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Appendix III
Available from UNOLS Office

Appendix IV
Report to RVOC Annual Meeting
Woods Hole, 21-23 October 1997
Fleet Improvement Committee
Joe Coburn

The Fleet Improvement Committee drifted with little really accomplished this past year. The outgoing chairman's report of the past 3 years is included as an enclosure. I expect better focus and more meaningful contributions under the direction of the new Chairman, Larry Atkinson, of Old Dominion University. His initial message to the committee is also enclosed. As you can see from the proposed agenda there are several issues the FIC will address which will be of interest to us operators. I will report on these after the November 6 and 7 meeting in Seattle.

encl: 9/22/97 message from Chris Mooers 9/21/97 message from Larry Atkinson

UNOLS Office, 11:34 AM 9/21/97 , Ksg from Larry Atkinson
Return-Path: <unols@gsosunl.gso.uri.edu>
Date: Sun, 21 Sep 1997 11:34:36 -0400 (EDT)
From: UNOLS Office <unols@gsosunl.gso.uri.edu>
X-Sender: unols@gsosunl
To: Larry Atkinson <atkinson@ccpo.odu.edu>, tom weingartner <weingart@ims.alaska.edu>, Bess Ward <bbw@cats.ucsc.edu>, suzanne strom <stroms@henson.cc.wvu.edu>, Joe Coburn <jcoburn@whoi.edu>, Bill Smethie <bsmeth@ldgo.columbia.edu>, tom crowley <tom@ocean.tamu.edu>, john freitag <jfreitag@gsosunl.gso.uri.edu>, eric firing <efiring@iniki.soest.hawaii.edu>, ken Johnson <johnson@mlml.calstate.edu>
Cc: "office,uri unols" <unols@gsosunl.gso.uri.edu>
Subject: Msg from Larry Atkinson

Dear Members of the Fleet Improvement Committee:

I urge you to plan on attending the FIC meeting scheduled for Nov. 6 and 7 in Seattle. Although details are being worked out I would like to share the tentative plans with you.

Where: The meeting will be held at the NOAA Pacific Marine Center. PMC is on Lake Union in downtown Seattle. Fisheries and survey vessels should be in port for us to visit.

Hotel: We will stay at a hotel nearby, providing a convenient access to the new REI, walking and jogging along the Lake, etc.

Evening: We are planning an evening at the Center for Wooden Boats a few blocks away. The agenda is the most important part and here it is:

1. The long-term FIC agenda. Before the meeting you will receive a proposed long-term agenda. We will discuss and agree on a modified version. It will be posted on the FIC www site.
2. Glosten Report. This report will tell us whether intermediate ships can be built in their present form under the new regulations. (The new regulations call for twice as much crew and considerable structural changes.) These new regulations will place strong constraints and replacement and refit schedules we are to develop.
3. AGOR-26. The Navy will be choosing an operator for the new Central Pacific swath. FIC has been asked to represent the academic user community during the Science Mission Requirement development and construction phase in cooperation with the operator. We will finalize a proposed way for FIC to do this.
4. Fisheries Oceanography/Stock Assessment. NOAA needs better and more ships for stock assessment. They are proposing to build six or more. Should or could UNOLS ships do this, what is the science, etc. Will have -four talks on the issue and come up with a FIC position.

FINALLY - READ THIS:

As new FIC Chair, I promise I will keep things moving, on track, interesting and relevant. There are jobs we have to do that are important to our sciences future and I intend to facilitate that. You, as a member of FIC, must read, respond and express your opinion. I look forward to seeing you in Seattle.

Larry

Printed for Joe Coburn jcoburn@whoi.edu
'UNOLS Office, 04:02 PH 9/22/97 , Memo from Chris Mooers
Return-Path: fic-request@diu.cms.udel.edu
Resent-Date: Mon, 22 Sep 1997 16:02:04 -0400 (EDT)
Old-Return-Path: unols@gsosunl.gso.uri.edu
Date: Mon, 22 Sep 1997 16:02:04 -0400 (EDT)
From: UNOLS Office unols@gsosunl.gso.uri.edu
X-Sender: unols@gsosunl
To: mailing list fic fic@diu.cms.udel.edu
Cc: "office,uri unols" unols@gsosunl.gso.uri.edu
Subject: Memo from Chris Mooers

Resent-Message-Id: <"dLaXK2.0.ye.Bxi9q"@diu>

Resent-From: fic@diu.cms.udel.edu

X-Mailing-List: fic@diu.cms.udel.edu archive/latest/61

X-Loop: fic@diu.cms.udel.edu

Resent-Sender: fic-request@diu.cms.udel.edu

I am resending the message from Chris Mooers to the UNOLS Council. Please let me know if you have difficulty reading this message.

>From unols@gsosunl.gso.uri.edu Mon Sep 22 15:27:17 1997

Date: Fri, 19 Sep 1997 10:53:08 -0400 (EDT)

From: UNOLS Office unols@gsosunl.gso.uri.edu

To: mailing list council council@diu.cms.udel.edu

Cc: mailing list fic fic@diu.cms.udel.edu

Subject: Memo to UNOLS Council from Chris Mooers

Resent-Date: Fri, 19 Sep 1997 10:53:08 -0400 (EDT)

Resent-From: fic@diu.cms.udel.edu

Attached (MS Work file) and below is a memo from Chris Mooers.

