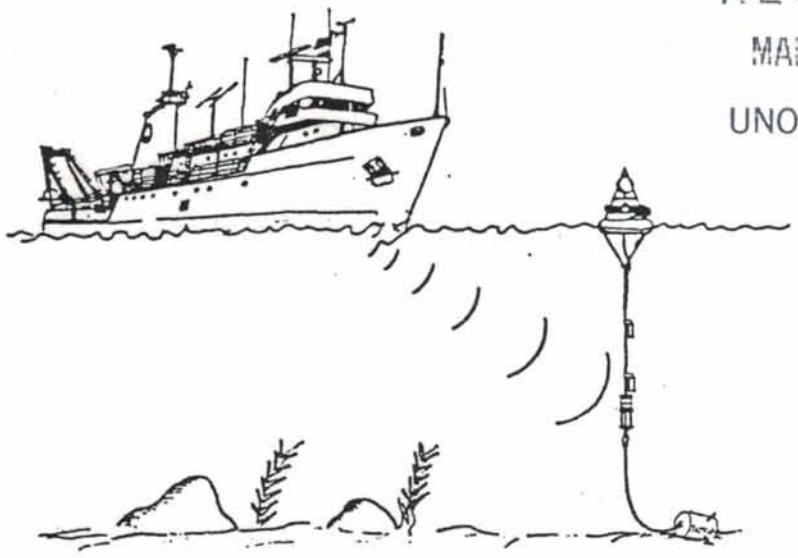


University-National Oceanographic Laboratory System

RESEARCH VESSEL OPERATORS COMMITTEE NEWSLETTER

1 March 1990
Volume 13

EDITOR'S NOTE

Thanks to those who provided input for this Newsletter, the first of two planned for 1990. I'll continue to solicit for Newsletter contributions by posting reminders on T-Mail. The next Newsletter will be mailed August 30, 1990; deadline for contributions August 15, 1990. Please remember that this is your vehicle for disseminating any information you think might be of interest to other operators.....B.K. Cornwall

FROM THE RVOC SAFETY COMMITTEE

The following article was sent in by the Safety Committee. It's a vivid example of what can happen with cable and a rotating drum. It reminded the safety committee of a discussion that they had while working on the safety training manual. This discussion had to do with handling wire rope. Some felt that leather gloves should be worn around wire rope. Others felt that a leather glove could snag and draw the wearer into the rotating drum. The argument was that it would be better to lose some skin or even a digit rather then a hand, arm or worse. Maybe the answer is to stay clear of running rigging. Are your winches equipped with emergency shut offs? Read on.....

A Winch Snags Another Life

Thomas J. Pettin

A carefree fishing expedition became a deadly nightmare when a man aboard a fishing vessel was pulled into the cable drum of a winch and crushed. It is unknown why the victim grabbed the cable; however, he might have grabbed it to correct the lay of the cable as it was being wound onto the drum. The cable snagged his hand and pulled his torso into the drum.

The winch that caused the accident is used to lower and raise port and starboard fishing nets. It operates by a master control which engages a clutch connected to the main engine, and the clutch drives the mechanical gears of the winch. A friction brake is used to slow and stop the drum from turning. The winch, which was over 40 years old and badly corroded, had no personnel guards or emergency shutoff or disengage controls. The cables on the drum were badly frayed and rusty. The winch is usually in use 8 or more hours per day to lower and raise the booms and nets. During this time, the drums are rotated at a high rate of speed to keep the catch in the nets.

Just before the casualty, the victim had engaged the control to pull in the nets. As the cable began to wind, the victim grabbed the line with his left hand. His left thumb became caught between the drum and the cable, and in an instant his left arm was pulled into the drum. A companion nearby tried to engage the control lever to stop the drum from turning, but the victim's body was being pulled against the control lever. As the drum continued to wind, it pulled the victim's upper torso into the winch. This crushed his chest and amputated his left arm and shoulder. This horrible event occurred in less than one minute. The victim showed no signs of life, and removing his body from the winch was not attempted.

This was the third known winch-related casualty occurring in Louisiana waters in 1988. An almost identical accident occurred a few months earlier aboard a trawler. That accident resulted in a leg amputation.

As part of the investigations into these accidents, the winches on several shrimp vessels were examined, and the fishermens' ideas were solicited. One experienced shrimp vessel captain stated that everyone in the industry has known someone who has gotten caught in a winch. It is probable that many reportable casualties occurring on commercial fishing vessels are not being reported.

There are no federal regulations concerning winches on uninspected fishing vessels. Winches, however, are addressed in Navigation and Vessel Inspection Circular (NVIC) 4-82, entitled "Uninspected Commercial Vessel Safety," and NVIC 5-86, "Voluntary Standards for U.S. Uninspected Commercial Fishing Vessels." Both NVICs address the inherent hazards associated with winches. Winches used aboard fishing vessels are large pieces of equipment. They may cover 20 percent of the aft deck work area on a fishing trawler. The winches are most often found with few, if any, personnel guards around their chain/gear driven parts or rotating drums.

The proximate cause of this casualty was the victim's unsafe movement while operating a diesel-powered winch. A contributing cause was the lack of adequate personnel guards on the winch.

The Coast Guard investigating officer into this case stated that the commercial fishing industry is largely unfamiliar with existing federal regulations applicable to vessels in the fisheries service, especially in the Gulf of Mexico. He also stated that the industry is largely unfamiliar with Coast Guard published Navigation and Vessel Inspection Circulars (NVICs), Marine Safety Newsletters, safety publications, etc. A further dissemination of safety information can be made through more Coast Guard contacts with industry trade associations and ice plant/packing plant facilities, during routine Coast Guard boardings, and through marine safety newsletters specific to the fishing industry. ∎

NEWS FROM NSF

New Ship Request Form

As NSF, most UNOLS institutions and most P.I.'s have begun to use the revised NSF-UNOLS Ship Time Request Form, NSF Form 831 (R-1/90), some problems have arisen:

1. Instructions for submission of the 831 need expansion, as follows:

   a. A completed Form 831 should be submitted to the OPERATOR of the ship of the P.I.'s choice (or to the several OPERATORS of suitable ships if the P.I. does not specify a specific ship). Submission to OPERATORS should, if possible, be made by January 31 of the year prior to the year of requested ship time, even if the related science proposal is not to be submitted until later. It will be greatly to the P.I.'s advantage to contact OPERATORS as soon as practical.

   b. A completed Form 831 must be submitted as the last page of all science proposals submitted to the Division of Ocean Sciences and with any other proposals submitted to NSF requiring ship time. In other words if you submit a proposal to ocean sciences and don't need shiptime you still must submit the form, but it should just say no ship time requested. NSF's target dates for proposals requiring ship time are February 1 (preferred) and June 1. NSF managers have indicated that they will insist on completion and submission of the Form 831, and will strongly enforce their target dates.

   c. A completed Form 831 should be submitted to the UNOLS Office as early as is practical. Note that the real urgency is for submission to OPERATORS and to NSF.

   d. Although the Form 831 does not call for it, P.I.'s should indicate their distribution of completed Ship Time Request Forms on the face of the form.

E.G.,	URI Ship Ops,	1/31/90
	WHOI Ship Ops,	1/31/90
	NSF (with proposal)	2/01/90
	UNOLS Office	1/31/90

   Type it on the top, on the bottom or in the margins, please.

2. Some OPERATORS have indicated that the NSF-UNOLS Ship Time Request Form does not include all information essential to scheduling their ships. Some OPERATORS have developed a second page or auxiliary to the revised 831 to cover this additional information. P.I.'s are encouraged to contact appropriate institutions about such additions/auxiliaries, and submit them if they are available. But remember: These second pages or institution forms are in addition to the NSF Form 831 (R-1/90), not a substitute.

