



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON D.C. 20548

113912  
~~15374~~

B-201067

RELEASED

November 3, 1980

RESTRICTED — Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.

801103

The Honorable Henry M. Jackson  
Chairman, Committee on Energy  
and Natural Resources  
United States Senate

The Honorable Harley O. Staggers  
Chairman, Committee on Interstate  
and Foreign Commerce  
House of Representatives

Subject: [Status of Strategic Petroleum Reserve  
Activities]--October 1980 (EMD-81-24)

This is the second in a series of monthly reports requested by certain members of the Senate Committee on Energy and Natural Resources and the House Committee on Interstate and Foreign Commerce on the administration's activities to implement title VIII of the Energy Security Act. (See encl. II for the July 23, 1980, letter requesting these reviews.) Title VIII requires the President to resume filling the Strategic Petroleum Reserve (SPR) at an average rate of at least 100,000 barrels per day for fiscal year 1981 and succeeding years. Title VIII also requires the President to amend the Department of Energy's (DOE's) entitlement regulations so that the Government, in effect, pays lower tier prices for SPR crude oil. Our first report on the status of SPR activities (EMD-80-127, Sept. 23, 1980) stated that, as of September 5, 1980, the administration appeared to be making a concerted effort to comply with these title VIII requirements, although most of its attention was directed to the minimum supply requirements.

This second report discusses the administration's activities taken between September 5, 1980, and October 17, 1980, to fill the SPR. Enclosure I presents additional details on

--the results of the August 1980 competitive exchange of SPR oil,



113912

512757

(306259)

- deliveries made to the SPR,
- the readiness of SPR facilities to accept oil, and
- the administration's efforts to increase the SPR fill rate beyond 100,000 barrels per day.

This report is based on interviews with officials in DOE, the Defense Fuel Supply Center, and the Office of Management and Budget, and on publications, studies, and DOE and Defense Fuel Supply Center program documents related to the SPR.

Since September 5, 1980, the administration has had only partial success in its SPR oil acquisition efforts. Three major events have taken place:

- On September 18, 1980, and October 1, 1980, the Defense Fuel Supply Center awarded contracts for a total of about 24 million barrels of crude oil to be delivered to the SPR in exchange for an identical amount of oil received from the Naval Petroleum Reserve at Elk Hills, California, plus cash premiums. However, the 24 million barrels equals about 65,000 barrels per day, or about 65 percent, of the 100,000-barrel-per-day Naval Petroleum Reserve production for which the Center initially requested offers. The awards also account for 65 percent of the minimum 100,000-barrel-per-day average delivery requirement of title VIII for fiscal year 1981.
- On September 23, 1980, deliveries resulting from the initial contracts began. As of October 15, 1980, about 3.1 million barrels of oil were added, bringing the total to about 94.3 million barrels in SPR storage. DOE and companies receiving the initial awards have tentatively agreed that almost 65 percent of the 24 million barrels will be delivered by January 1, 1981.)
- On October 3, 1980, the Defense Fuel Supply Center issued a supplemental solicitation to exchange up to 35,000 barrels per day of Elk Hills Naval Petroleum Reserve oil for an equal amount of oil for the SPR. Unlike the initial solicitation, the October 3, 1980, supplemental solicitation broadened the specifications to allow companies to offer Alaskan North Slope oil and

other heavy oil 1/ in exchange for Naval Petroleum Reserve oil.) The closing date for submitting offers for the supplemental solicitation was October 9, 1980. The Center expects to complete its evaluations and award contracts by about November 1, 1980.

In an October 21, 1980, report 2/ to the Chairman, Subcommittee on Limitations of Contracted and Delegated Authority, Senate Committee on the Judiciary, we addressed the feasibility of using crude oil from the Elk Hills Naval Petroleum Reserve and the Alaskan North Slope for the SPR. We stated that the Elk Hills exchange solicitation limits potential offerors to those (1) willing to acquire Elk Hills oil and (2) having access to a guaranteed source of crude oil for exchange. Accordingly, we recommended that the Secretary of Energy issue an open solicitation for oil for the SPR, which will encourage the availability of a wide range of sources including Elk Hills and Alaskan North Slope oil, in order to select those sources which most nearly meet the Government's objectives.

