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[Assessment of Cost Estimates Associated with H.R. 1037, a Cargo Preference Bill]. PAD-77-74; B-95832. July 29, 1977. 4 pp.

Report to Rep. John M. Murphy, Chairman, House Committee on Merchant Marine and Fisheries; by Elmer B. Staats, Comptroller General.

Issue Area: Transportation Systems and Policies: National Policies and Programs (2406).

Contact: Program Analysis Div.

Budget Function: Commerce and Transportation: Water Transportation (406).

Organization Concerned: American Maritime Association; American Petroleum Institute; Department of Commerce; Federal Maritime Commission; Federation of American Controlled Shipping; Maritime Administration; Mobil Oil Corp.; Shipbuilders Council of America.

Congressional Relevance: House Committee on Merchant Marine and Fisheries.

Authority: H.R. 1037 (95th Cong.).

The estimates of the difference between the cost of carrying imported oil on U.S. ships protected by cargo preference legislation and the cost of carrying oil on foreign-flag ships range from 1.3 cents per gallon (as determined by the Maritime Administration) to 2.8 cents per gallon (as determined by the Federation of American Controlled Shipping). Findings/Conclusions: The differences are due primarily to disagreement over the capital cost differential--the cost of building new ships in the United States and of obtaining ships in the world market. The disagreement among witnesses at hearings conducted by the House Committee on Merchant Marine and Fisheries was far greater when the cost estimates were expressed in cents per gallon of all imported oil, ranging from 0.4 cents per gallon (Maritime Administration) to 2.4 cents per gallon. GAO made an estimate of the cost of cargo preference which indicated that a reasonable range of cost estimates would be from 0.5 cents to 0.7 cents per gallon of imported oil. These estimates do not include costs due to excess profits on the transportation of oil or costs due to increases in the price of domestically produced oil. For imports of 8 million barrels per day, the projected figure for 1985, when the proposed legislation could be fully in effect, each one-cent increase in the price per gallon means \$1.23 billion annually. The estimate applicable to the recently proposed 9.5% cargo preference would give a figure of \$240 million per year.

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

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B-95832

29 JUL 1977

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8/15/77

The Honorable John M. Murphy  
Chairman, Committee on Merchant Marine  
and Fisheries  
House of Representatives

Dear Mr. Chairman:

In your letter of March 4, 1977, you requested that the General Accounting Office (GAO) prepare an independent assessment of the cost estimates presented to your committee in connection with H.R. 1037, a cargo preference bill. On July 22, we briefed your office on our work to date. At that time we were asked to prepare a brief summary of our assessment for the Committee in advance of its mark-up, which is scheduled for August 2, 1977. Our full report will present a detailed analysis of the cost estimates, but that report is still in process and therefore will not be available before the August recess.

We have analyzed the cost estimates presented to the Committee at its hearings by the American Maritime Association, the American Petroleum Institute, the Federation of American Controlled Shipping (FACS), Mobil Oil Corporation, and the Shipbuilder's Council of America. In addition, the U.S. Maritime Administration made available to us its analysis of H.R. 1037. On July 25, the Assistant Secretary for Maritime Affairs, U.S. Department of Commerce, testified on a modified version of H.R. 1037 which proposes a 9.5 percent cargo preference instead of 30 percent.

As discussed with your office, because of time constraints we have not obtained agency comments on the matters contained in this letter.

Since most of the testimony has dealt with 30 percent cargo preference, we will first present our analysis in these terms. At the conclusion of this letter, we modify our estimates to apply to 9.5 percent cargo preference. For simplicity, we assess the estimates for a single year, 1985, when the legislation could be fully in effect.

HIGHLIGHTS OF THE WITNESSES' TESTIMONY

All of the witnesses presented estimates of the transportation cost differential, which is the difference between the cost of carrying

imported oil on U.S. ships protected by cargo preference legislation and the cost of carrying oil on foreign-flag ships. We have put these estimates on a common footing by expressing them in a common unit of measurement--cents per gallon of oil in 1977 prices. This translation required removal of the various inflation factors that some witnesses had used in their estimates. We also present the cost figures in dollars per year.

The estimates of the transportation cost differential for oil carried in cargo-preference ships range from 1.3 cents per gallon (Maritime Administration) to 2.8 cents per gallon (Federation of American Controlled Shipping)--a high-to-low range of more than 2:1. The differences are due primarily to disagreement over the capital cost differential--the cost of building new ships in the U.S. and obtaining ships (new and existing) in world markets.