3. General. The NSF-UNOLS Ship Time Request Form, NSF Form 831 (R-1/90), will be used during 1990 (for requests/scheduling 1991 projects). Reactions to the form from P.I.'s, OPERATORS and NSF managers will be considered. If further revisions seem warranted, they will be made; but not until we have a year's experience, at the earliest.

NSF plans to distribute copies of this new form with the "Dear Colleague" letter. A copy of the 831R is included in the Appendix.

INFORMATION FROM THE USCG

U.S. Coast Guard NVIC 3-89 "Guidelines for the Presentation of Stability information for Operating Personnel" and NVIC 4-89 "Introduction to Human Factors Engineering" contain useful information for vessel operators.

A THOUGHT ON RECRUITING

Editor's Note: The following article was submitted by the Oregon State University (OSU) Marine Staff.

Most of us, I believe, are experiencing some difficulty recruiting suitably licensed officers, particularly engineers. It might be productive for RVOC-UNOLS as an association of prospective employers to establish liaison with the federal and state maritime colleges. All operate a placement office, of some degree, to assist their current graduates. Some of these offices also publish newsletters and assist "old grads" who are looking for work.

My proposal:
Each of us adopt a college and make contact with a placement office to tell the RVOC story. Send contact information for publication in the newsletter. Also attend any career days at the colleges. The federal maritime college is, of course, located at King's Point, Long Island, N.Y. State colleges are in Maine, Massachusetts, New York, Texas, Michigan and California. Licensing schools are probably also worth considering. The OSU marine staff will help coordinate this venture if there is enough community interest.

Drop us a telemail note.

NEWS FROM THE UNOLS OFFICE

Revised Cruise Report Form

The UNOLS Cruise Report form has been revised. There is a noticeable improvement in the overall layout of the form, especially in providing more space to list participating personnel and cost allocation data. The most important change is that responsibility for submitting the forms now rests with the operating institution, not the P.I./Chief Scientist.

The UNOLS Office has asked that all UNOLS operators begin using the revised form beginning January 1, 1990. A copy of the revised cruise report form is included in the Appendix.

Federal Register Clipping Service

The UNOLS Office recently announced that a purchase order has been issued to Ireland Consulting Service, Inc. for a clipping service to monitor the Federal Register. This service includes monitoring and clipping submissions from the Federal Register on areas applicable to the oceanographic fleet. Clippings will be mailed approximately once a week to the marine operations contacts at the 20 UNOLS Operator institutions.

FROM THE RTCM NEWSLETTER

North American NAVTEX Station Update

NAVTEX maritime safety information broadcasts have recently begun from the Coast Guard Communication Station in Wahiawa, Hawaii. A listing follows:

NAVTEX OPERATION SCHEDULE

	MIAMI	PORTSMOUTH	SAN JUAN	BOSTON	NEW ORLEANS
Installation	pre-operation	pre-operation	pre-operation	operational	operational
Identification (B_1)	A	N	R	F	G
Schedule (UTC)	0000, 0600, 1200, 1800	0130, 0730, 1330, 1930	0415, 1015, 1615, 2215	0445, 1045 1645, 2245	0300, 0900, 1500, 2100

	SYDNEY	BERMUDA	LONG BEACH	ASTORIA	KODIAK
Installation	trial op	-	-	-	-
Identification (B_1)	K	B	Q	W	J
Schedule (UTC)	0040, 0540, 0940, 1340, 1740, 2140	0100, 0700, 1300, 1900	0445, 1045, 1645, 2245	0130, 0730, 1330, 1930	0300, 0900, 1500, 2115

	ADAK	SAN FRANCISCO	HONOLULU	GUAM
Installation	-	-	pre-operation	-
Identification (B_1)	X	C	O	V
Schedule (UTC)	0000, 0600, 1200, 1745	0400, 1000, 1600, 2200	0040, 0640, 1240, 1840	0100, 0700, 1300, 1900

CABLE MAINTENANCE SYSTEM UPDATE

January 29, 1990

"A CABLE MAINTENANCE SYSTEM"
A FOLLOW-UP REPORT TO UNOLS
By
Ken Palfrey, OSU

A previous report on the Brooke Ocean Technology Cable Maintenance System recommended further testing to determine whether the system will be of practical value in maintaining oceanographic wire rope of 3x19 construction.

A test was conducted in early January 1990 using the same 1/4" 3x19 wire rope which was treated with Pre-lube 6 using, for the first time, the BOT Cable Maintenance System as it was spooled onto a WECOMA winch drum in October 1987. Since being placed into service the wire has been used for shallow work (<600m), with one cast to 4100m. Before cleaning and lubricating the 7400m length remaining on the winch drum, a piece was removed for examination. Upon opening the wire over a two-foot length, the strands were found dry (only slight detectable lubrication) and heavily coated with oxidized galvanizing material. Upon opening the strands the individual wires were found to be completely dry, heavily rusted in spots (50% of surfaces) and generally without galvanizing. This wire was one of the first provided by Macwhyte for UNOLS and was shipped to OSU in late 1986 direct from the factory.

The wire was respooled onto the winch drum using the cable maintenance system to clean and lubricate it. The first 3000m were treated with Pre-lube 14 and the last 2900m were treated with Pre-lube 19. We chose to reuse only 5900m of the original 7400m length. Results were generally satisfactory. However, the valleys filled with lubricant at lubricant pressures above 5 PSI. This was less a problem with the Pre-lube 14. With Pre-lube 19 some drip and spatter occurred. The heavy lubricant leakage of the previous test on this wire did not occur as long as lubricating gauge pressure did not exceed 5 PSI.

This pressure is much lower than those reported by the manufacturer, so we examined a two-foot section treated with Pre-lube 19. Upon opening the wire the strands were found well coated with lubricant. Upon opening the strand the individual wires were found to be only lightly coated with lubricant. It was also noted at this point in the wire length (5900 m) the galvanizing was intact with little oxidation and no rust apparent. The line at this point had not been repeatedly immersed in seawater at depth like the section examined earlier. Unfortunately we were not able to examine a section treated with Pre-lube 14 for comparison.

We did examine a section of the .225 EM cable successfully lubricated in April 1989. Lubricant was found to have penetrated and coated the outer armor wires. Little lubrication was apparent on the inner armor, however it was bright and clean with no sign of rust and the galvanizing intact. The insulation was clean without any sign of abrasion or staining.

Although it appears we are getting beneficial lubrication of wires and cable with the BOT device, we believe more penetration would be achieved with higher application pressure than we have been able to achieve. We are discussing this difficulty with the manufacturer and hope to make improvements.

CONCLUSION: The Brooke Ocean Technology Cable Maintenance System when used with Pre-lube 14 or 19 is as effective in maintaining and prolonging the service life of oceanographic wire rope of 3x19 construction as it is for oceanographic EM cable. The use of Pre-lube 6 with the device is not recommended. Also, we have learned Pre-lube 19 is outselling other wire and cable lubricants by a wide margin and appears to have become the lubricant of choice because of its nonpolluting, nonpetroleum characteristics. OSU intends to use Pre-lube 19 exclusively.

