MEMORANDUM

To: Jonathan D. Kaskin; Michael J. Kondracki &Joseph B. Stanley

From: H. C. Cook Jr. & P. E. Ogle

Date: March 23, 2009

Subject: Sealift Strategic Planning: Reducing Vessel Costs with MARAD Program Financing

Gentlemen:

Good afternoon. Patrick Ogle and I are here today to speak about our project to develop computer models to enable vessel owners to measure the reductions in vessel costs that can be achieved by using the MARAD Title XI and CCF programs.

1. Background.

At the National Shipbuilding Research Program (NSRP) workshop in May 2007, it was the stated belief of a number of the participants that the U.S. shipyard prices were so high that U.S. short sea projects could not be structured – that U.S. shipyards prices were the critical factor blocking short sea transportation developments. While all of us agreed that the shipyard "sticker" prices were important, a number of us also believed that: (a) these shipyard "sticker" prices were only relevant as a starting point for an owner's vessel cost computation; (b) it was the owner's fully financed vessel cost that must be used in developing an owner's business plan; and (c) the computation of this fully financed vessel cost should incorporate the cost reductions that could be achieved using the MARAD programs.

The MARAD program benefits were dismissed by most of the NSRP workshop participants on the basis that the U.S. shipyard prices were just simply "too high". My frustration with this dismissal, and with my inability to quantify these MARAD program figures – a long standing problem – caused me to promise several NSRP colleagues that I would develop computer models to quantify these MARAD program benefits, for discussion at the next NSRP workshop. This second workshop was in due course scheduled for October 2008.

2. The MARAD Title XI & CCF Programs.

2.1 The Title XI Program. MARAD's current Title XI program is the successor to "mortgage guarantee" provisions enacted in 1938 as Title XI to the Merchant Marine Act of 1936. The underlying benefits under the current Title XI loan guarantee program are straightforward and easily understood: (i) a term of up to 25 years matched against

vessel life (rather than 12 to 15 years); (ii) debt financing of up to 87.5% of vessel cost (rather than 80%); and (ii) an interest rate keyed to U.S. Treasury notes (rather than rating agency classifications). An owner's use of these programs will almost always result in both lower annual debt service payments and a lower fully financed vessel cost. The most important element in fixing the measure of benefit will be the interest rate differential.

2.2 The CCF Program. The benefits under the CCF program are less well understood. The 1936 Act contained tax deferred reserve fund provisions, limited to U.S. flag liner operators in U.S. foreign trades, under which these operators were required to deposit monies for fleet renewals. The Merchant Marine Act of 1970 opened the tax deferral opportunity to any U.S flag operator in U.S. foreign trades or in the non-contiguous domestic or Great Lakes trades. The CCF provisions were intended for the deferral of tax on an owner's vessel operating income and vessel sales profits, and on related portfolio investment income. And, it was only after the 1970 enactment that the CCF lease financing and shipyard applications were developed. In a series of lease financing applications in the 1970s, deposits were made to create tax deferred portfolio investments for interest arbitrage sinking fund programs to retire vessel debt. In these sinking fund applications, the deferral of tax on high yield investments, compounding over as much as 25 years, created an "independent" source for the repayment of the Title XI guaranteed debt. There were probably no more than a dozen such CCF lease financing transactions completed, the last of these in 1979 or 1980. While most or all of these involved benefits-sharing structures, a successful methodology for the forward pricing of the transactions was never developed.

3. Our 2008 MARAD Benefits Model Project.

Beginning in early June 2008, and working through the summer, my colleague Patrick Ogle and I sought to develop these MARAD program benefit models. We first addressed the Title XI program, developing models for the fully financed costs of commercially financed and Title XI program financed vessels, which allowed us to compare the two. We then turned to the much more difficult task of modeling the CCF program.

Starting as I had when I was retained by MARAD in 2002 to develop an OMB form of tax cost-benefit model for Administrator Schubert's proposed CCF extension to the coastal trades, Mr. Ogle and I examined the operation of the CCF program in connection with financing of a single vessel. We began with a sinking fund structure similar to that used in the 1970's leasing transactions. And, working from there, we were eventually able to develop a CCF model that allowed us to exactly quantify CCF program benefits for a variety of transaction structures and inputs. This allowed us to compare the fully financed costs of identical vessels in transactions with commercial financing, with vessels in transactions using MARAD Title XI financing, and in transactions using both MARAD Title XI and CCF program financing.

