Department with the living expenses supported by the Science and Technology Agency of Japan. The purpose of his stay is to exchange information about analysis of satellite laser ranging data and talk about future cooperation between the two countries. Dr. He is busy to have discussions with the staff of the Satellite Geodesy Office, which has recently been established in the Hydrographic Department of Japan, and to visit many related agencies in Japan.

## JAPANESE H.D. NEW SURVEY VESSEL ON THE STOCKS

As a new member to the survey vessel fleet of the Hydrographic Department of Japan, a middle-type survey vessel will be lanuched in August and commissioned in November 1986. This new survey vessel will be engaged mainly in bathymetric and geological surveys, tidal stream and ocean current observations in coastal waters around Japan.

In designing the vessel, the following requirements are specially taken into consideration:

- (1) High maneuverability should be ensured.
- (2) Wide space of cabin should be provided to install various survey/ observation instruments.
- (3) One survey boat for inshore sounding and tidal stream observation should be carried aboard.
- (4) Survey/observation operation can be carried out even in a rough sea to a certain degree.
- (5) Rolling, pitching, and vibrancy of the vessel should be diminished in order to avoid adverse effect to sofisticated survey/observation instruments.
- (6) Most comfortable cabins should be provided for the crew.

## Principal particulars designed

- Hull : Steel
- Navigation area : Greater coasting area
- Displacement : 770 tons

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- Gross tonnage : 430 tons
- Length overall : 56.00 metres
- Breadth : 9.8 m
- Depth : 5 m
- Draught : 2.9 m
- Main engine : Diesel 650 PS x 2
- Propellers : Controllable pitch propeller x 2
- Speed : 13.0 kn
- Cruising range : 5400 miles at 12 kn
- Endurance : 25 days
- Maximum complement : Crew members: 24

Others: 14



Drawings of the new survey vessel

Equipment for survey and observation

- Hybrid positioning system composed of electronic computer, GPS NNSS, Loran C, Dacca navigator, etc.
- Narrow multi-beam echo sounder (HYDROCHART)
- Echo sounder (Max. sounding depth: 5000 metres)
- Automated data logging and processing system
- Acoustic Doppler current meter

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- CTD system
- Trisponder
- XBT
- Seismic profiling system
- Direction finder
- Self-recording current meter
- 10-metre type survey boat equipped with multi-beam echo sounder, precise electronic positioning system, and automated data logging and processing system.

When this new vessel is placed in commission, the existing Survey Vessels 'Heiyo' (51 tons) and 'Ten-yo' (121 tons) will be decommissioned.

## SINO-JAPANESE JOINT OCEANOGRAPHIC STUDY OF NORTHWESTERN PACIFIC OCEAN

The Governments of People's Republic of China and Japan have recently reached an agreement on a seven-year joint project to conduct oceanographic observation and study in Northwestern Pacific Ocean and the Kuroshio, which has a great influence on climates, fishing operations and other maritime activities in both the countries.

The project was initiated with the following oceanographic cruises by the Research Vessels 'Xiangyanghong 09' (4400 D/T) and 'Shijan' (3000 D/T) of the China State Oceanic Administration (SOA) as well as the Survey Vessel 'Shoyo' (1900 G/T) of the Japan Hydrographic Department and the Research Vessel 'Keifu Maru' (1800 G/T) of Japan Meteorological Agency:

- Xiangyanghong 09 : Physical oceanographic, meteoroloigical, chemical and biological observations in areas covering from N part of Eastern China Sea to S of Honsyu, Japan, from May to June 1986.
- Shijan : Physical oceanographic, meteorological, chemical and biological observations in Eastern China Sea from May to June 1986.
- Shoyo : Physical oceanographic and chemical observations in areas covering from S of Honsyu, Japan, to Eastern China Sea from May to