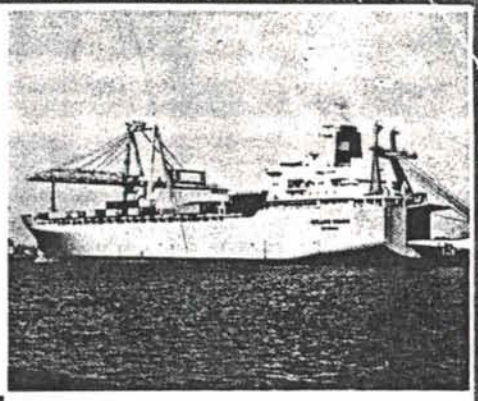
CONTAINER SECURING SYSTEM

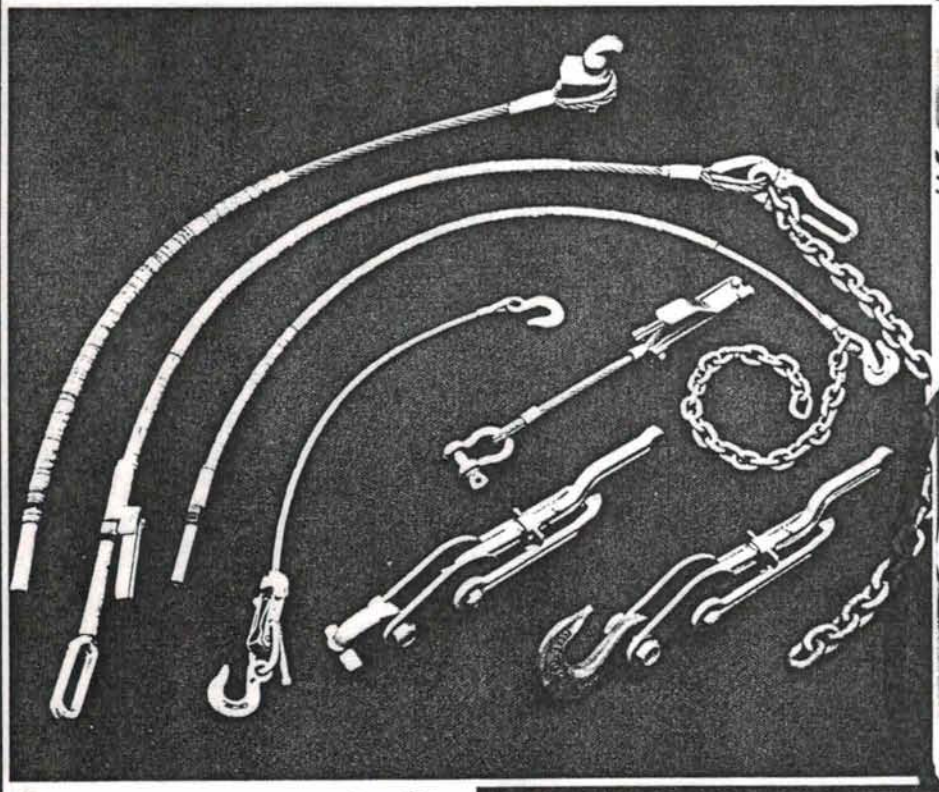
Peck & Hale securing devices for use with standard 20 - 40' containers have been used aboard WECOMA with great success. Normally used aboard containerships, these devices eliminate the need for cumbersome chain lashings and are much easier to use. The basic idea is that these "locking cones" are placed into permanently installed fittings (either welded to the deck or put on the 2' bolt-downs welded to plates). These cones twist into the fittings and the container is placed on top of the open "locking cones" which are secured on deck and aligned with each corner of the container. When the container is in place the cones are turned with a lever locking the container in place.

When the flush base sockets for these devices are not in use they can be filled with grease and covered with a special plate, thereby eliminating any tripping hazard. If the bolt-down plates are used they can simply be removed.

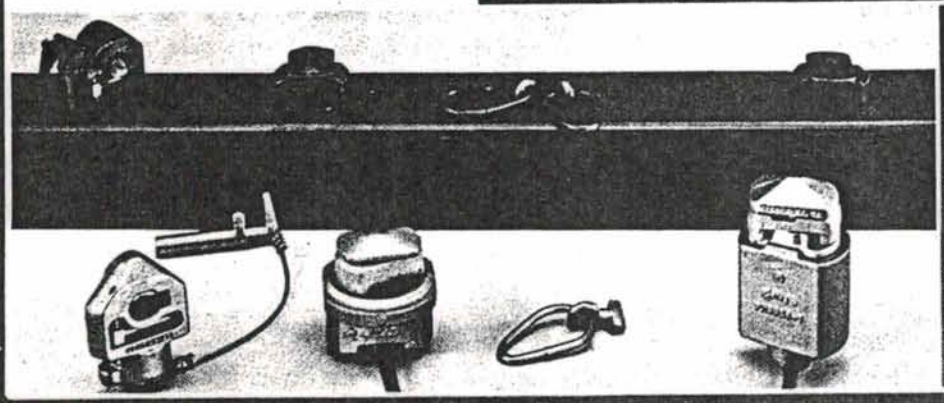
If you need further information on this securing system, please contact Dave McWilliams, Marine Operations Coordinator, Marine Operations Coordinator, telemail osu.ships or phone (503) 867-3011 x215.