The disagreement among witnesses was, however, far greater than this. Costs to consumers would eventually be reflected in the price of oil, which is affected by oil transport costs and other factors. When the cost estimates were expressed in cents per gallon of all imported oil, they range from 0.4 cents per gallon (Maritime Administration) to 2.4 cents per gallon--a high-to-low range of 6:1. (These figures reflect adjustments by GAO to 1977 prices.)

The greater dispersion in these estimates is the result of the witnesses' varying analyses at this point:

1. The Maritime Administration's cost differential is simply allocated over more gallons of oil, without adding any more costs. It was assumed that cargo preference oil would comprise 30 percent of all imported oil, and so the 1.3 cents per gallon figure was multiplied by 30 percent, giving 0.4 cents per gallon averaged over all imported oil.
2. The witnesses who presented the highest figures assert that the transport price would increase by considerably more than transport cost. That is, because of cargo preference, U.S. ships would be much in demand and, it is assumed, they could receive returns far in excess of normal profit levels.
3. The witnesses who presented the highest figures also assert that there would be costs due to retaliation by foreigners whose economic interests are harmed by the legislation. These witnesses expect the retaliation to result in substantially higher prices of foreign-flag petroleum carriage.

## GAO ESTIMATES

Because of the wide dispersion in the witnesses' estimates, we have made our own estimates of the cost of cargo preference. Our method of analysis is summarized below.

Operating cost differential. Because there was substantial agreement among the witnesses on operating cost differentials, we used a simple average of these estimates in making our own. The operating cost differential is roughly 20 percent of the total differential, the capital cost differential accounting for the balance.

Capital cost differential. This was the major source of variation in the estimates of the cost differential. It is understandable that the estimates should vary, for it is difficult to predict capital costs due to the present tanker glut and the uncertain prospects of recovery by any given date. We therefore estimated a range for the capital cost differentials, based on different assumptions about world tanker prices. We believe that we improved upon the techniques of capital cost estimation provided by the witnesses.

Market effects. We assumed that regulation of some form would prevent excessive profits on cargo preference shipping. (H.R. 1037 would give the Secretary of Commerce authority to waive the requirement of shipment on U.S.-flag tankers if the rates are not "fair and reasonable." We therefore assumed a 10 percent markup on U.S.-flag transport costs.

Retaliation. We reached no firm conclusion on the possible costs of retaliation by other countries. Although retaliation might occur, it could take other forms than adding to the price of oil. We therefore did not include such a cost in our estimates.

Effects on the price of domestically produced oil. None of the witnesses estimated the effects of increased prices of imported oil upon the price of domestic oil. If the price of domestic oil were allowed to rise to the level of imported oil prices, then the costs of cargo preference might be doubled, if half of our oil in 1985 is imported and half domestic. As in the case of market effects, regulation might suppress these additional costs. We have omitted them from our basic estimates but we recognize the possibility of their occurrence.

Based upon these and other assumptions, we concluded that a reasonable range of cost estimates would be from about 0.5 cents to 0.7 cents per gallon of imported oil. These estimates do not include costs due to excess profits on transportation of oil, and costs due to increases in the price of domestically produced oil. Any of these effects could--in the extreme--double the costs to consumers.

To estimate annual costs, it is necessary to estimate how much oil will be imported in 1985. Eight million barrels per day was a figure used in some of the testimony, and this figure is probably on the low side. A recent GAO report ("An Evaluation of the National Energy Plan, EMD-77-48, July 25, 1977) concludes that imports in 1985 of 10.3 million barrels a day is a more plausible estimate. If the level of imports is higher, more oil would have to be carried in cargo preference vessels, and the higher total costs would be. According to the Commerce Department testimony, costs would actually increase more than p-portionately to the increase in imports.

For imports of 8 million barrels per day, each one-cent increase in price per gallon means \$1.23 billion annually. Therefore, our mid-range estimate of 0.6 cents per gallon translates into about \$740 million annually.

To translate our estimates into figures applicable to the recently proposed 9.5 percent cargo preference, we reduced them by the ratio of 9.5 to 30 percent--a factor of .32. We recognize that this is only a rough approximation because total costs are probably not exactly proportional to the rate of cargo preference. Nevertheless, this adjustment gives a figure of \$240 million per year. The comparable Commerce Department estimate given in testimony on July 25, 1977 was \$110 million per year. As was mentioned above, our figures do not include certain additional costs which might occur.

I hope that the information in this letter serves the needs of your Committee.

Sincerely yours,



Comptroller General  
of the United States