and sail. If only these figures are correct is best Christmas present. Est. D.W. 7.13 Fast.

A Visit to Japan

At the invitation of the Nautical Society of Japan, a society with aims similar to the Institute's, the Executive Secretary visited Japan between 5 and 17 April. A short report to Council follows.

1. Members of the Nautical Society of Japan (N.S.J.), most of them professors at the University of Mercantile Marine at either Tokyo or Kobe, have from time to time visited this country and the Institute has generally been able to smooth their paths. No doubt this has played its part in such collaboration as there has been between the two bodies, including the publication over the years of a substantial number of Japanese papers. The present visit was arranged through the intermediary of Professor Nishiyama who has been working at the University of Wales Institute of Science and Technology. The object of the visit was to further cooperation between the two bodies by getting to know the people concerned and to see some of the work now going on in Japan, particularly in fields where this Institute has been prominent, such as traffic routing &c. When a visit had been agreed in principle, a schedule was proposed and the President then informed the President of the N.S.J. that the visit was an official one made on the Council's behalf.

2. It was clear from the start that the Institute was held in very high regard in Japan and that the visit was going to be treated as something of an event. On the evening of my arrival (5 April) there was an official reception at the Japan Marine Club attended by representatives of the following organizations:

- Education Division of the Bureau of Seafarers (MOT)
- Maritime Safety Agency
- Hydrographic Department
- Electronic Navigation Research Institute (MOT)
- Institute for Sea Training (MOT)
- Tokyo University of Mercantile Marine
- Japan Marine Foundation
- Japanese Shipowners' Association
- Japan Pilots' Association
- Japan Association for Preventing Marine Accidents
- Japan Captains' Association
- N.Y.K. Lines
- Japan Lines
- Kawasaki Lines
- Showa Lines
- Yamashita-Shinnihon Lines
- Nautical Society of Japan

I was to see many of the representatives, most of whom were at director level, again, and after some formal words of welcome and response, followed by a
limited amount of merrymaking, I was allowed to retire. Over the next two or three days, the longitude shift combined with a tight schedule, which because of a misunderstanding as to dates had had to be telescoped even more, took its toll in terms of sheer exhaustion.

3. The second day was spent at the Institute of Electronic Navigation (MOT), an organization somewhat similar to A.S.W.E. in this country, although it is concerned with radio aids to air navigation as well. Dr. Fujii and Professor Makijima were in attendance. Besides evaluating radio aids the laboratory seems to be at least the spiritual home of marine traffic engineering, although this may be coincidental.

I was also able to have a look at the 400-metre tank of the Ship Research Institute next door and meet members of the staff.

4. The following day (7th) was spent at the Tokyo University of Mercantile Marine, of which Captain Asai, President of the N.S.J., is a Past-President and Dr. Mozai, General Secretary of the N.S.J., one of the professors. The two Universities, Tokyo and Kobe, started as nautical schools, the former in 1895, the latter in 1917. Their histories have at times been intertwined, notably at the end of the war when a single Nautical College comprising Tokyo, Kobe and Shimizu was set up with a large campus at Shimizu, formerly the Naval College. Both attained their present status under the Ministry of Education as Universities of Mercantile Marine in the 1950s.

After inspecting the facilities and meeting the heads of department, a discussion covering a wide range of educational subjects was held. The University has an intriguing manoeuvring simulator and one of the subjects taught is marine traffic routing. Navigation is of course only part of the syllabus which extends to transport engineering, environmental studies (very much an in-subject in Japan) &c.

5. The first part of day 5 was spent at the Maritime Safety Agency, an organization responsible to the Ministry of Transport for search and rescue, marine traffic organization, maritime pollution control, the coastguard, aids to navigation, the provision of charts and almanacs &c. The Agency, which was founded in 1948, now runs over 400 ships of one kind and another and several fleets of aircraft, helicopters &c. Attended by Professor Toyota, who appears to be the father of marine traffic engineering, with Professor Makishima and Dr. Fujii, we were received by the Director General of the Guard and Rescue Department of the Agency, Chikao Funatani. Recently a Maritime Traffic Safety Law, to come into force on 1 July 1973, was enacted governing the conduct of traffic in Japanese waters and establishing traffic routes in Tokyo Bay, the Bay of Ise and the Seto Inland Sea. Certain aspects of the law and the manner of its introduction may be considered controversial and provided the subject of a stimulating discussion during the visit to the Agency.

Lunch and the second part of day 5 was spent on board the Shioji-Maru, a small training ship, accompanied for the most part by people interested in routing. The objective was to look at the congestion in Tokyo Bay and its approaches and to discuss similarities between this situation and that in, say, the Dover Strait. A marked difference of course is the extraordinary complexity of the traffic in the Bay which has been the subject of a number of studies published in the Journal and elsewhere.

In the evening I was the guest at dinner of the Japan Association for Preventing Marine Accidents. The Association, the aims of which in the broad sense are
educational, is supported by private subscription from members and subsidies of one kind and another for various projects from industry. It holds instruction courses for ships' officers, makes films and film strips for distribution in ships, publishes pamphlets on marine safety and pollution control, and a book *The Sea and Safety* which has sold 750,000 copies; it also disseminates the proceedings of marine court cases. I had received notice beforehand of a number of fairly innocuous questions they wished to put to me and after dinner a tape recording was made for publication in their Journal.

6. On the 10th attended by Professor Toyota and Captain Makishima we were received and shown round the Hydrographic Department by its Director Dr. Kawakami and members of his staff, notably Dr. A. M. Sinzi, Director of the Astronomical Division, and Sadakiyo Hori, the Director of the Oceanographic Division. An interesting discussion took place on the display of routing information on charts, the new Maritime Traffic Law having introduced far more elaborate traffic regulations than anything so far envisaged by Imco. It was interesting to note that the Japanese who so many years ago produced the first Altitude-Azimuth Almanac (reviewed by Sadler in Volume 1 of the *Journal*) still use $E$ and $R$ in their Nautical Almanac. One gathers that it is the conservatism of Japanese seamen which had resisted the change to G.H.A. One of the most intriguing tasks being performed by the Oceanographic Division is the production of a series of charts of the sea-bed on the continental shelf around Japan relating to ocean resources, including bathymetric, geological and isoclinal information.

In the evening, attended by Professor Mozai, one of the yachting magazines arranged a meeting over a light supper at the Ocean Club with representative Japanese yachtsmen.

7. On the 12th, accompanied by Dr. Mozai, I left Tokyo to visit the Nautical Academy at Oshima, an island in the west. We dined with the staff that night and slept in a nearby hotel. The President of the Academy, Professor Sameshima, is a Fellow of the Institute. He remembered, remarkably, that my mother had visited the nearby Itsukushima shrine in 1911, travelling by rickshaw.

The following day I gave a lecture, laboriously translated passage by passage by Dr. Mozai, to the cadets and staff of the Academy; since the cadets were for the most part young, I regaled them with Jester's experiences; this seemed quite diverting, and there were a number of questions afterwards.

After visiting the Academy we proceeded to Kobe to dine that evening with the professors of the University of Mercantile Marine. The next day was taken up visiting the University, the last formal engagement. There was a farewell party in Tokyo on Monday 16th and the following day, accompanied to the airport by Dr. Mozai, Dr. Tani, and Dr. Toyota, I left for London.

M.W.R.