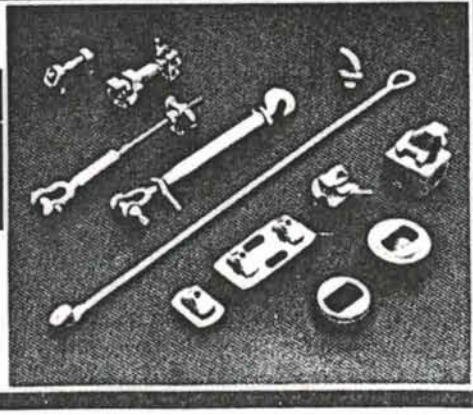
Peck & Hale

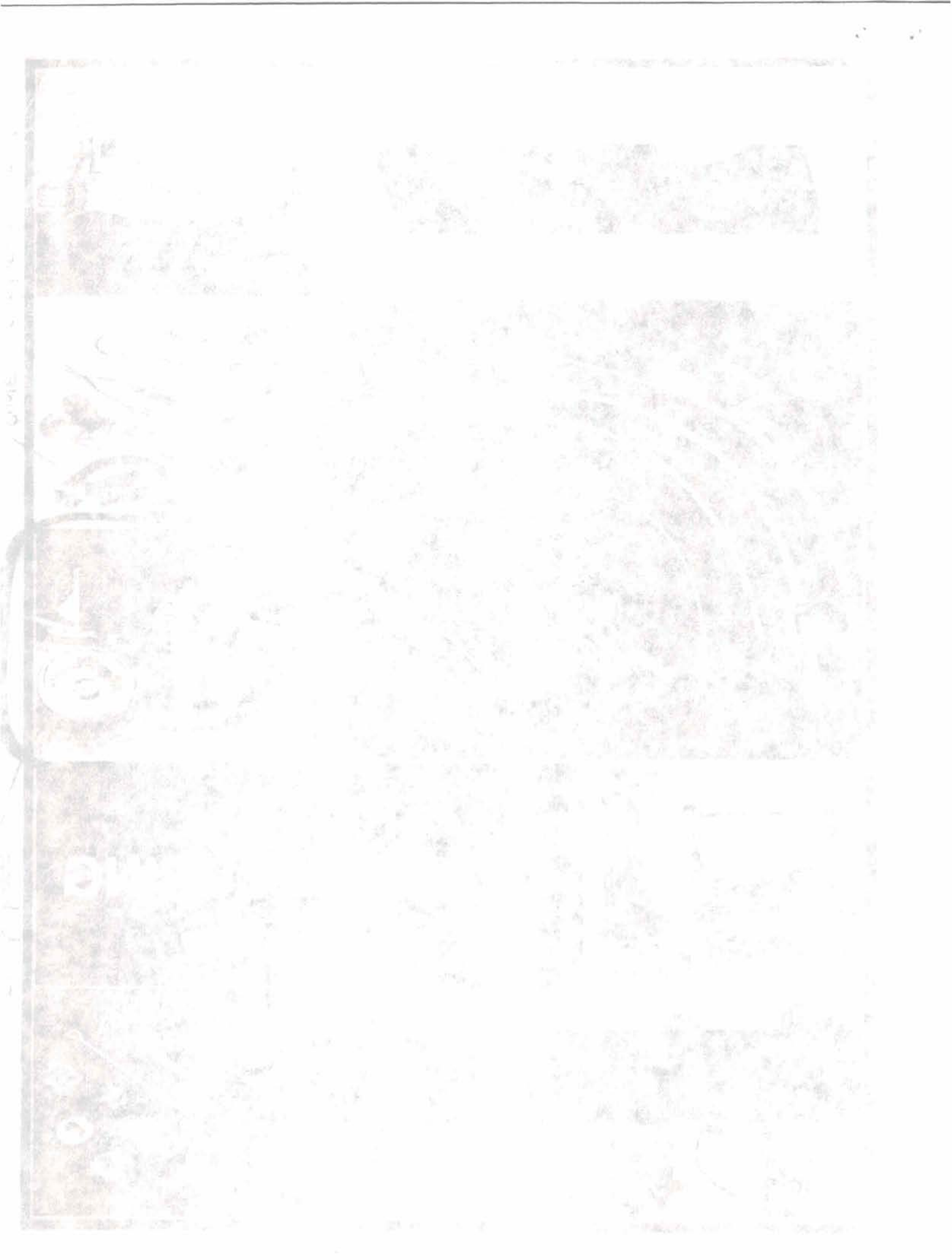




RO-RO CARGO SECURING SYSTEMS

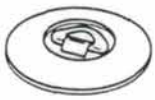
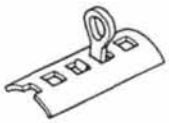






Peck&Hale

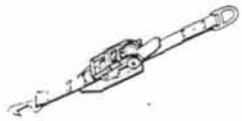
RO-RO DECK SECURING FITTINGS

PRODUCT	P&H MODEL	STRENGTH*	APPLICATIONS/FEATURES	WT.
 Cloverleaf D-Ring	F677-1	22 tonnes	Low profile D-Ring designed for two lashes—accepts hoist and elephant foot hooks; deck welded.	3.2 kgs
 D-Ring with Protective Dish	F257	41 tonnes	High strength deck-welded D-Ring. Sloping dish provides protection from overiding vehicles.	1.1 kgs
 Breech Base Socket	F700-4A	36 tonnes	Flush socket for multiple position use.	2.9 kgs
 Breech Base D-Ring	F678-2	34 tonnes	Low profile removeable D-Ring; can be used in either fore and aft or athwartship position.	6.8 kgs
 Breech Base Socket Cover	F700-10	N/A	Fits into socket to provide smooth, safe, debris-free surface; ideal for bulk applications.	1.7 kgs
 Raised Cloverleaf Sockets	F265-1 F266-1	16 tonnes 32 tonnes	Accepts elephant foot hooks; ample relief for drainage and easy cleaning.	5.0 kgs 10.4 kgs
 Flush Cloverleaf Sockets	F517-1 F518-1	16 tonnes 32 tonnes	Presents flat deck surface to personnel and vehicles; use with elephant hook end fittings.	9.5 kgs 19.8 kgs
 Raised Deck Track	F196	3-4.5 tonnes	Can be installed either raised or flush with the deck; can also be used with net shoring systems.	Varies with strength required
 Lag Chain Assembly	PH243	3-5.0 tonnes	An easily removable system offering multiple securing points for various types of vehicles.	Varies with strength required

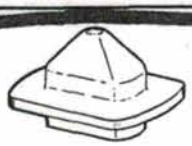
*MINIMUM BREAK STRENGTH GIVEN IN METRIC TONNES (2,204 POUNDS).

Peck & Hale

RO-RO WEB LASHINGS

PRODUCT	P&H MODEL	STRENGTH*	APPLICATIONS/FEATURES	WT.
 Web Auto Lash	2M-TW	1.5 tonnes	Economical, flexible, strong, light-weight lash for automobile and light vehicles.	0.6 kgs
 Web Cargo Lash	5M-TW	4.5 tonnes	Strong, yet lightweight lash for securing medium weight vehicles, cargo on flatbed trailers, palletized cargo.	2.3 kgs

CONTAINER SECURING PRODUCTS

PRODUCT	P&H MODEL	STRENGTH*	APPLICATIONS/FEATURES	WT.
 ISO Twistlock	F476 F476S	34 tonnes 36 tonnes	Fixed base single-cone twistlock. (Left-hand or right-hand locking); for restraining both horizontal and vertical forces.	6.3 kgs 7.0 kgs
 Breech Base Twistlock	F656	34 tonnes	Removable, deck position locking stacker; used with Breech Base System.	5.4 kgs
 Single Cone Stacker	F660	28 tonnes	Simple, non-locking stacker; for restraining horizontal forces, vertical restraint required.	1.5 kgs
 Double Cone Twistlock	F633	42 tonnes	High strength, locking stacker for ISO container securing.	7.0 kgs
 Lockmatic Stacker	F733	18 tonnes	Automatic locking stacker for use with F476 twistlock in tight stow areas where twistlock handles cannot be actuated.	6.0 kgs

*MINIMUM BREAK STRENGTH GIVEN IN METRIC TONNES (2,204 POUNDS).

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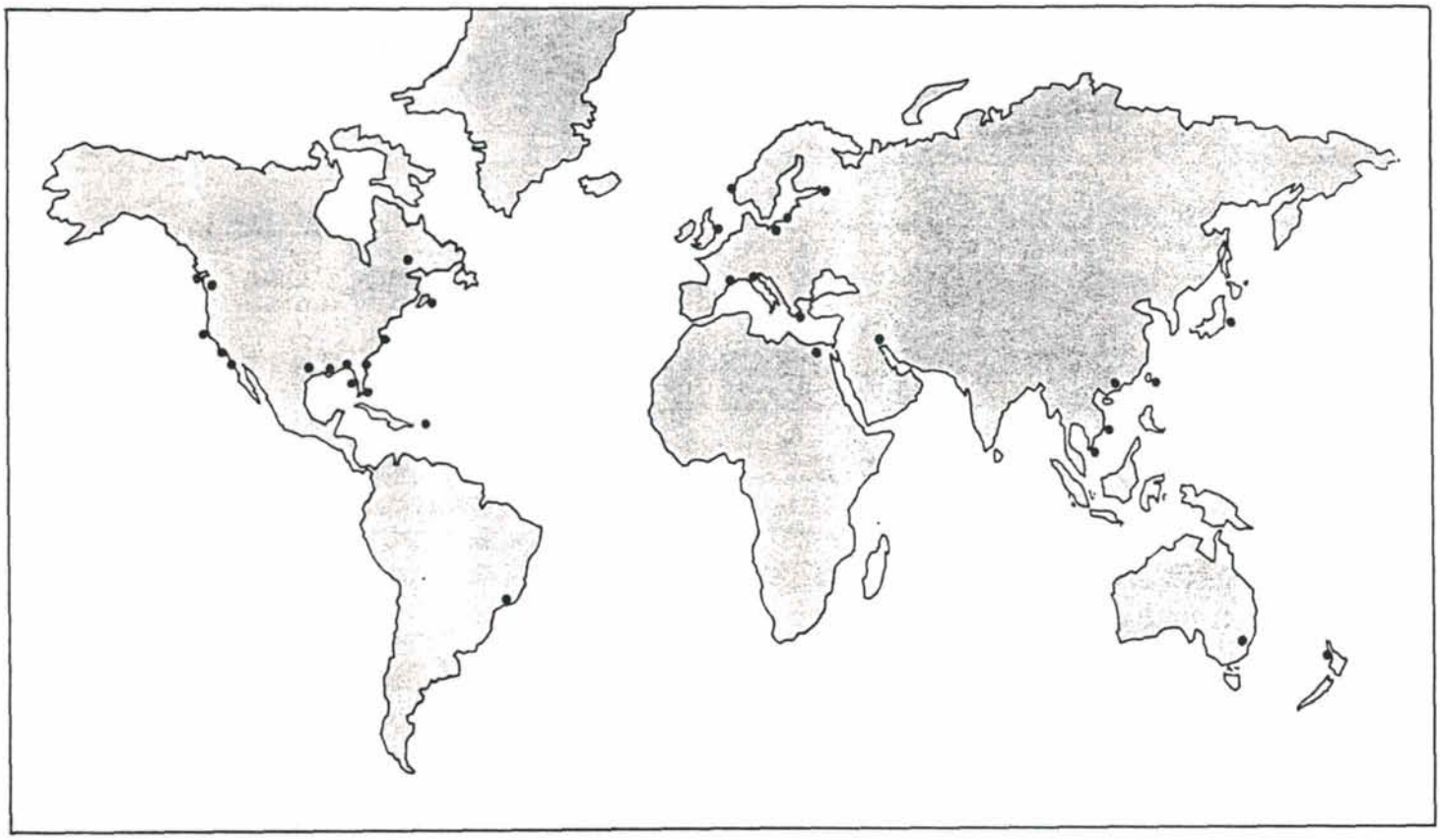

