chief staff officer of the Bureau of Mines, and one of the leading experts in the Nation and the administration regarding the Defense Production Act and stockpile issues.

Thank you.

Mr. BENNETT. Glad to have you with us, too.

Do you have a statement you would like to give?

Mr. MORGAN. No, sir.

WRITTEN STATEMENT OF W. PERRY PENDLEY

Mr. Chairman, it gives me pleasure to appear before you this morning to strongly support H.R. 2912 which, if enacted, could be a major step in restructuring the balance of our National Defense Stockpile. President Reagan on March 13, 1981, when he directed the first acquisition of strategic and critical materials for the stockpile in over 20 years, clearly emphasized the irrefutable link between adequate emergency stockpiles and national defense preparedness.

Secretary Watt has expressed his deep determination to assure that policy planning at the national level take up long-term minerals adequacy as a fundamental component in the long run improvement of the national economy. We firmly believe that the Nation's best mineral insurance is a strong, competitively productive domestic industry. Stockpiled materials, located at or near the ultimate point of use, represent storage of the built-in costs of processing, transportation, energy, capital, and time—all of which are likely to be critical at a time of emergency.

The principal point raised in your letter to Secretary Watt inviting testimony from the Department of the Interior today concerned the Department's mineral responsibilities as they relate to the stockpile. Without reciting history, the Department of the Interior has been directly involved in emergency mineral planning going back to World War I, joining with the Army and Navy Munitions Board in studies that led to Public Law 117 of June 7, 1939, the first legislation for the primary purpose of establishing stockpiles of strategic and critical materials for the national defense.

The semiannual "Stockpile Report to the Congress" submitted regularly for more than 3 decades by FEMA and its predecessors contains a section reporting on Department of the Interior research, which in support of Section 8(a) of the Strate-

gic and Critical Materials Stockpiling Act of 1979, is aimed at increasing the domestic development of minerals and improving their recovery from domestic ores and secondary sources. Accordingly, I shall not take the time of this Committee to reiterate what has already been reported to it in some detail.

It is important to add, however, that Congress, in the very concept of the National Defense Stockpile, understood clearly that the adequacy of mineral supplies of the kind and quantity needed for a wartime emergency remains a factor of existing domestic capacity, and that continued national attention toward maintaining and improving that capacity during non-emergency times is an integral part of emergency planning. Toward that end, Section 8(a) of the 1979 Act assigned to the President himself the responsibilities for development of domestic mineral resources, an assignment that under prior acts was directed to the Secretary of the Interior. Executive Order delegates this responsibility under Section 8(a) to the Secretary of the Interior.

As you know, Section 8(a) spells out in considerable detail what Congress wanted in the way of scientific, technologic, and economic investigations along the whole chain of mineral supply activities intended to improve our productive mineral capacity both on public or private lands. In fact, the language in the 1979 Act reinforces, but in more detail, the broad policy mandate to the Secretary of the Interior under the Mining and Mineral Policy Act of 1970. The 1970 Act called for economically sound and stable domestic mining, minerals, metal, and mineral reclamation industries, the development of domestic mineral resources, recycling, and mining, mineral, and metallurgical research. Again, the National Materials and Minerals Policy, Research and Development Act of 1980, in enunciating the need for a National Materials Policy, reemphasized the importance of the Mining and Minerals Policy Act of 1970, and specifically directed the Secretary of the Interior to act within the Department's statutory authority to attain the goals contained in that earlier Act. It specifically directed the prompt initiation of actions to improve the capacity of the Bureau of Mines to assess international minerals supplies, to increase the level of the Bureau's mining and metallurgical research in critical and strategic minerals, and to improve the availability and analysis of mineral data in Federal land use decisionmaking. Secretary Watt firmly believes in the importance of these Congressional mandates. We in the Department of the Interior are determined to make maximum effective use of the assets of our people and a balanced use of the public lands under our jurisdiction to meet the demands of national security and a healthy economy.

With respect to the specific legislation currently under consideration by this Committee, the Administration again wishes to express its strong support for H.R. 2912. We have worked closely with FEMA, which has primary responsibility for the Nation's stockpiling program, in determining the quantities and qualities of materials to be stockpiled, the rates of feasible acquisitions and disposals, and the planning for the proper use of the stockpile in periods of national emergency.

Further, I should like this Committee to note that a highly important piece of legislation, the extension of the Defense Production Act, which is currently scheduled to expire September 30 of this year, is a sine qua non of our defense planning, and that senior representatives of the Departments of Defense, Commerce, Interior, and the Federal Emergency Management Agency have already testified before the Subcommittee on Economic Stabilization of the House Committee on Banking, Finance, and Urban Affairs as to the necessity for extending the Defense Production Act for five years—the cornerstone of our defense readiness planning. I am certain that the members of this Committee will also look favorably upon this longer extension of that legislation.

[The following questions were submitted to the witness to be answered for the record:]

Question 1. A description of the role played by the Department of the Interior in the information of stockpile policy.

Answer 1. The Department of the Interior has been deeply involved in the formulation of stockpile policy for more than 40 years. Prior to World War II, the Department of the Interior joined with the Army and Navy Munitions Board in studies that led to Public Law 96-117 (June 7, 1939), the first legislation for the primary purpose of establishing stockpiles of strategic and critical materials for national defense, and also authorizing exploration and development of domestic resources. When stockpiling legislation was revised after World War II, Public Law 79-520 (July 23, 1946) specifically provided that the Secretaries of War, Navy, and the Interior, acting jointly through the Army and Navy Munitions Board, were to determine stockpile policy. Through reorganization plans in the Korean War period the primary responsibility for stockpile policy was placed by the President in the

Office of Defense Mobilization and successor agencies, currently the Federal Emergency Management Agency (FEMA). The Department of the Interior works closely with FEMA in making supply/demand projections for strategic materials, in establishing stockpile goals and specifications, and in developing the annual materials plans which cover both acquisitions and disposals. Further, much of the work of the U.S. Geological Survey and the Bureau of Mines is directed toward increasing supplies of minerals. Of the 93 strategic and critical materials stockpiled under FEMA's direction 80 of these are minerals or mineral-based materials. Consequently, there is virtually day-to-day contact between FEMA and the Bureau of Mines, which is the Department's primary contact with the FEMA operation. Perhaps the most important stockpile policy decision in the 1970 decade was the 1976 determination by the President to base stockpile planning on a 3-year war emergency period, instead of upon a shorter period. The Department of the Interior was a major advocate of the 3-year policy, which subsequently was enacted into law by the Congress in Public Law 96-41 (July 30, 1979).

Question 2. How Secretary Watts as chairman of the newly formed Council on Environment and Natural Resources expects to address stockpile issues.

Answer 2. The issue of a strategic minerals policy is undergoing a policy review under the direction of the Cabinet Council on Natural Resources and Environment. Part of that issue is the adequacy of the National Defense Stockpile to determine what should be done, in balance, with other priorities, to improve its present condition. Improvement of our stockpile position is a stated goal of the President.

While it is too early to draw any specific conclusions of what might result from the Cabinet Council's review of the stockpile situation, the fact that the President directed the overdue purchase of cobalt to begin filing that serious stockpile gap would indicate that the stockpile will receive the priority it must by this Administration.

Question 3. The views of the Department of the Interior on what addition should be made to the stockpile during fiscal year 1982.

Answer 3. Table 1 details the stockpile status as of January 1, 1981, and shows the percentage completion toward those stockpile goals that are below the 100 percent level. General Services Administration's specific purchase plans are confidential to prevent market interference, but a FEMA press release of March 13, 1981, indicated that "priority materials to be considered for acquisition for the national defense stockpile are: agricultural-based chemical intermediaries (such as castor bean oil, pyrethrum), aluminum oxide, bauxite, cobalt, columbium, cordage fibers, fluorspar, manganese dioxide, medicinals (including opium salts), nickel, platinum group metals, rubber (including guayule), tantalum, titanium (including rutile), and vanadium." Fiscal year 1982 additions can be expected to follow in an orderly manner depending upon the progress made in fiscal year 1981.

Question 4. Asssuming relaxation of environmental restraints, access to public lands, anti-trust restrictions, and so forth, your views on how soon domestic production could begin to reduce the stockpile deficit for such materials as cobalt, chromium, platinum group metals, managanese and so forth.

Answer 4. Under most circumstances, it is impossible to predetermine with any precision the times required to develop and produce minerals from deposits even after discovery. Many factors can and do affect the best laid plans on the timing of development, as you know. Not only must the usual technical questions of mining and metallurgical processing be satisified to maximize recovery as well as those of long-term financing and marketing that must satisfy cash flow requirements, the unknowns of delays and their costs through Government actions or inaction add to the uncertainties. Encouragement rather, than discouragement by Government would do much to improve the situation.

TABLE 1.—FEMA's STOCKPILE GOALS, (DESIRED INVENTORY MIX), AND INVENTORIES AS OF JAN. 1, 1981

	Percent on hand [1]	Goal	Inventory
Aluminum metal group	48	7,150,000 ST Al	3,444,064
(Alumina)		0	0
(Aluminum)	0	700,000 ST	1,733
(Bauxite, Metal grade, Jamaica type)	42	21,000,000 LDT	8,858,881
(Bauxite, metal grade, surinam type)	87	6,100,000 LDT	5,299,596
Aluminum oxide, abrasive grain group	41	638,000 ST Abrasive grain	259,124

TABLE 1.—FEMA's STOCKPILE GOALS, (DESIRED INVENTORY MIX), AND INVENTORIES AS OF JAN. 1, 1981—Continued

	Percent on hand [1]	Goal	Inventory
(Aluminum oxide, abrasive grain)		0 ST	50,904
(Aluminum oxide, fused, crude)	0	0 ST	249,867
(Bauxite, abrasive grade)	0	1,000,000 LCT	0
Antimony		36,000 ST	40,730
Asbestos, amosite		17,000 ST	42,534
Asbestos, chrysotile		3,000 ST	9,958
Bauxite, refractory	12	1,400,000 LCT	174,599
Beryllium metal group	87	1,220 ST Be metal	1,061
(Beryl ore 11 percent BeO)		18,000 ST	17,987
(Beryllium copper master alloy)	94	7,900 ST	7,387
(Beryllium metal)	57	400 ST	229
Bismuth	95	2,200,000 LB	2,081,298
Cadmium	54	11,700,000 LB	6,328,809
Castor oil (sebacic acid)	23	22,000,000 LB	5,009,697
Chromium, chemical and metallurgical group	87	1,353,000 ST Cr metal	1,173,230
(Chromite, chemical grade ore)	36	675,000 SDT	242,414
(Chromite, metallurgical grade ore)	78	3,200,000 SDT	2,488,043
(Chromium, ferro, high-carbon)		185,000 ST	402,696
(Chromium, ferro, low-carbon)		75,000 ST	318,892
(Chromium, ferro, silicon)	65	90,000 ST	58,355
(Chromium, metal)	19	20,000 ST	3,763
Chromite, refractory grade ore	46	850,000 SDT	391,414
Cobalt	48	85,400,000 LB Co	40,802,393
Columbium group	52	4,850,000 LB Cb metal	2,510,528
(Columbium carbide powder)	21	100,000 LB Cb	21,372
(Columbium concentrates)	32	5,600,000 LB Cb	1,780,463
(Columbium, ferro)		0 LB Cb	930,911
(Columbium, metal)		0 LB Cb	44,851
Copper	3	1,000,000 ST	29,048
Cordage fibers, abace	0	155,000,000 LB	0
Cordage fibers, sisal	0	60,000,000 LB	0
Diamond, industrial group		29,700,000 KT	42,929,316
(Diamond dies, small)	42	60,000 PC	25,473
(Diamond, industrial, crushing bort)		22,000,000 KT	23,692,782
(Diamond, Industrial, stones)		7,700,000 KT	19,223,798
Feathers and down	0	1,500,000 LB	0
Fluorspar, acid grade	64	1,400,000 SDT	895,983
Fluorspar, metallurgical grade	24	1,700,000 SDT	411,738
Graphite, natural—Ceylon, amorphous lump	87	6,300 ST	5,498
Graphite, natural—Malagasy, crystalline	90	20,000 ST	17,911
Graphite, natural—Other than Ceylon and malagasy		2,800 ST	2,802
Iodine		5,800,000 LB	8,013,074
Jewel bearings	57	120,000,000 PC	68,772,719
Lead	55	1,100,000 ST	601,036
Manganese dioxide, battery grade group		87,000 SDT	247,827
(Manganese, battery grade, natural one)		62,000 SDT	244,816
(Manganese, battery grade, synthetic dioxide)	12	25,000 SDT	3,011
Manganese, chemical and metallurgical group		1,500,000 ST Mn metal	1,586,581
(Manganese ore, chemical grade)		170,000 SDT	221,044
(Manganese ore, metallurgical grade)		2,700,000 SDT	3,378,713
(Manganese, ferro, high-carbon)		439,000 ST	599,978
(Manganese, ferro, low-carbon)		0 ST	0
(Manganese, ferro, medium-carbon)		0 ST	28,920
(Manganese, ferro, silicon)		0 ST	23,574
(Manganese, metal, electrolytic)		0 ST	14,172
Mercury		10,500 Flasks	191,391
Mica, muscovite, brock, stained and better	84	6,200,000 LB	5,212,444

TABLE 1.—FEMA's STOCKPILE GOALS, (DESIRED INVENTORY MIX), AND INVENTORIES AS OF JAN. 1, 1981—Continued

	Percent on hand [1]	Goal	Inventory
Mica, muscovite film, first and second qualities		90,000 LB	1,274,495
Mica, muscovite splittings		12,630,000 LB	19,498,277
Mica, phlogopite block	62	210,000 LB	130,745
Mica, phlogopite splittings		930,000 LB	2,019,294
Molybdenum group		0	0
(Molybdenum disuphide)		0	0
(Molybdenum, ferro)		0	0
Nickel	0	200,000 ST Ni + Co	0
Opium group	55	130,000 AMA LB	71,303
(Opium gum)		0 AMA LB	31,795
(Opium, salt)	30	130,000 AMA LB	39,508
Platinum group metals, iridium	17	98,000 TrOz	16,991
Platinum group metals, palladium	42	3,000,000 TrOz	1,255,003
Platinum group metals, platinum	35	1,310,000 TrOz	452,640
Pyrethrum	0	500,000 LB	0
Quartz crystals		600,000 LB	2,423,036
Quinidine	18	10,100,000 Av Oz	1,800,462
Quinine	72	4,500,000 Av Oz	3,246,164
Rubber	14	850,000 LT	119,208
Rutile	37	106,000 SDT	39,186
Sapphire and ruby		0 KT	16,305,502
Silicon carbide, crude		29,000 ST	80,548
Silver (fine)		0 TrOz	139,500,000
Talc, steatite block and lump		28 ST	1,092
Tantalum group	33	7,160,000 LB Ta metal	2,391,940
(Tantalum carbide powder)		0 LB Ta	28,688
(Tantalum metal)		0 LB Ta	201,133
(Tantalum minerals)	30	8,400,000 LB Ta	2,551,302
Thorium nitrate		600,000 LB	7,145,112
Tin		42,000 LT	200,452
Titanium sponge	17	195,000 ST	32,331
Tungsten group		50,666,000 LB W Metal	81,216,792
(Tungsten, Carbide powder)		2,000,000 LB W	2,032,942
(Tungsten ferro)		0 LB W	2,025,361
(Tungsten metal powder)		1,600,000 LB W	1,898,911
(Tungsten ores and concentrates)		55,450,000 LB W	88,436,637
Vanadium Group	6	8,700 ST V metal	541
(Vanadium, ferro)	0	1,000 ST V	0
(Vanadium pentoxide)	7	7,700 ST V	541
Vegetable tannin extract, chesnut		5,000 LT	16,835
Vegetable tannin extract, quebracho		28,000 LT	143,541
Vegetable tannin extract, wattle		15,000 LT	16,398
Zinc	26	1,425,000 ST	375,970

[1] Amounts for less-than-100-percent items are shown.

Source: FEMA.

There are many materials short of stockpile goals as detailed in Table 1 above. For a number of these, notably copper, lead, and zinc, relaxation of environmental restraints could well improve domestic capacity, particularly in the area of smelting and refining, and thus contribute to a lowering of stockpile goals. It would, however, be fallacious to conclude that relaxation of environmental restraints will provide significant short-run improvement of our stockpile position; instead, we must consider the use of Title III of the Defense Production Act to guarantee the development of new sources of supply in the United States and in strategically accessible Allied nations. Every 1 ton of new domestic productive capacity that could be created will, under current stockpile planning, reduce the stockpile goal by 3 tons.

In the case of the platinum group metals, if reasonable market conditions prevail, environmental requirements are satisfied, and long-term refining capacity is found, the outlook is good for development of the Stillwater, Montana, palladium-platinum deposit. Exploration, which began in 1967, has to date cost about $18 million. Production could get underway as early as 1985-86, and the immense size of the deposits could provide a reliable U.S. source of these metals for many years.

The chances for significant U.S. manganese production in the foreseeable future under normal economic conditions are slim simply because known deposits lack commercial grade. For the same reason, there presently seems to be little chance for chromite development. However, exploration for chromite continues at some low-grade deposits in California, and these deposits are being studied to see if better upgrading technology and near-site ferrochrome smelting could improve the economics.

In the case of cobalt, the Blackbird, Idaho, and Madison, Missouri, deposits are well known. Both are presently marginal, but exploration is continuing at the Blackbird deposit testing the large unexplored mineralized area to the north of the Blackbird mine. Much will depend on the outcome of that exploration, but reportedly development of either deposit presently would require Government support under Title III of the Defense Production Act. The recent FEMA report, "Cobalt Project," shows that there are economic benefits to this approach. The earliest that either of these deposits could be put into production is 1984.

However, much also depends on how Zaire and Zambia see the advantage in holding the price of cobalt as close to $20 a pound as possible. Prices have sagged below this level but there is little doubt that the option of dropping the price further has the advantage of maintaining markets by driving out marginal producers.

We should restate the point that while we do not now know of economic deposits of some minerals in the U.S., this does not mean that some will not be found. The Stillwater discovery is ample proof of this. Moreover, the very history of mining has been tied to technologic improvements that have converted non-economic resources into ore. And, on the basis of what we know now, Alaska offers the best chance to find deposits of some minerals that we do not now produce. Anything that we do to improve the competitiveness of U.S. industry in turn improves the mineral posture of the country.

Question 5. Your views on the desirability of stimulating production of stockpile material under the Defense Production Act.

Answer 5. The Department of the Interior in recent months has testified before several Members of the Congress as to the desirability of utilizing Title III of the Defense Production Act to stimulate domestic production of strategic materials in short supply in our stockpiles. The Department is currently working with the National Security Council, the Federal Emergency Management Agency, and the Office of Management and Budget in reviewing potential application of Title III to a number of materials among which are cobalt, titanium, refractory grade bauxite, and guayle rubber. Every 1 ton of new domestic productive capacity that could be created will, under current stockpile planning, reduce the stockpile goal by 3 tons. Extension of the Defense Production Act, currently scheduled to expire September 30, 1981, is a cornerstone of our defense readiness planning in the materials area.

Question 6. Views of the Department of the Interior on adding material produced under the Defense Production Act to the stockpile.

Answer 6. In the event that procurement guarantees under Title III of the Defense Production Act are utilized to expand production of needed materials in the United States and/or strategically accessible Allied nations, and if materials are offered to the Government pursuant to such guarantees, such materials should be: (1) utilized by the Government as Government-furnished material in the manufacture of military materiel; (2) retained temporarily in the Defense Production Act inventories for subsequent resale; and (3) eventually added to the strategic stockpile if there should be no immediately foreseeable need therefor.

Question 7. Views on the Department of the Interior on the sale of all 139.5 million ounces of silver from the stockpile.

Answer 7. Because the Federal Emergency Management Agency (FEMA) has found that the stockpile goal for silver should be zero, the Department of the Interior concurs in the Administration's recommendation that all of the 139.5 million troy ounces of silver excess to the stockpile goal be sold, so that the funds obtained thereby could be used for the purchase of urgently needed materials for which stockpile inventories are below goals.

Question 8. Your views on bartering excess and surplus U.S. commodities and equipment for strategic stockpile materials from foreign governments.

Answer 8. The Department of the Interior strongly endorses the policy of bartering excess and surplus U.S. commodities and equipment for strategic stockpile materials where such bartering does not displace or interfere with normal market sales of like or similar commodities and equipment. Moreover, such barter transactions need by no means be confined to Government barter but should instead, where practicable, utilize the vast ingenuity of the worldwide free enterprise system that has contributed so much to domestic and worldwide economic development.

Mr. BENNETT. Then Ms. Hollick, State Department.

ANN HOLLICK, ACTING DEPUTY ASSISTANT SECRETARY, BUREAU OF ECONOMICS AND BUSINESS, DEPARTMENT OF STATE

Ms. HOLLICK. Thank you, Mr. Chairman. As you know, the Department of State is responsible for coordination with other Government agencies and foreign governments to insure that the strategic stockpile acquisition and disposal program is consistent with our overall foreign policy objectives. In this respect I welcome the opportunity to appear before the subcommittee today to lend the Department of State's support to H.R. 2912.

In supporting this bill, Mr. Chairman, I would like to emphasize the fact that the Department fully appreciates the concern of domestic and foreign industries and of foreign governments that disposals and acquisitions resulting from U.S. stockpile goal revisions may be disruptive to world or national markets. Purchases or sales that result from the periodic reevaluation of goals must be a carefully considered process that draws upon expertise both within and outside the Government. We believe that this has been the case in setting up the current stockpile transition plan.

The Department takes very seriously the requirement in the Stockpiling Act of 1979 that stockpile transitions be conducted in such a way as to avoid undue disruption of markets. When disposal is contemplated the Department provides other affected governments prior opportunity to express their views. In 1980, over 30 countries were invited to comment on proposed disposal levels of 18 commodities before a program was finally agreed upon. We believe that the limited stockpile disposals of recent years—an average of $80 million per year—have been responsibly executed by GSA, and have had minimum adverse market impacts. We are confident that this record can be maintained with respect to the disposals that would result from passage of H.R. 2912.

In a time of budget stringency, it is important that the critical task of restructuring the national defense stockpile be aided by judicious disposal of material no longer required for national security needs. It is essential that the transactions fund be utilized on a consistent basis as foreseen in the passage of the 1979 act. The Department of State, therefore, recommends your subcommittee's approval of H.R. 2912.

In your letter of May 27, Mr. Chairman, you included four questions of concern to the subcommittee for which you requested specific comments. Since two of those questions involve programs of other agencies, it was not possible to develop a full reply in time. We will, however, provide separate answers as soon as possible in writing to the questions you asked on barter of surplus commodities and on the international implications of government-to-government purchases of strategic materials such as cobalt.

[Questions submitted with letter of May 27 requesting Ms. Hollick's testimony—questions for the State Department:]

1. We have been discussing bartering surplus materials from the Agriculture Department and Department of Defense for needed stockpile materials. What part would the State Department play if the practice of bartering for the stockpile were to be resurrected?

2. Last fall Secretary Haig, in his capacity as Chairman of the Board of United Technologies, appeared before Representative Santini's Mines and Mining Subcommittee of the Committee on Interior and Insular Affairs. In his testimony he warned of the increased U.S. reliance on foreign minerals from South Africa. Is this Secretary Haig's current view and is it the view of the State Department? If you cannot speak for the Secretary, please provide an answer for the record.

3. I wanted to ask you the same question I asked the Department of Interior earlier. What is the Department of State's view on the dollar amount of materials that should be added to the stockpile during the balance of fiscal year 1981 and during fiscal year 1982? Can you explain why the administration has only requested an appropriation authority for $120 million for fiscal year 1982 for stockpile additions while asking for authorization to dispose of $2.1 billion of excess material?

4. I understand a National Security Council study was recently completed regarding U.S. dependence on selected minerals from South Africa. What can you tell us in open session about the results of this study?

Concerning your third question on the international implications of the sale of 139.5 million ounces of silver, as I noted at the outset, we plan to be governed by the provisions of the 1979 Stockpiling Act which requires that the sales program be paced in such a way as to avoid undue disruption of markets and to protect our Government from avoidable losses.

With regard to your fourth question on the NSC nonfuel mineral study, the State Department as you know chairs an NSC Nonfuel Minerals Working Group which reports to the NSC Steering Group. This group has been reviewing options for policies on selected minerals, and although policy deliberations are not yet completed, the administration has already taken an important action by recently announcing the first significant purchase program for the national defense stockpile in over 20 years. As the first step in this acquisition program we are considering options to purchase up to 5.2 million pounds of cobalt. We expect to announce bid acceptances very shortly.

This concludes my remarks, and the panel is open to your questions.

WRITTEN STATEMENT OF ANN L. HOLLICK

Mr. Chairman and Members of the Subcommittee, I am Ann L. Hollick, Acting Deputy Assistant Secretary for International Resources and Food Policy, and Director of the Office of International Commodities. The Office of International Commodities is responsible within the Department of State for U.S. policies on basic commodities of interest to the Government and to domestic industry. An important aspect of that responsibility is coordination with other U.S. government agencies and with foreign governments to ensure that the strategic stockpile acquisition and disposal programs are consistent with our overall foreign policy objectives.

I welcome this opportunity to appear before the Subcommittee to lend the Department of State's support to H.R. 2912. This bill authorizes the disposal of seven materials from the National Defense Stockpile judged to be in excess of current requirements, and the utilization of the proceeds for the acquisition of vitally-needed strategic and critical materials.

In supporting H.R. 2912, Mr. Chairman, I want to emphasize that the Department fully appreciates the concern of domestic and foreign industries, and of foreign governments, that disposals and acquisitions resulting from U.S. stockpile goal revisions might be disruptive to world or national markets. Purchases of sales resulting from the periodic re-evaluation of goals must be a carefully considered process that draws on expertise both within and without government. We believe

that this has been the case in the establishment of current stockpile transaction plans.

The Department takes very seriously the requirement in the Strategic and Critical Materials Stockpiling Act of 1979 that stockpile transactions be conducted in such a way as too avoid undue disruption of markets. When disposals are contemplated, it is the practice of the Department to provide other affected governments prior opportunity to express their views. In 1980 over 30 countries were invited to comment on proposed disposal levels of 18 commodities before a program was finally agreed upon. It is our belief that the limited stockpile disposals of recent years—some $80 million per year on the average—have been responsibly executed by GSA and have had minimum adverse market impacts. We are confident that this record can be maintained with respect to the disposals that would result from passage of H.R. 2912.

On the basis of the latest stockpile goal review, there are sizable deficits for certain commodities in the Stockpile. On March 13 the President announced the first significant purchase program for the stockpile in over 20 years. This fiscal year, $100 million has been appropriated for the program, and $120 million has been requested for fiscal year 1982.

In a time of budget stringency it is highly important that the critical task of restructuring the National Defense Stockpile be aided by the judicious disposal of materials no longer required for national security needs. It is essential that the Transactions Fund be utilized on a consistent basis as foreseen in the passage of the 1979 Act. The Department of State, therefore, recommends your Subcommittee's approval of H.R. 2912.

The Department does not support H.R. 2784, primarily because it addresses only the disposal side of the restructuring process. While we support the concept of disposal of silver included in that bill, we feel this proposal is encompassed in H.R. 2912, which also includes an authorization for needed acquisitions. The Department is opposed to H.R. 2603, primarily because of the provision for the purchase of silver. In our view, the process used to establish stockpile goals is a good one, and calculations since 1976 using this procedure have repeatedly indicated that stockpiling of silver is unnecessary. While platinum and nickel are needed in the stockpile, we feel that a more general authorization, such as that contained in H.R. 2912, provides the Administration with needed flexibility to respond to market opportunities in restructuring the stockpile.

With regard to H.R. 3364, the Department of State has not fully evaluated this bill and, therefore, I am not prepared to comment on it at this time.

Mr. Chairman, your letter of May 27 included four questions of concern to the Subcommittee to which you requested specific comments. Since two of these questions involve programs of other agencies, there was not sufficient time to develop a full reply. Answers to the questions on barter of surplus commodities and on the international implication of Government-to-Government purchases of strategic materials such as cobalt, therefore, will be provided separately as soon as possible. With regard to your third question on the international implications of the sale of 139.5 million ounces of silver, we will be governed by the provisions of the 1979 Stockpiling Act which, as I noted earlier, requires that the sales program be paced in such a way as to avoid undue disruption of markets and protect the governments from avoidable loss.

Concerning the fourth question on the USC Non-fuel Minerals Study, an NSC Non-Fuel Minerals Working Group, chaired by the Department of State, has been reviewing options for policies on selected minerals. It should be noted, however, that, the Administration already has taken important action by recently announcing the first significant purchase program for the National Defense Stockpile on over 20 years. As the first step in this acquisition program, options to purchase up to 5.2 million pounds of cobalt are being considered, with announcement of bid acceptances expected shortly.

