

# Fourth International Ship Operators Meeting

9 October 1990, Bundesamt fur Seeschifffahrt und Hydrographie, Hamburg.

Country	Representative	Organisation
France	Mr. J. Binot	IFREMER, Paris
	Mr. P. Rouzaud	IFREMER, Toulon
Germany	Prof. D. Kohnke	BSH, Hamburg(Chairman)
	Dr. C. Stienen	JGOFs Office, Kiel
Japan	Mr. T. Chiba	NME, Yokosuka
	Mr. M. Kato	JAMSTEC, Yokosuka
Mr.	H. Nakato	JAMSTEC, Yokosuka
Netherlands	Mr. C. van Bergen Henegouw	SOZ, The Hague
USA	Dr. D. F. Heinrichs	NSF, Washington
UK	Mr. B. J. Hinde	NERC, Swindon
	Mr. K. G. Robertson	NERC, Barry
	Mr. F. P. Verdon	NERC, Barry
EC	Dr. J Boissonnas	DGXII
UN	Mr. E Jan de Boer	FAO, fisheries division, Italy

## Apologies for Absence

Apologies were received from: Australia (Dr. A. MacEwan), Belgium (Mr. A. Pollentier), Canada (Mr. S. B. MacPhee), Finland (Ms. E. Lahdes), USA (Dr. K. Kaulum), USSR (Dr. I. Sborshchikov).

## 1. Introduction and Welcome

Professor Kohnke welcomed representatives to the meeting in "the new Germany". He said that the changes were sudden, and the two parts would take a couple of years to settle down; this was a contributory factor to the absence of the President of BSH, who had hoped to extend the welcome himself.

Following this welcome, representatives accepted the agenda as drafted.

## 2. Review of Minutes of third meeting

These were accepted as a true record.

## 3. Report on database comparison

Mr. Verdon introduced the paper, which attempted to highlight the principal differences between the three databases and point out that the contributory community to each of them was small and essentially the same. Its aim was to encourage the three database managers to work towards a common system, beginning with the development of a single input form.

Mr. de Boer said that he regarded the FAO and its database as acting as an "honest broker" between operators of research/fisheries vessels and potential users. The aim of the database was to get as much information as possible about available vessels and their utilisation, and it presently serviced some 50-60 requests per year from a wide user community. However, he fully supported Mr. Verdon's suggestion of moving towards a common input form.

Dr. Boissonnas said that the EC database aimed to serve marine scientists as well as those listed in the paper. The initial release would be on the ECO server in Brussels (as from January 1991), with a demonstration to the North Sea Task Force in December 1990 in Berlin. He presented some information on the structure of the EC database, and copies of his material is attached to these minutes. He, too, fully supported the harmonisation of input data.

Mr. Hinde emphasised that the principal concern was keeping the cruise programmes up-to-date. He said that this problem would be minimised if the operators could provide a common input to all three databases. Professor Kohnke said that he also strongly supported a common input format, even though the database administration might be different.

In the discussion, it was felt that the data should include the ship's working area in a "standardised" format, and also the name of the "cruise co-ordinator" (not necessarily the same as the Principal Investigator). Mr. Verdon suggested the NOAA/NSF definition of working areas, and it was accepted that for ships working remote from their own coastal waters a scheme such as this was reasonable.

The meeting agreed that it would encourage the administrations of the three databases to develop a common input form, and this recommendation is embodied in Annex 1 (attached), which will be sent to each organisation. It was also agreed that each nation contributing to the databases should have a single point of contact to facilitate information flow, although the representatives of Germany, Japan and UK pointed out that this might be a problem.

## 4. Global Programmes

Professor Kohnke said that the US and UK had both made projections of their demand for the next decade, and he invited Dr. Heinrichs and Mr. Hinde to outline these.

Dr. Heinrichs said that he had written to the International/Science Offices of both JGOFS and WOCE, asking them if they wished to bring any matters to the attention of ISOM. Both organisations had expressed support for ISOM, but indicated that at the present their programme ambitions were constrained by funding limitations, and they were concentrating on co-ordination of national contributions.

He added that the US national projections required about 1050 days of shiptime for WOCE up to 1997. Two of the vessels expected to contribute time - the Knorr and Melville - were presently experiencing problems in completion of their major refits, and it was probable that only the Melville would be laid up. There was therefore an increasing need for interaction with other nations' programmes.

Mr. van Henegouw said the feeling of JGOFS scientists was "we can handle it." Dr. Heinrichs suggested that this view was only partially correct - the complexities of cruise programming were more than the scientists could handle, and the JGOFS community would realise this during the Indian Ocean phase of the programme unless it were properly scheduled beforehand. Dr. Stienen suggested that a JGOFS representative be invited to ISOM, and he recommended Dr. Meiron Jones from BODC, POL.