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THE FOLLOWING PAGES OF THE NEWSLETTER ARE DEVOTED TO CLIPPINGS, FORMS, AND OTHER INFORMATION THAT SHOULD BE OF INTEREST TO RVOC MEMBERS.

RVOC OPERATORS DIRECTORY

NAME	INSTITUTION	TEL. NO.	FAX NO.	TELEMAIL
Gene Allmendinger	UNH	(603)862-2997	----	---------
Tim Askew	Harbor Branch	(407)465-2400	(407)465-2446	HBOI.SHIPS
Jack Bash	U of RI	(401)792-6203	(401)792-6574	RHODE.ISLAND
Joe Coburn	WHOI	(508)548-1400	(508)548-8675	WHOI.SHIPS
Bruce Cornwall	CBI	(301)867-7550	(301)269-5785	CHESAPEAKE.BAY
Bill Coste	HIG	(808)847-2661	(808)848-5451	UH.SNUG.HARBOR
Linda Goad	U of Michigan	(313)763-5393	----	D.REA
Lou Hannegin	Lamont	(914)359-2900	(914)359-6817	L.HANNEGIN
Ron Hutchinson	U of Miami	(305)361-4880	(305)361-0546	U.MIAMI.SHIPS
Bill Jeffers	U of WA	(206)543-5062	(206)543-6073	K.JEFFERS
Dean Letzring	Texas A&M	(409)740-4469	(409)740-4456	RV.GYRE
Lee Knight	Skidaway	(912)356-2486	(912)356-2751	D.MENZEL
Eric Nelson	Duke	(919)728-2111	(919)728-2514	DUKE.UNC
Don Newman	USC	(213)830-4570	(213)830-6328	R.PIPER
Waddy Owen	U of Delaware	(302)645-4320	(302)645-4006	W.OWEN
Ken Palfrey	OSU	(503)867-3011	(503)867-3733	OSU.SHIPS
Mike Prince	Moss Landing	(408)633-3534	(408)633-4580	MLML.SHIPS
Steve Rabalais	LUMCON	(504)851-2808	(504)851-2874	LUMCON
Tom Smith	U of Alaska	(907)224-5261	(907)224-3392	T.SMITH
Jim Williams	SIO, UCSD	(619)534-1643	(619)534-1635	SCRIPPS.MARFAC
Charles Windisch	U of Texas	(512)471-0412	(512)471-8844	UTIG.AUSTIN

OMB # 3145-0058

NSF-UNOLS Ship Time Request Form

Include in all NSF proposals and send copies to UNOLS office and ship operator(s).

Part 1

PI Name: **Institution Address:** **PI Phone # and FAX #:** **E-Mail:**		**Will this project require use of a research vessel or special platform?** ☐ No (Sign and skip Part 2.) ☐ Yes ☐ Ancillary Only: ☐ Principal Use of ship Large Program? Ex. (WOCE): Go on to Part 2
Name of Person Requesting Shiptime (Multi-PI Proposals): **Inst. Address:** **Phone # and FAX #:** **E-Mail:**		
Proposal Title:		

Part 2

☐ New Proposal Submitted to: Agency _____ Division _____ Program _____

☐ Renewal Proposal with: Agency _____ Program _____

GRANT # : _____

Other Scientists Involved in Multi-PI Program: Name / Institution

Year	Ship(s) Requested Name or Size (Ex. Large, Medium)	# of Science Days Required	Optimum Dates Month/Day/Year	Alternate Dates Month/Day/Year

Area of Operations: Use codes from standard Naval chart (on back) and brief description:

Codes:

Geographic Description:

Number in Scientific Party:

Special Equipment Needed:

Is any part of the project within 200 miles of a foreign coast?

☐ Yes; List countries below (Clearances required) ☐ No

Technicians Needed: Ex. (CTD, SCS, MCS, SeaBeam, etc.)

Signature of PI or Chief Scientist: _____ **Date:** _____

Special Requirements: (List type, quantity, and disposal plans)

Radioactive Material?
Explosives?
Diving?
Other?

NSF Form 831(R-1/90): Include as Last Page of Proposal

Send a copy of this form to the ship operator

Addresses of ship operators and information on available vessels may be obtained from the UNOLS office or from NSF.

Ship Operations
National Science Foundation
1800 G St., NW
Washington, DC 20550
(202)-537-9639

UNOLS Office
School of Oceanography
University of Washington
Seattle, WA 98195
(206)-543-2203

Special Instructions

Science Days Required:

The number of days required for the scientific project only. **Do not include transit time or port days.**