DOE continues to direct most of its attention to meeting the minimum SPR supply requirement set forth in title VIII.) About \$300 million of fiscal year 1980 funds for oil purchase have not been obligated and obligation authority will expire on December 31, 1980. In a September 29, 1980, letter to the Chairman, Subcommittee on Interior, Senate Committee on Appropriations, the Secretary of Energy stated that he intends to issue additional solicitations for SPR oil at a later time, and to obligate this \$300 million before it reverts to the Treasury. However, DOE has taken no action to acquire oil above the initial 100,000-barrel-per-day minimum.

In order to meet the time frames requested, we did not obtain official agency comments. We are sending copies of this letter to the ranking minority members of the Senate Committee on Energy and Natural Resources and the House

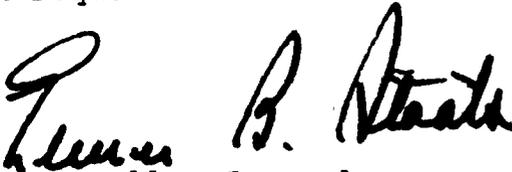
---

1/Heavy oil is defined using American Petroleum Institute (API) gravity. API gravity is the measure of the mass of the fluid relative to water which ranges from about 10 degrees for very heavy crude oils to 45 degrees for very light crude oils.

2/"Using Elk Hills and Alaskan North Slope Oil to Supply the Strategic Petroleum Reserve," EMD-81-4, Oct. 21, 1980.

B-201067

Committee on Interstate and Foreign Commerce. As requested by your office, we plan no further distribution of this report until 30 days from its date of issuance. At that time we will send copies to interested parties and make copies available to others upon request.

  
Luther B. Starks  
Comptroller General  
of the United States

Enclosures - 2

STATUS OF STRATEGICPETROLEUM RESERVE ACTIVITIESBACKGROUND

The Energy Policy and Conservation Act of 1975 (P.L. 94-163) authorized creation of a Strategic Petroleum Reserve (SPR) to store up to 1 billion barrels of crude oil. The Department of Energy (DOE) is implementing a three-phased plan to achieve a 750-million barrel oil storage capacity. The first phase has been completed and has resulted in a storage capacity of 248 million barrels.

However, DOE has experienced serious difficulties in acquiring oil to fill SPR facilities. The worldwide shortage of oil which occurred in early 1979 resulted in a suspension of new purchases of SPR oil. The last oil delivered to the SPR during 1979 arrived in August, bringing the total oil in storage to about 91.2 million barrels. This is about 37 percent of current capacity.

Title VIII of the Energy Security Act (P.L. 96-294) requires the President to resume filling the SPR at an average rate of at least 100,000 barrels per day. The Conference Committee's report on S. 932, the Energy Security Act's precursor, specifies that this rate is intended to be a minimum and not the appropriate rate of oil injection. Title VIII also requires DOE to use its entitlements program to lower the purchase price for SPR oil.

Our first letter in this series of monthly status reports discussed the administration's activities in response to title VIII of the act. The report stated that it appeared that the administration was making a concerted effort to comply with the title VIII requirements, although DOE had directed most of its attention to the minimum supply requirements. However, it was too early to tell how effective its efforts would be.

SPR OIL FILL ACTIVITIES

As discussed in our first report, DOE is pursuing two alternative approaches to fill the SPR--a competitive exchange of Elk Hills Naval Petroleum Reserve (NPR) oil and, should the competitive exchange fail, a mandatory program to require certain refiners to provide oil for the SPR. To date, DOE's competitive exchange has only been partially successful in meeting the 100,000-barrel-per-day minimum

fill rate requirement set forth in title VIII. Contracts have been awarded for 65,000 barrels per day of oil and a supplementary solicitation was issued for the remaining 35,000 barrels per day. DOE has not finalized regulations which would require certain refiners to provide oil for the SPR. It expects to complete its evaluation of comments on the proposed regulations and finalize the regulations during November 1980.

#### Competitive exchange

As a result of its August 11, 1980, solicitation for the competitive exchange of NPR oil for crude oil to fill the SPR, the Defense Fuel Supply Center (DFSC)--DOE's purchasing agent--has awarded contracts to three major oil companies and a crude oil trading company for SPR oil. These contracts were awarded on September 18, 1980, and October 1, 1980, for a total of about 24 million barrels of crude oil to be delivered to the SPR during fiscal year 1981 in exchange for an equal amount of NPR oil plus cash premiums during fiscal year 1981. Table 1 on page 3 provides information on the types of oil acquired, proposed delivery schedules, and price paid for the oil.

