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Adjournd October 5, 1990.

NEXT MEETING: Langseth noted that FIC should shift to 2 meeting/year mode, meshing with 3 Council meetings. The next FIC meeting was to be at L-DGO in Spring. One FIC meeting should be close to the Annual UNOLS meeting in the Fall.

Richard Pittinger, who recently joined WHOI, raised the possibility of using a nuclear-powered submarine for ocean research. The FIC proposes to create a supporting document describing science appropriate to such a facility.

Craig Dorman, WHOI Director, spoke to FIC on the range of national ocean problems and challenges. WHOI is looking forward to the replacement of ATLANTIS II. They want to increase cooperative work with Navy submarines. New trends in submarine science are toward ROV's. WHOI is looking forward to developments and needs and is keeping track of increasing use of military facilities for research as appropriate. They have noted a push for a second RVIB and noted increasing interest in Arctic. There are questions regarding facilities-support resources and how they should be budgeted in the agencies. Noted value of regional consortia.

BUDGET REVIEW: Money will be needed for the Small Ship Compendium, Research Submarine Mission Requirements, Submersible Support Ship Mission Requirements and will come from current funds. Funds for 1991 FIC activities will be through UNOLS.

NEW FIC CHARGE: Mark Langseth will be incoming FIC Chair. FIC discussed new directions. NOAA programs and fleet plans will be an item for future discussion and review. Coastal initiatives will require review of coastal vessel requirements and needs. Many agencies are interested. FIC should begin an inventory of fleet as needs shift, addressing questions of cost, science direction, good and safe platforms with needed redundancy. Studies should recognize probable budgetary restrictions in future years. The vessels in the 100-150' range are a forgotten class. FIC needs to look at those ships. An interagency committee is working up a coastal initiative for inclusion in the Global Change Program of the Committee of Earth Sciences. This emphasis could impact ship requirements and future Fleet Plans.

Dick West reported that at time of meeting, NSF's budget was still up in the air. WARFIELD had proposed a mid-life refit and re-engineing (\$1.4 million). Requests for WEATHERBIRD II had been received and were being reviewed.

decisions will be made by the end of the year. AGOR's 24/25 were still in budget and COR's were being reviewed (see previous page). Operators will be competitively chosen. Solicitation will be out soon. Competition will be as for AGOR-23, but with no requirement to turn in an old vessel. Proposals would be evaluated as were those for AGOR-23.

higher, nearly twice CONRAD's. The Krupp Atlas multibeam system seems to be working well, but some problems still must be worked out.

Kaulum and Barbee reported on the THOMPSON. Delivery is scheduled for July to August 1991. Generally going well.

Gorsline reported the VICKERS is progressing and should be operational in 1991 on an abbreviated schedule. Good ship layout and first class arrangements.

SWATH DESIGN UPDATE: Dinsmore/Robison reported covering the state of SWATHS: FIC will receive MBARI input on three designs commissioned by them. (Glosten will evaluate all three designs.) MBARI is the active SWATH player in the U.S. Future budget request, for FIC should include model testing and concept design for a research SWATH. Several firms interested and cooperative. MBARI will be asked if they would give their designs to UNOLS. Bob Dinsmore will check with Bruce Robison.

The Navy is well along on TIAGOS 19; the ship is in the water and field tests are scheduled for spring/summer 1991. Three more ships have been added to the Navy program. Contracts to yard and planning is in progress for larger SWATH; RFP is out for 5000 T, big HF vessel.

REVIEW OF CIRCULAR OF REQUIREMENTS FOR AGOR 24/25: Brian Lewis was chairing the Review Group and they had started their deliberations.

REVIEW OF REPORTS PUBLISHED AND IN PROGRESS: The Submersible Support Ship Requirements report draft has been reviewed and comments transmitted to Roger Cook. Langseth was to write letter and get final draft in motion. This will be reviewed at the next FIC meeting.

Bruce Robison's report on a research submarine's mission requirements should be out by early 1991.

Gorsline reviewed and distributed copies of parts of UNOLS Council reports by Tom Johnson, Betzer and Rawson on UNOLS R/V designation, rating and evaluation, and by Tom Malone and Carolyn Thoroughgood on coastal vessels. These topics are related to FIC interests raised in the Epilogue, Fleet Improvement Plan (and to continuing UNOLS Council interests).

Bob Dinsmore is working on the Compendium for Small R/V Operators, to be reviewed at the next FIC meeting.

AFRICAN LAKE R/V DESIGN (Tom Johnson request): Worth Nowlin reviewed the request that had been considered at the last FIC meeting. FIC voted to provide some representatives, liaison, reviewers, etc., on request. This does not endorse merit of project but simply provides service on request.

REVIEW OF SHIPBOARD METEOROLOGICAL EQUIPMENT: FIC was given a demonstration of the shipboard equipment for meteorological observation and monitoring. Future discussion by FIC on acquisition and assignment is needed. Note previous report.

AGENCY REVIEWS: Keith Kaulum, ONR, noted questions on Desert Shield. Effects on budgets are still not clear. KNORR/MELVILLE problems are under review and

Mark Langseth noted that the EWMING had been in operations for four months and was operating well. SEAMARK II gear had been lost in heavy weather then retrieved but needed repair. The EWMING had a full schedule; fuel costs are

yard evaluations and guidelines for future refit planning.