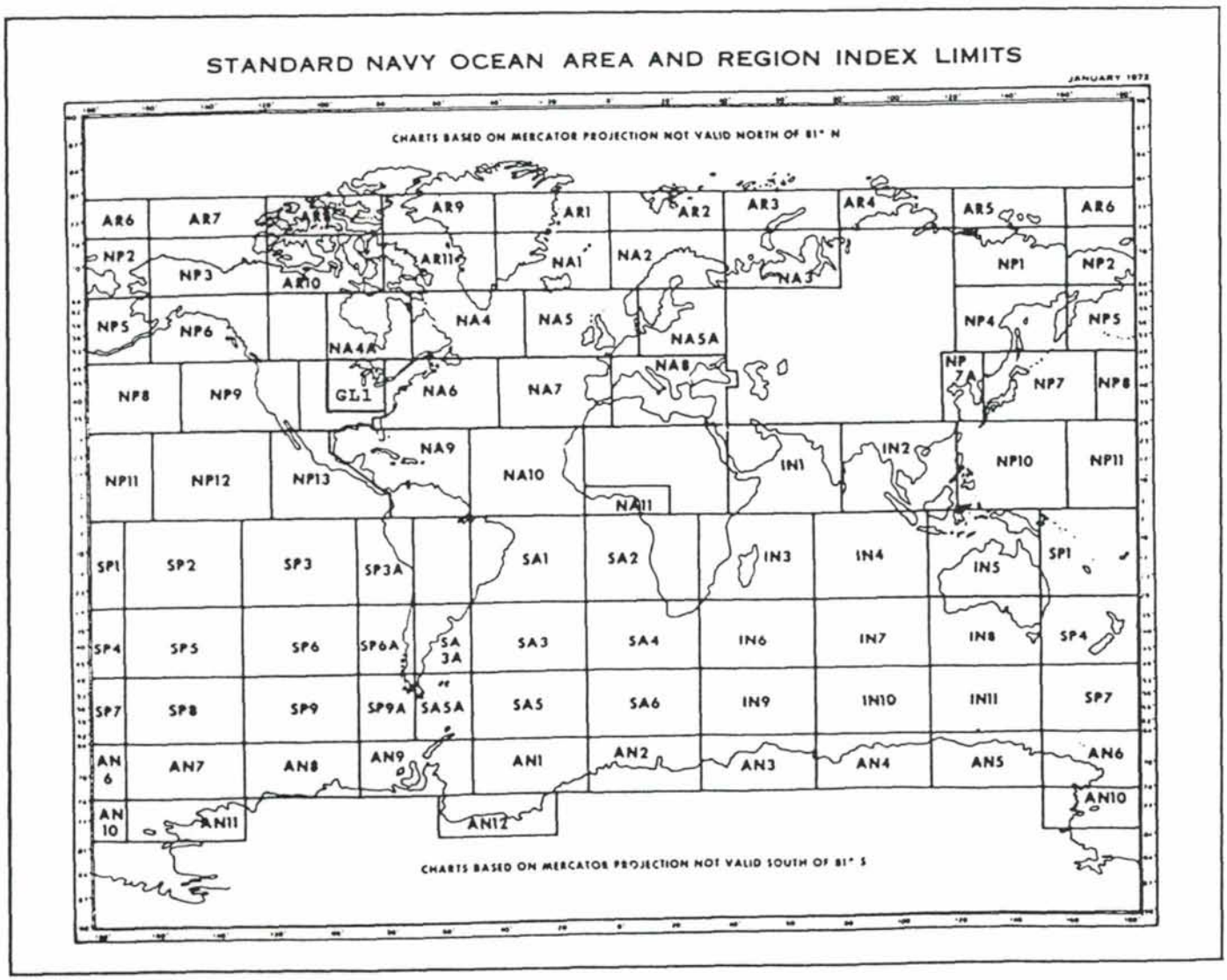
Year:

Proposals requiring ship time must be received by the June 1 Target Date to be considered for scheduling in the following calendar year. Ship schedules for the calendar year are finalized by October of the PREVIOUS year.

Clearances:

Clearances are required for ALL scientific work within any foreign nation's 200 mile limit. **Foreign clearance is often difficult to obtain, and in most cases, requests should be submitted to the Department of State at least seven months prior to expected start date.** Requests for clearance may be submitted prior to final funding decisions. For clearance information consult the UNOLS "Handbook for International Operations of U.S. Scientific Research Vessels" or contact:

Research Vessel Clearance Officer
U.S. Department of State
OES/OA, Room 5801
Washington, DC 20520
Tel: (202)-647-0240



CRUISE REPORT
Ship Utilization Data

UNOLS 12/89

1. Ship Name	2. Operating Institution	3. Cruise (leg) Number

4. Dates of Project:
Begin:
End:

Port Calls

Place	Date

5. Number, Sea Days	6. Number, Port Days

8a. Area of Operations, Area Index and Geographic Description

8b. Research in Foreign Waters? _____
Country:

7. Participating Personnel:

Code	Title, Name, Institution	Function on Cruise (Ch. Sci., Sci., Obs., Tech., Grad. Student, Undergrad., For. Obsv.)	Dates (If less than entire cruise)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			

Use reverse if necessary

9. Primary Project(s)

a. Project Title, Principal Investigator, Institution	b. Sponsoring Agency/ Activity	c. Grant or Contract Number	d. Participating Personnel	e. Discipline

10. Ancillary Project(s)

a. Project title, Principal Investigator, Institution	b. Sponsoring Agency/ Activity	c. Grant or Contract Number	d. Participating Personnel	e. Discipline

11. Science Party:

Scientists _____ Grad. Students _____

Undergrads _____ Technicians _____

Observers _____

Foreign Observers _____

12. Cost Allocation Data

a. Days Charged	b. Agency or Activity Charged	c. Grant or Contract No.

13.

Title, Signature, Operating Institution Official

Date

Attach Page Size Track Chart

CRUISE REPORT
Ship Utilization Data
Instructions

GENERAL: This revision of the UNOLS CRUISE REPORT, Ship Utilization Data, is made to explicitly establish responsibility for completing and submitting Ship Utilization Data Forms with the Ship Operator, to clarify requirements and expand instructions for filling out the form.

Although it will still be necessary for Operators to obtain some information from P.I.'s/Chief Scientists (e.g. science grant numbers, participants), the responsibility for completing and submitting Cruise Reports lies with the Operating Institution.

Cruise Reports should be submitted as soon after completion of cruises as practical, for all operational (chargeable) days, including days at sea (both operations projects and transits) and chargeable inport days. All reports should be submitted to the UNOLS Office, NSF and ONR; reports for projects charged to other agencies should also be furnished to that agency.

INSTRUCTIONS FOR INDIVIDUAL ENTRIES ON CRUISE REPORTS:

3. CRUISE (LEG) NO.: Each Cruise Report should have a number. Many institutions have established systems for identifying cruises for each calendar year. A report should be prepared for each cruise or leg(s) of a cruise involving a discrete and uninterrupted primary project. Transits not included in a science cruise should be reported separately. The sum of all Cruise Reports in a year must cover all chargeable days for that year.

4. DATES AND PORT CALLS: Show the inclusive dates of the cruise including chargeable port days which make up the total scope of the cruise. Inclusive dates should equal the sum of Days at Sea and Days in Port (5 and 6). Under PORT CALLS, list the port of origin, any intermediate calls and the termination port, whether they are the ship's home port or chargeable (away) ports.

5. DAYS AT SEA: According to UNOLS' UNIFORM OPERATIONS AND COST ACCOUNTING TERMINOLOGY, days at sea are all days actually at sea incident to a scientific mission, including day of arrival, day of departure and transit time.

6. DAYS IN PORT: List all chargeable days, generally days in port away from home port and associated with the cruise being reported. Generally, all days in a port away from home port are divided between the preceding and subsequent cruises, according to use.

7. PARTICIPATING PERSONNEL: List names of the entire scientific party, including marine technicians assigned by the operating institution, students, observers and official foreign observers. Show job title, institutional affiliations, and functional classifications as in item 11 (i.e. chief scientist, scientist, grad student, technician, student observer, foreign observer). These functional classifications are summarized in 11. If aboard for less than entire at sea reporting period, show inclusive dates.

8a. AREA OF RESEARCH: Indicate area(s) of operations according to the attached Standard Navy Ocean Area and Region Index and provide a brief description; e.g. NA6, Georges Bank or NP13, NP12, NP11, NP10, North Pacific transect.
8b. RESEARCH IN FOREIGN WATERS: Indicate whether or not research was conducted in foreign waters and if so, what country. (If you requested and received a clearance - yes - if you didn't, answer had better be no.) Transits in and out of foreign ports are excluded, but if an extraordinary port clearance is required (e.g. as for USSR), report that as Port Clearance Required.