Dr. Nakato said that JAMSTEC contributed to and used OCEANIC for reviewing cruise programmes, and Dr. Heinrichs added that some Ocean Research Institute Tokyo programmes were also on OCEANIC. Professor Kohnke suggested that it was important that cruise planning information should go onto OCEANIC as soon as possible to allow constructive interaction between operators.

Mr. Hinde presented a graphical illustration of the total UK demand over 10 years compared with available capacity. He too pointed out that budgetary constraints were a limiting factor in cruise programming, and indeed NERC had had to postpone some cruises planned for 1991 for that reason. He suggested that one way

that co-operation would help would be if - e.g. - one nation could recover another's moorings as part of the first's cruise. Dr. Heinrichs added that US would be facing a shortage of ship capacity from about 1993 even with some optimistic assumptions about NSF budget growth.

Professor Kohnke said that he would like to see 10 year forward projections from other countries, including Germany. Dr. Heinrichs pointed out that part of the problem was that, in us at least, only about 1/3 of all proposals were actually funded to go to sea. He cited the fact that NSF expected about \$25M to fund JGOFS demands amounting to over \$50M. Mr. Hinde undertook to advise the national co-ordinators about the functioning of ISOM.

## **5. Arctic Co-ordination**

Dr Heinrichs reported that there had been little activity on this matter since the previous ISOM, except that NSF had agreed to contribute \$5,000 to OCEANIC to include the Arctic ships onto the database. He thought that some movement in this item could be expected early 1991.

## **6. Science Collaboration with Australia and New Zealand**

Mr. Hinde opened this item by referring to an approach to UK, and asking whether other countries had been similarly asked about collaborative science. Dr. Heinrichs said that Australia was interested in the US chartering spare capacity on their new ship -the "Rig Seismic" -with a 240-channel seismic system. He noted that there appears to be "spare" capacity in Australia, but it is being charged for.

Professor Kohnke said that he was not aware of any approaches to Germany. Dr. Nakato reported that there had been some constructive discussions between JAMSTEC and the Australians.

## **7. Bartering Arrangements**

Mr. Verdon reported the signing of a bilateral agreement between NERC and IFREMER, and Mr. Rouzaud said that there was also a bilateral agreement between IFREMER and NSF.

Dr. Heinrichs said that US was committed in principle to bartering as much as possible, and he was trying to reach an agreement on the subject with the Canadians.

Dr. Henegouw reported that the Dutch have implemented some barter arrangements, but usually on an individual basis by the scientists themselves. He expected further bartering to be arranged both with the French and in the context of MAST.

Dr. Nakato said that JAMSTEC had no central agreements with other countries, but did provide opportunities for foreign scientists to join Japanese-run cruises.

Professor Kohnke said that Germany had no formal agreements and he knew of no bartering arrangements. Germany had, however, sent a small vessel to Brazil for 6 months as part of an aid package.

Mr. Rouzaud commented that co-financing of cruises was an important issue - IFREMER and UK had operated a number of cruises in this way- and there had also been a joint French/German cruise. He felt that this method of funding could be useful where equipment is unique. Mr. Binot reported that IFREMER was working with a UK team on the development of AUTOSUB. Mr. Hinde said that he foresaw no problems about joint funding of cruises.

## 8. Worldwide set of Ocean floor samples

Professor Kohnke introduced this item, and Mr. Verdon referred the meeting to the paper, which summarised the background to the request for all cruises to recover ocean floor samples. Dr. Heinrichs said that he had circulated the request to the US oceanographic community, and had learned that the concern was real - existing core samples were becoming depleted, or were inaccessible to the scientists themselves. He accepted that routine sampling from cruises was very difficult, and comparison with the Maurice Ewing period was invalid because the ships of those times routinely carried a coring crew of three people.

Dr. Heinrichs continued that the US contribution to IGBP included a proposed programme on Earth System History and Modelling, which would require records of the last 10,000 years, including ocean sediments. The critical components of this record included larger cores, routine coring, etc.. He said that his personal belief was that the international community should organise its resources, and collaboratively support a ship to go to sea and core, and core, and core...., possibly supplemented with cores taken on geophysical and JGOFS cruises. This effort would, however, require major institutions to provide proper curation facilities for all the cored and dredged material. Professor Kohnke suggested that an international programme similar to ODP might be appropriate. Dr. Boissonnas felt that NEREIS could help with shallow coring, and that a proposal to MAST for the development of a large, shallow depth corer might be sympathetically considered.