As the table shows, the four contracts require companies to deliver oil to the SPR throughout the 14-month period between September 1980 and October 1981. About 65 percent of the oil is to be delivered by January 1, 1981.

In order for the Federal budget to reflect the total cost of SPR purchases and revenues obtained from NPR sales and from the sale of entitlements, three separate budget accounts will be maintained. DOE has authorized DFSC to pay the full value for the oil delivered to the SPR, using funds it has transferred to DFSC. The full value of this oil for the four contracts ranges from \$32.62 to \$38.40 per barrel. 1/ DOE, which operates the NPR, will receive the contracted price of NPR oil as NPR deliveries are made. This

---

1/Two of the four contracts, with Coastal States Trading Company and Chevron, include a price escalation clause which allows prices for oils exchanged to fluctuate with market conditions. Companies receiving the other two contracts did not request escalator clauses. Prices quoted in this report are those quoted in the contracts for the first month of deliveries. Depending on market conditions, these prices and the net cost to the Government could change.

**Table 1**  
Information on SPR Contracts

<u>Contractor</u>	<u>Date of award</u>	<u>Barrels to be exchanged</u> (millions)	<u>Daily fill rate</u>	<u>Type of oil</u> (note a)	<u>SPR oil value</u> (note b)	<u>Transportation costs</u> (note c)	<u>Quality differential allowance</u> (note d)	<u>Total premium paid</u> (note e)	<u>Total price paid</u> (note f)	<u>First proposed delivery date</u>	<u>Last proposed delivery date</u>
						----- (dollars per barrel) -----					
Atlantic Richfield Company	9-18-80	1.5	4,110	Sour	28.62	2.96	1.04	4.00	32.62	9-80	12-80
		2.1	5,890	Sweet	28.62	1.72 - 1.74	4.26	6.00 - 6.00	34.62 - 35.42		
	10-01-80	5.7	15,671	Sweet	28.62	1.90 - 1.74	4.26 - 5.30	6.00 - 6.00	34.62 - 35.42	9-80	12-80
Getty Oil Company	10-01-80	1.8	5,000	Sweet	26.99	1.65	8.14	9.79	36.78	1-81	10-80
Coastal States Trading Company	10-01-80	5.5	15,000	Sweet	28.62	1.50 - 1.74	7.03 - 8.18	8.57 - 9.70	37.19 - 38.40	10-80	3-80
Chevron Oil Company	10-01-80	<u>7.3</u>	<u>20,000</u>	Sweet	27.03 - 28.62	1.54	5.79 - 7.38	7.33 - 8.92	34.26 - 37.54	11-80	3-80
Total		<u>23.9</u>	<u>65,671</u>								

a/Oil quality is measured, among other things, by sulfur content and American Petroleum Institute (API) gravity. Sour crude oil is defined by DOE as crude having more than 0.5 percent sulfur. Sweet crude has less than 0.5 percent sulfur. API gravity is the measure of the mass of the fluid relative to water, which ranges from about 10 degrees for very heavy crude oils to 45 degrees for very light crude oils. All oil accepted is light oil, with API gravity ranging between 30 and 44.

b/The NPR value is the average of the three highest selling prices for similar oil produced in other Kern County, California, oil fields for September 1980.

c/DFSC estimates used to evaluate offers received in response to the solicitation.

d/GAO calculation of the quality differential allowance obtained by subtracting DFSC's estimated transportation costs from the total premium paid.

e/Total cost for transportation and quality differential.

f/Total of NPR oil value and total premium paid.

price ranges from \$26.99 to \$28.62 per barrel and represents the September 1980 average of the three highest selling prices for similar oil produced in Kern County, California, oil fields.

Finally, the Government will receive revenues from the sale of entitlements to certain oil companies, which will be used to lower the cost of SPR oil purchases to the lower tier price--currently about \$7 per barrel. DOE estimates the current value of an entitlement at about \$25 per barrel. The proceeds from the sale of entitlements will be received separately and will be available to finance future SPR purchases.