Once again, Mr. Chairman, I thank you for giving the Department of State this opportunity to present its views on proposed legislation. I would be pleased to respond to any questions you might ask.

[The following questions were submitted to the witness to be answered for the record:]

Question 1. Last fall Secretary Haig, in his capacity as Chairman of the Board of United Technologies, appeared before Representative Santini's Mines and Mining Subcommittee of the Committee on Interior and Insular Affairs. In his testimony he warned of the increased U.S. reliance on foreign minerals from South Africa. Is this Secretary Haig's current view and is it the view of the State Department?

Answer. Secretary Haig's concern regarding U.S. reliance on central and southern Africa stems from the view that the U.S.S.R. may seek to exploit the existing instability of the region. In testimony before the Senate Foreign Relations Committee on March 19 the Secretary said that "Soviet adventurism in the Horn, in South Asia, in the Persian Gulf, and in Southwest Africa appears to conform to a basic and ominous objective: to strike at countries on or near the vital resource lines of the West."

The central and southern African area has a special position as a source of mineral supplies for the West, inasmuch as this region accounts for a major portion of Western supplies of a few minerals that are essential for industrial and defense-related production in the United States and allied countries. It is therefore prudent to scrutinize closely Soviet activities in that region which might jeopardize a continuing supply of those essential minerals.

Question 2. What are the views of the State Department on bartering excess and surplus U.S. commodities and equipment for stockpile materials from foreign governments?

Answer. There are several barter authorities, each designed for certain types of situations. The barter of surplus agricultural commodities was designed, among other things, to permit the Commodity Credit Corporation to trade its surpluses for materials, not necessarily strategic ones, that are more storable or otherwise may be expected to maintain their value. Extensive use was made of agricultural barter authorities during the 1950s with substantial quantities of strategic materials acquired and eventually transferred to the National Defense Stockpile. The barter of surplus strategic materials by GSA is the principal barter authority aimed at national defense concerns. Use of both the agricultural and GSA authorities was minimized or suspended entirely at times during the 1960s and 1970s when the strategic stockpile was generally in a surplus condition. I will leave it to GSA and the Department of Agriculture officials to provide any further historical perspective that may be desired on these programs.

At the present time, as changed conditions have resulted in the re-emergence of substantial imbalances in the strategic stockpile, there are plans to reactivate the GSA barter authority. The Department of State is working with GSA and other agencies in this effort in the belief that a properly designed barter program can provide additional flexibility to the Government's efforts to restructure the Stockpile and can therefore complement the current cash acquisition program. The Department is also continuing to explore possibilities of agricultural barter transactions. In considering both the GSA and Department of Agriculture programs, the Department of State plays a key role in facilitating contacts with other affected governments and advising on means of assuring that barter transactions do not result in international market disruptions.

There is a third authority for acquiring strategic materials which is administratively more directly related to foreign affairs management. Although not strictly a barter authority, Section 663 of the Foreign Assistance Act of 1961 authorizes the President, when it is in the national interest, to provide assistance to other countries (including military assistance) in exchange for a "necessary or strategic raw material" controlled by the recipient. No economic assistance, and we believe no military assistance, has been provided under this authority since it was adopted in 1974 and the President has never delegated authority to implement it. One problem with this authority has been that a straight raw material reimbursement for United States assistance would appear to take on the characteristics of a commercial transaction—i.e., would not have the concessional element of economic or military assistance. Our ability to condition our assistance on sound economic and program performance to achieve development objectives might be limited in this commercial context. Moreover, in view of the highly concessional nature of AID loan assistance it becomes a difficult problem to assign an appropriate value to the strategic material. The Department has, however, been exploring with the Agency for International Development the possibility of implementing this authority in ways that would, in fact, be concessional in certain cases where it might be especially beneficial to both the United States and to the foreign country involved.

Question 3. What are the views of the State Department on the international implications of Government to Government purchases of strategic minerals such as cobalt?

Answer. The acquisition by the United States of strategic materials offers both opportunities and challenges in international affairs. The implementation of the current cobalt purchase program at a time of substantial surplus in world supplies,

ities that FEMA in conjunction with all other departments of Government had decided are the priorities for restructuring the stockpile.

Mr. BENNETT. You are telling me that the list is public knowledge now?

Mr. MARKON. Yes, sir, this list is public knowledge. Which specific item we buy and how much we buy in our acquisition strategy is not public knowledge, but this list is public knowledge. These are the commodities which we consider priority for the restructuring process.

Mr. BENNETT. One thing really surprises me, that is cordage fibers, remembering how difficult it was for us to get rid of cordage fibers we had some years ago, and they were rotting and everything like that, why cordage fibers is something in short supply.

Mr. MARKON. Mr. Krueger.

Mr. KRUEGER. There are still uses of both abaca and sisal. The abaca has technical properties which include very high wet strength, and it is used extensively in industrial filters and in chemical processes. In addition, the Department of Defense, even though it is moving toward synthetic ropes and synthetic cordage, still has not been able to find adequate substitutes for abaca cordage in its application.

Mr. BENNETT. My memory is, the last thing we did was dispose of those cordage fibers at the request of the Department of Defense. We had great difficulty and the Philippines and other friendly countries that produce these things were really unhappy about the fact we were disposing of it. We are not doing this for political reasons, are we?

Mr. KRUEGER. There has to be a systematic program of rotation of inventories if we are going to keep these commodities, because over time, and I do not know the time, but it is measured in years, these materials gradually deteriorate. As they deteriorate, they should be replaced. The material that was disposed of some years ago had deteriorated to such a point that it was not easy to sell because it had just gone too far. With proper storage, proper purchase, and a regular rotation program, you can keep these things.

Mr. BENNETT. Mr. Spence.

Mr. SPENCE. Thank you, Mr. Chairman.

Mr. Pendley, assuming that we do relax the environmental restraints restricting access to public land for the purpose of mining some of these minerals, how soon in your opinion would it take for mineral production to begin to reduce the stockpile deficit in materials like cobalt, chromium, and manganese.

Mr. PENDLEY. Congressman Spence, we do have a number of these minerals that you mentioned. We have cobalt, as was mentioned earlier by Congressman Marriott, in Idaho. We have cobalt in Missouri. There is some manganese in Maine, in Minnesota, some platinum deposits in the Stillwater complex of Montana. So we do have some of these resources.

We are unable at this time to make any sort of an estimate on how much time would be necessary to bring them totally into production. There are some estimated prices, for example, with regard to the cobalt. The floor price is that at which production

could be maintained. But we do not have any specifics on that question.

What we have to do as a Government is to remove these barriers that now inhibit these activities to allow the free market system to operate to possibly bring them into production, but as prices change, and increase, many of these resources can be transferred into reserves, and can be mined, particularly if we take better care of the regulatory framework under which most of these operate.

Mention was made by Congressman McDonald with regard to the Idaho wilderness. That cobalt deposit is located inside a wilderness. It was carved out in a so-called mining management zone, but it still lies within a wilderness and it was very, very difficult for the Congress to carve it outside of a wilderness. Frankly, we do not know how much land is now off limits to mineral development. The estimate is from 40 percent to 75 percent. One of the problems is we know where minerals are but we do not know where they are not, and when we go in and place restrictions on development of the lands, then there is no way for private enterprise to do the exploration necessary.

Mr. SPENCE. My next question, we have not been able to obtain an inventory of what we do have in a lot of this Government land that has been locked up?

Mr. PENDLEY. That is exactly correct. The only way to really know is to explore the land, to permit the mining industry, to permit the private sector to go out in an environmentally sensitive manner to examine the land, to explore the land. The stories are legend of the instances in which an area has been declared without mineral potential or in which a mining company has closed up its operation, walked away, and another mining company could go in with a new idea, a new plan, and a new scheme and unlock a mineral resource and develop it into a paying operation.

I think the Blackbird Mine in Idaho is an excellent example, a mine that was closed down years ago and a new company, new geologist, new concept came in and unlocked a potential reserve there bigger than had ever been conceived. So, unless the access is permitted there is no way of knowing. We cannot say it is not there. We only know if it is.

Mr. SPENCE. And we do have silver deposits, too, locked away in some of these areas, do we not?

Mr. PENDLEY. Yes, we do.

Mr. SPENCE. Thank you.

And Mr. Kruger, in the event the authorization is not forthcoming for the sale of silver, or if you cannot sell it at a reasonable price, what other surplus materials in the stockpile do you have that would generate similar revenues for the purchase of these other materials that we need?

Mr. KRUEGER. The only other excess material which appoaches silver in terms of the value is tin. The Congress authorized disposal of some 35,000 tons of tin recently. Commissioner Markon can tell you how much of that has been sold and the price. Unless we generate revenues, I believe that there will not be sufficient money in the stockpile transactions fund to even fund next year's appropriation, as small as that.

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Mr. MARKON. Mr. Spence, if I may add to that, in my statement I have a list of the commodities that we are asking authority to dispose of. We have an estimated price for each commodity by pound or ounce or however it is sold, the quantities we are seeking authority for, and the value that we hope to generate in millions of dollars. This is where the $2 billion comes from. In this respect I must emphasize all of these estimated prices are given in a certain period of time. There are wide fluctuations. We can sit here and talk about excesses having a value of $4½ billion or $6 billion, and be talking about the same thing. The reason why those figures are so diverse is because the value of the various commodities that constitute that excess fluctuate. In silver, for example, there is a chart that shows what could happen to some of these commodities.

You can see the large peak that silver went up to $50 an ounce. With 139 million ounces-plus in the stockpile, that price more or less tripled the value of silver, and silver constitutes one-third the value of the excess. In other words, if the excess is estimated at $6 billion the silver in there is $2 billion by itself, but the excess today is less than $6 billion.

Mr. SPENCE. Thank you.

Mr. BENNETT. Mr. Hartnett.

Mr. HARTNETT. There is one question I would like to ask of these gentlemen. Maybe Congressman McDonald from Georgia knows. The question was I think in your statement, Larry, you said the reason why we do not mine any silver is because it is not so much that silver is not there, we have to mine other products such as copper to get silver out as a byproduct, and we do not do that. Congressman Spence made reference to it, and it was supported by the Commissioner. Do we have adequate supplies, or do we have a lot more silver that can be mined? Is it because of environmental reasons or economic reasons that it is not being mined? Why are we not mining more silver? Do we have to get it as a byproduct of these other minerals?

Mr. PENDLEY. I will allow Dr. Morgan from the Bureau of Mines to respond at length. About half of the silver comes from the byproduct production.

Mr. HARTNETT. We do not have enough silver mines left? Could a geologist such as you said go in where people have walked away and find more silver, like they have other minerals?

Dr. MORGAN. Sir, it is largely a question of the price, and not an immediate price which, as Mr. Markon's chart shows, so clearly goes way up and way down.

It takes many years to develop a mine, once the grade of the ore has already been established by discovery and by drilling. Therefore, silver mining is not as stable a form of mining as some of the base metal mining where there is much more regularity of price and not so much fluctuation.

Congressman McDonald was correct when he pointed out that the study by the U.S. Bureau of Mines shows that the world would have a shortage of silver if you look at existing reserves and world production and world demand to the year 2000. However, there is a much larger quantity of silver than is defined as a reserve. That is the quantity that is known as a resource. Sometimes a lot of the

confusion in the discussions that we have comes from a failure to distinguish between reserves and resources.

If I may take just a moment to try to put that in perspective.

The reserve which is described in Government publications is what is, first, known to be there with considerable accuracy. This normally means drilling with about an 80-percent chance that you know for sure what is there.

Second, the reserve not only has to be known with considerable accuracy, but it should be producible at roughly present prices and with presently known technology.

When you look at something like silver that has fluctuated between $10 and $50 in the course of a year or so, what is roughly the present price? Well, at the present time it is roughly $10 to $11 an ounce.

So if the price were to go up and stay at $30 or $40 or $50 over a long period of time, there would be more exploration, there would be more drilling, and what is presently clearly submarginal material would be converted from resources to reserves. So one has to distinguish in all of these studies between reserves and resources.

When we look at the world, the Bureau of Mines figures, and a most recent study shows there is somewhat over 8 billion ounces of reserves in the world, reserves—but the cumulative demand would be 10 billion ounces. So there is about a 20-percent shortfall there in demand compared to present reserves. But the history of much of mining is that every year a good mining company tries to develop a ton of ore for every ton that is mined. In fact, if you go back and look at some of the earlier data by the Bureau of Mines, take for example copper, a more stable material, back in the 1950's, the Bureau of Mines reported to this committee that the U.S. copper reserves were of the order of 25 million tons.

In the intervening 25 or 30 years, 25 or more million tons have been mined, and today the reserve base, which is a little different definition than the reserve per se, but the reserve base is of the order of 100 million tons. In other words, back in 1950, we would have said that we were using about a million tons of copper a year; we then had about 25 years' supply in sight. Today in copper—since we are using 2 million tons a year, and have a 100-million-ton reserve base, we have about 40 or 50 years' supply in sight.

So the mining industry, if it is given the opportunity to have access to these lands, if it is freed of some of the particularly burdensome environmental regulations, and if the economy is permitted to expand, as I think the President's budget and tax proposals are intended to accomplish, then I think that viable mining companies will continue to search these lands and bring in new material that we certainly do not know of today.

Mr. HARTNETT. Thank you.

Mr. BENNETT. Congressman McDonald.

Mr. MCDONALD. Thank you.

First, Mr. Hartnett, let me simply add a little bit to that. My understanding of the new silver that is mined, somewhere around 20 or 25 percent is coming from what you would term silver mines. Silver tends to be located toward the surface areas, in the pure form, and indeed when the first settlers came here, there was quite a bit of silver right up close to the top of the earth and had sort of

gleaming appearance, not in combination of other elements. This has been pretty well discovered and pretty well noted and in those areas have been mined since the period of exploration all the way up to the present.

That type of formation is increasingly less evident. The major source is a byproduct of the other forms of mining at the current economical prices, at the current cost of mining.

When you have a big hunk of copper or zinc or lead ore in the ground, the silver alloy, silver portion of it tends to be located in the outer fringes of the lump. So that the deeper you go toward the center, in the process of mining copper or zinc, the less percent of silver you get as a byproduct.

But the realities of mining and the realities of economics dictates that the major portion of the newly mined silver in this country certainly is coming from those sources. By that I mean as a byproduct rather than as a primary silver mine. The Comstock mine and so forth, conceivably, and some of the lands that have been locked up by, I think, very foolish land policies, conceivably in some of those lands there are two or three Comstock mines. Maybe there is, maybe there is not. But what we have to plan on in the defense needs is what we have now, what we can go with, and to answer Mr. Spence's question, according to General Slay's briefing, once you have a deposit, assuming you do not have a lot of Federal Government restriction, you are looking at a 5- to 10-year lag time between the time you get started and the time you start producing.

I would like to just put a quick question to Doctor Morgan from the Bureau of Mines.

Sir, in the question of reserves and resources and so forth, of course it is a matter of cost, and a couple years ago the administration was talking about the need to have oil or gasoline rationing. Those figures were used pretty rapidly, and CIA used that in the argument in oil to show we have an emergency, to justify moving toward rationing. It is a shame such candid honesty did not come out in that particular debate.

In your personal opinion, looking at the world's silver supply, and the usage of silver in this country, in your personal opinion, I am not asking for the administration opinion, do you consider silver surplus to the stockpile?

Mr. MORGAN. Yes, sir; considering the stockpile calculation which we have worked on with all of the agencies of the Federal Government, while we cannot reveal the total secret calculations and the military requirements, I did get together ahead of time with Mr. Krueger to see how much we could say if the question came up. As we look at it, we are planning under the Stockpiling Act on a 3-year period, a major war, probably of the World War II type or more so activity, with a relatively high level of the U.S. industrial economy, and a relatively high level of the U.S. civilian economy. I think this is the way we ought to plan and this is what is set forth in the Stockpiling Act, that we meet the military, essential civilian, and essential industrial needs.

Now, on that basis, the total requirement as agreed upon by all of the agencies of the Federal Government, for a 3-year period, was of the order of 520 million ounces. Included within this figure was

approximately 140 million ounces for the Department of Defense applications. So the requirement was 520.

The supply to meet that demand was of the order of 690 million ounces. We included 425 million ounces, specifically from the United States and Canada.

Now, we do have an agreement, the 1949 Joint United States-Canada Industrial Mobilization Agreement, that provides that the resources of the two countries would be used in a common effort if such a war came up.

While these agreements are somewhat old, and you and others have alluded to the problems currently with Canada, I think that the Canadians' supply in a real war effort is pretty clearly something that we can count upon, if for no other reason that probably 50 percent or more of the Canadian mining industry is owned by U.S. corporations.

So, when FEMA looks at a supply of 690 million ounces and a requirement of 520 million ounces, FEMA comes up with a stockpile goal of zero. Then when we look at the high temperature applications and the special property needs for materials such as cobalt, and columbium, and tantalum, and titanium, which are needed for the most sophisticated weapons and for which stockpile goals are far from on hand (which is not to say that there is not also some defense needs for silver in electronic and electrical components and motors and brazing alloys, those figures have been brought into the calculation) and therefore in my personal opinion and in my official opinion, the current legislation is appropriate.

Mr. McDONALD. In World War II, how much did we use during the war effort, sir, in a far less sophisticated effort?

Dr. MORGAN. I do not have the figure at my fingertips, but I recall full well that in World War II there was such a shortage of copper that large quantities of Treasury silver which were on hand in the Treasury Department were actually loaned out to new aluminum plants where they used the silver as bus bars to conduct electricity in order to save the use of copper in those applications. Then when the war was over, the silver bus bars were uncoupled and returned to the Treasury Department.

Mr. McDONALD. You do not have the figure of how much was used then?

Dr. MORGAN. I do not have the figure here, sir.

Mr. McDONALD. Well, would the figure of 800 or 900 million ounces be more or less reasonable, to your memory?

Mr. KRUEGER. I can answer some of that.

Dr. MORGAN. I would have to check our records and provide it for the record.

Mr. McDONALD. How much was used in the Vietnam war period, according to Government figures? Do you have that? My figures, reading from Government reports, 1¼ billion ounces. Does your figure have that?

Dr. MORGAN. As a military requirement?

Mr. McDONALD. That is what we used during the Vietnam war period in this country. That is an increase over the World War II period.

Dr. MORGAN. I do not have that figure here. We will have to get together with DOD and FEMA and provide that.

[The following information was received for the record:]

U.S. INDUSTRIAL USE OF SILVER

World War II (1941–1946 inclusive). Excluding coinage, total military use was about 395 million ounces and total other use was about 230 million ounces; in addition, about 1,000 million ounces were used for bus bars and other defense plant uses, and about 49 million ounces were used for 5 cent coins to save nickel.

Korean War (1950–1953 inclusive). Excluding coinage, industrial use was about 100 million ounces per year, of which the Bureau of Mines estimates about 25 percent was for military uses.

Vietnam War (1964–1969 inclusive). Excluding coinage, industrial use was about 150 million ounces per year, of which the Bureau of Mines estimates about 20 percent was for military uses.

Bureau of Mines
June 29, 1981

Mr. MCDONALD. I have some additional questions.

Mr. BENNETT. All right.

Mr. KRUEGER. On the particular numbers you asked about for use of silver in World War II, the Government provided 450 million ounces, which is half of the silver requirement you talked about, specifically to the aluminum industry so they would not have to use copper. Copper was a material in short supply during World War II. We made steel pennies so we would not have to use copper.

Mr. MCDONALD. In that regard, are you aware of any plans to discontinue the minting of copper pennies at the present time due to a copper shortage?

Mr. KRUEGER. Not because of any copper shortage.

Mr. MCDONALD. Well, a shortage at the price of a penny for a disk, that the value of copper is becoming greater than the amount of the penny. Are you aware of any plans in that regard?

Mr. KRUEGER. I understand that the Treasury is looking at various alternatives, including zinc, but I am not personally involved in those deliberations.

Mr. MCDONALD. I see.

Is anyone from the OMB testifying today?

Mr. MARKON. No, sir.

Mr. MCDONALD. Well, I am sorry that no one from OMB is here. If that is the case, when did this bill basically begin? What was the history of this bill?

Mr. MARKON. Which bill are you referring to?

Mr. MCDONALD. The administration bill.

Mr. MARKON. H.R. 2912?

Mr. MCDONALD. The bill on the silver sale? When did that begin?

Mr. MARKON. Well, it was submitted to the Speaker of the House and President of the Senate, I believe, in March of this year.

Mr. MCDONALD. I think it began actually before the inauguration, did it not?

Mr. MARKON. Well, there was a bill of the prior administration which this bill replaced.

Mr. MCDONALD. This bill, my history has it, actually began prior to the inauguration, this particular bill, the format, this format, began prior to the inauguration. This actually comes out of the last GSA, et cetera.

Mr. MARKON. Yes, in the last administration, pursuant to the restructuring process, we developed a disposal proposal. This pro-

posal was not submitted to the House and Senate until the last day of the administration.

Mr. McDONALD. This bill actually stems from the last administration; is that correct?

Mr. MARKON. When the new administration was inaugurated, they quickly reviewed all of the pending matters of the prior administration, and one of the things they reviewed was the disposal legislation. At the request of Mr. Bennett, he specifically asked whether or not the bill that they had in hand represented the views of this administration. In response to that request we went back and after reviews with FEMA, OMB and all of the agencies, we restructured the bill slightly and submitted it and it was introduced as H.R. 2912.

Mr. McDONALD. When was that agreement? When did we come to that agreement?

Mr. MARKON. The bill was sent to Congress in about March of this year.

Mr. McDONALD. When was the new head of GSA appointed?

Mr. MARKON. Just recently, about 10 days ago.

Mr. McDONALD. Oh, this was submitted prior to the new head of GSA being appointed.

Mr. MARKON. That is right.

Mr. McDONALD. Has there been any sale of cobalt out of the strategic stockpile in the last 20 years?

Mr. KRUEGER. Yes, sir.

Mr. McDONALD. There has been a sale of cobalt. What price did we get for the cobalt?

Mr. KRUEGER. I do not have that.

Mr. McDONALD. Does $2 an ounce joggle your memory?

Mr. KRUEGER. It would not be $2 an ounce but it would be——

Mr. McDONALD. At the time of the sale.

Mr. KRUEGER. It would be denominated in pounds, and I do not know that price.

Mr. McDONALD. $2 a pound, how would that be?

Mr. KRUEGER. I would think it would be closer to $4 or $6 a pound.

Mr. McDONALD. I think it was sold at $2 a pound and now we are planning to buy it back at $15 to $20; is that correct?

Mr. KRUEGER. Mr. Markon.

Mr. MARKON. The world price for cobalt is $20.

Mr. McDONALD. Up to $20. That is a 10-time increase.

Mr. MARKON. That is the world price.

Mr. McDONALD. What price do we buy it at? Do we get a better than world market price?

Mr. MARKON. We have solicited proposals, cobalt being the first material that we are buying, and based on these proposals, because of the quantities, we will receive substantial discounts.

The contract is in the review process, and I am not at liberty to announce the final price, but it will be a substantial discount over——

Mr. McDONALD. How much did we sell, when we sold it off as being surplus?

Mr. MARKON. I could give you this historical data. I am not personally familiar with it.

[The following information was received for the record:]

PRIOR YEAR SALES DATA—COBALT

Fiscal year and program	Quantity in pounds	Sales value per pound	Sales in millions of dollars	
			Value	Profit or loss
1966 and prior (SCM)	449,851	$1.02	0.460	−.324
1966 and prior (DPA)	18,149	1.76	.032	−.097
1967 (DPA)	5,465,629	1.64	8.945	−2.443
1968 (DPA)	5,045,875	1.70	8.561	−2.054
1969 (DPA)	3,906,626	1.73	6.776	−1.516
1970 (DPA)	9,428,775	2.11	19.856	−.538
1971 (SCM)	686,380	2.15	1.476	−.051
1972 (SCM)	4,027,308	2.15	8.703	−.240
1973 (SCM)	8,725,670	2.38	20.793	+1.421
1973 (DPA)	1,030,092	2.50	2.572	−.094
1974 (SCM)	8,945,240	2.89	25.845	+5.986
1974 (DPA)	71,812	2.81	.202	+.015
1975 (SCM)	5,977,898	3.51	20.978	+7.708
1976 (SCM)	7,570,099	3.80	28.768	+11.962
1976 (DPA)	24,199	5.04	.122	+.041
TQ76 (SCM)	553,841	5.17	2.866	+1.637
1977 (SCM)	−31,364	5.13	−.160	+.091
Cumulative total	61,896,080	2.53	156.795	21.504

Mr. BENNETT. I guess Congress joined in that mistake. The request was undoubtedly made by the administration. Why did they think at that time that cobalt should be sold?

Mr. MARKON. Sir, throughout the history of the stockpile there was no blanket authority to just dispose of materials. There had to be some legislative authorization.

Mr. BENNETT. Well, that is not what I asked you. I assumed that it took an authorization by Congress to sell it. I assumed the administration asked for it to be sold. What I am asking you now is, have you looked back to see why it was that error was made or why was the request made by the administration to sell it?

I have been on this committee a long time. I assure you that nothing has ever passed by me that I thought was tricky or done to help anybody that was buying or selling. The only tricky thing that has come is the administration, the highest levels of Government have wanted to make the budget look good.

But I have never seen anybody sell for the purpose of taking care of particular purchasers or buy for the purpose of taking care of some particular seller. I have never seen that. At least I have never observed it. If so, I would have reported it to the Department of Justice.

I think that the only trickery I have seen is making the budget look good by selling off material. I am asking you, following up on Mr. McDonald's question, why was it we sold the cobalt, if we did. When did we sell it, and why did we sell it?

Mr. MARKON. This is basically a matter of the establishment of the goals.

Mr. BENNETT. Dr. Morgan may have the answer. Dr. Morgan?

Mr. PENDLEY. We sold 28 million pounds of cobalt at that time.

Dr. MORGAN. Sir, what this reflects are major changes in stockpile planning. If I may briefly review for the committee, stockpiling started in 1939 on a very inadequate basis. The Congress in 1946

enacted the first postwar legislation, which was Public Law 520 of 1946.

At that time stockpile planning was based on a 5-year war period, largely because World War II—if you look from 1939 to 1945—was about a 5-year war period. So stockpile planning was based on a 5-year war period, from 1946 until 1958.

In 1958, stockpile planning, after Presidential review, was reduced to a 3-year planning period.

Now, all other things being equal, the length of the war is the biggest single multiplier——

Mr. BENNETT. There has to be something I don't remember because I thought I read that they got down to a nothing.

Dr. MORGAN. I will get to that in a minute, sir.

In 1958 they went to a 3-year period. In 1973, stockpile planning, again by Presidential directive, was reduced to a 1-year planning base. The 1 year was kept as the planning base from 1973 until 1976.

In 1976, as a result of a review of the entire program, in which several of the people sitting at this table right here participated—Mr. Krueger, Mr. Donnelly and I, at least those three—we persuaded at great length the President, through the OMB and the National Security Council, and everyone else, to return to the 3-year planning period.

President Ford in 1976 put out a directive returning it to the 3-year period. President Carter, when he came in, looked at the stockpile and a year later reaffirmed the 3-year planning period.

This committee and the Congress, in my opinion very wisely, made the 3-year a mandatory planning period in the 1979 act in order to make sure that such wild swings in planning were not possible as they were in the past.

However, going back to 1973, at that time, even at that time, the country was not only broke—any little unsophisticated country can be broke—but the country was deeply in debt.

Mr. MCDONALD. Which country was in debt?

Dr. MORGAN. The U.S.A.

Mr. MCDONALD. We are not in debt today?

Dr. MORGAN. We are more so now, nearly a trillion. It takes a very sophisticated country to get that deeply in debt.

Mr. MCDONALD. Not necessarily sophisticated.

Dr. MORGAN. We also had in 1973 a Government policy of price controls. Therefore, in the period 1973, 1974, having reduced the stockpile planning period to 1 year, this made large statistical excesses.

In a period of only a year or so, they sold as much as $2 billion worth a year of these commodities. That was the time when the cobalt, as was indicated here, on December 31, 1972, they had 68 million pounds on hand, and by December 31, 1975 they had 45 million pounds on hand.

Similarly, they disposed of large quantities of chromium, manganese, aluminum, copper, and a number of other materials.

Now, the $2 billion a year that was realized did go into the Government revenues and the sale of the excess materials did help to maintain the price control and the price stabilization efforts at that time.

However, the effect on the national security was negative, which is why we returned it to the 3-year planning period.

Mr. McDONALD. Excuse me. You said the money went in to help maintain the price controls program. Price controls of what, sir?

Dr. MORGAN. The sales of the excesses helped to maintain the price controls because they took some of the pressure off of rising prices. At that time it was one of the goals of the Government——

Mr. McDONALD. Isn't rising prices in an inflationary period the result of increase of the money supply?

