NSF. Anyone interested in attending should send Ellen Kappel an email summarizing your background and interests. Only one technical person from any institution may be fully supported. Partial support may be provided to others, depending on availability of funds. It will be assumed that all attendees will have a technical understanding of shipboard and other e-mail systems.

In conclusion....
First and foremost, SeaNet is a community project. The SeaNet partners look forward to working with you on all phases of this effort. As a start, initial communications regarding SeaNet should be directed to Ellen Kappel at JOI (202-232-3900 ext 216 or ekappel@brook.edu).

Finally, we are also pleased to announce that the U.S. Patent and Trademark Office has granted the SeaNet trademark to JOI. We are now official.

*SeaNet Partners and project roles Joint Oceanographic Institutions (Dr. Ellen Kappel, PI):
Liaison/coordination with federal agencies and scientific community, and SeaNet Advisory Panel.
Woods Hole Oceanographic Institution (Mr. Andrew Maffei, PI): Project coordination; Shipboard Communications Node (SCN) software development.
Lamont-Doherty Earth Observatory (Mr. Dale Chayes, PI): INMARSAT-B procurement; Shipboard systems installation and testing.
Omnet Inc (Mr. Robert Heinmiller and Ms. Susan Kubany, PIs): SeaNet operations center; Billing; Value-added services.
Naval Postgraduate School (Mr. Rex Buddenberg, PI): Shipboard implementation laboratory; Emerging technology planning; NRAD and Navy liaison.
Other partners donating services or expertise to this project, but who are not receiving any NOPP funds include:
COMSAT: providing greatly reduced rates, engineering support and, potentially, enhanced services.
MAGNAPhone: providing 20% hardware discount, engineering support, and key input into their product design.
MCI: free circuits and Internet Service.
NCCOSC (Navy) Research and Development Division (NRaD): technology transfer through NPS.

Appendix XIII

Available from the UNOLS Office

Appendix XIV

Available from the UNOLS Office

Appendix XV

IRELAND CONSULTING SERVICES, INC.
58 Northbriar Drive
North Kingstown, Rhode Island 02852

Marine Operations and Safety

Captain George F. Ireland
(401) 885-2822 Regulatory Highlights
(401) 885-3678
Fax (401) 885-2822
(Call First)

I was not able to attend the annual RVOC meting at Woods Hole last month so am providing this paper as means to provide some regulatory information for you. My intent is to bring attention to those regulatory issues that will be around for a while and command attention from marine managers.

If there are any questions or uncertainties, please contact me. I'll be glad to help.

STCW

The CG published interim rules in the Federal Register on 26 June 1997. Rules became effective on 28 July 1997. CG asked for comments by 23 December 1997.

Application

The Convention applies to 'seagoing ships' which is defined by the Convention as 'other than those which navigate exclusively in inland waters...' CG implementation of the STCW Convention uses the words 'seagoing vessel' and defines that as '... a self propelled vessel that operates outside the Boundary Line...' regardless of whether the vessel is engaged in a domestic or international voyage, without regard as to size - there is no lower size limit for application of STCW. 'Ship' is not defined by STCW, although qualification standards for deck personnel apply to ships greater than 3,000 gross tons, 500 - 3,000 gross tons, and less than 500 gross tons on near-coastal voyages. 3,000 gross tons is a new break-point for U.S. regulation. Application to engineers is for those serving on vessels of 1,000 or more propulsion horsepower.

STCW does not apply to vessels on inland waters (inside the Boundary Line) and does not apply to vessels on the Great Lakes, nor does it apply to fishing vessels or to non-self propelled vessels such as barges.

Tonnage application remains complicated, particularly for small vessels. U.S. regulations are based on an old system - Regulatory Measurement System (gross registered tons) while tonnages utilized in the STCW Convention are based on tonnages calculated using the International Tonnage Convention (gross tons) which typically generate larger numbers because few exemptions are allowed. The Coast Guard is committed to applying the domestic tonnage measurement system in determining the application of

STCW to vessels of less than 1600 gross tons that operate exclusively to and from U.S ports. Stay tuned.

Keep in mind that STCW applies to vessels that transit seaward of the Boundary Line tonnage serves only as break point for application of particular standards within STCW.

Impact

Keep in mind also that STCW is about qualifications of persons who man vessels, thus the impact has to do with training, credentials (licenses and documents), and that vessels are manned by persons having proper credentials. Some of the responsibility for compliance will rest with individual, and some with marine managers. Specific comments follow -

- Amends Licensing (officers), Certification (unlicensed persons), and Manning standards
- Persons will be impacted when renew or upgrade licenses/merchant mariner's documents
- Training is important issue. Must be approved/accepted and records kept. Training Record Books become mandatory after 31 July 1998.
- STCW becomes fully implemented on 1 Feb 2002 when transitional period ends.
- Technical areas where persons will have to show competence are personal survival techniques, fire prevention and fire-fighting, elementary first aid, personal safety and social responsibility; ARPA: Bridge Team Work
- Marine managers must keep (readily accessible to those in management responsible for safety and for prevention of marine pollution) records of medical fitness, experience/training, and competency of persons
- Work hour/rest standards are set forth in new 46 CFR 15.1111 (effective after 31 January 1997).