As noted above, the cost paid for oil for the SPR exceeds that received for NPR oil. According to DFSC officials, this difference, or premium paid by the Government, represents quality differentials in the oil exchanged and transportation charges to deliver the exchanged oil to the SPR. The premium ranges from \$4.00 to \$9.78 per barrel and amounts to \$187.6 million for the 24 million barrels of oil exchanged.

DFSC awarded these four contracts after evaluating 11 offers received in response to its August 11, 1980, solicitation. Combined, these offers involved a total of 56.9 million barrels of oil, or about 156,000 barrels per day.

The Atlantic Richfield Company (ARCO) one of the four companies awarded a contract, initially offered 50,000 barrels per day of crude oil to be exchanged for NPR oil. This offer included 25,000 barrels per day of a blend of Alaskan North Slope and a West Texas oil which met the quality specifications of the first solicitation. However, DFSC rejected ARCO's offer to exchange the blend because ARCO offered to exchange the oil at prices \$2 per barrel above the selling price for a similar combination of oil plus transportation costs. DFSC negotiated with ARCO for the exchange of the remaining 25,000 barrels per day included in the company's offer.

According to DFSC officials, 7 of the 11 offers did not result in contract awards because

--Three companies withdrew their offers. One company withdrew because of difficulty in transporting oil to the SPR facilities. Two companies withdrew primarily because of the current Iran-Iraq conflict.

--Two companies offered to acquire oil for the SPR, but did not have this oil on hand to exchange.

- One company offered to exchange crude oil at prices \$1 to \$2 per barrel above the selling price for similar oil plus transportation costs.
- One company offered crude oil which did not meet quality specifications for SPR oil set forth in the solicitation.

Supplemental competitive  
exchange solicitation

On October 3, 1980, DFSC issued a supplemental solicitation for the remaining 35,000 barrels per day needed to meet the title VIII minimum supply requirement. Like the August 1980 procurement, this solicitation also provides for a barrel-for-barrel exchange of Naval Petroleum Reserve oil for oil for the SPR. However, the main difference is that the quality specifications have been amended to allow Alaskan North Slope oil and other heavy oil to compete for exchange with NPR oil.

According to DFSC officials the solicitation was amended to include Alaskan oil because in their opinion a supply of this oil exists on the market. DOE officials added that recent DOE tests determined it is feasible to store Alaskan North Slope oil in the SPR.

The closing date for submitting offers for the second solicitation was October 9, 1980. DFSC is negotiating offers for exchange of low-sulfur oil and expects to make these awards by October 24, 1980. It is conducting separate negotiations for exchange of Alaskan North Slope and other high-sulfur oil. It plans to make these awards by November 1, 1980.

In an October 21, 1980, report 1/ to the Chairman, Subcommittee on Limitations of Contracted and Delegated Authority, Senate Committee on the Judiciary, we addressed the feasibility of using crude oil from the Elk Hills Naval Petroleum Reserve and the Alaskan North Slope for the SPR. We stated that the Elk Hills exchange solicitation limits potential offerors to those (1) willing to acquire Elk Hills oil and (2) having access to a guaranteed source of crude oil for exchange. Accordingly, we recommended that

---

1/"Using Elk Hills and Alaskan North Slope Oil to Supply the Strategic Petroleum Reserve", EMD-81-4, Oct. 21, 1980.

the Secretary of Energy issue an open solicitation for oil for the SPR, which will encourage the availability of a wide range of sources including Elk Hills and Alaskan North Slope oil, in order to select those sources which most nearly meet the Government's objectives.

#### Mandatory program

As we reported earlier, on August 8, 1980, DOE's Economic Regulatory Administration issued a proposed amendment to the current mandatory petroleum allocation regulations which would authorize DOE to require certain refiners to provide oil for the SPR. DOE considers this program a necessary backup to assure the minimum 100,000-barrel-per-day SPR fill, should the competitive exchange fail to attract a sufficient number of acceptable offers.

Little official change has occurred in the mandatory program. During August 27, 1980, and September 4, 1980, hearings on the proposed regulations, industry officials voiced concern with the mandatory program, believing it would cause inequities among companies and would cause administrative and transportation problems. DOE is evaluating these comments and plans to finalize these regulations during November 1980.

#### STATUS OF SPR DELIVERIES AND FACILITIES

SPR deliveries resumed on September 23, 1980, as a result of the competitive exchange. From September 23, 1980, through October 15, 1980, about 3.1 million barrels have been delivered to two SPR storage facilities. According to DOE, the remaining three facilities are ready to receive oil.