9. PRIMARY PROJECT(S): Those projects which govern the principal operations, area and movements of the ship and to whose sponsor some or all of the days are charged (see 12). If days are charged to a project, it is Primary; if not, it usually isn't.
9a. PROJECT TITLE, PRINCIPAL INVESTIGATOR AND INSTITUTION: Project title, P.I. and institution submitting the proposal and receiving the science grant that justifies the ship operation. Do not substitute the chief scientist if different from the P.I. If the proposal/grant is part of a multi-project program (e.g. GOFS, Tropic Heat, WOCE) indicate that in addition to the proposal/grant title.
9b. SPONSORING ACTIVITY: List the Federal, State, local or private agency funding the science project. In cases where an agency funds research through an intermediate contractor or other agency, explain; e.g. DOE through SAIC contract.
9c. GRANT OR CONTRACT NUMBER: This is the science grant or contract, not the ship operations grant.
9d. PARTICIPATING PERSONNEL: List (by code) the personnel participating significantly in each project. Observers, including assigned foreign observers, are generally listed with the primary project. Individuals may contribute to and be listed with more than one project.
9e. DISCIPLINE: List discipline of each of the primary projects, in one of the categories on the attached coding list of Activities (e.g. chemical oceanography, transit).

10a-e. ANCILLARY PROJECTS: Provide the same information as for Primary Projects. If time is charged to a project (in 12), it will ordinarily be listed as Primary, not Ancillary.

11. SCIENCE PARTY: Provide the number of scientists, technicians, graduate students, undergrads, observers (other than official foreign) and foreign observers. These data are used to calculate the number of person-days the ship provided in each category. Thus, if there are changes in the scientific party during a cruise, do not merely count all participants listed in 7 and divide among categories here. Rather, provide an average number (i.e. if two observers are aboard for only 10 days of a 20-day cruise, the correct entry is 2 x 10/20 = 1). Foreign observers are those official observers assigned aboard as a condition of foreign clearances, whether they aid in the research or not. Other foreign nationals are generally aboard as functioning members of the science party, and should be listed according to function. Except for foreign observers, who will always be listed as such, the precedence for individuals fitting into two or more categories is: scientist, grad student, undergrad, technician, observer (select a single category per individual).

12. COST ALLOCATION DATA: This part of the form should be completed with extraordinary care. It is the prime basis for ship and fleet statistics and, by funding agencies, for calculating the number of days' ship operation and allocating those days by agency, division, project, etc. The sum of days charged on all Cruise Reports for a given ship in a given year should be the total of that ship's annual days of operation.
12a. DAYS CHARGED: Days charged should be the sum of days at sea and chargeable days in port (i.e. usually operational days in a port other than home port). See UNIFORM OPERATIONS AND COST ACCOUNTING TERMINOLOGY (attached). Days charged should agree with entries in 4, 5, and 6 above.
12b. AGENCY OR ACTIVITY CHARGED: The agency or activity who has agreed to pay, usually the agency listed under 9b. On occasion an agency will provide funds by means of a pass-through with another agency or a contractor. (e.g. USGS has funded some ship operations by passing them through NSF; DOE often contracts for a project and that contractor pays you.) In these cases, list the original funder – USGS, DOE, etc.
12c. GRANT OR CONTRACT NO.: This is the grant or contract under which you get these ship operations funds. For NSF work, this is your Ship Operations Grant. In some cases, NSF provides ship ops funds through individual science grants, in which case use the science grant number. There should always be an appropriate, identifiable number for ONR funding as well. If the ship funds come through a grant to another institution, note that fact: ONR's NOOOXX-91-6-OOXX to WHOI.

13. SIGNATURE BLOCK: The only signature required is that of the responsible individual at the Operating Institution.

UNOLS COMPUTER FILES
(Ship Statistics)

ACTIVITIES

01	PO	PHYSICAL OCEANOGRAPHY
03	CO	CHEMICAL OCEANOGRAPHY
04	BI	BIOLOGICAL OCEANOGRAPHY
08	GG	GEOLOGY & GEOPHYSICS
09	MC	MAPPING/CHARTING
13	PA	POLLUTION ASSESSMENT
14	OT	OTHER - includes transit, training, other disciplinary studies.

AGENCIES

20	NSF	NATIONAL SCIENCE FOUNDATION
21	ONR	OFFICE OF NAVAL RESEARCH
22	USGS	U.S. GEOLOGICAL SURVEY
23	BLM/MMS	BUREAU OF LAND MANAGEMENT/MNRL, MNGMNT. SERV
24	NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.
25	DOE	DEPARTMENT OF ENERGY (ERDA)
26	OFED	OTHER FEDERAL
27	STMU	STATE/MUNICIPAL
28	OTPR	OTHER/PRIVATE

INSTITUTION

40	UHI	UNIVERSITY OF HAWAII
41	UAK	UNIVERSITY OF ALASKA
42	UWA	UNIVERSITY OF WASHINGTON
43	OSU	OREGON STATE UNIVERSITY
44	SIO	SCRIPPS INSTITUTION OF OCEANOGRAPHY
45	USC	UNIVERSITY OF SOUTHERN CALIFORNIA
46	TAMU	TEXAS A & M UNIVERSITY
47	UTX	UNIVERSITY OF TEXAS
48	UMIA	UNIVERSITY OF MIAMI, RSMAS
49	SKIO	UNIVERSITY OF GEORGIA, SKIDAWAY
50	DUKE/UNC	DUKE UNIVERSITY/UNIVERSITY OF NORTH CAROLINA
51	JHU	JOHNS HOPKINS UNIVERSITY
52	UDEL	UNIVERSITY OF DELAWARE
53	LDGO	LAMONT-DOHERTY GEOLOGICAL OBSERVATORY
54	URI	UNIVERSITY OF RHODE ISLAND
55	WHOI	WOODS HOLE OCEANOGRAPHIC INSTITUTION
56	ASMB	UNOLS ASSOCIATE MEMBERS
57	UMICH	UNIVERSITY OF MICHIGAN
58	MLML	MOSS LANDING MARINE LABORATORY
59	LUMCON	LOUISIANA UNIVERSITIES MARINE CONSORTIUM
60	HBOI	HARBOR BRANCH OCEANOGRAPHIC INSTITUTION