From: Prof. Chris mooers, FIC Chair

To: UNOLS Council

CC: UNOLS FIC

Subj.: Reflections on UNOLS/FIC and Council, and on UNOLS overall

Date: 15 September 1997

1. Having served as FIC Chair for the past three years, I think it is important to reflect on our accomplishments and shortfalls, and on the future of FIC and UNOLS.
2. Initially, FIC's major task for the immediate future was the development of plans for the next generation of coastal research vessels (CRVs). We inherited a set of draft SMRs that had been evolved (under the leadership of Dr. Peter Betzer) from the preliminary set derived at the "Williamsburg Workshop" in 1993. His considerable energies were deflected into the major activity of producing the so-called "Betzer Report" of 1995. There had been hope that NSF would sponsor a series of regional workshops to evolve the CRV-SMR, especially to determine if there are region-specific requirements. However, the larger problems associated with providing funds for operating the expanding Fleet apparently precluded this approach. In 1995, the CRV-SMR baton was passed to Dr. Larry Atkinson who serves as their custodian; however, with bleak prospects for R/V construction on the horizon, there has not been much motivation to proceed further. Also, there has been a mindset that a CRV was needed, while the true need is for a CRV fleet composed of a broad spectrum of R/Vs. When the surplus of global vessels was recognized, NSF and ONR identified that they, too, were available for coastal ocean research, ensuring that the CRV fleet would be considered to consist of the broadest conceivable spectrum. (Use of global R/Vs in the coastal ocean (global CRVS) will facilitate large multidisciplinary studies, heavy weather operations that are vital to coastal ocean dynamics, and international EEZ studies that will probably resume someday.) Another trend has been for individual institutions to pursue their own pathways for design and construction of local CRVS. What remains to be done is to define clearly the national need, if any, for specialized CRVS, and to arrange for the replacement of the aging national CRVs and regional R/Vs,---perhaps through collaboration with NMFS on a new generation of FRVS, which combine oceanographic and fisheries-specific capabilities. UNOLS will need to exert significant effort to remain relevant to coastal ocean research which is a steadily growing area of endeavor.----In a rational world, the present level of confusion between the numerous agencies involved with coastal ocean research would subside soon, making it possible for UNOLS to plan better.
3. FIC's accomplishments include -
 - a. a survey (questionnaire) of chief scientists that revealed general satisfaction with the operation of the Fleet (except for a few with negative experiences) but a too frequent concern about followup/accountability by operating institutions re: post-cruise summaries;
 - b. a Safety Position Paper (led by Dr. Suzanne Strom);
 - c. a report giving guidance on portable vans (led by Dr. Suzanne Strom);
 - d. very active participation (by Drs. Betzer and Mooers) in preparing the "Betzer Report";
 - e. a role in initiating the dialogue with CNMOC and NAVO that has led to cooperative activities;
 - f. a role in working through the ARV vs USCGC HEALY conflict;
 - g. preparation of revised SMRs for a mid-Pacific R/V with active input from the West Coast