Mr. Hinde said that UK would prefer to address the problem by responding to applications from scientists, and he would like to see ISOM advising scientists to approach their national support bodies first. Mr. Binot expressed his concern that, for example, one 6 days dedicated cruise per year would only produce 12-14 cores, and these might be insufficient to provide useful information. Dr. Heinrichs added that scientists needed to articulate their requirements more clearly and also address the problem of curation. Mr. Hinde undertook to draft a reply to the original request for comment before sending; this letter is attached as Annex 2.

## 9. Update on new/refit ship status

Mr. Verdon distributed copies of the specification of RRS Discovery following her major conversion. He said that the conversion would be carried out in viana do Castelo in Northern Portugal, and would take about 18 months from end-October.

Mr. Binot reported that the new IFREMER ship - L'Atalante - had been launched in December 1989, and would begin a campaign around Christmas. Another project was in hand to examine the possibility of replacing the Thalasseau with a new fishing vessel that might be operated "within the international scene".

Mr. Binot then reported on the current state of the NEREIS project. Costing an estimated 90M ECU (approx. \$120M), the aims of the project were to study:

- the dynamics of the deep sea environment and man's impact on it;
- global environment change;
- fluid flow through the seafloor;
- the dynamics of the crust and mantle.

He opined that realistically there was little chance of EC funding before 1994 or 1995, and it would be necessary to ensure a good (scientific) return for the level of investment required. Dr. Heinrichs expressed concern about potential conflict between NEREIS and ODP, although in some respects they were complementary. He said that ODP were at present proposing an extension of the drilling programme for another 10 years, with a mid-term review, and at that stage it might be possible to consider replacing Joides Resolution with another ship such as NEREIS or the Japanese benthic ship.

Dr. Heinrichs reported that the refit of RV Maurice Ewing (former Bernier) had been completed without major problems. RV Thomas W. Thompson (AGORZ 3) was also on time and on budget, and was expected to enter service in July 1991.

He continued that the conversions of RVs Knorr and Melville - similar in scale to that proposed for RRS Discovery - had run into major problems, and were behind schedule and over budget: the minimum cost to complete the conversions was currently estimated to be about \$5M. As a result one option being considered was to complete RV Knorr and mothball Melville. Dr. Heinrichs then noted that NSF had let a concept design study contract for an icebreaker for the western Arctic, and a contract to study mid life refit options for the Oceanus class vessels. The Division of Polar Programmes were planning to operate a new icebreaker - Nathaniel B. Palmer - on a long term lease from early 1992, and NOAA were also investigating the development of an ice-capable oceanographic vessel to be included in fiscal 1992 budget. Also in fiscal 1992, there were plans for the Navy to study the replacement of FLIP, whilst a new AGORZ4 was planned for fiscal 1994.

Dr. Nakato reported that Shinkai 6000 and its mother ship were completed in April 1990, and both were undergoing testing and training. As part of the builder's trials, Shinkai 6000 had successfully dived to 6527 metres. Mr Kato said that in 1991, Shinkai 6000 was scheduled to carry out approximately 60 dives, of which 15 would be in the Atlantic, some with IFREMER scientists on board. He added that, in 1-2 years, JAMSTEC will have completed the development of a system to transmit TV signals acoustically as part of the Shinkai 6000 programme. In response to a question Dr. Nakato said that the Shinkai 6000 project had cost 18 billion Yen (approximately \$120M), funded by the Ministry of Science.

Dr. Henegouw said that the Dutch Fisheries Department had replaced the Tridence with a new vessel bearing the same name. The keel had been laid for a new North Sea ship that would be operational in summer 1991, and SOZ were working on strategic plans for the Tydemann and Tyro, probably involving laying up the latter and replacing the former in the late 1990s.

Professor Kohnke confirmed that the Friedrich Heinke had been replaced by a new vessel named Heinke, and he provided facts sheets about it. Similarly, two small fishing vessels would be replaced by a new 55 metre ship named Wega, designed mainly for surveying. He offered a personal opinion that the ships operated by the former East Germany would require replacing in the near future.

## **10. Any other business**

Dr. Heinrichs said that in USA, USSR was very active in offering ships for charter, and the NSF view was that these approaches should be treated as any other commercial approach. He added that the situation was confused by different bodies offering different rates for the same ship. Professor Kohnke said that similar approaches had been made to Germany, and he was still awaiting information about equipment and insurance on the ships.

## **11. Dates of future meetings**

Mr. Rouzaud invited ISOM to meet in Paris in 1991. This offer was accepted, and the meeting was scheduled for Wednesday 9 October, beginning at 09.00.

Dr. Nakato extended an invitation to the group to meet in Tokyo or Yokosuka in 1992, and this offer was also accepted, with a date to be agreed between Dr Nakato and Secretary.