#### Status of deliveries

As reported in our September 23, 1980, letter, DOE initially estimated oil fill as a result of the competitive exchange would begin during November 1980. This November 1980 start date was based on DOE's schedule for announcing awards during the first week in October 1980 and its estimate that companies would require about 1 month to finalize delivery arrangements. However, DFSC announced the first award to exchange oil on September 18, 1980, about 10 days ahead of schedule. According to DFSC officials, the early award was possible in large part because of ARCO's initial offer to deliver 10,000 barrels per day for only \$4 to \$6 above the NPR price. The company was able to make deliveries to the SPR

within days of the award's announcement because it was temporarily storing the oil in a tanker in the Gulf of Mexico.

#### Status of SPR facilities

According to DOE officials, they have experienced no major equipment breakdown or problems while receiving and storing oil delivered from September 23, 1980, through October 15, 1980. The 3.1 million barrels delivered has been transferred to storage caverns at two facilities--those located at West Hackberry and Bayou Choctaw, Louisiana. These facilities currently hold about 32 million and 29 million barrels of oil, respectively. According to DOE officials, the three remaining storage facilities--those located at Weeks Island, Louisiana, Bryan Mound, Texas, and Sulfur Mines, Louisiana--are ready to receive oil. DOE plans to begin storing oil at Weeks Island and Bryan Mound during late October. However, DOE is not planning to use the Sulfur Mines facility until December 1980 because the pipeline which connects Sulfur Mines and West Hackberry to the Sun Oil Company (Sunoco) receiving terminal is being used to ship low-sulfur oil to West Hackberry. Sulfur Mines, in contrast, will be used to store high-sulfur oil. DOE's December 1980 target date is based on its estimates of time required for deliveries to fill the low-sulfur crude oil cavern at West Hackberry so that the pipeline can be cleared of low-sulfur oil and shipments of high-sulfur crude can begin.

#### ADMINISTRATION ACTIVITIES TO EXCEED MINIMUM FILL RATE

The administration's SPR fill activities continue to be focused on its 100,000 barrel-per-day competitive exchange. Although the Secretary of Energy has expressed his intention to exceed this minimum fill rate, no decision has been made concerning the volume of additional oil to be acquired or the timing or method of future acquisitions.

DOE has funds available which were appropriated to acquire oil for the SPR. Of the \$6.9 billion appropriated for the SPR between fiscal years 1976 and 1980, about \$2.1 billion was available as of October 1, 1980, for new purchases. About \$1.8 billion has been transferred to DFSC for the purchase of 100,000 barrels per day for fiscal year 1981. An Office of Management and Budget official estimates the August 1980 and October 1980 competitive exchange solicitations will use about \$1.4 billion of these funds. Thus, it is estimated that about \$400 million of the funds

transferred to DFSC and \$300 million of unobligated funds are available to acquire oil above the 100,000 barrel-per-day level. The unobligated \$300 million will revert to the Treasury unless these funds are reappropriated or DOE obligates these funds by transferring them to DFSC for oil purchase by December 31, 1980.

In a September 29, 1980, letter to the Chairman of the Subcommittee on Interior, Senate Committee on Appropriations, the Secretary of Energy stated that he intends to authorize additional solicitations for SPR at a later time, and that DOE plans to obligate this \$300 million before December 31, 1980. Beyond this statement, DOE has not made a decision concerning when, at what rate, or how additional oil will be acquired. Assuming a \$35-per-barrel price for crude oil, DOE could buy about 8.6 million barrels with the \$300 million in currently unobligated funds.

During September 15, 1980, hearings by the Subcommittee on Energy and Power, House Committee on Interstate and Foreign Commerce, DFSC officials stated they had received about 12 to 15 unsolicited offers to supply oil for the SPR. DFSC and DOE officials later told us, however, that

--These unsolicited proposals were generally informal telephone inquiries concerning the Government's willingness to buy oil, and were not formally documented.

--In all but one case, firms offering to sell oil did not have possession of the oil at the time. The only exception was an unsolicited proposal from ARCO, which was made before DFSC issued its August 1980 solicitation. ARCO's offer to exchange 50,000 barrels per day in response to the solicitation included an offer identical to the company's unsolicited proposal to exchange 10,000 barrels per day.