Dr. MORGAN. An increased demand, yes, sir, but the money that was realized went into the Government. It helped to reduce to that extent, however small——

Mr. McDONALD. It helped reduce the increase of the money supply?

Dr. MORGAN. That is right.

Mr. McDONALD. All right.

Could we remove the silver chart just a minute. I want to get back to the cobalt chart, please, Doctor Morgan?

It is amazing that we sold off cobalt. Did we sell off titanium also in that period?

Dr. MORGAN. I don't have those figures with me, but I don't think we sold much at that time. The titanium was a lower grade material in the stockpile—some of the sponge.

Mr. McDONALD. My understanding is that some of that was declared surplus at that time.

Dr. MORGAN. I am sure as we went to the 1-year figure from the three surpluses of almost everything would be indicated.

Mr. KRUEGER. At that time the Government had made some purchases under a program to provide a uniform investment outlook for the titanium industry. Those Government purchases were made with a buy-back provision so that there was a cycle—where some relatively small amounts of titanium did go back to those companies.

Those sales were suspended prior to the announcement in 1976, as we saw the way the stockpile goals would be going. The same thing is true of cobalt, by the way. Those sales were suspended in advance of announcements of new stockpile goals. Other contracts for lead and zinc were canceled.

Mr. McDONALD. In the case, Mr. Markon, of a national emergency of a World War II variety—say not an all-out nuclear holocaust, because then you are going to have to go with whatever is on the shelf, but a World War II variety—how much precious metals do you estimate would have to be on hand in order to purchase critically needed items from, say, quasi-neutral or so-called Third World countries?

In World War II we did have precious metals that we did have to use sort of as a commodity brokerage business. How much do you estimate we would have to have on hand, or does Treasury have any estimates as to how much we would have to have on hand for critical material that could be gained not only as special drawing rights bookkeeping at the World Bank or U.S. paper dollars, but something of fixed understood value.

How much do you estimate we would have to have on hand for that type of need?

Mr. MARKON. I am sorry, Mr. McDonald. I understand your question but this is a little out of my area.

Mr. MCDONALD. Is anyone from the Treasury here?

Mr. MARKON. No, the Treasury is not here. We don't stockpile precious metals for that purpose.

Mr. MCDONALD. Well, as part of the correlary of national defense needs, it falls within that. I asked the question. I wrote a letter to the Treasury and to the DOD, incidentally, about 3 or 4 years ago, and their reply was they could not foresee such a need.

That is amazing because we certainly had that need in World War II. I can perceive a need today far greater than in World War II.

Mr. KRUEGER. In World War II we did not have a stockpile. As part of our stockpile planning, we make those assumptions which would not place us in a position of having to rely on unstable sources of supply.

Mr. MCDONALD. But in World War II we did use precious metals in that instance.

Mr. KRUEGER. Because we did not have a stockpile and had to deal with unstable sources of supply.

Mr. MCDONALD. Since we do not have an adequate stockpile in the United States, we might also have to use precious metals to pay for strategic materials again. That was my point.

What form is the aluminium in the stockpile? Do you have any idea on that?

Mr. MARKON. We have several forms.

Mr. MCDONALD. I know that. I think there are basically two forms.

Mr. KRUEGER. Primarily the largest single amount in the inventory is some 13 million tons of bauxite. There is about 2,000 tons of aluminum metal. We would like to increase the amount of aluminum metal in the stockpile.

Mr. MCDONALD. All right. Now if we were to convert the bauxite, raw tons of bauxite, into aluminum metal, wouldn't that be a gigantic drain on our electrical capacity in this country at a time of emergency?

Mr. KRUEGER. The aluminum industry traditionally uses about 2 percent or 4 percent of the total electric power used in the United States.

Mr. MCDONALD. I understand that, but if you had to rapidly convert the bauxite into aluminum, wouldn't that be a sudden and heavy drain on the electrical capacity of the country? I understand the general routine, but I am talking to the point of converting the bauxite that you are storing into aluminum during peacetime.

I am just curious why that is not being stored as aluminum metal rather than as bauxite.

Mr. KRUEGER. There are two parts to that question. No, there would not be a sudden surge of demand on the electrical industry. We would assume that the normal demands that the aluminum industry makes would continue to be met.

We do see that there is not adequate capacity to provide all of the aluminum; that is adequate capacity to process bauxite, so that in addition to stockpiling bauxite, we do see a need to stockpile

aluminum metal, and we would like to have approximately 700,000 tons of aluminum metal in the stockpile.

Mr. McDONALD. Mr. Markon, in this particular bill, H.R. 2912, is it the intention of the administration that all of the moneys gained would be used to purchase materials for the stockpile and that none of this is designed to go to the general fund to make another downpayment on the sports car?

Mr. MARKON. Yes. The deposit of the money into the national defense transaction fund is required by law.

Mr. McDONALD. I understand that. But is it the intention of the administration that all of the moneys be used to purchase materials for the strategic stockpile and not after a 3-year period revolve into the general fund, which is now allowed by the current law?

Mr. MARKON. Yes, it is our intention to use the proceeds to buy commodities for which there are deficits.

Mr. McDONALD. In the presentation of the administration's budget before the Senate Budget Committee, wasn't there a notation that moneys would be gained for the budget, for the general fund, from the sale of material from the strategic stockpile?

Mr. MARKON. Not that I am aware of, no, sir.

Mr. KRUEGER. One of the problems with getting funds to buy stockpile materials has been the Congress itself—not this committee and those committees interested in national security, but previous administrations have requested approximately $600 million over the last 4 years to purchase stockpile materials.

The Appropriation Committees have been reluctant and have not appropriated funds—they have in fact yet to act on a full appropriations bill. The current sales are under a continuing resolution. So as we in the administration make these requests for budgets, we also have to look at what the Congress has done in the past.

The track record there has not been very good. I understand——

Mr. McDONALD. In the last administration we had a Democratically controlled Congress, pretty overwhelmingly, House and Senate. Certainly we had a Democrat in the White House. I haven't felt any great pressure coming down from the White House to do this. It is rather a matter of form rather than a matter of full intent. Is that a wrong impression?

Mr. KRUEGER. I think there is.

Mr. McDONALD. You think there has been a strong push? I certainly haven't felt it. I haven't seen it.

Let me ask you, Mr. Kreuger, how long have you been in your position?

Mr. KRUEGER. My current position, approximately a year.

Mr. McDONALD. Prior to that, where were you, sir?

Mr. KRUEGER. I have been associated with the stockpile program since 1975.

Mr. McDONALD. You said you have a longstanding commitment to the stockpile. But during those 5 years, 6 years, we have added nothing to the stockpile. Is that correct?

Mr. KRUEGER. Substantially correct.

Mr. McDONALD. Well, are there deviations? I know we have added and subtracted some diamonds.

Mr. KRUEGER. We have added relatively, about a million jewel bearings a year for the past 4 or 5 years. In 1978 the administra-

tion asked for $244 million of appropriations, which the Congress did not grant. That was 1978 and 1979.

For fiscal year 1980, the administration asked for $177 million, which was not granted. For fiscal year 1981 the administration asked for approximately $150 million. The House reduced that to $100 million. The Senate reduced that to $50 million.

It is only because of the continuing resolution that we are spending at the rate of $100 million.

Mr. McDONALD. Well, in my experience—I am no long veteran, this is my 7th year—I have not felt any heavy pressure to really refurbish the stockpile until just fairly recently. I think General Slay has done more to correct that than anyone else I know.

Ms. Hollick, you felt that the foreign policy objectives should be consistent with the stockpile needs of the country. I think in your statement you said something to that effect, that it has been the desire of the State Department to have the foreign policy objectives consistent with our national strategic needs, stockpile needs and so forth.

Ms. HOLLICK. Yes. We seek, in the acquisition and sales from the stockpile, to insure that producing countries and other consuming countries are consulted.

Mr. McDONALD. In the case of Rhodesia, there was a tremendous amount of controversy and discussion on this committee as to whether or not our foreign policy objectives in Rhodesia indeed were remotely consistent with the chrome needs of the West, and I think there was strong feeling raised by members of the committee that our foreign policy objectives did not seem to be consistent with our strategic metals needs, particularly with regard to chrome, which I think is one of those we have some deficiency.

It was always sort of a question mark as to why we were pursuing that policy. In fact, General Slay felt in his briefing that our domestic policy in regard to locking up lands and our foreign policies that had led to problems in Rhodesia, Persian Gulf, and southern Africa, that they were at odds with our strategic needs.

That was the basic thrust of General Slay's briefing. Have you ever seen General Slay's presentation on that?

Ms. HOLLICK. Yes, I have seen parts of it.

Mr. McDONALD. And he went completely counter to your testimony. He said they had been at odds with the strategic metal needs of the country.

Ms. HOLLICK. The testimony that I gave referred to disposals and acquisitions for the stockpile and our efforts to consult in that situation. I think the Rhodesian situation is in a sense unique and a particularly difficult one.

We did, however, in considering foreign policy toward Rhodesia, and the primacy of different foreign policy interests with our economic concerns, carry out extensive studies before implementing that policy.

I also gather that there was no shortage of chromium that resulted from that policy.

Mr. McDONALD. Apparently we do have a shortage. We have had an ongoing shortage. During that time we bought chromium from the Soviet Union. There was evidence that the Soviet Union was

buying it from Rhodesia, salting it down with mud, just plain old dirt, and then selling it to us at twice the price.

Maybe that makes economic sense, but it didn't make a lot of sense to the taxpayers, the ones that found out about it. While there may not have been a shortage, perhaps it seemed to be only by buying it at twice the price from Russia.

I just don't think Russia is a very good source for strategic metals in case of a national emergency.

Ms. HOLLICK. We try to avoid dependence on the Soviet Union.

Mr. MCDONALD. The administration fought heaven and earth to destroy the Byrd amendment, which would allow us to buy materials that came from the Soviet Union from other countries. The administration took exactly the opposite course of what you just said.

Is that a different administration? Is that the answer?

Ms. HOLLICK. Well, certainly this administration is very concerned about dependence on the Soviet Union.

Mr. MCDONALD. That is good. Well, nice to know we have a new ball game here.

I have no further questions at this time, Mr. Chairman.

Mr. BENNETT. All right.

Now, before I announce the next meeting—there has been no decision about the draft of legislation which I have had in my mind. The members of the committee are each going to get a copy of a draft which was prepared for me on the basis of suggestions that I made.

I am just handing it out to you because I don't want you to be surprised if something like that gets enacted. I really don't have a real firm feeling about what ought to be in the legislation. I have a firm feeling that what is before us isn't going to pass in its present form.

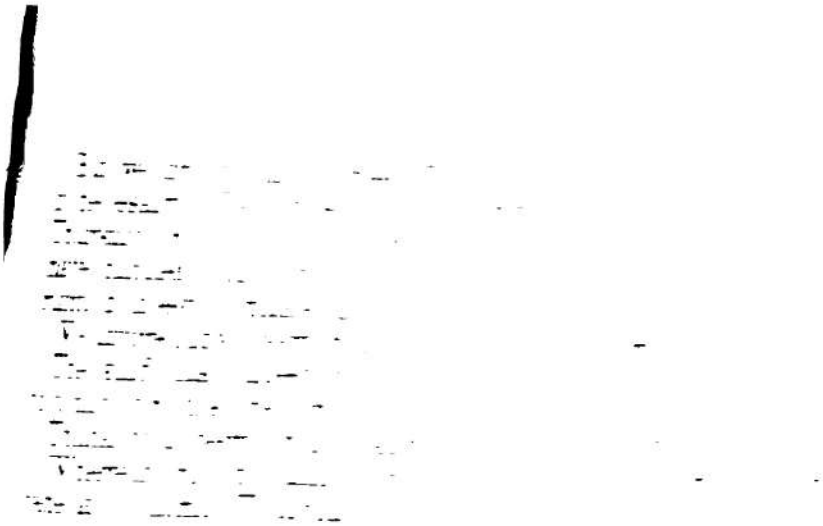
So, we are dealing with futility if we think this bill in its present form is going to pass. The draft that I am giving to each of you might pass. There may be mistakes in it. I am just handing it to you. There is no secret about it.

It is not something I am issuing to the press because there is no consensus even with myself and the staff about it. It is just draft effort to find ways in which we can make something workable for the future.

You might have views on it. Obviously you are not going to like some of it. For instance, we are going to end the provision that transfers moneys remaining in the transaction fund for 3 years to miscellanous receipts of the Treasury. I have never liked this provision. I am very happy that the administration did us in this year, so it gave me a good excuse to get rid of the 3-year thing.

If they had come forth forthrightly, I probably could have found great difficulty in going back on a compromise. But since they, the administration—I am not saying the present administration did it, but the executive branch has made the 3-year thing obviously a futility.

Therefore, it should be eliminated because it never should have been there to begin with. That is one thing I am married to. The rest of it I am not.



HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SEAPOWER AND STRATEGIC AND
CRITICAL MATERIALS SUBCOMMITTEE,
Washington, D.C., Thursday, June 4, 1981.

The subcommittee met, pursuant to call, at 10 a.m., in room 2118, Rayburn House Office Building, Hon. Charles E. Bennett (chairman of the subcommittee) presiding.

Mr. BENNETT. The committee will come to order.

We have before us again this morning the same four bills that we were considering on Tuesday.

The administration bill, H.R. 2912, would authorize disposal of $2.14 billion in excess materials from the stockpile and would authorize appropriations for the acquisition of more desperately needed stockpile material.

Another bill, H.R. 2784, would authorize disposal of all 139.5 million ounces of silver in the stockpile, the same amount as in H.R. 2912.

H.R. 2603 would authorize appropriations for the purchase of silver, platinum, and nickel.

Then there is H.R. 3364 which would establish a national mineral and materials policy and council. Title VII of that bill specifically deals with the national defense stockpile and would mandate that all moneys received from the sale of materials in the stockpile be available for acquisition of strategic and critical material and for no other purpose.

Tuesday the subcommittee received testimony from Congressman Larry McDonald of this subcommittee and from Congressman Dan Marriott from the Subcommittee on Mines and Mining of the House Committee on Interior and Insular Affairs.

The subcommittee also received written statements for the record from Congressman Silvio O. Conte from the Committee on Appropriations and from a former member of this subcommittee, the Honorable Bob Wilson.

Testimony was also received from administration witnesses from GSA, FEMA, and the Departments of Defense, Interior, and State.

This morning the subcommittee will receive testimony from Congressman Jim Santini, chairman, Subcommittee on Mines and Mining of the House Committee on Interior and Insular Affairs; Mr. Simon Strauss, chairman of American Mining Congress Availability Committee; Mr. Sinclair Weeks, Jr., vice president of Silver Users Association; Mr. Paul Sarnoff, of Rudolf Wolf Commodity Brokers; and Rear Adm. William C. Mott, executive director of the Council on Economics and National Security.

We will also receive written statements for the record from Pratt & Whitney Aircraft Group, the Iron & Steel Institute, the Industrial Diamond Association, and the Hecla Mining Co. The record will

remain open until the 8th of June to permit other interested parties to submit statements if they wish to do so.

During the hearing on Tuesday the administration witnesses made the following statements:

* * * the vulnerability of this nation's industrial and defense capabilities to supply cutoffs in strategic and critical materials has become a matter of broad concern.

* * * the present stockpile is badly out of balance. Of the $15 billion of materials presently in inventory, $7 billion are not needed to support national security requirements. The Department of Defense supports prompt disposal of the excess commodities and use of funds derived from sales to acquire needed materials in their proper form and condition.

* * * To fill all of the goals would require purchases valued at about $13 billion. The existing stockpile inventory contains $8 billion in needed materials and $7 billion that are excess to our defense needs."

* * * In a time of budget stringency it is highly important that the critical task of restructuring the National Defense Stockpile be aided by the judicious disposal of materials no longer required for national security needs. It is essential that the transactions fund be utilized on a consistent basis as foreseen in the passage of the 1979 Act.

* * * President Reagan on March 13, 1981, when he directed the first acquisition of strategic and critical materials for the stockpile in over 20 years, clearly emphasized the irrefutable link between adequate emergency stockpiles and national defense preparedness.

But it was obvious from the testimony that the Office of Management and Budget is still calling the shots on the National Defense Stockpile because they are not listening to their experts or heeding their warnings. OMB has other priorities, namely to balance the budget. If this were not the case, they would not have asked for appropriations to purchase only $120 million of critical material while at the same time asking for authority to sell $2.14 billion worth of stockpile assets.

Each subcommittee member has before him a copy of an earlier version of the draft bill which has been submitted to the executive branch for their comments. Although we may not have their formal responses in time, I personally would like to get started on marking up this bill as soon as we finish taking testimony this morning. Or, if we do not finish the testimony before noon we could start working on the bill at 2 p.m. this afternoon. I urge every member to stay with us because we will need your good counsel to resolve the problems before us and, moreover, we will need a quorum to vote the bill out.

This is a highly technical bill. The thoughts in the bill have been before us for some time. A solution is something we have got to find.

Mr. BENNETT. Our first witness this morning is Mr. Santini.

STATEMENT OF HON. JIM SANTINI, A REPRESENTATIVE FROM NEVADA

Mr. SANTINI. Mr. Chairman, I am very pleased to join you and your subcommittee for this very important subject, and one to which you have devoted a considerable amount of your congressional career, and you are perhaps the foremost expert in the House or probably the Congress, and I am pleased to appear before you this morning.

Over the past several years, as chairman of the Subcommittee on Mines and Mining, I have held a number of oversight hearings on this country's nonfuel mineral policy—or lack thereof—and what I

found is truly alarming: We have become increasingly dependent on foreign nations for mineral imports; we have lost a significant portion of our domestic minerals processing capacity; our national defense stockpile is woefully inadequate; and, worst of all, there are no Government officials in the executive branch paying any attention to the overall minerals picture. In short, we lack a coherent responsive national nonfuels minerals policy. Today, these same trends continue, and while we have an administration with an "enlightened" view of strategic and critical minerals compared to its predecessor, we still lack a national nonfuel minerals policy.

On April 30, 1981, I introduced H.R. 3364, the National Mineral Security Act. This legislation embodies what I feel are the essential components of a coherent policy toward nonfuel minerals. H.R. 3364 was cosponsored by several members of your committee, including Chairman Price, and was jointly referred to your full committee. I am confident that you and your colleagues on the Armed Services Committee will give this bill the serious consideration it deserves.

The major provisions of the bill call for:

One, creation of a Council on Minerals and Materials in the executive branch to coordinate and advise on matters of nonfuel mineral policy;

Two, assessment of the mineral potential of the public lands and a fair system for gaining access to the public lands for mineral exploration and development;

Three, reform of the regulatory process that has placed an unfair burden on mineral producers;

Four, revision of the tax laws to assist companies in meeting the capital expenses of equipment required by Government-mandated pollution control laws; and

Five, amendment of the Strategic and Critical Materials Stock Piling Act of 1979 to allow for the purchases of stockpile materials from moneys earned from the sale of surplus stockpile materials without appropriation from Congress.

It is with regard to the stockpile provision of the bill that I would like to focus my remarks this morning. The first point that I would like to make—and I am sure I am not telling the members of this subcommittee anything new—is that the stockpile is a vital link in our defense preparedness.

High-technology weapons are manufactured from modern materials such as superalloys that require inputs of niobium, chrome, cobalt, and titanium—all materials that we import from abroad. In addition, our capacity to produce the most basic defense material—steel—is dependent on large quantities of manganese, while 97 percent of our domestic consumption of manganese comes from imports. Maritime transport alone poses a very serious obstacle for access to critical mineral supplies in time of conflict. For this reason, it is imperative that we have a supply of defense materials in sufficient quantity and of suitable quality to carry us over in a 3-year conventional war. At present we have not met our stockpile goals for most of the strategic minerals.

There is a problem with the way the stockpile is funded at the present time. There are no guarantees that the moneys earned from the sales of surplus materials will be used to purchase new

materials. This means new appropriations are required to finance stockpile acquisitions. Considering the present mood of the Congress and the size of the budget outlays under consideration, new appropriations are not a viable alternative for funding. Revitalization of the National Defense Stockpile is dependent upon making the transaction fund a functional revolving account. Without the revenues from the sales of existing surplus stockpile materials, I see no way in which the National Defense Stockpile can be brought up to par.

In title VII of the National Minerals Security Act I have proposed a provision which will authorize the General Services Administration to purchase stockpile materials with moneys in the transactions fund, without appropriation from Congress. This is the concept of a revolving fund.

Title VII is important for three reasons:

One, it will avoid protracted delays in financing stockpile purchases when market conditions are the most appropriate.

Two, by eliminating the 3-year provision—the "use it or lose it" provision—which says that moneys not spent after 3 years revert to the miscellaneous receipts of the Treasury, we are making sure that money which has been appropriated for the stockpile is not lost to other purposes simply because GSA could not spend the money fast enough.

Three, the title will remove any incentive for the executive branch to dispose of stockpile materials for economic reasons by making the receipts unavailable for purposes other than new stockpile purchases. Passage of NMSA through title VII will demonstrate that the intent of Congress is to maintain a national defense stockpile capable of meeting our defense needs.

Mr. Chairman, I would like to take this opportunity to say a few words about other congressional actions that relate to our wartime minerals needs. First, the House Banking Committee reported out legislation extending the Defense Production Act for 1 year. While I would like to have seen a 5-year extension, I think this legislation is a positive step. The DPA has proved to be an extremely valuable program for meeting our materials needs during the Korean war, and it is a law that we should keep on the books.

Finally, I would like to comment on the Budget Committee's proposed reconciliation measure that might remove money from the transaction fund to the miscellaneous receipts of the Treasury. I strongly support the administration's efforts to reduce Government spending and balance the budget. But I find any measure to balance the budget by selling off the stockpile an abhorrent intrusion on our military capability. To rape the stockpile for economic reasons will place this country in an even more vulnerable minerals posture with serious implications for our "staying power" in a conventional military conflict.

Thank you. I will be happy to respond to any questions.

Mr. BENNETT. I am not going to ask any questions, but I am going to say I do not think anybody has ever made a finer presentation to this committee from Congress on this subject. I think you have a good grasp on everything that needs to be done. I find myself in close accord with everything you have said.

There is a problem with regard to the budget reconciliation which I think probably makes impossible from a practical standpoint your suggestion about using this without appropriations activity by Congress, in this Congress. We have a reconciliation problem which I brought to the attention of the chairman of the full committee at the beginning of the year, but it now is in a position where we would be subject to a point of order, and I doubt if we can get that through, although I think it would be a constructive thrust. We will look at it. If there is some way to do it we will probably do it. I believe most of us would favor that approach, but I doubt you will be able to do that particular thing this year.

Mr. McDonald.

Mr. McDONALD. Thank you, Mr. Chairman.

I appreciate receiving Mr. Santini's excellent presentation this morning.

His efforts along with General Slay's in recent months and years have perhaps done as much as any group to try to bring an awareness to the American people and to this Congress to the critical imbalance and the very frivolous attitude we have had toward our entire strategic materials shortfall.

Mr. Santini, I remember last year I believe you joined with 70 or 80 so other colleagues in a bill actually suggesting the purchase of silver for the stockpile, but in the testimony you submitted to the Appropriations Committee you did mention that it was not just a matter of silver, but many other critical items that the stockpile was short of, sir.

Mr. SANTINI. That is correct.

Mr. McDONALD. Mr. Santini, you are quite knowledgeable, being a member of the Interior Committee, of the lockup of resources as the result of various wilderness acts. For example, there is a cobalt deposit in Idaho which I think is principally locked within a wilderness area. Certainly the degree of mineral wealth in Alaska in view of the mineral belts that come over from Siberia over into Alaska and Canada, how much has been locked up is difficult to say.

We have had manganese deposits as well as cobalt in critical areas which have been locked up in some of the various Government lands and restricted in development to some degree. Some of the restrictions have been massive.

Do you think there could be merit down the line in bringing an awareness to the fact that some of our strategic materials deficit has been created by our own internal policies? I think the basic thrust of General Slay's briefing is that our foreign policy and our domestic land policy frankly have been two policies at odds with our strategic materials policy, and that our foreign policy and our domestic land policies have in many ways exacerbated the deficiencies that we face in the stockpile.

Is this your feeling as well? Do you agree with General Slay to some degree those two policies have contributed to the problems in the stockpile?

Mr. SANTINI. To a degree, I emphatically agree.

Mr. McDONALD. Part of the stockpile problem has been caused by the Federal land policies; the Government now owns more land than exists east of the Mississippi. As you know, the Land and

Water Conservation Fund is authorized to disperse $900 million annually to State and Federal agencies to acquire and develop outdoor recreational facilities. Collections into the fund have averaged over $30 million annually from the sale of surplus property and $800 million from Outer Continental Shelf oil leasing. I understand that the surplus property sales are largely defense real estate property.

According to OMB, over 2 million acres of land have been acquired for parks and recreation since 1965. I have heard that there will be a moratorium on the use of these funds for the acquisition of additional Federal lands.

Do you think there is merit in examining the possibility of using moneys from the Land and Water Conservation Fund to finance the acquisition of some of our more urgent stockpile deficiencies? Because, really, it is part of our own internal land policy that has aided or abetted crime, so to speak.

Mr. SANTINI. I believe that is one proposal that deserves serious consideration. Our legislation suggests a complete review and inventory of the mineral content of the public lands as another rational course of action in response to what has been a one-sided or blind-sighted attitude with regard to minerals in the public lands.

Public lands are, as you aptly described, a significant land base in this country, one third of the United States of America. In 1977 the Department of the Interior reluctantly acknowledged that 68 percent of those Federal lands or almost three-quarters of those Federal lands were off limits to mineral exploration or mineral recovery either in law or in practice, factual consequence.

I think we must take two or three steps back and reexamine what we have done to ourselves as a nation by terminating or cutting off access to the resources on which any traditional industrial nation must rely if they are going to succeed in future generations.

Mr. MCDONALD. I certainly agree with your statement, Mr. Santini, and I also certainly appreciate your comment that really for a number of years we have had administration after administration that has truly raped the stockpile to make the general fund deficit not look so bad. One of the big issues before this subcommittee—no question about it—is the matter of the sale of silver. Regardless of the merits or demerits of that, you cannot help but note that we have sold off a gigantic amount of silver and other national defense stockpile items at rockbottom prices to domestic as well as world users, and the moneys, rather than being prudently placed to pick up the strategic stockpile deficiencies, the money has been dumped into the general fund to make the deficits not look so bad. We are in the mess we are in now, frankly, because of the shortsightedness of people all through a long period of time and to me I think that has been a tragic policy of politics at the lowest level, and I certainly appreciate your mentioning that in your testimony.

I want to thank you for your testimony this morning.

Mr. SANTINI. Thank you.

Mr. BENNETT. Mr. Spence.

Mr. SPENCE. Thank you, Mr. Chairman.

Mr. Santini, in view of what you said, do you not think it would be a good idea to get rid of that 3-year provision that we have that says that if the money is unused in that fund, it goes back into the general fund?

Mr. SANTINI. Yes, I do. I have sponsored legislation which would specifically so provide. I think you are exactly right.

Mr. SPENCE. I appreciate that, and I also want to interject right here and add to what my colleagues have said, my thanks to you for the good work you have done in alerting this country to the very critical position that we are in—if I can use the word critical, again, from the standpoint of critical materials.

Up until just recently, I do not think the American people understood how dependent we were on foreign sources for so many of our materials, that really keeps our basic energy in this country going, not to mention our military.

You have done an outstanding job in that respect. I want to thank you for it and work with you in the future to see if we can help one another more.

Yes, sir, one of the administration witnesses said under title VII of H.R. 3364, there was a restriction on the acquisition moneys of the stockpile and we could not generate any money any other way ouside of that fund. Do you agree with that?

Mr. SANTINI. I do not accept that construction of title VII. I believe if there is any question of ambiguity about our legislative intent in that regard, we could eliminate any question by further emphasis on the fact that we certainly have no such intent and do not believe that is part of title VII.

Mr. SPENCE. A good point. I think we have to work on that a little bit, too, because that misconception is abroad in the land, I think.

In 1980 the Commodity Credit Corporation, I understand, sold about $21.4 million worth of agricultural commodities to Zaire. Of course, Zaire had a surplus of cobalt. This sale was on long-term credit arrangement. I was wondering if we could not barter some of our commodities that way with Zaire for cobalt rather than enter into these long-term credit arrangements.

Mr. SANTINI. Mr. Spence, that is an excellent suggestion. I concur wholeheartedly with the general thrust of your proposition, and your citation was 1980, $21.4 million sale to Zaire.

The Russians again, are sort of in the forefront of trying to educate the free world and the free enterprise system about how it goes when you play hardball.

