providing greater depths on a continuing basis. Accordingly, funds appropriated for Civil Works functions cannot legally be used to share in defraying the cost of maintaining depths below 30 feet at all times. This restriction on the expenditure of civil funds is not a policy decision but rather a matter of law since the authorized project depths has been established by Act of Congress."

This has been interpreted to mean that if the Navy does not want the channel to ever get more shallow than 32 feet below MLLW, the Navy will have to pay the entire cost of dradging in the appearance.

the entire cost of dredging in the area over which such depth is required. During the five fiscal years 1956-57 and 1960-61 inclusive, the Navy's dredging averaged 840,000 cu. yds. at a cost of \$167,300 annually and the Army's dredging 2,070,000 cu. yds. at a cost of \$389,000 annually. If the Shipyard has to pay for all maintenance dredging in the deepened channel, it will cost the shipyard some \$300,000 annually more than the cost of additional silting due to the deepened channel only. Encl. (4) illustrates the difference in the Navy's and Army's position with regard to liability for the dredging. Encl. (5) explains encl. (4).

IV. SPECIAL STUDIES

Numerous proposals to reduce silting in the entire Bay area have been advanced. To further this program, the U.S. Army Engineers have constructed a model of the Bay area at Sausalito. They are conducting tests to determine control works required in San Francisco Bay and tributaries. The Navy has contributed funds for studies of value to the Navy. One of these studies is to determine the most economical method of reducing silting in Mare Island Strait.

V. COMMUNITY INTERESTS OTHER THAN THE NAVY

The Cities of Vallejo and Napa and industries along Mare Island Strait and the Napa River are also interested in deepening the channel, reducing silting and controlling floods.

Enclosure (7) taken from the San Francisco Chronicle of 10 October 1962 is further evidence of the need for deeper channels in the San Francisco Bay Area. It emphasizes the value of deep water berthing facilities, and the contribution of such facilities to development of the surrounding area.

Enclosure (8) is an article from the Vallejo Times-Herald of 11 December 1962 in regard to a meeting to be held on the problem with reference to Mare Island Strait and Napa River. It appears that civilian interests in a deep water channel for this evaluation are as important as military requirements.

VI. SUMMARY

The problem of deepening Mare Island Strait can be summarized by stating immediate and long range objectives separately:

A. The immediate requirements for a solution to the Shipyard's dredging problems are as follows:

(1) Enabling legislation should be passed to permit the Army Engineers to budget and perform maintenance dredging for defense purposes. This legislation has been prepared and sent to the Bureau of the Budget for inclusion in the President's budget, encl. (6).

(2) Authorization and funding is needed under the Military Construction Program if not otherwise available, for a project to deepen the Mare Island Strait Channel to 35 feet. Such a project has been prepared and submitted to the Bureau of Ships. (See encl. (3)).

B. The long range requirements envisage:

(1) Complete model studies and engineering studies to determine the most

effective and economical way to control silting in the Strait.

(2) After the Army Engineers have completed their studies, funding will be needed for detail engineering and to subsequently construct control works to reduce the silting, control floods and maintain a deep channel in the Napa River and Mare Island Strait.

(1) Aerial Photograph showing the southerly end of Mare Island with silt moving from San Pablo Bay into Carquinez Strait.