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MAY 28 1975

Rear Admiral C. A. Richmond, Jr.
Commander, 13th Coast Guard District
Room 3590, Federal Building
915 - 2nd Avenue
Seattle, Washington 98174

Dear Admiral Richmond:

As part of a nationwide review of energy conservation measures taken by Federal agencies, we have reviewed 13th District efforts to reduce energy use. Energy conservation has been a national concern since mid-1973 when a Federal energy conservation program was initiated. President Ford reaffirmed this commitment in October 1974 when he announced the fiscal year 1975 energy conservation goal of 15 percent and called for continued energy conservation effort at all Federal agencies.

The purpose of our review at the 13th District was to determine the results achieved by your energy conservation program and to identify any practical opportunities for further reducing energy consumption. This letter summarizes the results of our review as discussed with Mr. Kaatz, your Energy Conservation Coordinator, and Captain Powell, Chief, Search and Rescue Branch.

The Coast Guard's energy conservation program was implemented at the District level in June 1973. A number of actions have been taken by Headquarters or the District to reduce energy consumption. These actions included:

- reducing lighting levels at District headquarters and field units;
- requiring vehicles, cutters, boats, and aircraft to be operated at the most economical speeds consistent with mission;
- eliminating or curtailing vehicle, cutter, boat, and aircraft use for low priority missions, such as public affairs and administrative purposes;
- limiting use of gas turbines on cutters and reducing the scope of icebreaker mission.

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In addition, the District had developed contingency plans for selective cuts in operational and support activities to be implemented in the event of prolonged reductions in fuel supplies.

The District achieved substantial reductions in the consumption of some types of fuel during calendar year 1974. However, we believe certain adjustments should be made to the baseline data to more realistically evaluate the reasonableness and effectiveness of the District's conservation measures. We also believe that more detailed monitoring of fuel consumption and vehicle mileage may provide a basis for identifying additional opportunities to conserve fuel.

Need to adjust baseline data

Because baseline data (1972 energy purchases) has not been adjusted to reflect current vessels, aircraft and facilities and workload levels, the achievements of the District's energy conservation program have been significantly misstated. In this regard, Commandant Instruction 4100.2, Energy Conservation and Management (Change I, dated January 15, 1975) stated the goal of a 15 percent overall reduction in energy use from adjusted fiscal year 1973 consumption levels.

As requested by Coast Guard headquarters, the District reported fuel and energy purchases for calendar year 1972 for use in both allocating fuel and measuring achievement of energy conservation goals. There have been several changes in vessels and aircraft assigned to the District, in District shore facilities, and in District workloads, but the baseline data reported has not been adjusted accordingly.

If an adjusted baseline were used in measuring the results of conservation efforts (and miscellaneous errors in reported consumption were corrected), the results would be significantly different than those shown by District reports (see appendix 1). For example, the District reported cutter main propulsion fuel consumption of 3,792,000 gallons during calendar year 1974, or 29.3 percent less than the reported 1972 baseline. However, after adjusting the reported baseline to reflect current District workload and rates of fuel consumption of vessels presently assigned and correcting an error in reported 1974 consumption, the reduction is only about 14 percent. Similarly, the District reported aircraft fuel consumption of 512,000 gallons during 1974, or about 22.8 percent greater than the reported 1972 baseline. When the 1972 baseline is adjusted for current workload and aircraft assigned and reported 1974 consumption is corrected, the increase is only about 2 percent.

Natural gas consumption during 1974 was about 4,912,000 cubic feet, or 265 percent greater than the reported baseline. However, when the baseline is adjusted to compensate for gas consumed at the new Portland facility, the District's consumption of natural gas in 1974 is about 5 percent less than the adjusted baseline.

Need for more detailed monitoring

Despite elimination or curtailment of aircraft use for low priority missions and administrative purposes, the District was not successful in reducing aircraft fuel consumption in 1974. Two different types of helicopters with different fuel consumption rates are assigned at three air stations within the District. These helicopters are used for a wide variety of missions. We believe more detailed monitoring of aircraft use by type, unit, and mission might provide a basis for identifying additional opportunities to conserve fuel.