ITEM FOR FUTURE NOTE: Perhaps the FIC could generate a list of yard criteria,

propulsion system and operating capabilities.

vations are completed, these ships will be first class, with excellent was perhaps 80% complete but problems and questions remain. When these reno-cal system and with interfacing of contractors and yard. Work on the KNORR experience with the KNORR. For KNORR, major problems have been with electri-schedule and over budget. MELVILLE work was going better and benefitting from shipyard and progress of the KNORR stretch and refit. The work was over SHIP CONVERSION, CONSTRUCTION: Captain Coburn discussed WHOI relations with

sharing responsibility for the academic fleet.

flow direct and flexible. NOAA was encouraged to join with NSF and ONR in NOAA has designated a liaison representative to the FIC to keep information. There was good exchange and frank discussion of UNOLS/NOAA interests and problems. a major undertaking and UNOLS ships could well find use in new system. Their costs and replacement using several models. Their fleet modernization will be many UNOLS mission requirement guidelines.) NOAA comprehensively reviewed reports are coming out and will be available to FIC and UNOLS. (They used BILL Stubbfield reported to the group on the NOAA fleet review. Their

noted.

specific needs and requirements (areas of operation effects, etc.) were also report was due in early October. All ships were reviewed together but the each. Some items will be ship-specific and some common to all. Rodney Lay's and all complete prior to 1994. The estimated cost in 1990 \$ is 2 million January 1992 to yard; WECOMA-Fall 1992 to yard; OCEANUS-January 1993 to yard-1994 admeasurement grandfathering deadline. The sequence will be ENDEAVOR-new Coast Guard admeasurement regulations. Refits should be done before a group discussed the time frames, dollars and the impact on implementation of Jack Bash and George Grice discussed Intermediate Ship Mid-Life Refits. The

lay-up become retirement?

scheduling. The perennial lay-up question was discussed again. When does as the basis for Schedule Review. New NSF proposal deadlines will affect meeting went well. In the future, UNOLS should develop a model fleet schedule Ship scheduling was a major topic, especially problems of big ship needs of BILL Barbee and Gary Brass reviewed the September, 1990 UNOLS Council meeting.

the PALMER and EWMING.

history for the fleet as well. Analysts should recognize changes in federal with acquisition cost information. It may be useful to have an investment UNOLS fleet. More UNOLS input is needed. Only 5 institutions had replied Worth Nowlin reported on Labelle's work on replacement/refit evaluation of the

operated" UNOLS fleet, with science managed by academics.

ITEM FOR FUTURE NOTE: There could be pressures to consider a "contractor-



Bob Dinsmore and Tom Royer reported on the Advisory Committee work for the Division of Polar Programs ice-breaker, the PALMER. They were to meet at the shipyard after the FIG meeting. Steel was obtained from the Finns at a good price. Performance projections had been reviewed. Sea-keeping versus ice-breaking capability, speed has diminished, vessel profile and power has been fixed. The Advisory Committee had made many suggestions and many had been incorporated such as addition of a Baltic Door for hydro work. Science support management may follow a UNOLS mode, through an academic institution. Congress is being approached about second ice breaker of the PALMER type and with a large scale ship management scheme in background ala Chouest agreement with PALMER. There would be implications for UNOLS and FIG to think about.

Tom Royer reported on the progress of the Arctic Ice-capable Ship Design Subcommittee meeting of September 18, 1990. The group revised the Glosten design, letting ship size be set by the mission requirements. It is becoming a large ship. A draft limit of 14' was set given regional constraints such as entering Prudhoe Bay. (A draft of 9' would be desirable.) This factor involves area open to work, also question of access to ship by possible rescue ships and what their draft limits might be, etc. Dry docking capability is another related factor. Long range endurance requirement was reduced; endurance of 90 days is harder to achieve than is 15,000 mile range. The ship should have the same ice capability as the PALMER (DPP/RVIB). The Subcommittee suggested additional marine geology and geophysics-ical capability, increase accommodations to 30 (perhaps by added temporary-berthing), good Sea-keeping (although hard to balance against good ice breaking), a Baltic Door ala PALMER, and operating speed of 12K. Other suggested changes were in lab spaces, wire capacity, fueling capability and new approaches to storage. Provisions should be investigated for multi-beam mapping, although noise may be a problem given ice breaker design factors. Schedule for completion of Glosten's conceptual design is January 1991 and a report will be forthcoming in February-March 1991.

AGENDA: Meeting notes of the previous meeting were approved.

Present were Donn Gorsline (FIG Chair), Bob Dinsmore (FIG), Ken Johnson (FIG), Mark Langseth (FIG), Worth Nowlin (FIG), Tom Royer (FIG), William Barbee (UNOLS Executive Secretary), George Grice (WHOI and UNOLS Council), William Stubblefield (NOAA), Keith Kaulum (ONR), Richard West (NSF), Gary Brass (UNOLS Chairman), Craig Dorman (Director WHOI), Bob Weller (WHOI).

Meeting Report
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 October 4-5, 1990; Woods Hole Oceanographic Institution
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