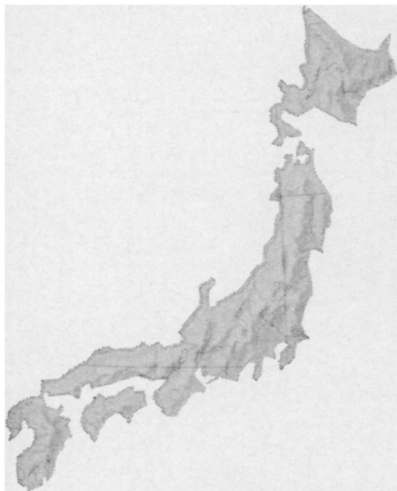


LETTER FROM TOKYO



Sea-bottom combines

Japanese industry is organizing for the big push in ocean exploring

by Stuart Griffin

Japan's national policy on treaties governing the development of the resources of the ocean floor is conservative. The country staunchly backs the U.S.-proposed International Decade of Ocean Exploration (SN: 3/23, p. 283) as a way of learning about the seabed before boundaries, regulations and other restrictions are drawn up in the United Nations.

Conservative is hardly the word, however, for the country's oceanic industries, which are merging, dividing, investing and developing a wide variety of projects in anticipation of riches. Leading enterprises, especially in trading and shipbuilding, are paying increasing attention to industrial opportunities ranging from utilization of the energy in seawater itself to the development of submarine natural resources, and even the utilization of oceanic space for recreational purposes such as aquatic parks.

Since the cost of most such projects would be prohibitively high for many Japanese companies, industrial giants such as the Mitsubishi, Mitsui and Sumitomo groups are taking steps not only to pool their resources, but to cooperate in such areas as manpower and technology. One guide to such efforts is the permanent committee on oceanic development of the Keidanren, the Federation of Economic Organizations, which has the task of accelerating basic research projects involving joint government and private participation.

The government is also preparing to launch a large-scale oceanic development plan, lasting at least five years, in the upcoming Japanese fiscal year, which begins next April 1. The plan, under the Oceanic Science and Technology Study Council, is aimed at coordinating the projects and proposals of a variety of concerned government agencies.

The Science and Technology Agency, for example, is concerned with the continental shelves, and with development of facilities for their exploitation. The Transportation Ministry is planning construction of an experimental underwater observation tower and a research submersible. The Ministry of International Trade and Industry is interested in the technology of submarine oil drilling. Food from the sea, particularly high-protein supplements, is on the agenda of the Ministry of Agriculture and Forestry and the Welfare Ministry is investigating aqua-parks.

Together, the various agencies seek appropriations totalling some \$15 million, more than twice the figure for the current fiscal year.

Many firms are establishing special committees, or even entire divisions, to survey problems related to oceanic development.

Last April, for example, five concerns from the Mitsubishi group joined with Ishikawajima Harima Heavy Industries and the Petroleum Development Public Corp. to set up the Japan Oceanic Excavation Co., to dig submarine oil wells on a contract basis. In September, the company sent a group of experts to consult with India on plans for exploiting petroleum deposits beneath India's Gulf of Cambay. The Mitsubishi group also plans two more petroleum development firms, one concerned with oilfields on the Persian Gulf off Abu Dhabi, Arabia, and the other a joint operation, with Shell, for exploitation of oil deposits beneath the western section of the Japan Sea.

Another oceanic development study group is being assembled from 12 companies of the Sumitomo group, along with the U.S. firm, Ocean Systems, Inc. Beginning with general sea bottom research, the group eventually plans to branch into petroleum development.

Other Sumitomo plans include a joint venture with Taisei Construction to promote underwater sightseeing along scenic submarine routes. Also interested in underwater leisure is the firm of C. Itoh, which, along with Hitachi Shipbuilding and Nagoya Railroad, plans an aqua-park. Mitsui Shipbuilding, Kawasaki Dockyard and Fujinagata Shipyards are among the companies now building a variety of special-purpose submersibles, and several firms have fledgling project headquarters solely for oceanic endeavors.

Japan thus has many cooks for a very fast-boiling broth. In the past this has spelled difficulty in some plans, even disaster in others. With all the new organizations and recombinations, clash of authority is a strong possibility, along with the resultant delays. Plans for fund-raising may stumble over deep-seated rivalries between competing divisions.

The International Decade of Ocean Exploration, however, could well act as a focus for divergent efforts. In any event, Japan's age of oceanic development is at least off to a start, and a lively one at that. ◇