Last year they executed a contract for cobalt with the neighboring state of Zambia, a contract that included a reference to cobalt. It was an arms sale agreement with the Zambians for something in excess of $81 million worth of arms. The reductions used an interesting provision in the contract that held their cobalt as collateral for the arms sale deal so that, in effect, if push came to shove and they wanted to call up the payment under their arms deal they could hold hostage the critical resource of cobalt in the nation of Zaire. Mr. McDonald observed earlier about how our foreign policy and our domestic lands policy is at odds with the national interest.

I think if we could just learn and educate ourselves from the lessons that our dear friends in the Soviet Union are trying to

teach us out there in the real world we could improve both our foreign policy and our domestic land policy.

Mr. SPENCE. Then you can use the one about chrome from the former nation of Rhodesia and how the Russians worked that deal.

I do think we are going to have to wake up to the realities of life in dealing with this world. The Russians have arrived there some time ago.

As a matter of fact I think Mr. McDonald said yesterday, he quoted what Brezhnev said in 1977, that the aim of Russia was to deprive the West of our two great treasure houses, the critical materials treasure house of Africa and the energy treasure house of the Persian Gulf.

In the news they are making right now in Afghanistan and in other areas and then in Africa, and how they are working with these countries, they are doing all they can to deprive us eventually of these critical-material sources. If we cannot see that, we are just like blind kittens before they are old enough to see. We have to do something to live in a realistic world.

Again I want to thank you for your contribution.

Mr. SANTINI. Thank you for your very well-taken observations.

Mr. BENNETT. Are there other questions?

Thank you very much for a very splendid presentation.

STATEMENT OF SIMON D. STRAUSS, CONSULTANT FOR ASARCO, INC., AND CHAIRMAN, AMERICAN MINING CONGRESS AVAILABILITY COMMITTEE

Mr. STRAUSS. I am Simon D. Strauss and I appear before the committee as chairman of the Minerals Availability Committee of the American Mining Congress, a trade association, to discuss H.R. 2912, a bill to authorize acquisition and disposals of materials in connection with the national defense stockpile. I am consultant to and formerly vice chairman of ASARCO, Inc., a company engaged in the production of minerals in the United States with significant interest in mining in Australia, Canada, Mexico, and Peru.

My testimony will deal with subparagraph (7) of section 3 of the bill, which would authorize the disposal of 139,500,000 ounces of silver. The administrative agencies have determined this to be excess to the current requirements of the stockpile, which they have set at zero. The bill also proposes disposing of certain other materials, but in each case there remains a stockpile objective for these other commodities. Only in the case of silver is it proposed to dispose of all holdings based on a finding that silver will not be needed in a future defense emergency.

The administrative agencies concerned have previously established zero stockpile objectives for other commodities—notably aluminum, copper, lead, nickel, and zinc. All holdings of aluminum, copper, and nickel, most of the zinc, and about half of the lead held by the Government were sold during the period 1963–75. Subsequent reappraisal of defense requirements resulted in the establishment of new stockpile objectives for these materials.. The most recent stockpile report to the Congress by the Federal Emergency Management Agency—that for the period April to September 1980—shows huge deficiencies in the inventories of these metals as compared with objectives. They can only be met by using taxpayer

funds to acquire the commodities at prices far in excess of those realized on previous stockpile sales.

I suggest that before this committee accepts a zero stockpile objective for silver it carefully consider whether the experience in other commodities may not be repeated with silver.

In a document entitled "Questions and Answers—National Defense Stockpile" FEMA dealt with the silver issue. It stated that U.S. production is in excess of defense needs; that United States and Canadian production is sufficient to cover all defense wartime needs and essential civilian requirements with provision for most general needs, and that United States, Canadian, and Mexican imports alone could supply 120 percent of U.S. wartime needs. It analyzed other aspects. In response to a question regarding silver being used for "copper bars in World War II" the explanation was that at that time silver was surplus to U.S. needs while copper was in short supply.

Dealing with this last point first, as of December 31, 1941, the U.S. Treasury held 3,346,600,000 ounces of silver—accumulated as a result of the Silver Purchase Act of 1934. This is more than 20 times the amount of silver now held by the defense stockpile.

Thanks to the existence of these large Treasury holdings, during the war 900 million ounces of silver was furnished to Government defense plants as a substitute for copper; 411 million ounces was furnished to U.S. allies on a lend-lease basis to mint silver coins used to bolster civilian confidence in currencies at a time of war fears in inflation; and 135 million ounces was sold under the Green Act for War Production Board allocations to industry. In addition, then current production from mines in the United States, Canada, Mexico, and elsewhere was required to satisfy silver demand.

FEMA believes that silver will not be needed as a substitute for copper in a future emergency. What assurance is there that in an emergency copper will not again be in short supply? The copper stockpile contains only 29,000 tons against an objective of 1 million tons. A major domestic processing facility in Montana has closed and domestic mine production is now being exported in large amounts for processing in Japan. The country will have to scramble to meet defense copper demands and may well desire to substitute silver for copper once again.

Despite an increase in Canadian silver production in recent years, aggregate North American mine production of silver in 1980 was substantially less than in 1941—122 million ounces in 1980 against 173 million ounces in 1941. This is the aggregate of United States, Canadian, and Mexican mine production of silver. While Canada and Mexico are good neighbors, no automatic assumption can be made that silver output from these countries will be entirely available to the United States. The country has learned that it cannot make such an assumption with respect to oil.

None of the silver uses that proved so important in World War II has been eliminated. New uses have emerged—notably the expanded requirements for silver in storage batteries, an application which has been featured in space vehicles.

A civilian cannot pose as a military expert. Any future defense emergency may differ materially from World War II. Yet as one examines the stockpile objectives for other materials, one cannot

help but feel that silver has been looked at in a different perspective precisely because it is so readily salable and because its price is high by historic standards.

To cite an example—consider zinc. The zinc objective prior to 1963 had been as high as 1,500,000 tons. Then it was reduced to zero and most of the holdings of zinc—which had reached 1,580,000 tons—were sold. Later the stockpile managers had second thoughts. Today the objective for zinc is 1,425,000 tons, but the stockpile contains only 376,000 tons.

Now the curious thing about zinc is that, like silver, most U.S. zinc imports come from Canada and Mexico. Why, if the proximity of these two sources for silver gives assurance that no stockpile of silver is needed, does the Government feel that it must have all that zinc? The largest direct military use of zinc used to be in shell and cartridge cases, but in many instances these have been replaced by steel.

To save the committee's time, I am submitting for the record an appendix with a brief analysis of the ups and downs of stockpile targets for aluminum, copper, lead, nickel, zinc, and cobalt. The validity of the zero stockpile objective for silver in the light of the history of these other case studies seems questionable. Silver is readily salable. Some silver producers even express the feeling that the industry might be better off if the stockpile were liquidated so that this sword of Damocles would no longer be dangled over the silver miner's head. But your decision should be made not on the basis of the interests of silver producers or silver consumers but on the basis of the public interest.

Mr. Chairman, this committee has given me the opportunity on many previous occasions to appear before it to discuss stockpile legislation. The American Mining Congress has tried to maintain a consistent and evenhanded approach to this matter. It has strongly endorsed the bill introduced by Senator McClure in 1977 to provide guidelines for the establishment of stockpile goals in a manner that would eliminate the erratic pattern that has characterized the program in recent years. I personally have been involved with the stockpile issue since my Government service during World War II. In my judgment to liquidate the silver stockpile would be an opportunistic move that would be later regretted.

Thank you for permitting me to appear before you once again.

Appendix to Statement

Copper.—Early in the stockpile program the copper goal was set at 3,500,000 tons but by 1963 this had been reduced to 775,000 tons and in 1973 it was completely eliminated. At the end of 1962 the stockpile contained 1,135,000 tons; by the end of 1972 this had been cut to 259,000 tons and in 1973 and 1974 substantially all of this was sold. A fresh look in 1976 caused the Committee to reestablish a copper goal. Currently this is 1,000,000 tons.

Aluminum metal.—In addition to bauxite, the ore from which aluminum is obtained, the stockpile early included a goal for aluminum metal. In 1954 it reached a peak of 2,500,000 tons. By 1963 this goal had been cut to 450,000 tons and in 1972 the goal was completely eliminated. At one time the stockpile contained 1,270,000 tons of aluminum. All of this was subsequently sold. As a result of the re-evaluation of 1976 and subsequent years, there is currently a goal of 700,000 tons with none on hand.

Nickel.—By 1952 the stockpile authorities decided the desired holding was 450,000 tons. This was reduced to 50,000 tons in 1963 and eliminated in 1971. As of December 1962 the stockpile held almost 220,000 tons of nickel—all of which was sold prior to 1972. The current objective for nickel is 200,000 tons.

Lead.—Stockpile goals for lead were successively increased to reach a peak of 1,154,000 tons in 1956. By 1963 the goal was entirely eliminated. At the end of 1962 the stockpile held 1,385,000 tons—somewhat above the maximum objective. Periodic sales have reduced this to about 600,000 tons. Meanwhile, the inter-agency committee has changed its mind and currently believes the goal should be 1,100,000 tons—or close to the previous peak and well in excess of current holdings.

Zinc.—Stockpile goals for zinc have followed a similar pattern to lead. The previous maximum objective was 1,500,000 tons, set in 1950. By 1963 this had been reduced to zero. At the end of 1962 the stockpile actually held 1,580,000 tons—or more than the peak objective. Sales have whittled this down to the present holdings of 372,000 tons. Meanwhile there has been a complete reversal of position on zinc and the current goal is 1,425,000 tons.

Cobalt.—The goal for this strategic material has never been completely eliminated but it was greatly reduced from the peak of 129,000,000 pounds set in 1955, to 11,945,000 pounds by 1973. As a consequence of the holdings of about 100,000,000 pounds on hand at the end of 1963, some 60,000,000 pounds was sold at prices ranging $2 to $4 a pound. The political upheaval in Zaire caused some rethinking as to cobalt goals, which now stand at 85,400,000 pounds. In announcing resumption of stockpile purchases, the Federal Emergency Management Agency stated that the first program would be to acquire 1,200,000 pounds of cobalt. The current price is $20 a pound, five to ten times the price realized on stockpile sales.

MINE PRODUCTION OF SILVER

[Thousands of ounces]

	1938	1939	1940	1941	1977	1978	1979	1980
United States	71,689	63,872	68,287	71,076	38,166	39,385	38,055	32,000E
Canada	22,219	23,163	23,834	21,755	42,236	40,733	38,068	40,000E
Mexico	81,019	75,871	82,640	78,364	47,030	50,779	49,310	50,000E
Newfoundland [1]	1,664	1,421	1,494	1,657				
Total	176,591	164,327	176,255	172,852	127,432	130,897	125,433	122,000E

[1] In 1938–44 Newfoundland was not part of Canada.

Source: U.S. Bureau of Mines.

Mr. McDONALD. I particularly appreciate your comment about the inconsistency of the stockpile planners, about the thesis that we can depend automatically upon Canada and Mexico and about treating silver different than other elements in the stockpile. You mentioned zinc.

When I testified on Tuesday I pointed out the Wall Street Journal article that came out June 1, the day before, citing the fact that Canadian policy has turned somewhat toward the anti-American phase of the current administration, particularly with regard to what the Canadians feel to be the American exploitation of Canadian assets. You have to be pretty blind or you have to be not reading newspapers nowadays to see that that is a distinct turn in Canadian affairs. I appreciate your testimony on that.

Of course with the changing events in Central America that have taken place, unfortunately aided and abetted by some of our foreign policies, the certainty of assets to the south I think is no longer a sure thing. I appreciate your mentioning that in your testimony.

You did bring up an interesting point about the vacillation of the stockpile requirements over the years. You mentioned aluminum, copper, lead, zinc, and nickel, but I think at one time they also had a dramatic reduction in cobalt, and here we are again trying to buy cobalt.

Mr. STRAUSS. That is correct, and in the appendix I have attached to my statement I point out at one time the cobalt stockpile

at the end of 1963 amounted to about 100 million pounds. Between 1963 and 1976, almost 60 million pounds of cobalt were sold because of reductions in the cobalt objective.

I took a 6-month period at random from the reports of the General Services Administration. The 6-month period I chose was the period from July 1 to December 31, 1969. In that period, as I recall it, the Government sold 6.5 million pounds of cobalt out of the stockpile. They realized an average price of a little over $2 a pound. The proceeds were about $14 million from the sale of this 6½ million pounds.

One of the consequences of those Government stockpile sales was to discourage the continued operation of the only cobalt mine in the country which was then operating. The Blackbird mine in Idaho shut down because the price was being held down by stockpile sales.

In 1977 as we all know there was trouble in Zaire and as a consequence of that the world cobalt market went wild. As a result of facing up to facts of the political instability in Central Africa, the stockpile objective for cobalt was then increased to its present level of about 85 million pounds. As a result there is a deficiency of over 40 million pounds. The very first move that the Federal Emergency Management Agency has announced in connection with building up the stockpile is the purchase of 1,200,000 pounds of cobalt. They are negotiating currently for that. I do not know what price they are going to pay. The quoted price for cobalt is $20 a pound. There is some dealer material available at $18 a pound. Using the $20 a pound price, that would mean they would spend $24 million to get 1,200,000 pounds, after having sold 11 years ago 6½ million pounds for $14 million.

Now this kind of experience with the stockpile has caused our group to feel there is something wrong with the procedures that have been followed in the past for setting stockpile objectives. They have just been too erratic, they have been changed, and very often we have the feeling they are changed for reasons having nothing to do with military necessity.

I have to say, and I am sorry to say this, because I do not like to question the motives of Government servants, but I have to say I cannot understand the rationale which resulted in the establishment of a zero stockpile for silver. I simply do not understand it in the light of our heavy dependence on silver for many military items.

Mr. McDonald. Speaking personally I tend to agree that the motive deals with something other than the national defense needs. If you go back to the Vietnam period or the World War II period and would you say today, in an increased electronic environment, increased technology with regard to the general population, the level of industry as well as the military sophistication, that the need for silver increases or decreases under that change?

Mr. Strauss. I believe it increases. I will read from the 1944 edition of the Minerals Yearbook, published by the U.S. Bureau of Mines. This is what was said in 1944 about silver:

"War and other essential uses consumed an estimated 80 million to 85 million ounces of silver in 1944."

That is war and essential uses, not civilian.

"Solders and brazing alloys used extensively in almost all important military equipment occupied first place."

That would still be true today.

Following closely for war purposes were photographic application, electric appliances, engine bearings, military insignia, desalinization equipment, dental and medical supplies. Consumption declined in civilian uses and also in low-melting solders.

Now Congress spent something like 8 months in 1942 and 1943 trying to wrestle with the silver problem, and they enacted something called the Green Act, which made silver available to industry, and it was a highly debated point.

Well, here is a statement that Secretary Morganthau made late in 1944 regarding uses of Treasury silver, in that one year. He says, "Under lease arrangements for nonconsumptive uses in war plants, 903 million ounces"—It was a substitute for copper, and copper was in very short supply.

"Supply to various governments under lend lease for coinage and other uses, 243,700,000 ounces."

That was in one year. The total during the entire war period was over 400 million ounces.

Sold from silver stocks to industrial uses, 5 million ounces.

Sold under the Green Act, 41 million ounces.

For coinage in silver nickels, 33,600,000 ounces.

Silver was used then—it is hard to believe that, today—as a substitute for copper and nickel because copper and nickel were so short.

The point is that we do not know that we are going to have all the copper and nickel we require in wartime. We may have reasons to be glad to have a small stockpile of silver, and this 139 million ounces is very small in relation to the 3 billion ounces the Treasury had at the start of World War II. To use in certain applications as a substitute for copper, again.

Mr. McDONALD. Within the industry there is a degree of ambivalence toward the sale of silver. There is a segment totally frustrated with the ups and downs over the years who would say sell it, get rid of it, and let us get off the discussion, and then we will at least have a free market situation and then we can have a long-range plan, rather than having the Government policy of selling and so forth.

Mr. STRAUSS. It happened yesterday I had lunch at the Mining Club in New York and I ran into the president of one of the major silver producers——

Mr. BENNETT. We will recess for the purpose of voting.

[Recess.]

Mr. BENNETT. We will let Mr. Strauss complete his answer, and then we will let Mr. Spence inquire.

Mr. STRAUSS [continuing]. Major silver producers, and he said precisely what Congressman McDonald is referring to. He said why go down and oppose the sale of this silver, let us get it out of the way.

So there are people in the mining industry who do feel that way.

Mr. McDONALD. It is not with regard to what is best for the Nation, but let us get it so it is no longer an overhang over the day

we are going to sell it and not sell it, so we can then get on with long-range mining plans.

From a parochial interest to the miners they would like it in certain segments, is that your understanding?

Mr. STRAUSS. That is correct.

Mr. BENNETT. Are there further questions?

Mr. Spence.

Mr. SPENCE. I have no questions.

Mr. BENNETT. Do you know of anybody who does, outside of the Government, take a position that silver ought to be sold?

Mr. STRAUSS. I think you will hear from at least one witness to that effect, sir.

Mr. MCDONALD. On that one point, there is in fact a tremendous demand for silver in not only the domestic but the world market; is that not correct? For example, the Soviet Union even though it produces silver is also a buyer—there is a tremendous world demand and there is a very active effort in this country by the silver users—Eastman Kodak, photographic groups, silver manufacturers—there is a big group that is anxious for the sale of silver; is that not correct?

Mr. STRAUSS. I think they will express their own views on that. Yes, there is such a group. The world use of silver for industrial purposes has been increasing steadily over the years up until last year when the sharp rise in silver price tended to reduce some of the uses of silver. There was a drop in consumption last year in this country.

With regard to the Soviet Union, it has been reported that they have been importing silver recently. They are large producers of silver. What they use it for we do not know, or at least I do not know.

Mr. MCDONALD. Dr. Strauss, we import now what percent of our silver?

Mr. STRAUSS. The figures are very erratic from year to year.

Mr. MCDONALD. Generally speaking. Last year was a major aberration.

Mr. STRAUSS. If you take our consumption, say 150 million ounces, as sort of a target figure, I would say our imports would average about a third of that.

Mr. MCDONALD. Thank you.

No further questions, Mr. Chairman.

Mr. BENNETT. There are no further questions. We appreciate, Dr. Strauss, your being with us.

Mr. BENNETT. Next we have Mr. Sinclair Weeks, Jr., president, Reed and Barton Silversmiths, and vice president, Silver Users Association.

STATEMENT OF SINCLAIR WEEKS, JR., PRESIDENT, REED & BARTON SILVERSMITHS, AND VICE PRESIDENT, SILVER USERS ASSOCIATION, ACCOMPANIED BY WALTER L. FRANKLAND, JR., EXECUTIVE VICE PRESIDENT, SILVER USERS ASSOCIATION

Mr. WEEKS. Mr. Chairman and gentlemen, I have with me Mr. Walter Frankland, Jr., who is the executive vice president of the Silver Users Association. As Dr. Strauss says, there is a group in

America that is interested in the disposition of silver. In our testimony I will try to explain our position.

We appreciate the opportunity to appear today to express the views of the members of the Silver Users Association (SUA) in support of H.R. 2912 and H.R. 2784, which would authorize the release of 139.5 million ounces of silver from the national stockpile and provide funds for the purchase of items needed for the stockpile. SUA opposes H.R. 2603, which would authorize the purchase of approximately 11 million ounces of silver for the stockpile.

The Silver Users Association is composed of manufacturers which use silver in the production of photographic film, electrical appliances and contacts, silverware, fabricated industrial products, commemorative art, jewelry, and medical supplies. It is estimated that members of SUA consume approximately 80 percent of the silver used in domestic manufacturing. A list of the current membership is attached as enclosure A to this statement. A fact sheet explaining in more detail the purpose of the Silver Users Association is at enclosure B.

SILVER USERS ASSOCIATION SUPPORTS SILVER SURPLUS SALES

SUA takes no position on the size of the stockpile goal for silver, noting that previous emergency requirements for this metal were dictated by monetary needs. What we do encourage, then, is that the amount of silver determined to be surplus to defense requirements be returned to the market from which it originally came. For more than 8 years, silver in varying amounts has been declared surplus by four different administrations, including the current one. The Strategic and Critical Materials Stock Piling Act specifically provides that commodities declared surplus are to be made available to the market "with due regard to the protection of the United States against avoidable loss * * * and the protection of producers, processors, and consumers against avoidable disruption of their usual markets * * *"

Mr. Chairman, we request that additional material be received for the record as relevant to the SUA position. I refer to enclosure C, entitled "Background on Domestic Silver," and its attachments.

GAO REPORT CONFIRMS ZERO SILVER GOAL

At the request of the Senate Subcommittee on Military Construction and Stockpiles, the Comptroller General of the United States was asked to study national defense requirements for a silver stockpile. That report, LCD-79-410, dated April 10, 1979, has been issued. It confirms that the methodology used by the Federal Preparedness Agency and its successor agency, the Federal Emergency Management Agency, is a "reasonable approach" to this form of economic analysis and that "current information indicates that the silver supply exceeds projected wartime requirements." The report substantiates the position of the Federal Preparedness Agency that the stockpile goal for silver should remain at zero. The GAO analysis goes even further in stating that, "* * * defense tier requirements could be met by U.S. production alone."

Mr. Chairman, we submit that the report by GAO should help relieve the concerns of those who might question the zero stockpile

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Mr. STRAUSS. That is…

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Mr. SPENCE. I have no qu…

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…he stockpile, silver has its …opposed to distant shores where …in emergencies. It should be …the United States, Canada, and …15 million ounces annually. The …here supplies an additional 60 million …making a total of about 175 million …demand of about 118 million ounces …that this raw material would be …cited production does not include …States annually from coins and …which in 1980 was estimated unusually …The annual average amount of …during the last 5 years has been 70

…SILVER AUCTIONS BY GSA

…is being placed on strengthening de…ment spending, and lowering taxes, it is …to authorize the sale of surplus silver …be used for purchasing items needed to …The Association, therefore, urges ap… silver to the market as soon as …the disposals be made in a manner …conducted by the General Services Admin… 1967–1970. We suggest that weekly …between 500,000 ounces and 1 million …should be reminded that at current silver …surplus silver is about $1.4 billion. The …cost while carrying this surplus silver …It would seem that in these times of …government, maintaining materials …requirements is not in the best interest of the …needed for the stockpile.

…Could I ask a question at this point?

…You may.

…You say a cost of $600,000 a day. Which category …for that?

…That applies, Congressman, to the lost opportunity …interest rates.

…Lost opportunity cost. That is, if you invested …at current interest rates you would gain that interest

…If $1,400 million were released by the sale of silver …this money was not required for the general fund or otherwise …purchase materials for stockpile, and in obtaining this money …Government had to go to the marketplace to borrow, this would …the cost in interest of this amount of money, right.

GOVERNMENT SALES WOULD IMPROVE BALANCE OF PAYMENTS

For many years prior to 1968, the United States was [illegible] importer of silver in amounts between 50 and [illegible] 1968, due mainly to the highly speculative [illegible] United States was a net exporter of [illegible] supplies be made available from Government [illegible] imports would be reduced. At the current [illegible] price of about $12.50 per ounce, the cost of silver [illegible] million ounces would be approximately $65 million. [illegible] cent increase in price, the cost of silver [illegible] ounce rate would be about an additional $6 [illegible]

goal for silver. We would urge, too, that the GAO report be made a part of the record of these hearings.

MAJOR SILVER SOURCES ARE IN WESTERN HEMISPHERE

Unlike many other commodities in the stockpile, silver has its origin in and near this country as opposed to distant shores where availability might be troublesome in emergencies. It should be emphasized, Mr. Chairman, that the United States, Canada, and Mexico together produce about 115 million ounces annually. The balance of the Western Hemisphere supplies an additional 60 million ounces of new production, making a total of about 175 million ounces. For an annual current demand of about 118 million ounces in the United States, it is evident that this raw material would be accessible in an emergency. The cited production does not include silver recovered in the United States annually from coins and other forms of usable scrap, which in 1980 was estimated unusually high at some 90 million ounces. The annual average amount of domestic silver from this source during the last 5 years has been 70 million ounces.

SUA CALLS FOR SILVER AUCTIONS BY GSA

At a time when emphasis is being placed on strengthening defense, cutbacks in Government spending, and lowering taxes, it is appropriate for the Congress to authorize the sale of surplus silver and permit the revenue to be used for purchasing items needed to bolster the defense stockpile. The Association, therefore, urges approval of legislation to release silver to the market as soon as possible. We advocate that the disposals be made in a manner comparable to the sales conducted by the General Services Administration during the period 1967–1970. We suggest that weekly auctions be in amounts between 500,000 ounces and 1 million ounces. The Congress should be reminded that at current silver prices, the value of the surplus silver is about $1.4 billion. The interest as a lost opportunity cost while carrying this surplus silver is more than $600,000 per day. It would seem that in these times of high inflation, and expensive government, maintaining materials surplus to defense requirements is not in the best interest of the taxpayers while items are needed for the stockpile.

Mr. McDONALD. Could I ask a question at this point?

Mr. BENNETT. You may.

Mr. McDONALD. You say a cost of $600,000 a day. Which category did you give for that?

Mr. WEEKS. That applies, Congressman, to the lost opportunity cost in interest rates.

Mr. McDONALD. Lost opportunity cost. That is, if you invested $1.4 billion at current interest rates you would gain that interest rate.

Mr. WEEKS. If $1,400 million were released by the sale of silver and this money was not required for the general fund or otherwise to purchase materials for stockpile, and in obtaining this money the Government had to go to the marketplace to borrow, this would be the cost in interest of this amount of money, right.

Mr. McDONALD. The amount of money lost to the American taxpayers by selling silver at, say, $1.29 an ounce when the current price is around $10 an ounce, would you say that the American taxpayers had a loss in terms of multiples of billions of dollars during that selloff?

Mr. WEEKS. Are you saying there is a loss when it costs $1.29——

Mr. McDONALD. We sold it at $1.29 to basically silver users, and now the price is about $10. My point is that Mr. Conte, I believe, last year used a figure of about $350,000 a day as the amount we are losing every day. Well, that is kind of extrapolated out into the stratosphere, and I do not think we figure things that way, and it is a big figure, that $600,000, but if you want to play that game it looks like someone could say that the American taxpayers were raped to the tune of $15 billion or $20 billion by selling off an asset that today is worth $10 and more an ounce when in fact it was sold off at $1.29 or below an ounce.

Mr. WEEKS. If you could go back to 1967, Congressman, when this program began and predict what the price of silver would be in 1981, we would all be remarkably clairvoyant.

Mr. McDONALD. Some did make that prediction, sir. Some made it very clearly. Some were absolutely laughed at when they spoke of $8 and $10 an ounce silver. I mean just ridiculed. These people not only were clairvoyant, but they wrote in 1967 and 1968 precisely that. But brother, were they ridiculed. No one is laughing now.

Mr. WEEKS. May I continue, Mr. Chairman?

Mr. BENNETT. Yes.

Mr. WEEKS. Rationale for the SUA position supporting legislation which calls for the release of surplus silver from the stockpile may be summarized as follows:

By National Security Council criteria, 139.5 million ounces of silver have been declared surlus to defense needs.

With the current market price for silver the sale of Government silver would mean increased revenue for the purchase of high-priority items critically needed for the defense stockpile.

Government silver made available to the market would meet a portion of domestic requirements, thus lessening the need for imports.

Additional supplies to the market of usable metal would be in the best interests of millions of Americans who consume products using silver—photographic, electrical, silverware, and medical and dental supplies.

GOVERNMENT SALES WOULD IMPROVE BALANCE OF PAYMENTS

For many years prior to 1980, the United States had been a net importer of silver in amounts between 50 and 75 million ounces. In 1980, due mainly to the highly speculative silver market, the United States was a net exporter of 2.2 million ounces. Should supplies be made available from Government stocks, the need for imports would be reduced. At the current year-to-date average price of about $12.50 per ounce, the cost of silver net imports of 50 million ounces would be approximately $625 million. For every 10-cent increase in price, the cost of silver imported at the 50-million-ounce rate would be about an additional $5 million per year.

GOVERNMENT SILVER SALES WOULD MEAN FUNDS FOR STOCKPILE PURCHASES

At current prices, the revenue to the Government would be about $10.65 per ounce. With an average price of $10.65 per ounce, the full stockpile release of 139.5 million ounces would realize a profit to the Government of about $1.3 billion. The latter figure takes into consideration the $1.29 per ounce inventory value assigned to stockpile silver.

These additional funds would be available for use in purchasing needed stockpile items, many of which are from politically sensitive areas overseas. As of December 30, 1980, some of those items reported by the Federal Emergency Management Agency as deficient include: aluminum oxide, bauxite, cobalt, columbium, cordage fiber, fluorspar, manganese dioxide, medicinals, nickel, platinum group metals, rubber, tantalum, titanium, and vanadium.