Calendar year 1974 vehicle use controllable by the District was 3,122,000 miles, or about 4 percent less than the baseline mileage (see appendix 2), considerably short of the overall goal of a 15 percent reduction in mileage. Although about half the District's total mileage has been by GSA vehicle, since June 1974 the District has no longer tracked GSA vehicle mileage. The District tracks privately owned vehicle mileage in total by type of travel (local, temporary duty, and permanent change of station), but mileage is not compiled separately for individual divisions or units. If GSA vehicle travel and privately owned vehicle local and temporary duty travel controllable by the District were monitored by unit, the District would have a better basis for evaluating its progress toward achieving the mileage reduction goal.

In order to more precisely determine the results of its energy conservation efforts and to identify potential additional opportunities to reduce consumption we recommend that the District:

- adjust fuel consumption baselines to reflect vessels and aircraft currently assigned, present shore facilities, and changed workloads
- monitor aircraft fuel consumption by type of aircraft, mission, and by station
- Resume tracking of GSA vehicle mileage and monitor both GSA and privately owned vehicle mileage by individual operations and units.

We appreciate the cooperation and assistance given us by your staff. We would appreciate receiving your comments on any actions taken or planned on the matters discussed in this letter.

Sincerely yours,

Philip A. Bernstein
Regional Manager

cc: Assistant Director, LCD - Charles R. Comfort
Chief, Distribution Section, OAPS ✓

Comparison of 13th District
Energy Consumption for CY 1974
with Reported and Adjusted
Baseline Energy Use

<u>Energy Source</u>	<u>As reported by District</u>			<u>As adjusted and corrected by GAO</u>		
	<u>Baseline (CY 1972 purchases)</u>	<u>1974 consumption</u>	<u>Percent of change from baseline</u>	<u>Adjusted baseline</u>	<u>Corrected 1974 consumption</u>	<u>Percent of change from adjusted baseline</u>
Cutter main propulsion fuel (gallons)	5,366,000	3,792,000	- 29.3	4,096,000 ^a	3,512,000 ^b	- 14.4
Aircraft fuel (gallons)	417,000	512,000	+ 22.8	525,000 ^a	536,000 ^c	+ 2.0
Heating oil (gallons)	440,000	371,000	- 15.8	440,000	371,000	- 15.8
Boats and equipment diesel fuel (gallons)	291,000	266,000	- 8.7	291,000	266,000	- 8.7
Natural gas (cubic feet)	1,345,000	4,912,000	+265.2	5,184,000 ^d	4,912,000	- 5.2
Electricity (kilowatt hours)	15,108,000	14,733,000	- 2.5	15,108,000	14,770,000 ^e	- 2.2

^aAdjusted for current District workload and cutters or aircraft assigned.

^bReported consumption corrected to exclude fuel consumed by cutter before it arrived to 13th District.

^cReported consumption corrected to include estimated fuel obtained from outside sources.

^dAdjusted for consumption in new Portland facility occupied beginning in December 1973.

^eCorrected for minor errors in reported consumption.

13th Coast Guard District
Calendar Year 1974 Progress Toward
Achieving the 15 Percent Mileage Reduction Goal

<u>Type of vehicle</u>	<u>CY 1974 mileage</u>	<u>Percent change from baseline</u>
Coast Guard owned	69,000	-36.0
Privately owned	1,648,000	+18.0
Commercial lease or rental	31,000	+ 7.4
GSA owned	<u>2,236,000</u>	<u>- 5.7</u>
Total	3,984,000	+ 2.1
Mileage not controllable by District ¹	<u>862,000</u>	+33.5
Total controllable mileage	<u>3,122,000</u>	- 4.2

¹ permanent change of station travel performed by privately owned vehicle.