Basic standard is 10 hours of rest in any 24 hour period. Master must post watch schedules taking work/rest standards into account.

Recommendations

- Agency (Coast Guard) implementation is articulated in Navigation and Vessel Inspection Circulars 4-97 through 8-97 that are available on CG web site. Reach out and get them. Each has to do with implementation of STCW.
- Keep your crew informed. Unions provide training for members. Non-union people must find private means; some companies have established in-house

Facilities for training.

- Open a line of communication with local Coast Guard Regional Examination Center. These are people who are first-line implementers of STCW rulemaking and who should be well informed. The person in charge of the REC probably is very well informed and should be able to answer specific questions for you. A planned visit to that person to discuss application to your specific operation may be worth while. Take your Master and Chief Engineer with you.

ism

This international 'Code' places certain responsibilities for safety of ships on shore-based management and was brought about by the International Maritime Organization in response to vessel casualties involving loss of several lives. Requirement for implementation is contained in U.S. law (46 USC 3201-3204), and Chapter 9 of SOLAS.

Proposed rules were published in the Federal Register (33 CFR 96) by the Coast Guard on 1 May 1997.

Final rules are expected to be published in the Federal Register in early 1998.

Application

- Application is to vessels to which SOLAS applies - 500 gross tons and over. In general, if your vessel has a SOLAS Safety Equipment Certificate, your vessel must also comply with the ISM standards.
- This code becomes mandatory for passenger vessels, oil tankers, and bulk carriers on 1 July 1998 and for other vessel on 1 July 2002.
- There is provision for vessels, not required to conform to ISM, to be issued ISM Certificates.

Impact

Written procedures (Safety Management System) must be provided for vessels that include: Safety and pollution prevention policy, Functional safety and operational requirements, Defined levels of authority and lines of communication between ship and shore, Procedures for reporting casualties and non-conformanities, Emergency procedures, and Procedures for internal audits and management reviews.

Guidelines for the safety management system are contained in IMO Resolution A.741(18). Additional technical guidance is contained in the proposed rulemaking.

Comment

Preparation of proper documentation is a great deal of work for an operation that has few e3dsting directives to its vessels. On the other hand, it is less work for an operation that has published guidance/directives, etc in place.

No doubt, canned documentation is available that can be adapted to a particular operation.

I've observed some companies implement ISO 9002 along with ISM simultaneously. They spent about a year preparing for the initial audit -and did the work mostly in house. Written procedures fill two large

loose leaf binders - one for shore people, the other for vessel personnel. Vessel personnel wrote many of the shipboard procedures and as consequence a cadre of marine folks became more knowledgeable of operating standards and more professional about their day to day work. Everything has a cost - these people and others put in a great deal of time - with clear goals - award of ISO/ISM certificates were issued first time around. In my opinion, those marine operations are much more professional today than before with substantially lower safety and pollution risks than previously. Record keeping and documentation is an added chore, but not an onerous one, particularly for persons who are handy with computer spread sheets.

OL

Enforcement of Annex V (Garbage) to this international convention still receives a great deal of attention from the Coast Guard and others. Ships must have a Waste Management Plan and records aboard to show compliance. Special Areas are defined in several regions of the world, including the Wider Caribbean Area. While some Special Areas have been designated but operational standards are not in force, many operators comply with the spirit of the standards by separating wet garbage from paper etc, disposing only of wet garbage overboard, and placing the remaining garbage/trash ashore.

TOWING VESSELS

What happens to others has an influence to all of us. The towing industry has two significant rulemakings before it following major oil spills and a very serious mishap involving loss of several lives. Areas addressed by the Coast Guard include vessel operations, navigation equipment, and licensing of personnel. Proposed rules require Masters and Mates of towing vessels to demonstrate competency before being issued a license - a significant change in licensing procedures. The new operating requirements

for towing vessels are comprehensive so that towing vessels are boarded by the Coast Guard periodically to sight compliance.

A comprehensive regulatory package was implemented for commercial fishing vessels about ten years ago, so that today oceanographic vessels are about the only fleet of ocean - going vessels (those less than 300 gross tons) that are not addressed directly by federal safety regulations. This 'freedom' from regulation, in my opinion, should be treated as an idcentive to maintain an exemplary safety and pollution prevention record, otherwise, as demonstrated by towing and fishing industry experiences, others will set your standards for you.