SILVER EXPERIENCED SERIOUS SPECULATIVE PRESSURES

Since the last stockpile hearings, the silver market has experienced very volatile market conditions. The Handy & Harman price for the metal reached $48 per ounce on January 21, 1980, in New York City from a low of $5.96 a year earlier. By March 27, 1980, the low for the year was marked at $10.80 per ounce. The price lately has been in the $10.30 to $11.25 range. Difficult times have been experienced by many industrial silver users; however, if anything came across clearly from these transactions, it was that silver supplies will be adequate for many years to meet industrial needs, including those with defense requirements.

ADDITIONAL SUPPLIES OF SILVER

It should be pointed out that besides the silver held in the stockpile, there are large amounts of above-ground metal in this country. In an extreme emergency not covered by defense plans, much of this silver would be available. The stocks include: 39 million ounces in the Treasury stocks for coinage; 30 million ounces held by industry; 4.5 million ounces in Defense Department stocks for contracts with Government-furnished material provisions. And this, I understand, is listed primarily as bullion. If you included scrap and bullion it would be closer to 10 million ounces.

Another area is the 100-plus million ounces in Commodity Exchange of New York City (COMEX) and Chicago Board of Trade warehouses.

An estimated 250–900 million ounces in 90 percent U.S. silver coins held by citizens.

An undetermined amount of silver in ingots held as investments by citizens and institutions.

REDUCED MX MISSILE REQUIREMENTS FOR SILVER

In closing, Mr. Chairman, perhaps one other reference should be made to the GAO report on silver. To correct information distributed by those interested in higher silver prices, the reference to the MX missile program is quoted as follows:

Substituting lithium thionyl chloride for silver in MX missile system batteries virtually eliminated the systems requirement for approximately 35 million troy ounces of silver. System silver requirements are now estimated to be about 1 million troy ounces maximum. However, it should be noted that requirements of the MX system and the substitution previously mentioned never affected the silver stockpile. Essentially, commodities are stockpiled by the United States to meet projected requirements for the first 3 years of a conventional war. The requirements of the nuclear MX would not be reflected in stockpile goals and objectives.

In summary, Mr. Chairman, we believe the case for authorizing the disposal of silver surplus to defense needs is clear-cut and in the national interest. We urge early action on this important matter. The stockpile is short of critically needed commodities and the sales would provide the funds required for some of these purchases.

Thank you.

[The following information was received for the record:]

SILVER USERS ASSOCIATION,
Washington, D.C., June 4, 1981.

Hon. CHARLES E. BENNETT,
Chairman, Subcommittee on Seapower and Strategic and Critical Materials, House of Representatives, Washington, D.C.

DEAR CONGRESSMAN BENNETT: As requested during the testimony this morning, I am enclosing a list of the members of SUA which was requested by Congressman McDonald.

In addition, I am providing some supplemental background material which SUA would request be made a part of the record for the hearings on H.R. 2912.

Again, we thank you and the subcommittee for the opportunity to present the position taken by industrial users on the stockpile.

Sincerely,

WALTER L. FRANKLAND, Jr.,
Executive Vice President.

SILVER USERS ASSOCIATION MEMBERS

PHOTOGRAPHIC MATERIALS

E. I. du Pont de Nemours & Company, Inc.—Wilmington, Delaware.
Eastman Kodak Company—Rochester, New York.
Minnesota Mining & Manufacturing Company—St. Paul, Minnesota.
Peerless Photo Products—Shoreham, New York.
Polaroid Corporation—Cambridge, Massachusetts.
Polychrome Corporation—Clark, New Jersey.
Powers Chemco, Inc.—Glen Cove, New York.
Rhone-Poulenc Systems Company—Parsippany, New Jersey.

SILVERWARE

Gorham Division of Textron, Inc.—Providence, Rhode Island.
The Kirk-Stieff Company—Baltimore, Maryland.
Lunt Silversmiths—Greenfield, Massachusetts.
Oneida Limited—Oneida, New York.
Reed & Barton Silversmiths—Taunton, Massachusetts.
Tiffany & Company—New York, New York.
Towle Manufacturing Company—Newburyport, Massachusetts.
Wallace Silversmiths—Wallingford, Connecticut.

COMMEMORATIVE AND COLLECTOR ARTS

Medallic Art Company—Danbury, Connecticut.

FABRICATED AND INDUSTRIAL PRODUCTS

Engelhard Industries—Iselin, New Jersey.
Handy & Harman—New York, New York.
J. W. Harris Company, Inc.—Blue Ash, Ohio.
Metz Metallurgical Corporation—South Plainfield, New Jersey.
Midland Processing, Inc.—Pomona, New York.

National Refining Corporation—Gallatin, Tennessee.
Precision Metallurgical Corporation—Millis, Massachusetts.
Refinement International Company—Mapleville, Rhode Island.
Ronel Refining Company, Inc.—Hollywood, Florida.
Silfab Corporation—Naugatuck, Connecticut.

ASSOCIATIONS

Manufacturing Jewelers & Silversmiths of America, Inc.
National Association of Mirror Manufacturers.

ELECTRONICS

Ray-O-Vac Company—Madison, Wisconsin.

Fact Sheet: Purpose of Silver Users Association, Inc.

The Silver Users Association, Inc., established in 1947, represents the interests of corporations that make, distribute and sell products in which silver forms an essential part. Association membership today includes representatives from the photographic, electronic, chemical, commemorative arts, silverware and jewelry industries; producers of semi-fabricated and industrial products; and mirror manufacturers.

A major purpose of the Association is to keep its members and the public informed on the pertinent developments in the field of silver; such as, production, consumption, availability, uses, prices, regulations and legislation.

The applications of silver are highly diversified and range from photography to missiles; from computers to sterling jewelry. An approximate breakdown of the silver usage in the U.S. shows these percentages; photography, 39.2 percent; electrical and electronics, 25.2 percent; sterling ware, 9.0 percent; brazing alloys, 7.0 percent; electroplated ware, 5.6 percent; catalysts, 5.3 percent; jewelry, 3.6 percent; commemorative and collectors arts, 1.6 percent; mirrors, 1.1 percent; and, all others, such as bearings, dental and medical supplies and rockets and missiles, 2.4 percent.

The Association estimates that its members account for approximately 80 percent of all silver consumed in the United States. More than 80,000 men and women work for Association members who are heavily dependent upon silver for manufacturing. In addition, there are about 1,500 firms of the Manufacturing Jewelers and Silversmiths of America and their 70-75,000 employees; and, the 22 members of the National Association of Mirror Manufacturers and their employees. The Association was incorporated in the District of Columbia in April, 1971.

President of the Silver Users Association is Mr. Robert F. Wilson, President, Wallace Silversmiths. Mr. Sinclair Weeks, Jr., President, Reed & Barton Silversmiths is Vice President, and Chairman of the Executive Committee. In addition to these two officers, other members of the latter committee are:

Nelson B. Colton, Engelhard Industries.
Philip G. Deuchler, Handy & Harman; Treasurer, SUA.
George R. Frankovich, Manufacturing Jewelers & Silversmiths of America, Inc.
Kamran Habibi, E. I. du Pont de Nemours & Company.
Denham C. Lunt, Jr., Lunt Silversmiths.
R. C. Mack, Eastman Kodak Company.
Jay Powers, Powers Chemco.
Richard Rosenblat, Polaroid Corporation.
Donald Schwartz, Medallic Art Company.
James W. Thomas, Gorham Division of Textron, Inc.
Robert E. Wiele, Minnesota Mining & Manufacturing Company.
Walter L. Frankland, Jr., Executive Vice President-Secretary, SUA.

Background on Domestic Silver

GENERAL

During its two hundred-year history, the U.S. Government has been the largest buyer, user and seller of silver. Currently, it is probably the largest single holder of silver in the world with 139.5 million ounces in the strategic stockpile, 39 million ounces in the U.S. Mint and 4 million ounces held by the Defense Department.

DOMESTIC SUPPLIES

New Production in the U.S. for 1980 amounted to 30 million ounces (off 8 million ounces due to strikes).

Source: Bureau of Mines

Secondary Recovery from scrap including melted coins is estimated at 90 million ounces for 1980.

Source: The Silver Institute Imports accounted for 76 million ounces during 1980. All but 15 million ounces of this figure is attributed to countries of the Western Hemisphere.

Sources: Handy & Harman, Bureau of Mines

DOMESTIC CONSUMPTION

Industrial demand in the U.S. for 1980, estimated by the Bureau of Mines at 118 million ounces, was at the lowest level since 1963, dropping 25% from 1979. In addition to new production, scrap recovery and imports, other silver used to meet industrial requirements in recent years has come from industry inventories and speculative holdings. A breakdown by usage category is contained in Chart #3.

PRICE

At the time the Treasury ceased selling silver to all comers in May, 1967, the price was $1.29 per ounce. While the U.S. Government sold silver to domestic users at $1.29 a two-tier price system existed with the world price reaching $1.78. In July, 1967, the Treasury withdrew from the market and a month later sales were resumed as a weekly auction through November 10, 1970. Prices rose to a high of $2.565 by June, 1968, and then began dropping until a low of $1.288 was recorded in November of 1971. The average price in 1972 was $1.68; $2.57 in 1973; and $4.71 in 1974.

A new all-time high was established at $6.70 on February 20, 1974. The strong upward pressure on the price was caused by a world-wide distrust of currencies and a speculative investment craze. From August, 1975, until January, 1976, the price of silver had been in a downward trend, with an average of $4.42 in 1975 and $4.35 in 1976. Fluctuations between $4.30 and $4.96 during 1977 were wide at times, with 5–10 cent differentials not unusual from one day to the next. The average for that year was $4.62. The average price for 1978 was $5.40.

During 1979, silver prices were very volatile with a low of $5.961 per ounce established on January 11 and a then record high of $28 on the last trading day of the year. In 1980, the record high of $48.00 was set on January 21 and a low of $10.80 recorded May 22. The average price through April, 1981, was $12.90.

GOVERNMENT STOCKPILE

Silver was first placed in the strategic stockpile in June, 1968, when 165 million ounces were transferred from the Treasury in accordance with the Silver Certificate Adjustment Act of 1967. By the Bank Holding Act of 1970, 25.5 million ounces were transferred to the Treasury for use in the Eisenhower coin program. The stockpile currently contains 139.5 million ounces.

The Silver Users Association, in establishing its position on the stockpile issue, does not attempt to determine what should be considered an appropriate level of silver to meet defense needs. Rather, the Association firmly supports the concept of an orderly disposal of whatever silver is determined to be surplus to defense requirements. The revenue gained therefrom could be put to good use in buying items critically needed for the defense stockpile.

In this regard, the Association wishes to point out that the United States, Canada and Mexico together produce about 115 million ounces annually. The balance of the Western Hemisphere supplies an additional 60 million ounces of new production making a total of about 175 million ounces. For an annual current demand of 118 million ounces in the U.S., it is evident that this raw material would be accessible in an emergency. The cited production does not include silver recovered in the U.S. annually from coins and other forms of usable scrap which in 1980 was estimated at some 90 million ounces.

The National Security Council has determined that there is no requirement for stockpiling silver. The amount currently in the stockpile—139.5 million ounces—is surplus to defense needs. It should be noted that other stocks in this country could become available for extreme emergencies not contemplated in the plans, such as—

29 million ounces in the Treasury stocks for coinage

30 million ounces held by industry

4.5 million ounces in Defense Department stocks for contracts with government furnished material provisions

100-plus million ounces in COMEX and Chicago Board of Trade warehouses

An estimated 250-900 million ounces in 90% U.S. silver coins held by citizens

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Refinement Internat
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...-80; World Silver Consump-
...d Price History (1970–81) &

...L SUPPLIES[1], 1973–80

	1979	1978	1977	1976	1975	1974	1973
...20	157	160	154	171	158	177	196
220	263	283	280	266	219	247	282
.....	.....	.....	.....	1	3	1	1
16	28	36	23	29	36	27	28
356	448	479	457	467	416	452	507
255	270	269	268	247	242	239	254
.....	.....	.....	.....	1	3	1	1
224	143	164	163	218	192	166	190
479	413	433	431	466	437	406	445
–123	35	46	26	1	–21	46	62
356	448	479	457	467	416	452	507

...ER CONSUMPTION, 1973–80

...ounces]

1980	1979	1978	1977	1976	1975	1974	1973
120	157	160	154	171	158	177	196
62	62	65	63	61	46	47	69
29	37	47	60	51	39	60	65
25	33	42	34	32	29	39	42
20	22	22	21	19	21	16	14
21	27	29	32	28	28	25	31
16	19	20	18	18	13	15	13
47	63	58	52	57	43	32	48
340	420	443	434	437	377	411	478
.1	.1	.1	.4	1.3	2.7	1.0	.9
.2	.3	.3	.3	8.4	10.4	8.6	1.4
.....	7.7	11.1	6.9	6.7	5.2	3.6	.1
4.3	5.0	4.5	3.0	6.9	13.4	5.6	6.6
.....	3.7	3.6	2.6	2.9	4.3	8.8	9.5
5.1	5.0	6.3	4.2	.....	.....	.....	.....
6.0	6.0	10.4	6.0	3.5	2.8	.1	10.7
15.7	27.8	36.3	23.4	29.7	38.8	27.7	29.2

An undetermined amount of silver in ingots held as investments by citizens and institutions.

Charts: World Silver Consumption and Supplies (1973-80); World Silver Consumption (1973-80); U.S. Industrial Consumption (1973-80); and Price History (1970-81) & Industry Stocks (1970-80).

CHART 1.—WORLD SILVER CONSUMPTION AND SUPPLIES [1], 1973–80

[In million of ounces]

	1980	1979	1978	1977	1976	1975	1974	1973
Consumption:								
Industrial uses:								
United States	120	157	160	154	171	158	177	196
Other counties	220	263	283	280	266	219	247	282
Coinage uses:								
United States					1	3	1	1
Other countries	16	28	36	23	29	36	27	28
Total consumption	356	448	479	457	467	416	452	507
Supplies:								
New production	255	270	269	268	247	242	239	254
U.S. Treasury silver					1	3	1	1
Other supplies	224	143	164	163	218	192	166	190
Total supplies	479	413	433	431	466	437	406	445
Liquidation of (additions to) speculative inventories	−123	35	46	26	1	−21	46	62
Available for consumption	356	448	479	457	467	416	452	507

[1] Excluding Communist dominated areas.

Source: Handy & Harman Silver Reviews.

CHART 2.—WORLD SILVER CONSUMPTION, 1973–80

[In million of ounces]

	1980	1979	1978	1977	1976	1975	1974	1973
Industrial uses:								
United States	120	157	160	154	171	158	177	196
Japan	62	62	65	63	61	46	47	69
West Germany	29	37	47	60	51	39	60	65
Italy	25	33	42	34	32	29	39	42
France	20	22	22	21	19	21	16	14
United Kingdom	21	27	29	32	28	28	25	31
India	16	19	20	18	18	13	15	13
Other	47	63	58	52	57	43	32	48
Total industrial uses	340	420	443	434	437	377	411	478
Coinage:								
United States	.1	.1	.1	.4	1.3	2.7	1.0	.9
Canada	.2	.3	.3	.3	8.4	10.4	8.6	1.4
France		7.7	11.1	6.9	6.7	5.2	3.6	.1
Austria	4.3	5.0	4.5	3.0	6.9	13.4	5.6	6.6
West Germany		3.7	3.6	2.6	2.9	4.3	8.8	9.5
Mexico	5.1	5.0	6.3	4.2				
Others	6.0	6.0	10.4	6.0	3.5	2.8	.1	10.7
Total coinage usage	15.7	27.8	36.3	23.4	29.7	38.8	27.7	29.2

Source: Handy & Harman.

CHART 3.—U.S. INDUSTRIAL CONSUMPTION, 1973–80

[In million of ounces]

Category	1980	1979	1978	1977	1976	1975	1974	1973
Electroplated ware	3.9	8.1	7.3	6.8	9.5	8.7	13.2	14.5
Sterling ware	8.8	13.1	17.9	16.7	19.8	23.7	22.2	29.4
Jewelry	5.4	5.4	6.8	8.1	11.0	12.7	5.2	5.8
Photographic materials	47.3	66.0	64.3	53.7	55.5	46.1	49.6	52.0
Dental and medical supplies	1.9	2.3	2.0	2.2	1.9	1.5	2.4	3.0
Mirrors	.5	1.9	1.9	2.1	4.6	3.1	3.9	2.6
Brazing alloys and solders	8.5	10.9	11.0	12.4	11.2	13.6	14.5	17.7
Electrical and electronic products:								
Batteries	6.1	4.6	6.0	5.8	3.5	4.3	4.2	4.2
Comtact and conductors	25.5	33.5	30.8	31.3	32.3	27.2	31.3	40.2
Bearings	.5	.3	.4	.5	.3	.5	.4	.4
Catalysts	3.9	5.6	8.2	8.9	12.3	8.8	7.3	6.0
Coins, medallions, and commemorative objects	4.7	4.7	2.7	4.2	8.2	7.2	22.3	20.1
Miscellaneous	.6	1.0	1.0	.9	.4	.3	.5	.5
Total [1]	117.6	157.3	160.2	153.6	170.5	157.7	177.0	196.4

[1] Totals may vary due to rounding-off.

Source: Bureau of Mines.

CHART 4.—SILVER PRICES, 1970–81

[In dollars per ounce]

Year	High	Low	Average
1981 (through April)	$16.45	$10.90	$12.90
1980	48.00	10.80	20.63
1979	28.00	5.96	11.09
1978	6.30	4.83	5.40
1977	4.96	4.30	4.62
1976	5.10	3.82	4.35
1975	5.23	3.91	4.42
1974	6.70	3.27	4.71
1973	3.28	1.96	2.56
1972	2.05	1.39	1.69
1971	1.75	1.29	1.55
1970	1.93	1.57	1.77

Source: Handy & Harman.

Silver in U.S. industry stocks

[In millions of ounces]

1980	30
1979	16
1978	29
1977	33
1976	30
1975	35
1974	60
1973	38
1972	52
1971	56
1970	82

Source: Bureau of Mines.

A Discussion Paper on Stockpile Requirements Versus Silver Supply and Demand

The statement is often made that more silver is consumed annually than is mined. There is nothing new about this situation. Since 1945, world consumption

has exceeded new production. The peak in total consumption was reached in 1965. Since that time, consumption including coinage has dropped significantly. Industrial consumption, alone, actually peaked in 1973, when U.S. consumption was 196 million ounces, according to the Bureau of MInes.

In a recent debate in Congress the statement was made that, ". . . in World War II we used far in excess of 1 billion ounces of silver. Over 400 million ounces of silver were sent to the Soviet Union under the lend-lease program . . ."

The total amount of silver consumed in the U.S. by all industries, not just the war effort, during the period of 1942 thru 1945 was 580 million ounces or an annual average of 116 million ounces. (Source: American Bureau of Metal Statistics, Year Book: 1946).

As a substitute for copper in bus bars, nearly 900 million ounces of silver were loaned to atomic defense plants by the Treasury. Today, there is no shortage of copper and the technique formerly requiring bus bars is obsolete.

During the same period, 374 million ounces were used by the Treasury for coinage. Today, no silver is used in circulating coinage.

Under the lend-lease program the amounts of silver furnished by the U.S. and the receiving countries were as follows: (Source: Annual Report of the Director of the Mint FY 1967).

Country:	*Million ounces*
Australia	11.8
Belgium	.3
Ethiopia	5.4
Fiji	.2
India	172.5
Netherlands	56.7
Pakistan	53.5
Saudi-Arabia	22.3
United Kingdom	88.1
Total	410.8

The major use for this silver was monetary purposes. Today, no country uses silver in minting of circulating coinage. All silver issued under the lend-lease program was returned to the U.S. with the exception of 24 million ounces from Saudi Arabia and Pakistan. In the latter cases, a dollar equivalent was repaid to the Treasury. No silver was delivered to Russia under this program. (Source: Annual Report of the Director of the Mint FY 1967).

Also in the Congressional debate, the statement is made that, "After World War II the United States found itself with a general stockpile of approximately 2 billion ounces of silver. This has now been sold off largely, except for the remaining stockpile of 140 million ounces in the special strategic stockpile."

In 1946 when the last Silver Purchase Act was enacted, the U.S. had a silver supply of 1.5 billion ounces. During the next 20 years more than 400 million ounces were purchased and 1.47 billion ounces were used in coinage. Another 487 million ounces were exchanged for silver certificates. During the 1950's only 140 million ounces were sold and during the last major sale on competitive bid conducted by GSA for the Treasury between 1967 and 1970, 303 million ounces were sold. Today, in addition to the 139.5 million ounces in the strategic stockpile, the U.S. Treasury has 39 million ounces for commemorative coinage purposes.

When the stockpile objective for silver of 500 million ounces were first established in the early 1960's, the U.S. Government was a big user of silver in coinage. In one year, 1965, this country used 320 million ounces in coinage. During the last five years of the 90% coinage program (1961-1965) more than 700 million ounces were so used. Thus, there was at that time a need for large amounts of silver in the stockpile for coinage alone. The objective was reduced by 165 million ounces when the cupro-nickel clad coin was available.

When references are made to the high percentage of silver imports to this country, it must be made clear that more than 55% of these imports are from our neighbors, Canada and Mexico, and another 25% from other countries in the Western Hemisphere. In times of emergency, if we cannot depend on these countries, we are in such deep trouble that it is difficult to believe that any size silver stockpile would be a serious consequence to the overall war effort.

Although it is generally agreed that silver prices in the long run may very well increase, there is certainly no assurance of this fact since silver does respond to supply and demand, evidence the recent drop in price and consumption. During 1979 and early 1980, the silver market experienced one of the most volatile periods for any commodity in history. Despite the availability of the white metal, the price

increased more than eight times—from an average of $5.40 in 1978 to a high point of $48 in January 1980. Records revealed to the Congress showed clearly that intense speculation and concentration of silver in the hands of several large investors contributed to a very disruptive market.

Another major factor was the strong leverage of the futures market which until early 1980 was a contributor to the detrimental effects of excess speculation. As the exchanges responded to the erratic market by imposing limits and higher margins, as demand fell and supplies increased due to high prices, and as high interest rates made trading more difficult while encouraging alternative investment opportunities, the price reacted abruptly, hitting a low of $10.80 in March, 1980.

The average price for 1979 was $11.09 and for 1980, it was $20.63. Through April 1981, the price was $12.90.

As part of Congressional debates over the stockpile, charges are usually made that the manufacturers who use silver in their operations are interested only in lower silver prices. This is not a true characterization of the users' position on the stockpile. For years the users have argued that the government should get entirely out of the silver business. Since the stockpile objective for silver has been set at zero, there is a surplus and in accordance with the current law, these supplies should be returned to the market from which they originally came. The users do not take a position on the size of the stockpile—leaving that to the defense planners in the Federal Government. However, once the level has been established, the users believe the surplus should be sold in an orderly manner which is in accordance with existing law. The users are more than willing to take their chances in the open market. The government need not be in the role of stockpiling silver or any other material for economic purposes.

One of the most disruptive factors in the silver market has been the very existence of the stockpile. Whenever discussions at any level are held on this topic, the market reacts sometimes very violently. Removal of the stockpile could actually result in a more stable market since a most disruptive influence will have been removed.

The argument is held by some that silver in the strategic stockpile should be used as an economic stockpile. This proposal, so far, has not been backed with logic. At least the report of the National Commission on Supplies and Shortages makes no case for maintaining a silver stockpile.

It is also claimed by those who favor an expensive stockpile of silver, that in the past there has been a rush to get legislation passed to release silver from the stockpile. Actually, proposals for the release of at least 118 million ounces have been in Congress for more than eight years. The issue has been studied and studied and the answer is still the same—there is no need for a stockpile of silver. To do so would be an unnecessary drain on the public treasury. It is apparently clear, at least to defense planners, that no case exists for a silver stockpile. This point was made again by the GAO in a report dated April 10, 1979. At current high interest rates, the government in effect pays some $600,000 per day in interest costs while keeping the stockpiled 139.5 million ounces of silver declared surplus to defense needs. At the same time, several stockpile items critical to defense needs go wanting. Certainly it is logical to sell surpluses for revenue which can be used to purchase needed items.

So called trading advisors who often claim that there will be an immediate critical shortage of silver rely almost entirely on the fact that more silver is consumed than is mined annually. These individuals who appear to have much influence on speculators and potential investors in silver simply disregard the vast quantities of above-ground silver available to the market. Stocks on deposit at the major exchanges alone are, as mentioned earlier, still high. Billions of ounces are in India and there is a flow of this secondary material to the market. Silver recovered from recycled scrap including coinage also continues to be an important source of material used by industry.

These same "silver bugs" refer to the historic gold-silver ratio as an indicator that silver is currently underpriced. In fairness to the argument, it should be pointed out that there has been no official fixed gold-silver ratio for more than 100 years when the bi-metal monetary system was discarded by the United States.

The claim is quite often repeated that silver should be retained because of its need in the MX missile system. Defense officials have stated repeatedly that silver for this weapons system appears to be negligible, limited only to the usage for electrical contacts and missile parts. Although silver was originally considered for use in the batteries for the ground control system, "alternative technologies are being pursued due to the high cost and limited availability of silver," according to the office of Defense Research and Engineering. The April 1979 GAO report reiterates this point by stating, "System silver requirements are now estimated to be

about 1 million troy ounces maximum. However, it should be noted that requirements of the MX system and the substitution previously mentioned never affected the silver stockpile."

Citing silver as one of the best hedges against inflation certainly is subject to serious questioning, especially in view of the performance by precious metals in 1980. Any buyer of silver since September, 1979, who has retained silver as a hedge against the value of the dollar has failed seriously even though the jump in prices during 1979 and early 1980 was a winner for the holders of silver, assuming sales at the higher levels. As has been shown in recent months, the upward move was mainly the result of unchecked speculation. The metal is now seeking its proper level, while consumption in the U.S. has dropped to the lowest level since 1963.

Questions and Answers on Current Silver Statistics

Question 1. Is there a shortage of silver?

Answer. There is no shortage of silver; however, recently there has been an annual deficit in the amount of approximately 90–120 million ounces between U.S. new production of silver and U.S. consumption of the white metal. In the past, this gap has been filled by silver from secondary sources such as U.S. Treasury stocks, scrap recovery, other government stocks and demonetized coins. In the future, the gap is expected to be filled by silver from scrap material, imports and silver from demonetized coins, especially the 90 percent U.S. coins.

Question 2. How do the visible stocks for silver compare in 1979, 1980, and 1981?

Answer. The visible stocks generally referred to are those certificated stocks in warehouses for the Commodity Exchange of NYC (COMEX), Chicago Board of Trade (CBOT), and London Metal Exchange (LME). In June of 1979, this total was some 131 million ounces. A year later it was 157 million ounces. As of April 24, 1981, the figure was 105 million ounces.

Question 3. What is the story on Indian silver?

Answer. For many years, the citizens of India have accumulated large quantities of silver. Today, estimates of this silver in the form of jewelry, religious items and decorations vary between four and five billion ounces. In the late 60's when silver reached $2.57 an ounce, silver from India reached the market at the rate of 60–80 million ounces per year. In the early 70's this rate was as low as 15–25 million ounces. In 1976, many observers estimated the supply from India was 50 million ounces. For 1977, the figure was 23 million ounces; in 1978, it was estimated at about 25 million ounces, and for 1979, the figure was about 45 million ounces and 26 million ounces in 1980.

Question 4. How much silver in 90 percent U.S. silver coins is estimated to be available to the market?

Answer. Since our country's beginning, slightly more than two billion ounces have been used in coinage. During the final four years (1962–1965) of silver coinage more than 700 million ounces were used. The amount of silver available from this source is estimated at several hundreds of million ounces. Observers estimate that the rate of coin melting was between 20–25 million ounces in 1976, falling to about 13 million ounces a year later. For 1978, the figure was estimated at 5 million ounces, dropping to 4 million ounces a year later. There was an increase to 15 ounces in 1980.

Question 5. What has been the recent history of silver usage in U.S. coins?

Answer. By the Coinage Act of 1965, silver was removed as a coinage metal in all coins except the John F. Kennedy 40 percent silver half dollar which was minted through 1969 for circulation and through 1970 for special mint and proof sets. In 1971, the Mint began its production of 40 percent silver Eisenhower dollars for proof and uncirculated sets to be sold at a premium. In 1973, Congress directed the minting of 45–60 million 40 percent silver bicentennial coins (dollar, halves and quarters) to be made from silver set aside in the Treasury for the Eisenhower coin program. Minting kept to the lower figure of 45 million coins, consumed about 8 million ounces of silver, all furnished from Treasury stocks. So far, only half of the coins have been sold. There is a bill before Congress to mint 10 million 90 percent silver half dollars to honor the 250th birthday of George Washington.

Question 6. What would be the value of the silver in a 40% silver half dollar?