A dozen slides on this subject were included in my "Reducing Vessel Financing Costs: MARAD Program Assisted Financing" PowerPoint presentation at last October's NSRP workshop, as part of a comprehensive analysis of the full range of CCF program benefits. We are providing a copy of this NSRP PowerPoint to you today.

4. Project Results Example.

As an initial single example, let's examine the financing alternatives for a U.S. citizen purchaser-owner "Alpha" acquiring a small RO/RO with a U.S. shipyard sticker price of $100 million.

4.1 Commercial financing. Using commercial financing with 20% equity and 80% debt, with a debt interest charge of 8.26% (LIBOR + 500 bps) and a 12-year amortization term, Alpha's fully financed vessel cost will be $154.9 million, or $121.8 million on a present value basis using a 7% discount rate.

4.2 MARAD financing. We will assume that Alpha can make full current use of the new vessel's scheduled depreciation (at an assumed effective tax rate of 35%), and that it finances the debt portion of the shipyard sticker price with MARAD 20-year term, level principal, 3.58% coupon debt (for 87.5% of the MARAD "actual cost").

Running Mr. Ogle's and my Title XI model, Alpha's fully financed cost at the conclusion of the 20-year term will be $140.6 million.

If Alpha adds the CCF sinking fund feature, this will generate an independent income stream with the measure depending upon the CCF portfolio yield. Running our Title XI and CCF combined model:

If that yield is 7%, the addition of this feature will reduce Alpha's expenditures for principal payments (the equivalent of the shipyard sticker price) to $65.5 million (or $34.5 million less that the shipyard sticker price), and result in a fully financed cost of $114.1 million.

If that yield is 10%, the addition of this feature will reduce Alpha's expenditures for principal payments (the equivalent of the shipyard sticker price) to $55.4 million (or $44.6 million less that the shipyard sticker price), and result in a fully financed cost of $103.9 million.

If that yield is 14%, the addition of this feature will reduce Alpha's expenditures for principal payments (the equivalent of the shipyard sticker price) to $46.7 million (or $53.3 million less that the shipyard sticker price), and result in a fully financed cost of $95.2 million.

While a CCF fund is permitted to make various types of investments, investments in fixed income debt instruments are generally restricted to companies with credit ratings of "Baa" or better. As of this writing, "Baa" debt had an average yield of 8.45%.

5. Project Results Summary Table.

The following table reflects the percentage savings of the financing alternative on the left versus (a) commercial financing and (b) Title XI financing, each on a fully financed cash flow basis and net present value of cash flow basis.

	Percentage Savings			
	Versus Commercial (Cash)	Versus Commercial (NPV)	Versus Title XI (Cash)	Versus Title XI (NPV)
Commercial @ 8.62%	n/a	n/a	-10.12%	-33.33%
Title XI @ 3.58%	9.19%	25.00%	n/a	n/a
Title XI + CCF @ 7%	26.33%	28.72%	18.87%	38.26%
Title XI + CCF @ 8.45%	29.61%	31.67%	22.49%	40.82%
Title XI + CCF @ 10%	32.88%	34.77%	26.09%	43.50%
Title XI + CCF @ 14%	38.51%	40.65%	32.28%	48.59%

6. Conclusions.

Our MARAD modeling project has demonstrated that an owner can achieve significant reductions in its vessel costs though the use of the MARAD programs. Whether these reductions will be sufficient to allow success of a given project, must be tested on a project by project basis. However, it appears clear that: (a) the shipyard "sticker" price is only a starting point for the computation of a vessel's fully financed cost; and (b) this fully financed cost can often be reduced through the use of the MARAD programs.

We are here today because, in the words of the Merchant Marine Act, 1920, "[I]t is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine . . . sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency . . . ."

We will be pleased to discuss our assumptions and methodologies and respond to questions.

Thank you,

H. Clayton Cook Jr.

Patrick E. Ogle

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