We did not evaluate in detail the reasonableness of the Government's response to these unsolicited proposals. However, regardless of the appropriateness of the Government's response, questions remain concerning the administration's intent to fill the SPR at a rate higher than 100,000 barrels per day.

The Congress has appropriated sufficient funds to DOE to exceed title VIII's minimum SPR fill requirement. Although

the administration has stated that it intends to fill the SPR at a higher rate, it continues to take no action to achieve that end.

HENRY M. JACKSON, WASH., SENATOR  
 FRANK GRONCH, (DARK)  
 J. ROBERT JOHNSON, LA.  
 DALE BATTERS, ALA.  
 WENDELL H. FORD, KY.  
 JOHN A. BURKIN, N.J.  
 HOWARD M. BENTLEYMAN, OHIO  
 SPARK M. MATSUYAMA, HAWAII  
 JOHN WILKINER, MONT.  
 PAUL E. TOWER, MASS.  
 BILL BRADLEY, N.J.

DANIEL A. SHEVINS, STAFF DIRECTOR  
 D. MICHAEL HARVEY, CHIEF COUNSEL  
 STEVEN S. HICKOK, STAFF DIRECTOR FOR THE SENATE

MARK O. MATFIELD, OHIO  
 JAMES A. MC CLURE, IOWA  
 LOWELL P. WESSNER, JR., CONN.  
 RITE V. BOGGS, N. CAROL.  
 TED STEVENS, ALASKA  
 HENRY BELMONT, CALIF.  
 MALCOLM WALLACE, WYOM.

## United States Senate

COMMITTEE ON  
 ENERGY AND NATURAL RESOURCES  
 WASHINGTON, D.C. 20510

July 23, 1980

Honorable Elmer B. Staats  
 Comptroller General of the United States  
 GENERAL ACCOUNTING OFFICE  
 441 G Street, N.W.  
 Washington, D. C. 20548

Dear Mr. Staats:

On June 30, 1980 the President signed the Energy Security Act (Public Law 96-294). Title VIII of this Act is intended to provide for a resumption of purchases by the United States government of crude oil for the Strategic Petroleum Reserve authorized in 1975 by the Energy Policy and Conservation Act. Purchases of oil for this purpose have been suspended for well over a year, despite the fact that the present level of the SPR is clearly inadequate insurance against any contemplated interruption in petroleum imports.

The Congress attaches a high priority to the timely implementation of the provisions of title VIII. Both the language of the Act and the accompanying joint statement of managers are very emphatic on this matter. Accordingly, we are asking that you assist Congress in monitoring implementation of this title by the Executive Branch.

In particular we request that the General Accounting Office report by letter on a monthly basis to the Senate Committee on Energy and Natural Resources and the House Committee on Interstate and Foreign Commerce describing the activities taken by the Executive Branch under the provisions of title VIII of the Energy Security Act. This report should include GAO's evaluation of these activities in relation to the clear intent of Congress, expressed in the Act, to resume as soon as possible the filling of the SPR. These monthly reports should continue through October, 1981. We are further requesting that GAO provide Congress by January 1, 1982 with a comprehensive report on activities of the Executive Branch under title VIII for the period July, 1980 through October, 1981.

Please let us know if the Senate Committee on Energy and Natural Resources or the House Committee on Interstate and Foreign Commerce can be of assistance in carrying out this request.

Sincerely yours,

*Harley O. Staggers*  
 Harley O. Staggers  
 MEMBER OF CONGRESS

*J. Bennett Johnston*  
 J. Bennett Johnston  
 U. S. SENATOR

*John D. Dingell*  
 John D. Dingell  
 MEMBER OF CONGRESS

*Henry M. Jackson*  
 Henry M. Jackson  
 U. S. SENATOR

*James T. Brodyhill*  
 James T. Brodyhill  
 MEMBER OF CONGRESS

*Wendell H. Ford*  
 Wendell H. Ford  
 U. S. SENATOR

*Clarence J. Brown*  
 Clarence J. Brown  
 MEMBER OF CONGRESS

*Bill Bradley*  
 Bill Bradley  
 U. S. SENATOR

*Mark O. Hatfield*  
 Mark O. Hatfield  
 U. S. SENATOR

*Lowell P. Weicker, Jr.*  
 Lowell P. Weicker, Jr.  
 U. S. SENATOR