- community, as well as the University of Hawaii;
- h. opened dialogue with ONR program managers responsible for Auvs and RPVS, especially in the context of their potential use with the UNOLS Fleet;
 - i. contributing impetus and ideas to moving ahead with more automated real-time data acquisition and reporting from the UNOLS Fleet in order to increase the value of the Fleet to operational and synoptic oceanography (led by Dr. Eric Firing and Mr. Rich Findley);
 - j. similarly, advocating data system standards, for incorporation by RVTEC, to increase the interoperability of the Fleet (led by Dr. Eric Firing and Mr. Rich Findley); and
 - k. a membership balanced geographically, by discipline, by gender, and by age.
4. FICs shortfalls have been
- a. a long-delayed IFIP97 due to philosophical differences and the lack of an agreed-upon financial database, which should become an ongoing task of the Council, perhaps with a designated "comptroller" who would work with NSF, ONR, NAVO, NOAA, etc. and the UNOLS Office to establish agreed upon cost and use figures that can be used for strategic planning;
 - b. a stalled White Paper on regional R/V consortia due to philosophical differences; the interim strategy has been to wait for SECOR to mature enough to create a good example; NOTE: this is an old idea considered in the early years of UNOLS but somehow many individual institutional egos seem to have prevented its emergence; this old-fashioned thinking may need to change in an era of shared resources;
 - c. though nudged forward, the Primer on Small R/Vs is still not completed; this task is now in the hands of RVOC (Mr. David Powell, RSMAS leads the effort and depends upon the cooperation of the several erstwhile contributors); and -
 - d. a partially completed draft of FIP 98 which emphasizes new trends in observational oceanography.
- In brief, the oversizing of the Fleet, and uncertainties of future funding for its operation, have caused various large perturbations in the performance of FIC. Since the future will probably be unlike the past, FIC has been left in limbo. At the same time, narrowly focused UNOLS committees like DESSC and AICC have found fertile ground for initiative in exciting and expanding areas of scientific and technological endeavor. There may be a message here.
5. As for UNOLS itself, I think it does many things very well; e.g., coordinating ship schedules, setting and maintaining safety standards, promoting technology upgrades, facilitating Fleet-wide communications and progression, etc. Undoubtedly, its greatest strength are the dedicated voluntary (and staff) efforts provided by numerous talented, knowledgeable, and experienced professionals. one weakness is a lack of oversight re: scientific governance at the level of operating institutions; in other words, UNOLS has no mechanism in place to check the communications between ship operations managers, institutional managers, faculty oversight groups, marine techs, etc. Its greatest weakness is in overall, long-term management of the UNOLS Fleet, a task compounded by a mismatch between vessel lifetimes, research planning horizons, the imperatives of onrushing technological developments, and by a lack of authority to make strategic decisions. From another perspective, UNOLS seems adequately designed to deal with a "rising tide" but not a "falling tide". These inadequacies come into focus when there is a need to downsize or realign the Fleet, or a need to replace a retiring vessel, for which there is no standardized process or procedure. After existing for a quarter of a century, it may be time for a major reform of UNOLS along the following lines:
- a. to achieve an improved power alignment, become a subsidiary activity of CORE;
 - b. to avoid obsolescence and irrelevance, expand its scope to deal with all ocean observational facilities and R/Vs of all sizes and types, following the lead of the federal agency coordinating group;
 - c. to serve the entire ocean science community, work closely with OSB, CORE, NSF, ONR, and NOAA R&D planning activities to ensure facilities meet 3 community requirements;
 - d. to avoid further fracturing of the ocean science community, work to make stakeholders of the "drys" as well as the "wets" by use of enabling technologies; such as, telecommunications and video conferencing with R/Vs at sea; and
 - e. to fulfill a modernized mission for UNOLS, consider restructuring the UNOLS management and governance apparatus; for example, in my opinion, the UNOLS Council would be more effective at ensuring the integration of UNOLS resources with the multi-faceted research programs of the future if it was composed solely of Chief Scientist/ P.I. types, while including

certain ship operations managers as ex officio technical advisors, as I do not think we can continue to be ship-driven oceanographers but must balance ships versus other oceanographic facilities and manage resources more cooperatively for the shared-resource future in prospect; i.e., as in the original essence of UNOLS.

Finally, in my opinion, a very strong case could be made for basing all of the global R/Vs at SIO and WHOI, for the following reasons:

- economy of scale (and competence)
- fits their institutional self-image
- fits their institutional role in the national community
- regional distribution arguments do not much apply to global R/Vs
- place an end to smaller institutions, lust for such vessels
- ease the resource management for these precious but expensive assets by focusing on the size of the global R/V fleet at only two institutions.

As a corollary, an argument (based on economy of scale) can probably be made for concentrating regional R/Vs in one operating institution for each major region, and for a broad distribution of national coastal and local coastal R/Vs.

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Appendix V
Report to RVOC Annual Meeting
Woods Hole, 21-23 October 1997
Arctic Icebreaker Coordinating Committee
Joe Coburn

AICC's activities were principally divided in two phases; physical arrangements and facilities of the new CG Icebreaker Healy during the first part of the year, and coordinating science requests for the Ship of Opportunity (SOO) on the Polar Class Icebreakers the later part of the year.

Surprisingly, the top ten priorities of physical lay-out improvements suggested by AICC were accepted by the Coast Guard and have been incorporated into the design. These consisted of rationalization of the lab and science storage spaces that on the whole will facilitate science and make the ship much more successful as a research vessel. Although no steel had been cut which was affected by these changes, I anticipated that this would be an impossible request. However, when the shipbuilder asked for a 6 month delay the Coast Guard negotiated for the acceptance of all 10 of these changes with no penalty. Healy will be launched this November, with delivery scheduled for December 1998. Most of 1999 will be devoted to shake down and tests, with the first scheduled science cruises in January, 2000.

The second major effort of AICC has been to coordinate science requests for Ship of Opportunity requests on the currently operating Polar Class Icebreakers. The process has been formalized somewhat and the possible criticism of "cronyism" eliminated.

Additionally, AICC has been advising and helping the Coast Guard in the design and selection of science outfit. In some cases, AICC merely recommended a point of contact for one field of expertise or another and in other situations the committee members used e-mail to arrive at a consensus recommendation. The Coast Guard is looking at our Safety Training Manual and is developing a Cruise Planning Manual based on those on the web. The CG has been clearly appreciative of AICC. I believe the CG does fund the expenses associated with AICC.

Through all of this it is clear that the USCG has clearly emphasized the importance of science in its polar operations. Although 75 seems to be a very large crew from our perspective, the crew of 75 planned for Healy is a significant departure from past policies. The issue between the perceived need for military-style rotations (typically 2 year tours and very rarely second tours.) and the need for continuity and stability among a highly skilled crew has been discussed. The continued turn-over in the icebreaker and polar operations management billets belies any change in this area.

AICC's chairman is Jim Swift of SIO, who is energetic and well organized. I have enclosed his report to the