Answer. The bullion parity of the silver in 40% silver half dollars is approximately $3.38 per ounce of silver involved or, each $1,000 face value of 40% silver half dollars would contain 295 ounces of silver, allowing for wear. This compares with 715 ounces per $1,000 face value of 90% silver coins which have a bullion parity of $1.38 per ounce of silver involved. The 90% half dollar coin contains .36 of an ounce of silver while the 40% coin has .15 an ounce each. The total amount of silver in three-coin bicentennial set is slightly more than .55 of an ounce.

Question 7. What has been the recent history of silver prices?

Answer. At the time Treasury ceased selling silver to all comers in May, 1967, the price was $1.29 per ounce. While the U.S. Government sold silver to domestic users at $1.29 a two-tier price system existed with the world price reaching $1.78. In July, 1967, the Treasury withdrew from the market and a month later sales were resumed as a weekly auction through November 10, 1970. Prices rose to a high of $2.565 by June, 1968, and then began dropping until a low of $1.288 was recorded in November of 1971. The average price in 1972 was $1.68; $2.57 in 1973; and $4.71 in 1974.

A new all-time high was established at $6.70 on February 20, 1974. The strong upward pressure on the price was caused by a world-wide distrust of currencies and a speculative investment craze. From August, 1975, until January, 1976, the price of silver had been in a downward trend, with an average of $4.42 in 1975 and $4.35 in 1976. Fluctuations between $4.30 and $4.96 during 1977 were wide at times, with 5–10 cent differentials not unusual from one day to the next. The average for that year was $4.62. The average price for 1978 was $5.40.

During 1979, silver prices were very volatile with a low of $5.961 per ounce established on January 11 and a then record high of $28 on the last trading day of the year. In 1980, the record high of $48.00 was set on January 21 and a low of $10.80 recorded May 22. The average price through April, 1981, was $12.90.

Question 8. Has anyone been successful in cornering the silver market?

Answer. We are aware of no successful efforts to corner the silver market. In 1974 there were rumors that one big investor held between 40–50 million ounces outright as well as forward contracts. At that time such a position represented a major portion of CBOT and COMEX stocks.

Early in 1979, new waves of speculative activity began hitting the silver market. Rumors were rampant concerning the actions of a dozen or so investors involving several major commodity houses, both here and abroad. Records revealed to the Congress have established as fact that silver in large quantities was concentrated in the hands of a few investors. The market was very volatile and prices increased eight-fold in one year, culminating in an all-time high of $48 on January 21, 1980. To meet some of the problems caused by excessive speculation, the exchanges imposed restrictions on trading to include higher margin requirements and speculative position limits. In part due to these restrictions and to increased supplies, decreased demand, high interest rates and alternative investments, the market reacted, resulting in lower prices and a reduction in speculative activity. Although there remain rumors that a few investors still hold large quantities of silver, there is no indication that the market is being subjected to a corner.

Question 9. Why is it necessary for silver futures to be regulated?

Answer. Silver futures trading needs to be regulated because the degree of self-regulation exercised by exchanges on which the metal trades is not sufficient to prevent attempts to manipulate the market and other fraudulent activities.

Question 10. What do the consumption statistics reveal during 1980?

Answer. Domestic industrial consumption in 1980 is estimated by the Bureau of Mines at 117.6 million ounces. This was a 25 percent drop from the figure for 1979 and some 80 million ounces below the historic high in 1973.

Question 11. What is the silver import situation for the U.S.?

Answer. For the first year since 1969, when the government was selling silver, the U.S. last year, was a net exporter of silver. In the last several years, this country has had net imports of 50–75 million ounces. In 1980, due mainly to the highly speculative market that was silver, the U.S. was a net exporter of 2.2 million ounces.

Question 12. What is the importance of silver recovery, today?

Answer. Secondary silver is one of the most important factors in the silver market. For many years, scrap recovery has exceeded new production in the U.S. In 1979, in the U.S. alone, scrap recovery including coins was estimated at 66 million ounces and last year that figure reached 91 million ounces, according the Silver Institute.

Question 13. What are the prospects for a substitute for silver in the photographic area?

Answer. Substitutions in the photographic area have already taken place with the best example being the office copying machines, most of which no longer use silver. Research efforts for other substitutes have been intensified but it is not foreseen that any major substitution will appear in the near future. In the x-ray sector, there is in limited use in hospitals, a silverless x-ray system. In the same area, the most interesting development is the introduction of microfilm recording of x-rays to permit immediate recycling of the silver and the one-time recapture of the large quantities of silver in the eight or ten year supply of medical x-ray film stored in hospitals and clinics around the country. The latter has been estimated at 100

million ounces. In the graphic arts area, laser techniques are being used to replace photographic reproduction in some printing. Several manufacturers have developed other non-silver platemaking processes.

Question 14. What is the position of the Silver Users Association regarding stockpile legislation?

Answer. The members of the Silver Users Association support legislation which would authorize the disposal of all or any portion of the 139.5 million ounces of silver previously declared surplus to defense requirements.

Question 15. What is the SUA rationale for its stockpile position?

Answer. Rationale for the SUA position supporting legislation which calls for the release of surplus silver from the stockpile may be summarized as follows:

The interest (15 percent) costs, alone, to the government for maintaining the large amount of silver (139.5 million ounces) is estimated at $600,000 per day.

With the high current market price for silver, the sale of government silver would mean increased revenue to the Treasury, benefiting all taxpayers and could be used to purchase items needed to defense without altering current budget plans.

Government silver made available to the market would meet a portion of domestic requirements, and could lessen the need for imports.

Additional supplies to the market of usable metal would be in the best interests of millions of Americans who consume products using silver—photographic, electrical, silverware, and medical and dental supplies are some examples.

Question 16. What is the opposition to the disposal of silver through GSA?

Answer. Opposition to the disposal of silver surplus to defense needs has been expressed by the domestic producers of silver as a part of their general opposition to the release of stockpile materials. During the consideration of copper stockpile releases in 1973, many of these same producers offered no objections to disposing of all copper in the stockpile, a metal as much or more important to defense needs as silver. Speculators and investors looking to the further appreciation of silver values also object to a release of silver from the stockpile. Some members of Congress have expressed concern over the proposed release, arguing that the precious metal should be retained for future, but unspecified or unjustified needs.

Question 17. What is the background of the present silver stockpile?

Answer. Silver was first placed in the strategic stockpile in June, 1968, when 165 million ounces were transferred from the Treasury in accordance with the Silver Certificate Adjustment Act of 1967. By the Bank Holding Company Act of 1970, 25.5 million ounces were transferred to the Treasury for use in the Eisenhower coin program. The stockpile currently contains 139.5 million ounces. Since 1974, all or a major portion of the silver has been declared surplus by four administrations.

Question 18. What is an appropriate size of an emergency stockpile?

Answer. The National Security Council has determined that there is no requirement for silver in the stockpile. This position has been endorsed by the GAO. The United States, Canada and Mexico together produce about 115 million ounces of silver. When one considers that the rest of the Western Hemisphere supplies an additional 60 million ounces for about 175 million ounces against an annual demand of 120 million ounces in the U.S., it is evident that this raw material would be accessible in an emergency.

Question 19. Besides the stockpile silver, what other domestic above-ground supplies could be used to meet an extreme emergency?

In addition to the government stockpile, other above-ground silver includes—

39 million ounces in the Treasury stocks for coinage

30 million ounces held by industry

4.5 million ounces in Defense Department stocks for contracts with government furnished material provisions

100-plus million ounces in COMEX and Chicago Board of Trade Warehouses

An estimated 250-900 million ounces in 90 percent U.S. silver coins held by citizens

An undetermined amount of silver held by citizens

The Silver Users Association believes that now is the time for the Congress to act in carrying out its responsibility. It advocates that disposals be made in a manner comparable to the sales conducted by the General Services Administration during the period 1967-1970 with weekly auctions in amounts between 500,000 ounces and one million ounces.

Question 20. How much does it cost for the government to hold the 139.5 million ounces of silver which has been declared surplus?

Answer. At the current high interest rates (15 percent), the equivalent cost of holding silver now valued at nearly 1.6 billion dollars would be more than $235 million per year of about $600,000 per day. In addition to the interest costs, about $20 million are needed to maintain the metal in the stockpile annually.

Question 21. Is any silver required for the MX missile system being developed by the Defense Department?

Answer. The silver required for the MX missile system appears to be negligible, limited only to the usage for electrical contacts and missile parts. Although silver was originally considered for use in the batteries for the ground control system, "alternate technologies are being pursued due to the high cost and limited availability of silver," according to the Office of Defense Research and Engineering. The GAO report of April 10, 1979, on silver in the stockpile stated, ". . . (MX) System requirements are now estimated to be about 1 million ounces maximum."

Question 22. What effect would be disposal of 139.5 million ounces of silver have on the market?

Answer. Disposal of the 139.5 million ounces of silver surplus of defense needs at a rate of up to one million ounces per week at the market price should help provide stability to silver trading. This action, in turn, should make the market price more responsive to industrial supply and demand factors since there should be a reduction in wild speculation. When the government sold silver in 1967, prices continued to rise during the first nine months of the sales. During the next two years, prices were volatile ranging from a high of $2.56 per ounce to a low of $1.54 in 1969, and ending at $1.81 on the day of the last government sale in 1970, or at the same level as for the start of the sales. About a year after the end of government sales, the world price returned to $1.29 before starting up again.

Question 23. What would be the benefits to the economy from the government silver disposal?

Answer. With the disposal of government silver and the expected accompanying damper to the speculative fever affecting silver, consumers should be able to obtain articles using silver such as photographic products, electrical applicances, silverware and dental and medical supplies at reasonable price levels. Manufacturers of high silver content products could return to more normal marketing practices, and avoid any worsening of the employment picture. Revenue to the government would permit the purchase of materials critically needed for the stockpile. The balance of payments picture would be improved through lower silver imports.

Question 24. At what rate should government silver be sold?

Answer. The rate of sale should be such as not to disrupt the silver market. As demonstrated by its handling of the 1967–1970 silver sales and the disposal of other commodities, the General Services Administration is capable of determining an appropriate release rate. At one million ounces per week, or half of the original rate of the previous sales, the government release would be slightly less than the average annual imports between 1975 and 1979. A disposal at a smaller weekly rate should extend for a longer period the steadying influence over the market of this important silver source.

Question 25. Would the use of silver in a coin be an appropriate alternative to GSA sales?

Answer. Silver has become too valuable for coinage. Because of the high price of silver, an appropriate alloy could not be adopted to mint a silver coin which would circulate.

Using silver in a U.S. coin in the nature of a commemorative has already been tried in the 40% silver Eisenhower dollar and the bicentennial proof and uncirculated sets. The latter programs have failed to meet the expectations of their advocates.

Question 26. Does the government purchase silver?

Answer. The government no longer purchases silver. The silver purchase acts were repealed in 1963; however, as a protection to the domestic producers of silver, the Coinage Act of 1965 requires that the government purchase domestically produced silver offered to it at $1.25 per ounce.

Question 27. Is silver a good investment?

Silver, like any investment, performs well for the investor if it can be bought low and sold high. Unfortunately for the silver investor, this metal has been anything but stable in recent months. Another criteria for good investment is liquidity. Despite many advertisements to the contrary, silver bullion is difficult to resell. One can obtain silver easily but when time comes for resale, the story is quite different. It is the old saying, "I can buy it; but to whom will I sell it?". The collateral value of silver bullion has also been exaggerated. Few bankers jump with joy when bullion is offered for collateral because there is the matter of purity and extreme price fluctuations.

Question 28. What are the SUA views on the proposals for an economic stockpile of silver?

Answer. SUA does not support proposals for an economic stockpile of silver. The supply/demand situation for silver is not such that would require an economic stockpile. The open silver market is sufficiently diverse to provide the raw material

for users as required. Any stockpiling needed should be left to the manufacturers concerned rather than be a function of government. Further, from past experience there is no evidence that the government possesses any particular expertise in determining the levels of such a stockpile or for devising the procedures for insuring such a stockpile would be responsive to the demands of the market. The forces of supply and demand seem adequate to govern the flow of silver to the market. Lastly, any such economic stockpile would require additional bureaucratic activity by the government without a noticeable benefit to the health, safety and welfare of the general public.

Question 29. What has been the recent trend in futures trading in silver?

Answer. Silver futures trading in 1979 reached an all-time high. Nearly 35 billion ounces were traded during 1979. At the average silver price of $11 for that year, this means the full value of silver contracts reached $385 billion.

During the same one year period, industries in the U.S. used slightly more than 157 million ounces with a value of $1.7 billion. In other words, trading in silver was at a rate 220 times greater than domestic industrial usage.

In 1980, volume in silver trading on the Chicago Board of Trade dropped about 87 percent while usage by industry dropped some 25 percent. Trading volume so far this year is low. As an example, open interest in silver contracts on COMEX on March 13, 1981, was 24,700 contracts compared with 267,000 contracts on January 19, 1979. Daily trading on COMEX so far in 1981 ranged between 1,000–5,000 contracts. This contrasts with 20–35,000 daily contracts in mid–1979 and 2,000–7,000 contracts in mid–1980.

The exchanges maintain their limits on speculative positions (600 contracts on CBOT and 2,000 contracts on COMEX). They have also been altering their margin requirements to meet changing conditions of the marketplace. At the same time, the Commodity Futures Trading Commission has issued proposed rules for requiring speculative limits on all commodities.

Question 30. Where can I get more information about silver?

Answer. From the Silver Users Association, the Bureau of Mines and the Silver Institute, all in Washington, D.C. The various bullion dealers in New York City prepare silver summaries quite regularly. For 65 years, Handy & Harman has issued an annual silver review.

Mr. BENNETT. Are there questions, Mr. McDonald?

Mr. MCDONALD. Thank you, Mr. Chairman.

Mr. Weeks, I wonder if you would give us some idea of the membership of your association. Could you provide for the record a complete list of your membership, please?

Mr. WEEKS. Yes, Congressman, I believe it is attached to the material you have.

Mr. MCDONALD. I see the list of the officers. Is that the full membership?

Mr. WEEKS. It is enclosure A.

Mr. MCDONALD. How many members are there?

Mr. WEEKS. Approximately 30.

Mr. MCDONALD. Mr. Weeks, on Tuesday, FEMA testified that the revised defense tier silver requirements for a 3-year emergency was 140 million ounces. U.S. production for 1980 was approximately 32 million ounces. Consequently, the GAO statement that the defense tier requirement can be met by U.S. production alone would not now be correct.

If my arithmetic is correct. Would you comment on that?

Mr. WEEKS. May I ask Mr. Frankland to comment on that, since he has the figures?

Mr. FRANKLAND. Mr. Chairman, the GAO report lists essential defense needs at 115.1 million ounces—the figure that we have.

Mr. MCDONALD. I think on Tuesday FEMA testified it would be 140 million ounces for a 3-year emergency. What are you referring to?

Mr. FRANKLAND. I am referring to the GAO report, April 10, 1979, page 21.

Mr. McDONALD. Stating the essential requirement would be what?

Mr. FRANKLAND. One hundred fifteen point one million ounces for a 3-year requirement. That is the figure we referred to.

Mr. McDONALD. That is one of the problems with this. As you know, with silver there are a lot of different levels, but, nevertheless, 115 or 140, but with the production at 32 million, how do we handle that?

Mr. FRANKLAND. Last year, there was a strike that reduced normal production to the lower level.

Mr. McDONALD. Last year, however, we would have to agree Mr. Frankland was an aberration for over 20 years. It was the first time in history there was really that situation.

Mr. FRANKLAND. I refer to the production being at a very, very low figure, based on the normal production in this country. It is closer to 40 million ounces rather than 32 million ounces. Over the past 10 years, it has been averaging higher than the production of last year. It was an aberration last year on production side, too.

Mr. McDONALD. Production was low?

Mr. FRANKLAND. Yes, sir.

Mr. McDONALD. Go ahead.

Mr. FRANKLAND. I just say it was low.

Mr. McDONALD. But you still have a deficit.

Mr. FRANKLAND. You would have a deficit of 5 million ounces, as I read it.

Mr. McDONALD. I have a much bigger deficit than that, by my figures.

Mr. FRANKLAND. If you use 40 million ounces in the production, in 3 years it would be 120 and up, you say. FEMA testifies to 140, so it would be a 20 million-ounce deficit.

Mr. McDONALD. Mr. Weeks, on your last page, page 5, you quoted a reference to the GAO report substituting lithium thionyl chloride for silver in batteries for the MX missile. My understanding of the lithium chloride batteries was they have a problem of exploding. Canada has done quite a bit of work on that. Have they worked out the bugs?

Mr. WEEKS. I cannot answer that. I am not in that industry.

Mr. McDONALD. Canada has done quite a bit of work on this, and they continue to explode.

However, it is interesting that last year, that remarkable aberration year, with extremely high prices of silver that drove some of the silver uses down, except in the area of batteries, batteries continued to go up in spite of the high prices. Would your figures also verify that?

Mr. WEEKS. Yes.

Mr. McDONALD. Also, on page 5, Mr. Weeks, you refer to the estimated 250 to 900 million ounces of 90 percent U.S. silver coins held by citizens. Do you expect the citizens in case of emergency to turn that in?

Mr. WEEKS. I think it depends a lot on what the price is. A great many coins have been turned in, as you know, in the last 6 months.

Mr. McDONALD. In case of an emergency, not necessarily a price emergency, but a national emergency—I can remember in World

War II people turned in aluminum pots and pans in an effort to help the war effort. I know my family did.

However, in this case we have an opportunity to give adequate supplies of silver to the stockpile today, in a period of relative calm. The last time we had a precious metals emergency that I recall was about 1933 or 1934, when President Roosevelt, probably acting unconstitutionally, declared an emergency and said, "Turn in your gold; we just need it for the emergency and then we will give it back."

It never came back. The people who I know are very prudent right now in retaining silver, and it is the classic illustration of Gresham's law of economics. I don't think they plan to turn it back—at least the people I talked with. It would have to be a whiz-bang emergency to get it back.

Do you get that in your discussions with people? The housewives who have been putting away silver quarters and silver dimes and half dollars, or saving silver dollars, do you really think the people who have been prudent enough to realize the Government folly in the mismanagement of funds plan to turn those cookie jars in to the same people who created the problem?

Mr. WEEKS. I think it depends a lot, Congressman, on what one's long-term view of the price of silver is. A lot of people, as you and I know, have purchased silver as an investment, and if the perception of a good investment disappears——

Mr. MCDONALD. They may well turn them in; that is right. The Government in the case of an emergency may have to buy it back at $30, $40, $50 an ounce. And you are suggesting that we sell it, today, at $10 an ounce. That is exactly what we did in the case of cobalt when we sold it off at $2 an ounce, and now we are going around the world trying to buy it back at $15 or $20 an ounce. We have been down this road before.

You are saying yes, if the price is high enough, but who would pay the price? The American taxpayers. We want to sell it at $10 an ounce to buy it back at $30, $40, $50 an ounce. A lot of silver did come out at $30, $40, $50 an ounce. Whether a similar amount is ready to come out again, I think is highly debatable.

On your page 5, you quoted the case of an emergency and assuming that the Government is willing to pay a higher price to bring it out.

Mr. WEEKS. If the GAO and the Government information is correct, and anyone in this room, I think, can speculate on whether it is correct or not, but assuming it is correct—and a lot of experts have worked on this—and if there is adequate silver, I can't visualize the Government would be required to go into the market to purchase silver.

Mr. MCDONALD. In the case of an emergency, an extreme emergency not covered by defense plans, much silver will be available, and among the stocks you listed—I am just quoting your testimony, Mr. Weeks, and I agree with your testimony—that is a source, but you are going to have to get it at gunpoint or at much high prices, far higher than you are now advocating that we sell it for.

Another source might be, in the case of an extreme emergency, the sterling silverware. That is a source. You can have families turn in their family silver.

Mr. WEEKS. Is it needed?

Mr. MCDONALD. In case of emergency. I am reading your testimony. You say, "In case of extreme emergency not covered by defense plans.

"In my testimony I would admit that is a source of silver. In the case of extreme emergency they can come in and confiscate the silver for national defense."

Mr. WEEKS. There was a 355-million-ounce deficit during the Vietnam conflict. That deficit considers the total demand, defense, essential-civilian and general civilian demand, and supplies from the United States production, scrap, and imports from Canada and Mexico.

In our view, the deficit figure of 355-million ounces presents a false picture because the demand figure reflected no restriction on civilian requirements as was the case in the Korean conflict and World War II. In the latter periods, where austerity programs were in effect, there was an actual surplus of supply over demand.

I think a point could be made, using the material from the GAO report, that the defense 3-year requirement of 115 million ounces can be met entirely from United States new production.

In any emergency, as we have said, the essential civilian needs of 298 million ounces can be met by a combination of scrap recovery—65 million ounces a year; imports from Canada—30 million ounces a year; and above ground stocks held by U.S. citizens and industries.

We cannot contemplate, Congressman, based on the information that is available to all of us, that the kind of emergency that you foresee will be beyond the capability of our reserves to handle.

Mr. MCDONALD. If you look at how much was used in the World War II period—which was a global war which did stretch us—and how much was used in the Vietnam war period—which admittedly did not stretch us, we did not have a war there, that was supposed to be a police action, as was Korea. If you had an all-out conflict, based on past problems with silver, I can see where silver would be in dramatically short supply.

With regard to that, I am sure you are familiar with the Bureau of Mines' study of the availability of elements between now and the year 2000, and in that study there are two things that really leap out at you. One is that the world is facing a dramatic shortfall in silver, between reserves and resources, but either way there is a gigantic shortfall. It is assumed to be a 2-billion-ounce shortfall in the world and, most pessimistically, a 5-billion to 6-billion-ounce shortfall. That is the Bureau of Mines' study.

Mr. WEEKS. I haven't read the study, but I will say this, over the last few years there has been a wide misconception on the part of the public. When you look at the supply-and-demand picture, you look at the supply in terms of production. You do not look at supply in terms of reserves.

The fact has been very interesting that in the last year, since certain pressures have been relieved, speculative pressures have been relieved from the market, that the price has been dropping. This week, it is lower than it has been in some time. In other words, we feel when the normal supply and demand including reserves, above ground reserves, are considered, and the free

market is permitted to operate, that the price of silver at present levels is much more realistic than it has been for a couple of years.

Mr. McDONALD. There are, as you know, good people who say that the true supply and demand balance of silver probably approaches something like $18 or $20 an ounce, rather than $8 to $10 an ounce. You had a tremendous amount come into the market from the people who had coinage, medallions, and what-have-you, and theft of sterling silver melted down and sold into the market by thieves selling it at $30 an ounce.

That tremendous supply from the general population that came about in 1980, came in only at dramatically high prices; 1980, as we have already discussed, was an unusual year. I was referring to the Bureau of Mines study, sir, that spoke to the resources in the world, the reserves in the world, the known silver in the world, as opposed to the conservatively expected demand. They point to a 5-billion to 6-billion-ounce shortfall. And it was one of the most dramatic shortfalls of any of the elements. The only more dramatic element was fluoride.

We are looking at things that we need.

One final thing: You mentioned there was no longer a monetary need for silver.

Do you know, through history, how long has silver been recognized, Mr. Weeks—from your study, you may or may not be an expert, and I rather expect you probably had an interest—but how long has silver had a monetary relationship in the civilized world?

Mr. WEEKS. Well, they tell me that around 2,000 years before Christ every civilization between the Euphrates and the Nile had silver as its currency.

Mr. McDONALD. How long have we been off silver in the monetary system here?

Mr. WEEKS. Since 1965, I guess.

Mr. McDONALD. I think if I was going to bet, I would bet with history rather than those who believe we can put our faith in paper dollars.

We have had those who have advocated paper gold, and so forth, but I think we are finding out that those who have the precious metals make the rules, and it is not the other way around.

While you may be right that we are out of monetary need, I think that is a temporary aberration, if you look at the long view of history, by your own admission of 4,000 years of relationship, recognized throughout the world. In World War II, it was very valuable.

I brought up the point in my testimony of how much silver would be needed in the case of a national emergency for barter with Third World countries to get vitally needed tantalum, titanium, or cobalt in the case of an emergency. Of course, nobody can answer that because it is a highly speculative question, but to say that there would be no need, I don't know how we could come to that conclusion.

Mr. WEEKS. As you know, there are some countries in the world today who use silver in coins—Austria and one or two others. Now, our needs have been substantially reduced, and there is no need at the moment that I know of. Perhaps Congress will decide we are going back to the precious metals for coinage.

Mr. McDONALD. There are bills before Congress right now to go back on a gold standard as a means of bringing honesty into the system. I don't think we are going to do it in this Congress, but there is a discussion about bringing back honest money.

Mr. Weeks, let me say it is a pleasure to have you, and I appreciate the opportunity of chatting with you in my office. We have a very good mutual friend, Mr. Robert Stoddard, who spoke very highly of you and your father.

Mr. WEEKS. Thank you very much. I enjoyed the discussion this morning and also the opportunity to visit with you in your office. Thank you, Mr. Chairman.

STATEMENT OF PAUL SARNOFF, DIRECTOR OF RESEARCH, RUDOLF WOLF COMMODITY BROKERS, INC.

Mr. SARNOFF. Mr. Chairman, and distinguished committee members, thank you for permission to testify this morning during your hearing on stockpile legislation.

I want it clearly understood that I appear here this morning in support of Congressman Larry McDonald's bill, H.R. 2603, to buy strategic materials, including silver.

I would also like to emphasize that I am emphatically against any sale of silver for the national stockpile. My convictions in this regard are based upon objective and legitimate—and if you will permit me to wave our flag for a moment—also for patriotic reasons.

In the fall of 1979, I gave testimony before another House subcommittee and revealed at that time that the Soviet Union had a growing need for silver as that country's population became more and more westernized. Other experts in the commodity industry also know that the Soviet Union has a growing annual silver deficit and has been buying silver—never selling it.

Proof of my contentions emerged in 1980, when news from Swiss sources indicated massive movements of silver into the U.S.S.R. from the Swiss silver vault. Further proof emerged when it was made known that during 1980 the Soviet Union—and not Mexico—was the world's largest silver producer, with an estimated production of 49 million troy ounces.

During the first 5 months of 1981, it is quite common knowledge that the U.S.S.R. has been beefing up its defense industry, while its population continues to take pictures of children and grandchildren, increased usage of silver for batteries, solar energy, and computers—and everything else that silver is used for in both military and civilian applications.

In the U.S.A. in the past few years, our civilian and military demand for silver approximated three-fourths of an ounce per person per year. Assuming that the Soviets have not yet become as silver-needy as our citizenry, I estimated last year that Soviet silver consumption was approximately one-half ounce per capita. The last I heard, there were about 300 million people controlled by the Soviet Union, or an estimated silver demand of 150 million ounces annually.

Since newly mined Soviet silver approximated 49 million ounces, it is obvious that that country had a sho[illegible] 100 million ounces during 1980. And this shortfall is grow[illegible]v. The Sovi[illegible]

course, have some recycling capability, but do not have at hand either the silver scrap or the coin melt available to Americans.

For many years, the Soviet Union has had two-way dealings with bullion dealers who have American corporations on their shores, but whose trading arms have reached around the world for centuries through parent corporations based outside the United States. These bullion dealers, the five major ones who make the London gold market, have traded, swapped, and done two-way business with the Soviet Union for decades in precious metals, and these metals include gold, silver, platinum, palladium, and other palladium group metals.

Perhaps that is why, on March 27, 1981, the chairman of an affiliate of one of these London-based bullion firms made public that they "had formed a syndicate of banks and bullion dealers who are prepared to buy up all the so-called silver overhang—the Hunt physical silver horde of 63 million ounces—at a reasonable price." Later, I learned this price was $8 an ounce.

And when the same estimable gentleman gave testimony to Senator Stewart's committee in early May 1980, and reiterated this magnanimous offer, Senator Stewart asked, "Did you do this out of the goodness of your heart, or to save your business?" But the spokesman for the bullion dealers shot back, "Oh, no, Senator, I did this for man's noblest motive: greed."

So far, the bullion dealers have not been able to part the Hunts from their physical silver holdings at currently depressed prices, but even if the dealers were successful, and even if the Hunts let go at current levels, do you think these dealers would carry an inventory of 63 million silver ounces, costing almost $650 million, in the face of currently high interest rates?

Chances are, there is a ready buyer waiting in the wings to take up this silver package because the buyer needs it for both defense and civilian applications. And this ready buyer's initials are U.S.S.R.

The Soviet Union, however, is not the only country encountering a growing need for silver. The People's Republic of China has shown stringent signs of becoming modernized when it comes to items which use silver. While there are, of course, ore bodies inside China that once supplied its silver coinage needs, chances are that within the next 4 or 5 years, as China becomes a bit more westernized, its per capita needs for silver will be approximately the same one-half ounce per person annually that exists today inside the U.S.S.R.

Should this foreseeable condition occur, what will the annual Chinese silver demand be? This year, China's population exceeds 963 million souls. A fair assumption, but a highly conservative one at that, is that by the end of 1984, there will be over a billion Chinese who will require 500 million silver ounces a year, and probably more. Where will the silver come from? A stockpile? The Hunts? The bullion dealers? Canada, Mexico, and Peru?

In 1984, world silver production is estimated at only 425 million ounces.

Permit me to emphasize that if we make the serious mistake of selling any silver from our stockpile, we will, 5 years from now, be in that same embarrassing position as when we once sold cobalt at $2

a pound from the stockpile. We are now in the market trying to buy it at 10 times that price.

So the point I attempt to make is that, with rare exception, whenever metals have been sold from our stockpile, they have been sold at bargain prices, and when our Government needs these metals, the purchase price is substantially higher than the selling price.

We once had over 2 billion silver ounces in our stockpile, and now we have only 139½ million ounces. What price did we get from the 1.8 billion silver ounces that disappeared? And what price will our Government have to pay if it has zero balance of silver in the stockpile and the stockpile members decide that silver should be bought? This possibility could arise if and when the MX-missile plans emerge and our defense needs require silver batteries instead of those made with lithium chloride substances.

Surely the Soviet planners are aware that silver has the highest electrical and thermal conductivity of all metals, that it possesses the lowest contact resistance, and that silver batteries are unique as they can deliver large amounts of power in a short period of time.

Silver oxide batteries are used in defense-related storage battery systems in both missiles and torpedo power systems; and silver zinc batteries are used in diverse applications in naval and outer space services. Moreover, silver cells are used to power watches, cameras, calculators, and hearing aids.

Not so oddly, last year, during the roller-coaster silver ride, when the daily average price of the metal stood at $20.63 an ounce, the single increase in the usage of silver in the United States involved the battery industry.

I just want to digress for a moment and point out at the time silver got up to close to $50 an ounce, the Navy needed silver, and they got it from our stockpile. We didn't have to buy it.

What the 139½ million ounces of silver our Government owns represents is a year's civilian supply in normal times. In World War II, we used an excess of that amount on an annual basis of each of the years we were involved in combat.

I put it to you that the Strategic and Critical Materials Stock Piling Act, as amended, does not precisely call for the provision in the letter, John W. Macy, Director of FEMA, revealed on July 31, 1980, to Vice President Mondale. In that letter, Mr. Macy averred:

> The act as amended, provides that strategic and critical materials be stockpiled in the interests of national defense to preclude a costly and dangerous dependence on foreign sources of supply in times of national emergency.

[The letter from FEMA Director Macy to Vice President Mondale in its entirety follows:]

FEDERAL EMERGENCY MANAGEMENT AGENCY,
Washington, D.C., July 31, 1980.

Hon. WALTER F. MONDALE,
President of the Senate.

Hon. THOMAS P. O'NEILL, Jr.,
Speaker of the House of Representatives.

SIRS: The Strategic and Critical Materials Stock Piling Act, as amended, provides that strategic and critical materials be stockpiled in the interest of national defense to preclude a costly and dangerous dependence upon foreign sources of supply in times of national emergency.

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THURSDAY, JUNE 4, 1981

The President assigned stockpiling activities to the Director of the Federal Emergency Management Agency. The Office of Plans and Preparedness in the Agency is established to carry out the mandate of the Stock Piling Act. This Stockpile Report to the Congress for October 1979–March 1980, together with a statistical supplement under separate cover, is submitted in accordance with Section 11 of the Act.

Sincerely yours,

JOHN W. MACY, Jr., *Director.*

But for the purpose of this act, section 12 states: "The term strategic and critical materials means materials that (a) would be needed to supply the military, industrial, and essential civilian needs of the United States during a national emergency; and (b) are not found or produced in the United States in sufficient quantities to meet such needs."

By definition in the act, and by supply/demand deficits in silver that have existed each and every year since the end of World War II, silver eminently qualifies as a strategic item which should be bought for the future benefit of our country and not sold to possibly aid our adversaries in their time of need.

Interestingly enough, our Government halted—and discontinued—selling silver at give-away prices to the domestic users and foreign buyers on November 10, 1970. It has been held that the trouble with history is that it often repeats. We once sold off the Sixth Avenue elevated structure to a friendly nation and the iron items came back at us later in the form of bombs during World War II.

Please do not again make the mistake of disposing of a strategic material that may some day be coming back at us as a power pack in a torpedo or intercontinental ballistic missile.

Thank you very much.

Mr. BENNETT. Thank you, Mr. Sarnoff.

Mr. McDonald, have you a question?

Mr. MCDONALD. Thank you, Mr. Chairman.

Mr. Sarnoff, let me thank you for your very excellent testimony. On your next-to-the-last page, you brought up a point that we have not really covered in the hearings. Indeed, on Tuesday, there was the reference by the Government witnesses that we have a treaty with Canada, and, if push comes to shove, we can rely upon the treaty, and the Canadians will do their part.

My reading of treaties has been that they have not been a reliable instrument for long-range American policy. I wish perhaps they had been, but the fact is treaties are broken.

You did point out rather clearly, first quoting the letter of Mr. Macy in 1980, and also in the act, itself, that the whole purpose of the stockpile is to avoid dependency upon foreign sources for costly or critical items, period.

In listening to the Government witnesses, they seem to want to put a little asterisk at this point and say, "Except for Canada and Mexico."

I thought your testimony, and also that of Dr. Strauss, pointed to the fact that the administration has not applied the same test with regard to elements like silver and zinc, even though the[y] from similar sources.

I don't know what the background or motive [is] and GSA, but I do think there is a problem.

Nevertheless, I want to compliment yo[u] point. I think even members of this com[mittee]

the stockpile possibly with an asterisk—as long as we can rely on Mexico, Canada, or other countries, that everything will be all right.

Have you any comment on that?

Mr. SARNOFF. Let me tell you, gentlemen, in case you don't know it—and I have been to these countries, and I have spent time in them—that Peru and Mexico have a relationship in which Peru markets all their metals, all their silver, and so forth, through Mexico. They send the concentrates, and so forth, to Mexico to be refined into the actual metal. So they are working together.

We have a peculiar situation. As everybody knows, we are on the outs with Cuba, so if somebody needs a part for a 1940 Ford, or 1950 Ford, you can't buy it direct from the United States, but you can buy it from a Mexican company, who might order it from the United States and sell it to them, or something like that.

What I am trying to bring out is, I have knowledge that the Soviet Union has purchased during 1980 and 1981 silver from Peru through Mexico. So they could be just about as reliable as they are with their oil. If you will recall, at the time we needed oil, and we felt Mexico was a really good neighbor, they jacked up the price of oil just like OPEC; they didn't care.

But the question is not one of dollars and cents, gentlemen. The question that we have is a strategic metal which is essential in time of war, and if we sell it out now, we are going to have problems getting it back.

Mr. BENNETT. If there are no further questions, I would like to ask you, Mr. Sarnoff, if you have any feeling or knowledge about the other products in this bill, like iodine and other things to be sold? I can give you the list.

The list contains 1 million pounds of iodine; 1.5 million carats of industrial diamond crushing bort; 710,253 pounds of mercuric oxide; 50,000 flasks of mercury; 6 million pounds of mica, muscovite splittings; 25,000 pounds of mica, phlogopite splittings; and 139.5 million troy ounces of silver.

Mr. MCDONALD. Mr. Chairman, could you identify which bill for the witness?

Mr. BENNETT. The administration bill, H.R. 2912, which is a bill we must address. It lists:

(1) 1,000,000 pounds of iodine.
(2) 1,500,000 carats of industrial diamond crushing bort.
(3) 710,253 pounds of mercuric oxide.
(4) 50,000 flasks of mercury.
(5) 6,000,000 pounds of mica, muscovite splittings.
(6) 25,000 pounds of mica, phlogopite splittings.
(7) 139,500,000 troy ounces of silver.

Are you knowledgeable about those things? Is it all right to sell those, in your opinion?

Mr. SARNOFF. Permit me to reveal that I am in the middle of doing a book for John Wiley, the publisher in New York, on strategic metals. I am also a consultant to several firms in that particular field. The gut feeling that I have as a citizen is simply that we have certain materials in the stockpile and these materials have been purchased and paid for by the taxpayer, and they are available.

What condition they are in might be something else, but the fact is, we have 1.5 million carats of industrial diamonds, which, if we sold them off, we are getting back dollars, and unless the dollars are being used to buy platinum, palladium, tantalum, or whatever strategic metals we have, it doesn't make any sense because where are we going to get the industrial diamonds from, when we need them for tools?

The business of mercury—all that is happening with mercury is very simple. The GSA keeps selling it off from time to time, and certain stockbrokers or dealers who are in the strategic metals business buy it and sell it for a profit.

As you know, it so happens I was given the honor of being the first person to address, in November 1978, an informal group in Washington called the Capital Metals Forum. This was a forum that consists of people from all the government agencies involved in metals.

I was asked at that time, why do I object to the sale of gold from the Treasury. My answer was that I objected because they were selling the gold for dollars; the dollars keep depreciating in purchasing power. On the other hand, I had no objection if they took the gold and swapped it for other essential materials.

Mr. BENNETT. You don't specifically know if these particular objects are in excess or not, but your feeling is that they should be traded only for other things that are more needed?

Mr. SARNOFF. I don't want to get into a hassle with the way FEMA arrives at the method of determining whether a commodity is excess or essential. It is a very complicated process in which they use models. In these models that they use, they are evidently using parameters, or mathematical figures that are coming to them without industrial input. It is coming to them from the various agencies. It is not coming direct from industry. It comes from the various agencies.

Consequently, you have a situation where—for example, I was an ordnance officer in World War II. If I can recall, if they needed certain ammunition, shells or bombs, the government always made up a lot more than they actually needed because of the problem that the materiel might be lost on the way to the front or wherever they were using it.

You cannot say that in time of emergency you are going to use *x* amount of material. It has to be *x*, plus *y*, plus *z*, plus other contingencies. That is what the whole stockpile is about: contingencies.

If we actually have any of these materials—I am against the sale of any of these materials. There is a very easy and fine way to raise money for the stockpile without selling off any of these materials.

Mr. BENNETT. What is that?

Mr. SARNOFF. That is easy. Just declare a 6-months moratorium on paying the interest on the national debt, and you will have $35 billion available to pay for strategic materials. Wait a minute. I am not kidding you. I am telling you something.

Mr. BENNETT. That would be a tax on people who bought the bonds.

Mr. SARNOFF. The point is this: The Government yesterday paid, I think it was, for 15 days money, cash that they needed, over 18 percent. This is an outrage. In 1970, our national debt was $380 billion. The interest rates were a third to a quarter of what they are today.

Today, we have a national debt at close to $1 trillion. Now, for the Government to raise money for essential needs, all they have to do is tell the bankers, "Wait 3 months for your money," and a quarter of the year waiting for money will raise more than enough money for the stockpile.

Mr. BENNETT. Thank you very much.

Admiral Mott is Executive Director of the Council on Economics and National Security. He, incidentally, was a member of the Reagan task force on strategic materials and kindly visited with me at the early part of this administration.

I want to pay a compliment to this administration in having this task force and having the people who thoughtfully visited with Members of Congress. It is sort of an innovation, I think—at least, I had not experienced it before and thought it was a very fine thing to do.

We are very glad to have you with us today, Admiral Mott.

STATEMENT OF REAR ADM. WILLIAM C. MOTT, USN (RETIRED), EXECUTIVE DIRECTOR, COUNCIL ON ECONOMICS AND NATIONAL SECURITY

Admiral MOTT. Thank you very much, Mr. Chairman.

I would like to point out I represent a charitable organization which has no vested interest in anything except the defense interest and the public interest. That is the Council on Economics and National Security.

I brought up these pamphlets to let you know who we are and what we are. I think it is important that we do not represent any interests except the public interest.

[The following information was received for the record:]

THE RESOURCE WAR—WHAT IS IT?

THE RESOURCE WAR HAS ARRIVED

Voices are now being heard across the land warning of the ever-present possibility of interruptions in U.S. imports of "strategic minerals"—as they are officially termed—which are indispensable to our economy and national security. Thus, one of the most knowledgeable men in public life, William J. Casey, Ronald Reagan's 1980 Presidential campaign manager and now Director of Central Intelligence, warned in an address before the Chamber of Commerce of the United States:

"Others, well away from our borders, can now place their hands on our economic throttles and on our economic throats. International tensions and threats are not limited to military ones. There are other power projections far more subtle because they are largely unseen and thus not readily perceived. Senator Goldwater [Chairman, Senate Intelligence Committee] has warned of the dangers of being caught short without an adequate gameplan to deal with it. We would lose access to the minerals chromite, cobalt, tantalum and others. . . ."

Casey was alluding to the little-known Soviet policy of trying to deny the United States and its allies access to major sources of strategic minerals, chiefly in southern Africa. Then, in a graphic depiction of what the success of that policy would mean to America, he went on:

"It would mean massive shocks to our economic system and current life-styles, Without these minerals, we cannot make TV sets or computers, or heart-lung machines or produce high-grade stainless steel for a thousand uses. The implications

for our defense caspabilities are just as grim. No supersonic jets and no sophisticated submarines."

Alexander M. Haig, Jr., before he became Secretary of State, warned in Congressional testimony of a minerals crisis "rooted in our own and our allies' dependency on imports of key materials." Then, giving a name to the Soviet policy of trying to deny the allies access to strategic minerals sources, he added ominously:

"The era of the resource war has arrived."

Other voices, these not of public servants, warn of the minerals crisis in language similar to that of Haig and Casey. Thus, for example, the respected American Geological Institute, a body embracing 50,000 professional U.S. geologists, states in no uncertain terms:

"Without manganese, chromium, platinum and cobalt, there can be no automobiles, no airplanes, no jet engines, no satellites, and no sophisticated weapons—not even home appliances."

PROFILE OF THE MINERALS CRISIS

What is the minerals crisis? How does it manifest itself?

The United States depends upon foreign sources for 22 of 36 nonfuel minerals essential to the functioning of its industrial base.

Out of 62 individual minerals or groups of minerals defined by Congress as "strategic," we import over half of our consumption of 20 of them.

We are "dangerously dependent," in the phrase of the American Geological Institute, upon imports of four of the 20, to wit: 98 percent of our cobalt; 98 percent of our manganese; 92 percent of our chromium; and 90 percent of our platinum.

To give some idea of how vital these minerals are to the economy, it takes 900 lbs. of cobalt to make a jet engine, reports Pratt & Whitney, manufacturer of the JT8D jet engine used by 83 percent of our commerical aircraft. If our cobalt imports were cut off, about one fourth of our civilian planes—the Boeing 737s and DC 9s we fly daily—would be grounded twelve months later, Pratt & Whitney calculates.

Even the automobile, which virtually every American family regards as a necessity, would be threatened with extinction without cobalt, as well as chromium and manganese, and particularly platinum. As the Joint Economic Committee of the Congress pointed out in study:

"This critical metal [platinum] is doubly important because it is used in the process of converting crude oil into gasoline and in the manufacturing of catalytic converters."

Still another common necessity, the telephone, would become an endangered species without cobalt, chromium and, again, platinum. So would, for that matter, the entire electronic industry. For, just to cite one use, telephone contact points are coated with a platinum-group metal, palladium, since it is highly resistant to friction.

As for manganese, "no steel can be manufactured" without it, concludes a Royal Institute of International Affairs (of London) study. Literally innumerable industries could not exist without manganese.

Our very technology, the basis for much of America's astonishing industrial progress, would be jeopardized by shortages of such a strategic mineral as chromium, according to the National Academy of Sciences. For chromium, points out the Academy, "is irreplaceable in stainless steels and high-temperature resisting superalloys, two classes of materials that are vital to the technological well-being of our nation."

TANGIBLE EFFECTS OF MINERALS SHORTAGES

Like the mushroom cloud of an atomic explosion, shortages of strategic minerals would spread from industry to industry and ultimately blanket every corner of our industrial base, threatening our standard of living, our very society itself.

Shortfalls in just the four strategic minerals discussed above could cause shutdowns or slowdowns in such basic industries as: transportation, construction, manufacturing, electronics, steel, oil, chemicals, technology, even agriculture. That would throw untold millions of Americans out of work, shoot prices through the roof, render the dollar practically valueless. Even the nation's ability to defend itself would be in grave doubt. The resultant social and political repercussions in the country would defy the imagination.

WHAT ARE THE CHANCES OF MINERALS CUTOFFS?

Is there any real danger that our strategic materials imports will be cut off?

Consider Zaire. We import more than half of our cobalt from that chronically unstable southern African country. Through the 1970s, its cobalt production was

interrupted several times. In 1978, it was halted altogether when Katangese rebels invaded cobalt-producing Shaba province from next-door Angola. Zaire's cobalt exports to the United States were rationed, as a result, while prices soared more than 400 percent.

Cobalt "ranks highest on the disruption index through 1984," according to a pilot study on the possibilities of interruptions in the imports of critical minerals published, in 1979, by the Dept. of Interior's Office of Minerals Policy and Research Analysis. Since well over half of our cobalt comes from Zaire, the chances of an interruption of supplies from there by 1984 are obviously considerable. That, judging by Pratt & Whitney's estimates noted above, could all but cripple our civil aviation fleet, for one—unless preventive measures were taken long before.

Many of the 20 strategic minerals we import come from southern Africa, often called the "Persian Gulf" of minerals. But the region is afflicted with a multitude of internal and external problems that make it chronically volatile. Hence the "Zaire syndrome" of uncertain or interrupted supply of such minerals could be repeated elsewhere in the region. Mere mention of such names as Namibia, Zambia and Zimbabwe, all major producing countries, should suffice to make the point.

THE SOVIET ROLE

The very instability of southern Africa, and of Africa in general offers the Soviet Union a classic target of opportunity. The overwhelming minerals dependence of the United States and its allies upon that continent makes the target all the more tempting—and of course the Soviets have been losing no time in exploiting it.

The central objective of the Soviet resource war is to bring the West to heel by denying it access to African minerals, by means short of hot war but not excluding outright belligerence—usually, acting through proxies—in attractive situations. The resource war is, then, generally "non-military," in William Casey's phrase, and waged with little cost and minimum risk to the Soviets—a style of political combat eminently suited to the Kremlin.

Soviet resource-war policy is firmly rooted in Leninist doctrine. Lenin himself predicted that the West's inordinate reliance on raw materials from its (then) colonies would ultimately doom it, and urged his comrades to hasten that day of reckoning. Hence Moscow's emphasis, since World War II, on supporting Third World "national liberation movements" aimed at destroying "Western imperialism." As Stalin said, as long ago as 1921:

"If Europe and America may be called the front or the arena of the major battles between socialism and imperialism, the unequal nations and the colonies, with their raw materials, fuel, food and vast store of man-power, must be regarded as the rear, the reserve of imperialism. To win a war it is necessary not only to triumph at the front, but also to revolutionise the enemy's rear, his reserves. Hence, the victory of the world proletarian revolution may be regarded as assured only if the proletariat is able to combine its own revolutionary struggle with the liberation movement of the labouring masses of the unequal nations and the colonies against the rule of the imperialists and for the dictatorship of the proletariat." (May 2, 1921, reprinted in *J. Stalin Works,* Moscow: Foreign Languages Publishing House, 1953; Vol. 5, pp. 57–58.)

There has been no change in that Soviet policy from Lenin to Brezhnev. Indeed, why should there be? It has been paying off.

In 1975, Soviet-backed Cuban troops overwhelmed the former Portuguese colony of Angola and brought it into the Soviet orbit. In 1978, that made possible the Katangese invasion of Zaire and the shutdown of U.S. cobalt supplies, since it was launched from Angola with Soviet-Cuban aid. Thus the direct link between resource war and hot war.

In 1981, Libya invaded Chad—largely because of the uranium concentration in the general area—and established its domination there, thanks to massive Soviet military aid amounting to $2.5 billion between 1974 and 1979, and correspondingly great quantities thereafter. Thus another resource war-hot war link.

(In general, Moscow has given its African friends and allies the huge amount of $3.6 billion in military aid since 1974, a total "almost eight times as much" as the United States, according to Prof. Morris Rothenberg's authoritative "The U.S.S.R. and Africa: New Dimensions of Soviet Power.")

But most alarming of all is the naked invasion of Afghanistan by the Soviets themselves, in December 1980, which not only guaranteed control over that country's undeveloped natural resources but also positioned their armed forces within a stone's throw of the world's richest oilfields, in the Persian Gulf. And it is through the narrow Straits of Hormuz chokepoint that Gulf oil reaches the West and Japan. Once again, resource war and hot war meet.

Still, the Soviets prefer economic and political weapons, rather than guns, to reach their resource-war objectives. They even employ capitalist marketing techniques to do so. Thus the House Mines and Mining Subcommittee has uncovered several cases of Soviet manipulation of the world minerals market in recent years. In one instance, Moscow suddenly stopped "dumping" titanium on the U.S. market (at 25% below the going price), leaving this country short. That partly accounted for a reduced U.S. stockpile and forced American defense contractors to scour the world for titanium.

"Soviet policy in Africa," observes Sen. Harrison H. Schmitt (R.-N.M.), whose Science, Technology and Space Subcommittee has held hearings on the resource war, "strongly serves Soviet commercial interests since turmoil in Africa will strengthen the prices of Soviet exports and their leverage on U.S. foreign and domestic policies."

The Soviets have, in fact, a nationalist economic motive for denying the West strategic minerals, which is to stockpile minerals for themselves to offset possible future shortfalls in their own production. Although they presumably possess huge mineral deposits in their Arctic wasteland, the cost of extracting them from the permafrost and creating the necessary infrastructure is much greater than simply buying them elsewhere. Time magazine reports (Apr. 20, 1981) that "A study by Dr. Daniel Fine of MIT's Mining and Minerals Resource Research Institute concluded last year that the Soviet Union is becoming a net purchaser of minerals as a way of protecting its own reserves." The Soviets are thus in direct competition with the West and Japan for nonfuel minerals as well as oil.

WHAT CAN WE DO TO WIN THE RESOURCE WAR?

Notwithstanding the considerable headstart the Soviets have in the resource war, and the enormous advantage of their proximity to the Persian Gulf and Africa, they are still far from winning it. The biggest obstacle to their hoped-for victory is, of course, the very country they would make their chief victim: the United States. If America wakes up to the danger confronting it, and takes the necessary measures to defend its interests and those of its allies, it can undoubtedly win the resource war.

What should be done?

1. National strategic-minerals policy

Above all, the United States must have a strategic-minerals policy which reflects both concern for our industrial base and national security considerations.

2. Stockpiling

The country must meet goals set for the stockpiling of strategic minerals in the Stock Piling Act, as the most immediate, direct way of reducing its "dangerous dependence" on the overseas sources.

3. Domestic minerals production

The long-run solution to such dependence is to open up Federal lands to "multiple use," including mining exploration and development in accordance with the 1970 Mining and Minerals Act. Also, to negotiate an acceptable Law of the Sea Treaty which would encourage deep seabed mining.

4. Minerals and materials technology

Ultimately, we must develop adequate, even superior, substitutes for minerals and materials not found in the United States in commercial quantities.

5. Tri oceanic alliance

Meanwhile, to assure continued access to present sources of stragegic minerals, we must protect the sealanes—crossing three oceans: the Indian, Pacific and Atlantic. This calls for the establishment of a "tri-oceanic alliance" among the friends and allies directly concerned.

6. Information-education

Finally, a broad informational-educational campaign must be undertaken, at home and abroad, to inform and alert the people, media and policymakers of the United States and friendly nations concerning their vulnerability in the resource war.

WHAT IS CENS?

CENS—the Council on Economics and National Security—was formed precisely to attempt to answer the need for such a broad informational-educational campaign,

and has already engaged in a number of important activities designed to heighten public awareness of the resource war. Among them are the following:

1. CENS assisted the American Geological Institute in organizing a press conference on the resource war just before the 1980 Presidential election, during which the AGI issued a statement calling upon the three major Presidential candidates to "focus public attention" on the issue. Alone of the three to respond, Ronald Reagan made a formal statement of his own, calling for "an enlightened policy" on strategic minerals, and promising to name a task force on the question.

2. When the Reagan-Bush task force was formed, CENS was represented on it, and worked with Chairman R. Daniel McMichael in the drafting of a series of policy recommendations later submitted to President Reagan.

3. CENS has worked unceasingly to alert U.S. opinion makers—especially leaders of industry and commerce—to the urgency of the strategic materials issue. In that connection, it has held resource-war conferences in Dallas, St. Louis, Washington, D.C. and New York City, and is planning others in Los Angeles, San Francisco, Houston, Cleveland, Chicago and New Orleans, and overseas in Bonn, Paris and Tokyo.

4. CENS has been playing a major role in sensitizing the media which, for the first time, is beginning to recognize the seriousness of the resource war. Thus, CENS has been instrumental in the publication of new stories and editorials by the Associated Press, United Press International, Independent News Alliance, Baltimore Sun, Washington Post, Washington Star, Wall Street Journal, Newsweek, Business Week, Reader's Digest, Nation's Business, Enterprise, Seapower, Metals Daily, Defense Daily and National Journal.

5. CENS has initiated a publication program of its own, starting with its White Paper on "The Resource War and the U.S. Business Community: The Case for a Council on Economics and National Security," which has gone through four printings. The present brochure continues CEN's publication program.

6. CENS's future plans call for the publication of a study, by the Advanced International Studies Institute, on Soviet resource-war doctrine; the publication of a popular book on the resource war, and the filming of a documentary suitable for television and use in schools, community programs and business conferences.

But to satisfy the nation's need to know about the resource war as soon as possible, CENS must have the support of every industry—indeed, of every company, businessman and executive—in the United States, for it is they who, in the final analysis, are directly in the line of fire of the Soviet's resource war.

Until now, CENS has been supported by a few farsighted and generous foundations and companies. CENS must continue to attract financial support from a broad spectrum of industry.

CENS is a project of the National Strategy Information Center, Inc., a nonpartisan, nonprofit tax-exempt institution under Section 501(c)(3) of the Internal Revenue Code. Your contribution to CENS—which should be made out in the name of the National Strategy Information Center and earmarked for CENS activities—will therefore be tax deductible.

Admiral MOTT. Congressman Santini has been for a number of years a voice crying in the wilderness with respect to our country's lack of a national nonfuels minerals policy. In fact, he is kind of like Joseph trying to advise Pharaoh in Genesis about what is going to happen during lean years, so they should build up the stockpile to look forward to those years.

He tells it in a very dramatic fashion, of course. He didn't have much luck with the last Pharaoh, but he is still trying.

It would seem to me his voice is perhaps being heard, and perhaps his long-held dream as set forth in section 102(b)(1) of his bill, that this country will develop a national minerals and materials policy for a secure and continuous supply of minerals and materials will at last be realized.

He makes the point that this country does not now have a national minerals and materials policy, in spite of a study that was initiated partially by him, and he in his colorful way says that that study was the most dramatic nonstudy of the decade.

So, I applaud the findings and purposes of his bill. The findings are facts, which our Council on Economics and National Security

has already found to be true, and the purposes of his bill are each and every one essential to a sound minerals policy for the country.

With respect to the establishment of the Council on Minerals and Materials and its duties and functions, which he has in his bill, I am in favor of the idea of a council, Mr. Chairman, but not necessarily within the framework set forth in his bill.

Certainly an oversight mechanism is needed in the executive branch with a duty to report to the cognizant committees of Congress, including this one. But what form it should take should be worked out first in the executive branch and then communicated to you gentlemen for your suggestion, and hopefully acquiescence.

Every administration—and I have worked for a lot of them, and the Reagan administration is no different from others—has its own organizational style and the oversight mechanism it works out should fit into that style.

Several members of our council have joined in making recommendations—and that is all they are—as to the type of oversight mechanism this administration might want to consider to achieve the worthwhile objectives of the Santini bill.

One of them would be to reestablish the National Security Resources Board under currently existing legislation. This would give the President an immediately available, inplace, in-house body to advise him on minerals and materials security.

Furthermore, he would not have to establish a new bureaucracy to run it. All the people necessary are already in place. Whether such an organization would fit into the style and format of the Reagan administration, only it can decide, but if the subject of strategic minerals is considered important, as indeed the President himself has stated, the National Security Resources Board would be an effective mechanism to assist him in formulating policy.

There doesn't seem to be any question where President Reagan himself stands on the criticality of our strategic materials problem because he stated on March 13 of this year that he was, that day, directing FEMA to begin the first purchase program for the national defense stockpile of strategic and critical materials in over 20 years.

I am glad he pointed out this came about as a result of legislation passed in the last Congress because you, Mr. Chairman, communicated that to us when we came to see you.

To continue with excerpts of President Reagan's statement:

> These purchases of strategic materials, estimated initially at $100 million, are a step to restructure the existing $15 billion stockpile in critical areas of deficiency.

The President continues:

> It is now widely recognized, that our nation is vulnerable to sudden shortages in basic raw materials that are necessary to our defense production base.

Our vulnerabilities have been highlighted in a number of congressional hearings, including the one that Mr. McDonald referred to earlier, in which Gen. Alton Slay testified. Thus, this overdue addition to our stockpile constitutes a necessary hedge against any supply disruption. The President continued:

> In addition to strategic stockpiling I am considering other measures to decrease the nation's vulnerability, including ways to expand domestic capacity to produce strategic and critical materials.

This acquisition program is a necessary first step. It is expected that larger purchases will be made as funds from sales of excess materials build up in the stockpile fund.

I think it is important to recognize no matter what anybody else says in the administration, Mr. Chairman, the President said that he expected this money would be used to buy other strategic materials.

Now, you gentlemen are interested in and responsible for stockpile management. Again, several members of our Council on Economics and National Security joined in making recommendations to the Reagan administration that there should be established without delay an organization to bring in private sector advice to make a study of the U.S. strategic stockpile strategy, goals, and management.

I agree with Mr. Sarnoff, the last witness, that I don't completely trust in-house bodies. I want to see an out-house body make a study of the stockpile both qualitatively and quantitatively.

It would be the duty of the out-house body, comprised of selected industry experts—and you heard from one of them this morning, my good friend Simon Strauss, and there are others—to evaluate both the quantity and quality of current materials in the stockpile and establish priorities for eliminating, changing, upgrading, or replacing current inventory.

To give an example I have heard, Mr. Chairman, is that the quality of the cobalt in the stockpile, today, is not of sufficient quality to meet today's high technology standards. That is why I want an outside body to examine the stockpile and not take as gospel what you have been hearing from in-house people.

We were and are of the opinion that stockpile management should be depoliticized. It is for that reason we recommend a 3- to 6-month moratorium on stockpile transactions until a prestigious survey board has been appointed and has completed a quantitative and qualitative study of the stockpile, together with recommendations for poststudy transactions.

We have no way of knowing whether our recommendations will find favor or fit into the organizational style of the Reagan administration, but we still believe some kind of oversight mechanism should examine the critical stockpile issues before any decision is made to buy or sell any commodity currently in the stockpile, and that includes silver.

There have been times in the past—well-known in this committee and documented in these hearings—when for political or budgetary reasons stockpile inventories have been sold off. Unfortunately, the record of past actions seems to have followed the motto "Sell low and buy high" when new needs have demonstrated past selling actions to have been unwise.

That is no way to make money in the stock market, nor is it any way to make money in stockpile management. We believe a study and recommendations by experts, therefore, should be a condition precedent to any sale.

Thus, I have a generic objection to all the silver bills before you—buy or sell. I simply don't believe that enough evidence—such as that which would be generated by the study I have suggested—has been presented to this committee to form the basis of an intelligent decision.

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REAR ADM. WILLIAM C. MOTT

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If, as Secretary Haig has already testified about the House Interior Subcommittee on Mines and Mining, just before he became Secretary of State, "The era of the resource war has arrived," and if our chief intelligence officer, Bill Casey, as he has said publicly, with respect to strategic materials—and you just heard some of this from the previous witness—"others, well away from our borders, can now place their hands on our economic throttles and our economic throats"—that is a direct quote from the Director of Central Intelligence—then we had better look to bring our stockpiles up to all the authorized levels, as President Reagan has publicly said we should.

To do this, as your chairman, Congressman Bennett, has suggested to this witness orally, through the appropriations process alone, has not proved either expeditious or effective.

I do not mean to suggest that the appropriations route should be abandoned. Indeed, it cannot be if President Reagan's avowed stockpile objectives are to be reached. But in the meantime, any money realized from stockpile sales should be earmarked for needed stockpile purchases alone.

If I may quote the Bible once more, what this whole hearing reminded me of is the Biblical statement that "the voice is the voice of Jacob, but the hand is the hand of Esau" Genesis 27:22. The voice you heard from the administration was Jacob's voice, and I don't think it is any secret to this committee who Esau is.

WRITTEN STATEMENT OF REAR ADM. WILLIAM C. MOTT

This distinguished Subcommittee on Seapower and Strategic and Critical Materials has asked my views on four bills now before you. They are H.R. 3364 (the Santini bill), H.R. 2784 (the Conte bill), H.R. 2603 (the McDonald bill), H.R. 2912 (the Price bill/by request/).

Let me first comment on the Santini bill. Congressman Santini has been for a number of years a voice crying in the wilderness with respect to our country's lack of a national non-fuels minerals policy. It would seem that his voice is finally being heard, and perhaps his long-held dream, as set forth in Section 102(b)(1) of his bill—"to develop a national minerals and materials policy for a secure and continued supply of minerals and materials"—will at last be realized.

I applaud the "findings" and "purposes" of H.R. 3364, as set forth in Title I. The "findings" are "facts" which our Council on Economics and National Security has already found to be true, and the "purposes" are, each and every one, essential to a sound minerals policy for our country.

With respect to the establishment of the "Council on Minerals and Materials" and its "duties and functions," as set forth in Title II, I'm in favor of the idea of a Council but not necessarily within the framework set forth in the bill (H.R. 3364). Certainly, an oversight mechanism is needed in the Executive Branch with a duty to report to cognizant committees of the Congress. But what form it should take should be worked out first in the Executive Branch and then communicated to you gentlemen for your suggestions and, hopefully, acquiescence.

Every Administration, and the Reagan Administration is no different from others, has its own organizational style, and the oversight mechanism it works out should fit into that style.

Several members of our Council have joined in making recommendations (and that's all they are) as to the type of oversight mechanism this Administration might want to consider to achieve the worthwhile objectives of the Santini bill. One of them was to reestablish the National Security Resources Board under currently existing legislation (Section 5(1) of the National Materials and Minerals Act of 1980). This would give the President an immediately available in-place, "in-house" body to advise him on Minerals and Materials Security. Furthermore, he would not have to establish a new bureaucracy to run it. All the people necessary are already in place. Whether such an organization would fit into the style and format of the

Reagan Administration only it can decide, but if the subject of strategic minerals is considered important, as indeed the President has stated, the NSRB would be an effective mechanism to assist him in the policy process.

There doesn't seem to be any question where President Reagan himself stands on the criticality of our strategic materials problem. He stated on March 13th of this year:

"I am today directing the Federal Emergency Management Agency (FEMA) to begin the first purchase program for the National Defense Stockpile of strategic and critical materials in over 20 years. These purchases of strategic materials, estimated initially at $100 million, are a step to restructure the existing $15 billion stockpile in critical areas of deficiency.

"It is now widely recognized that our nation is vulnerable to sudden shortages in basic raw materials that are necessary to our defense production base. Our vulnerabilities have been highlighted in a number of Congressional hearings and panels concerning the industrial base. Thus, this overdue addition to our stockpile constitutes a necessary hedge against any supply disruptions.

"In addition to strategic stockpiling, I am considering other measures to decrease the nation's vulnerability, including ways to expand domestic capacity to produce strategic and critical materials. This acquisition program is a necessary first step. It is expected that larger purchases will be made as funds from sales of excess materials build up in the stockpile fund."

You gentlemen are interested in, and responsible in this august body, for stockpile management. Again, several members of our Council on Economics and National Security joined in making recommendations to the Reagan Administration that there should be established without delay an organization to bring in private sector advice to make a study of U.S. strategic stockpile strategy, goals and management. The members of this—what I call—"out-house" body would supplement the study made by such an "in-house" body as the reestablished NSRB.

It would be the duty of the "out-house" body, comprised of selected industry experts (with "in-house" government staff) to evaluate both the quality and quantity of current materials and establish priorities for eliminating, changing, upgrading, or replacing current inventories. We were and are of the opinion that stockpile management should be depoliticized. It is for that reason we recommend a three to six months moratorium on stockpile transactions until a prestigious Survey Board has been appointed and has completed a quantitative and qualitative study of the stockpile, together with recommendations for post-study transactions.

We have no way of knowing whether our recommendations will find favor or fit into the organizational style of the Reagan Administration. But we still believe some kind of oversight mechanism should examine the critical stockpile issues before any decision is made to buy or sell any commodity currently in the stockpile, and that includes silver.

There have been times in the past, well known to this Committee and already documented in these hearings, when for political or budgetary reasons stockpile inventories have been sold off. Unfortunately, the record of past actions seems to have followed the motto, "Sell low and buy high," when new needs have demonstrated past selling action to have been unwise. That is no way to make money in the stock market, nor in stockpile management. We believe a study and recommendations by experts, therefore, should be a condition precedent to any sale.

Thus, I have a generic objection to all the silver bills before you—buy or sell. I simply don't believe that enough evidence (such as that which would be generated by the study I have suggested) has been presented to this Committee to form the basis for an intelligent decision.

However, should circumstances force you to make a decision to "sell" silver or any of the other items listed in H.R. 2912, it is my opinion that the money realized from such sales should be irrevocably segregated into The Transaction Fund for future purchase of strategic materials.

If, as Secretary Haig has already testified before the House Interior Subcommittee on Mines and Mining—and Congressman Marriott heard him say—"The era of the Resource War has arrived," and if, as our Chief Intelligence Officer, Bill Casey, has stated publicly with respect to strategic materials: "others, well away from our borders, can now place their hands on our economic throttles and our economic throats"—then we'd better look to bringing our stockpiles up to authorized levels, as President Reagan has publicly said we should. To do this, as your Chairman, Congressman Bennett, has suggested to this witness orally, through the appropriations process, has not proved either expeditious or effective.

I don't mean to suggest the appropriations route should be abandoned. Indeed, it cannot be, if President Reagan's avowed stockpile objectives are to be reached. But,

in the meantime, any money realized from stockpile sales should be earmarked for needed stockpile purchases alone.

Mr. McDONALD. Thank you for your very refreshing testimony. I didn't have the foggiest idea what the testimony was going to be, but I appreciate your historical reference to Genesis and Joseph and his advice to Pharaoh.

You may recall that perhaps one of the greatest historical burdensome taxes was that of ancient Egypt during that period, and it reached an awesome level of 20 percent. That is viewed as one of the great tyrannies of history, that 20 percent tax.

Is it interesting that we are now debating in the Congress possibly a tax reduction of 5 percent, or maybe 10 percent. We could lop off a 50-percent amount and would still have a higher tax than one of the worst taxes in all of recorded history, that of Genesis where the Pharaoh basically brought up Egypt from the 20-percent level.

We should get back to that onerous, horrible tax of 1920. In 1776 we became separated from England because we had a horrible tax of 1 percent. In the South there were levies and tariffs that may have reached the horrible burdensome level of 3 percent, but you can average it out for 2 percent for the whole Nation, and I appreciate that reference.

You made a statement, and Mr. Sarnoff made it, too, and it is a point that has been bothering me for 20 years; that is, in the assessment of what should be in the stockpile and what is not, it has been in-house assessments and they have not gone out into industry, they have not gone out into the field to the experts and the people who have dealt with this.

This brings a great question mark with regard to the motives of some people involved.

We don't want to get into details because it is highly speculative, but we have had scandals in GSA and other areas, and without stating any distinct motives, I think I agree with you completely that we do a great service to this country if this subcommittee would move to move politics out of the stockpile and make a recommendation based from an outside source, not just in-house. We do need outside oversight. I strongly agree with that and I appreciate your interest there.

You did mention another point, the quality of the cobalt, which was a surprise to me. But my understanding is a sizeable quantity of the aluminum is in the form of bauxite and not as aluminium.

Now, in your opinion, Admiral, would it create any particular strain if during an emergency period we had to try to convert the bauxite to aluminium? Any strain on the electrical capacity of the country, since electricity is critical to that conversion?

Admiral MOTT. Well, yes. I suppose this is why one of the last acts of the Carter administration was a letter sent by Graham Claytor to Mr. McIntyre, the previous Director of the Bureau of the Budget, recommending that we ought to use title III of the Defense Production Act in four different categories, one of them being refractory bauxite.

[Letter of November 28, 1980, from Graham Claytor, Jr., to James McIntyre, Jr., follows:]

THE DEPUTY SECRETARY OF DEFENSE,
Washington, D.C., November 28, 1980.

Hon. JAMES T. MCINTYRE, Jr.,
Director, Office of Management and Budget,
Washington, D.C.

DEAR JIM: The dependency of the United States on foreign suppliers for critical materials is an area of extreme concern to the Department of Defense. Revitalization of our industry is essential if the United States is to retain a strong industrial base to protect the national security.

Recently, we have cooperated with the Federal Emergency Management Agency in the development of four proposals intended to establish or revitalize capabilities in specific industrial sectors. These four proposals, that may be implemented under existing authorities of Title III of the Defense Production Act, will increase domestic production capability for titanium, and establish new industries for cobalt, refractory bauxite and natural rubber.

Although the proposal requires $1.62 billion borrowing authority, actual expense to the government upon completion of all four programs is estimated to be only $150 million. This decreased cost results from careful selection and oversight of programs, and utilization of market guarantees for the establishment of floor prices. Floor prices will be below the anticipated market price and, in most cases, will result in no purchases by the government.

However, to guard against unpredictable situations, an upset clause is proposed for each contract: the clause provides the government with the options of purchasing at the negotiated floor price, or paying the undepreciated value of the investment. (This clause results in a maximum expense of $475 million, if all programs were to be terminated.)

The Department of Defense has invested considerable resources to resolve availability problems. I believe these four proposals are needed as a further step in the elimination of these specific material shortages. I strongly urge you to give FEMA the support necessary to accelerate the approval process.

Sincerely,

W. GRAHAM CLAYTOR, Jr.

Attachment.

TITLE III PROPOSALS SUBMITTED TO OMB

GUAYULE

Guayule is a source of natural rubber which grows wild in the desert Southwest. The project, lasting 10 years and costing $200 million, would establish the foundation for a commercial industry. Extensive coordination is required between the industrial and agricultural sectors of the economy. The short-term benefits to the Government are estimated to be $625 million while the increase in GNP is projected to be over $3 billion. By 1990, over 3,000 new, permanent, full-time jobs and economic opportunities will have been created for several thousand arid zone farmers in some of the lowest income rural counties in the nation, with Hispanic and American Indian populations exceeding 70 percent in some counties.

COBALT

Cobalt is a strategic metal used in high performance alloys and magnetic materials. About 75 percent of U.S. requirements are imported from Africa. FEMA proposes a guaranteed purchase-price program lasting 8 years so as to provide an incentive to potential domestic producers. Over the life of the program, 400 jobs will be created. The Government will accrue benefits of $2 billion and the GNP will increase $5 billion as a result of the project activity. The maximum cost to the Government would be $615 million, but the Government could cancel the program at any time for less than $225 million.

TITANIUM

Titanium is a space-age metal vital to the production of military and commercial aircraft. The program proposed is similar to that for cobalt. Over the life of [illegible] project, jobs will be created and GNP will increase $5 billion as a result [illegible] project. The total Government benefits would be $1.4 billion compared [illegible] mum cost of $710 million. The cancellation cost never exceeds $25 mil[illegible]

REFRACTORY BAUXITE

Bauxite used to make refractory brick, employed in steelmaking, is 100% imported material. The potential for using clays from the Southeast, mainly Georgia and Alabama, as a replacement material is significant. As extensive coordination is necessary between the mining and industrial sectors, and additional development work is necessary before this can become a commercial venture, FEMA proposes to fund the project through the pilot plant stage. Compared to a cost of $110 million, Government benefits are $216 million. Favorable economic impacts include a GNP increase of $886 million and 50 additional full-time jobs.

Nothing happened to that recommendation, and I don't know whether anything is going to happen to it under the present administration. I may say that he also recommended that in order to beef up supplies of cobalt we should use title III of the Defense Production Act to encourage mining of cobalt.

You know, the cobalt that was mentioned this morning is not really in the wilderness area, Mr. McDonald. There is a mountain of cobalt outside the wilderness area, but Noranda Corp., a Canadian mining company which owns the mining rights, is not going to mine it unless it can sell at a profit. It will not put $1 billion of its stockholders' money into the development of the mine, as has happened in the copper and zinc industry. With our off-the-shelf attitude on buying and our environmental restrictions we have cut the ground out from under domestic mining.

There are other critical strategic materials. Guayule was one in that Claytor letter, and the other was tantalum. I think FEMA has said they still have in mind that they will use title III of the Defense Production Act, but I agree with you—just let me say I have heard enough to make me highly suspicious, sir, that some of the items in the stockpile are not of the quality they ought to be, and that is why we have recommended that a body of outside experts, and people like Simon Strauss, people like Andy Andrews of Allegheny Ludlum and Dr. Baker of Bell Laboratories, be appointed as an out-house group to make a qualitative and quantitative survey of the stockpile before any recommendations are made to sell or buy.

It wouldn't take all that long. It would take a stroke of the pen to start this up, and I would judge if those people volunteered—and we have many patriotic people in this country with sufficient expertise, that within 3 months, and at the very outside 6 months, you would have an outside opinion that would be very valuable to the members of this committee and to the country.

Mr. McDONALD. I appreciate that.

Let me ask you a quick question, which I think you have already answered. Title III of the Defense Production Act has been most helpful in stimulating and supporting expansion of production of critical materials in the United States. However, the act has been used sparingly in recent years.

In your opinion, should more emphasis be placed on using the act to stimulate domestic production of critical materials? I think you have just answered that.

Admiral MOTT. Yes, and I am sure the letter of Mr. Graham Claytor to Budget Director McIntyre is available to the committee in which he opened the letter by saying:

The dependency of the U.S. on foreign suppliers for critical materials is an area of extreme concern to the Department of Defense. Revitalization of our industry is

essential if the U.S. is to retain a strong industrial base to protect the national security.

Then he tells what he thinks ought to be done about it.

Mr. McDONALD. Thank you, Admiral.

Admiral, let me ask another quick question. It has been quite obvious that the sale of surplus stockpile materials will not generate enough cash, assuming all of it went into the buying of the stockpile, to pay for all the materials needed.

Admiral MOTT. May I say, sir, that is a big assumption you just made.

Mr. McDONALD. Based on past history, it is really strange that an elephant could swallow that one, but nevertheless we couldn't swallow it any better when we had donkeys.

Would you support legislation to transfer funds from other accounts, such as the sale of the Defense Department real estate now accruing to the Land and Water Conservation Fund, or income from the naval petroleum and oil shale reserves, or income from off-shore oil leasing, et cetera, using those funds to beef up the stockpile?

Admiral MOTT. That was brought up earlier by a previous witness. I thought the chairman was going to rule the question out of order. It is a very big question, sir. I would think it would have to be made by the Reagan administration initially.

It certainly is a novel solution to the problem, but again you are going to face the same question that you face here; that is, whether or not there wouldn't be very strong pressures to put that in the general revenues of the Treasury for budget balancing efforts.

It seems to me this major problem has to be solved between committees of Congress and the President of the United States.

Mr. McDONALD. In your opinion, Admiral, in your study of the current series of bills, the administration bill and so forth—I don't know how closely you have followed them—appearing before the Senate Budget Committee—from your memory, were there any plans to sell off elements of the stockpile, this year, and to use that money to lessen the deficit rather than correct stockpile needs?

Admiral MOTT. Do you mean were there any such plans in the group that the President appointed to review strategic minerals?

Mr. McDONALD. Yes, sir.

Admiral MOTT. No, not to my recollection.

Mr. McDONALD. How about in the group coming over from OMB? We did not have any witnesses from OMB, or do you know?

Admiral MOTT. Again, you may not have had any witnesses from OMB, but my statement that the voice is the voice of Jacob but the hand is the hand of Esau still stands. They were not in the committee room, but they were unseen choreographers.

Mr. BENNETT. There will be no further evidence taken in this hearing. The committee was supposed to come back at 2 p.m., and there are things on the floor that may make that difficult, but it is my decision we will recess subject to call of the Chair, and we will come back at 2 p.m. today.

I will be here at 2 p.m., and anybody else who can come will be here at 2 p.m.. Then a decision will be made as to how we proceed. It will be my intention to go into executive session if we have any further aspects of this case this afternoon.

We are coming back at 2 p.m., but it will not be a meeting open to the general public.

I very much appreciate all of you being here.

Thank you.

[The following statements were submitted and made a part of the record:]

PRATT & WHITNEY AIRCRAFT GROUP,
East Hartford, Conn., June 1, 1981.

Hon. CHARLES E. BENNETT,
Chairman, Subcommittee on Seapower and Strategic & Critical Materials, Washington, D.C.,

DEAR MR. CHAIRMAN: It has come to our attention that the committee is considering a number of Stockpile related bills, including the Administration requested authorization for fiscal year 1982. We will have a more detailed submission at a late date, but would offer the attached brief comments for the hearing record.

It is our view that to ensure the readiness of the Stockpile in times of emergency, some method must be found to exercise both the system and the material it contains on a regular basis. Further, we believe that a management philosophy for procurement and disposal of material can be found which will both stabilize the supply of critical materials to the nation's industry and provide the incentive to invest in domestic sources of critical and strategic materials.

We would be happy to testify on the subject before your committee if; you determine that additional hearings are desirable.

Very truly yours,

R. C. MULREADY,
Vice President, Technology.

Attachment.

WRITTEN STATEMENT OF R. C. MULREADY, VICE PRESIDENT, PRATT & WHITNEY AIRCRAFT GROUP

THE NATIONAL STOCKPILE

The extreme dependence of the United States on the supply of critical and strategic materials from foreign sources is increasingly being recognized by industry and the Government. While over the long run it is likely that economics will force these materials to flow to our markets, the risk of destructive short-term interruptions, either through cartels or political action, is high. The National Stockpile, with some major changes in management philosophy, could significantly reduce the risk of supply disruptions. The following comments are offered as suggested changes to the stockpile system.

1. An active part of the material system

In addition to its primary function as a reserve in times of national emergency, stockpile acquisitions could be managed to provide incentives for domestic production, by establishing floor prices for buying materials in times of slack demand. As assured minimum price would tend to attract the major capital investments needed to develop the necessary mining and processing facilities in this country. The existence of some domestic capacity would have the further benefit of reducing the size of the stockpile needed to provide emergency protection. On the basis that the stockpile reserve must cover a three-year emergency, one pound of annual domestic capacity it equivalent to three pounds in the stockpile inventory.

In times of high demand, the stockpile should also supply material to supplement normal sources. By establishing a reasonable ceiling price at which material could be purchased, any cartel efforts by suppliers would be effectively diminished. The proceeds from the disposal of material should be returned to the stockpile account rather than being directed to the general fund. Except for the quality problem discussed below, it is likely that had a modest amount of cobalt been made available from the stockpile in 1977–78, it would have prevented the extreme run-up in price and supply dislocations which occurred in that period. By establishing a flow of material into and out of the stockpile which follows the normal cyclic variation of demand, the quality of the material contained would tend to be current with requirements. It is the opinion of the GSA officials responsible for quality that none of the 42 million pounds of cobalt currently in the stockpile would meet the specifications required by today's jet engines. That material has been in storage for at least 15 years and there are apparently no records to indicate to what standard the material was purchased or in fact that any analysis was ever performed. In

addition, the technology for measuring and controlling elements which have been found to be harmful in trace quantities such as selenium were not understood when this material was put into storage. It is almost inevitable that materials stored for such long periods will become obsolete.

The problem of substandard quality is not limited to cobalt. Between one quarter and one third of the titanium sponge in the stockpile is suspected of not being of aircraft quality. This material was evidently purchased without adequate specification control, but again the records are uncertain.

Deterioration is another factor with long storage. The storage of sponge requires that it be kept in sealed containers under an argon atmosphere. The leakage of air into these drums would prevent its being used without expensive and time consuming reprocessing. Some of the drums in which the sponge is stored are showing rusting from the inside.

2. Source for both industrial and defense needs

The stockpile should not be viewed solely as a last resort in times of national emergency, but should be integrated into industrial production as an active part of the system on an ongoing basis. The most recent legislation (PL 96-41) is very restrictive and effectively precludes the use of the stockpile as a stablizing influence on critical material supply.

The stockpile should function to provide material for both industrial and defense requirements, recognizing that a sound economy and a viable industrial base is fundamental to maintaining our military strength.

3. Independent management board

In order to provide the desirable long-term stability and incentives through the stockpile function, it is necessary to devise a stockpile management concept which provides some isolation from the vagaries of short-term political pressures. To this end, consideration should be given to an independent management board similar to the Federal Reserve Board, with the broad charter to protect the non-fuel minerals interests of the United States. The supply of material from the stockpile in times of shortage will appear to be price control to suppliers. Conversely, buying material in times of slack demand will auger of price support to users. It will require a Solomon-like posture to balance all aspects of the problem.

The management of this major national asset for the overall benefit of the country, however, can have such a positive effect on our economic and military strength that it deserves particular attention.

Written Statement of Philip M. Lindstrom, Hecla Mining Co.

We urge that the 139.5 million ounce silver stockpile should be reduced or increased only for national defense reasons. We are mindful of the large quantities of silver needed to maintain a civilian and defense effort in previous wars, the value of stockpiles related to fast mobilization, the sale of reserves at very low prices because of market pressures, the high cost and difficulty of quick-buying programs, and the loss of time and effect when materials are not at hand. However, we are not able to assess the quantity needed for a war, and must therefore leave the judgment of an appropriate stockpile size to those more knowledgeable of defense and industrial needs.

We urge that purchase or sale not be made for political or budget-balancing reasons.

When adjustments to stockpile size are appropriate, they should be carried out gradually through careful purchase or sales to gain the greatest benefit for all Americans instead of through crash programs, which have been so costly in the past when gold and silver were sold to meet the short-term objectives of demonetizing precious metals and/or gaining funds to balance budgets.

Written Statement of James E. Anderson, Industrial Diamond Association

We are writing to you in our capacity as the Washington representative of the Industrial Diamond Association of America, whose membership is composed of American companies engaged in the importing and dealing in industrial diamonds and American companies who use industrial diamond materials in the manufacture of their products. We wish to advise you of the Association's current policy with regard to the disposal of diamond materials from the stockpile and of their concerns with regard to the sale of materials from the stockpile.

The Industrial Diamond Association is in favor of diamond disposal from the stockpile as long as the sale of the materials authorized for disposal is conducted in

an orderly fashion in a way which does not unduly disrupt the domestic industry. Further, the Association has long been on record as being opposed to sales of diamond materials in the U.S. stockpile to foreign business interests, to foreign governments or for any political purpose. Additionally, the Association is in favor of the materials being sold in lots small enough in size to permit small American business interests to successfully bid and purchase the materials.

The Industrial Diamond Association's present position regarding the sale of industrial diamond crushing bort from the stockpile is that the total amount of bort sold annually from the stockpile should not exceed 15 percent of the annual free world consumption (which under present conditions is approximately 3 million carats per year), or sales of no more than 450,000 carats per year.

We thank you very much for your continued consideration in this matter.

Written Statement of American Iron and Steel Institute

The American Iron and Steel Institute, which represents 65 domestic steel producers accounting for 91 percent of U.S. raw steel production, supports the enactment of H.R. 2912, a bill which provides for the sale of certain materials from the National Defense Stockpile and also provides for the acquisition of materials under the criteria set forth in the Strategic and Critical Materials Stock Piling Act (50 USC 98e(a)).

The American steel industry is a major consumer of many of the materials currently stockpiled by the U.S. Government for use during a national emergency. Nine of the materials in the stockpile are considered particularly sensitive and are monitored closely by the industry.

STEELMAKING CRITICAL MATERIALS IN THE U.S. STOCKPILE

Material and unit	Goal	Holdings [1]	Surplus (deficiency)
Chromium (short ton Cr metal)	1,353,000	1,173,230	(179,770)
Cobalt (pound Co)	85,400,000	40,802,393	(44,597,607)
Columbium (pound Cb metal)	2,661,350	2,510,549	(150,001)
Fluorspar (short dry ton)	3,100,000	1,307,721	(1,792,279)
Manganese (short ton Mn metal)	1,500,000	1,974,247	(474,247)
Nickel (short ton Ni+Co)	200,000	.....	(200,000)
Tin (long ton)	42,000	200,477	(158,477)
Vanadium (short ton V metal)	8,700	541	(8,159)
Zinc (short ton)	1,425,000	275,946	(1,049,054)

[1] As of March 31, 1980.

Source: Federal Emergency Management Agency.

In seven of these nine materials stockpile goals currently exceed holdings. These deficiencies are particularly troublesome in the cases of cobalt and chromium, since the U.S. depends almost exclusively on southern Africa to meet domestic requirements. A sudden, prolonged disruption in the supply of these materials to the U.S. could affect the production of stainless steel and other alloys and superalloys, which in turn would affect industrial production and, importantly, the ability of the U.S. to produce sophisticated military equipment (including jet engines).

AISI fully supports the policy whereby quantities of materials which are in excess of current stockpile requirements are sold and the proceeds used to purchase other critical and strategic materials which are needed to meet requirements.

[Whereupon, at 12:45 p.m. the subcommittee recessed, to reconvene at 2 p.m., in executive session.]

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THURSDAY, JUNE 4, 1981