AREAS OF OPERATION

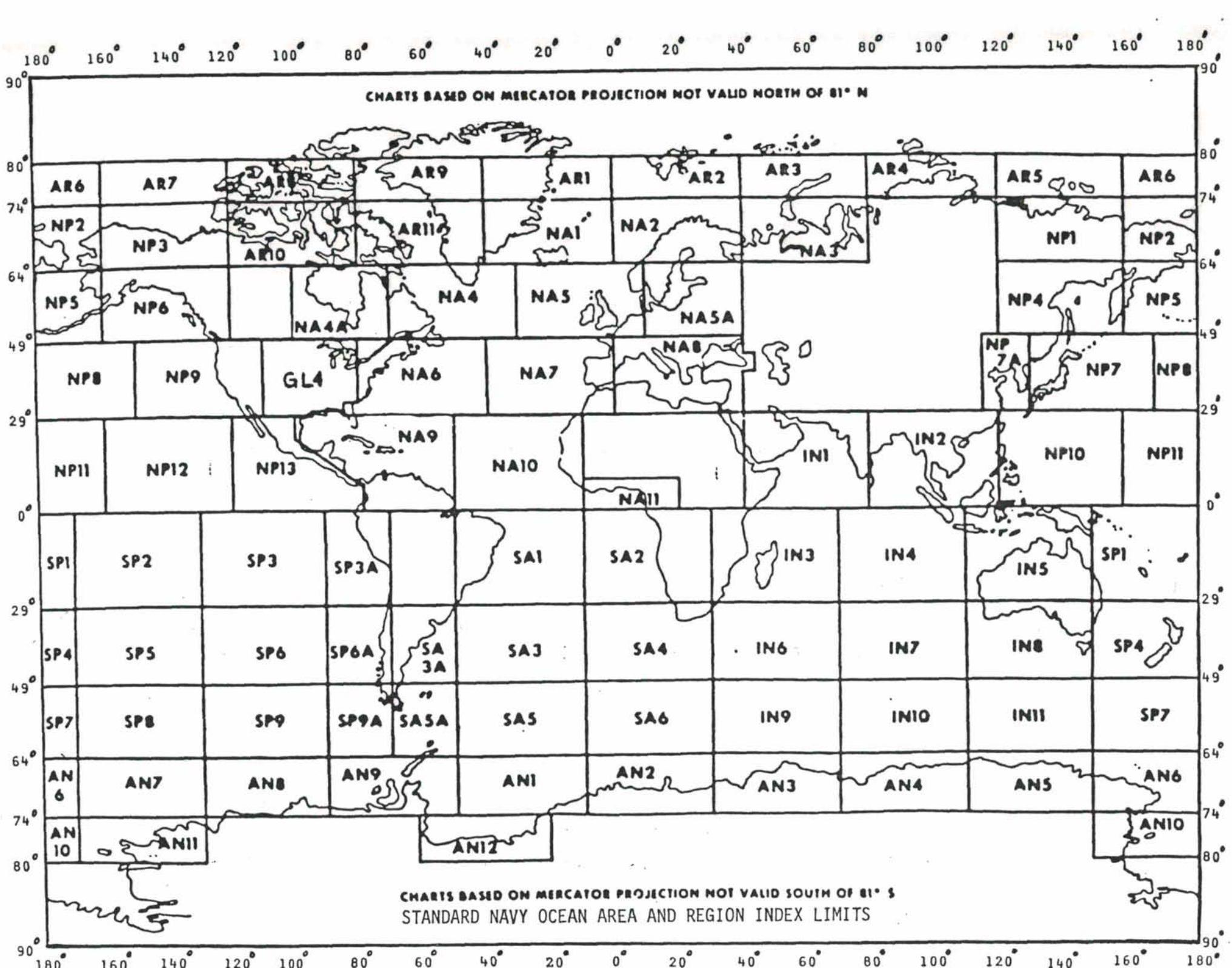
86	IO	INDIAN OCEAN
87	NP	NORTH PACIFIC
88	SP	SOUTH PACIFIC
89	NL	NORTH ATLANTIC
90	SL	SOUTH PACIFIC
91	CB	CARIBBEAN
92	GM	GULF OF MEXICO
93	MD	MEDITERRANEAN
94	PL	POLAR
95	CST	COASTAL U.S.
96	GL	GREAT LAKES

SHIPS (ACTIVE)

			FT.	YR.	#SCI.
108	44	MELVILLE	245	1969	29
168	55	KNORR	279	1970	34
166	55	ATLANTIS II	210	1963	29
116	44	T. WASHINGTON	209	1965	22
162	54	ENDEAVOR	177	1976	16
170	55	OCEANUS	177	1975	12
126	43	WECOMA	177	1975	16
138	46	GYRE	182	1973	20
104	40	MOANA WAVE	210	1973	19
144	48	ISELIN	170	1972	16
111	44	NEW HORIZON	170	1978	13
145	48	CAPE FLORIDA	135	1981	12
153	50	CAPE HATTERAS	135	1981	12
118	41	ALPHA HELIX	133	1966	15
109	44	ROBERT G. SPROUL	125	1981	12
156	52	CAPE HENLOPEN	120	1975	12
154	51	WARFIELD	106	1967	10
124	58	CAYUSE	080	1968	08
150	49	BLUE FIN	072	1972	08
137	42	CLIFFORD A. BARNES	065	1966	06
146	48	CALANUS	064	1970	06
101	57	LAURENTIAN	080	1974	08
125	58	POINT SUR	135	1981	12
140	47	LONGHORN	105	1971	12
175	59	PELICAN	105	1985	15
176	60	SEWARD JOHNSON	176	1984	20
177	60	EDWIN LINK	168	1982	20
178	53	BERNIER	239	1983	32

SHIPS (INACTIVE)

142	48	GILLISS	209	1962	19
158	53	VEMA	197	1923	14
112	44	AGASSIZ	180	1944	13
152	50	EASTWARD	118	1964	15
106	41	ACONA	085	1961	09
134	42	HOH	065	1943	06
122	43	YAQUINA	180	1944	17
163	54	TRIDENT	179	1944	13
113	44	DOLPHIN	096	1968	07
151	49	GOLDEN ISLES	047	1970	04
149	49	KIT JONES	064	1939	04
135	42	KESTREL	055	1965	05
172	55	CHAIN	213	1944	26
148	48	ORCA	045		
136	42	ONAR	065	1954	06
102	40	KANA KEOKI	156	1967	15
114	44	E.B. SCRIPPS	095	1965	08
160	53	CONRAD	209	1962	15
132	42	T.G. THOMPSON	209	1965	20
141	47	FRED H. MOORE	165	1967	20


CHARTS BASED ON MERCATOR PROJECTION NOT VALID NORTH OF 81° N
AR6
AR7
AR8
AR9
AR1
AR2
AR3
AR4
AR5
AR6
NP2
NP3
AR10
AR11
NA1
NA2
NA3
NP1
NP2
NP5
NP6
NA4A
NA4
NA5
NA5A
NP4
NP5
NP8
NP9
GL4
NA6
NA7
NA8
NP 7A
NP7
NP8
NP11
NP12
NP13
NA9
NA10
NA11
IN1
IN2
NP10
NP11
SP1
SP2
SP3
SP3A
SA1
SA2
IN3
IN4
IN5
SP1
SP4
SP5
SP6
SP6A
SA 3A
SA3
SA4
IN6
IN7
IN8
SP4
SP7
SP8
SP9
SP9A
SA5A
SA5
SA6
IN9
IN10
IN11
SP7
AN 6
AN7
AN8
AN9
AN1
AN2
AN3
AN4
AN5
AN6
AN 10
AN11
AN12
AN10
CHARTS BASED ON MERCATOR PROJECTION NOT VALID SOUTH OF 81° S
STANDARD NAVY OCEAN AREA AND REGION INDEX LIMITS

May 1976

UNIFORM OPERATIONS & COST ACCOUNTING TERMINOLOGY

The following definitions are proposed for uniform usage within UNOLS:

OPERATING DAYS - All days away from homeport in an operating status incident to the scientific mission. Includes days in other ports for the purpose of fueling, changing personnel etc. Includes transit time. Includes day of arrival and day of departure from homeport. Does not include maintenance or lay days described below. Does not include any days in homeport except unusual cases to meet a specific cruise need. Operating Day is the basic unit for ship time funding and support.

DAYS AT SEA - All days actually at sea incident to the scientific mission. Includes day of arrival and day of departure. Includes transit time. Includes time anchored (except port call anchorages), hove to, and drifting. Does not include days in foreign ports.

LAY DAYS - Days in homeport for purposes of fitting out, cruise preparation, crew rest, and upkeep. May in rare cases include similar periods in other ports.

MAINTENANCE DAYS - Days undergoing overhauls, drydocking or other scheduled or unscheduled repairs during which the ship is not available for service.

DAYS OUT OF SERVICE - Periods during which ship is layed up out of service for an extended period for reasons of economy, unemployment or unfit for service.

DAILY RATE - Daily cost factor for a ship arrived at by dividing the total operating costs for the scientific mission (including indirect costs but excluding depreciation) by the operating days for the same period. Unless otherwise specified, the daily rate ordinarily reflects a one year period.

MARINE LOG

Editorial

Drug tests for seafarers

Nicholas Blenkey
Editor

Maritime unions have won a major battle against random drug testing of American seafarers. In a December 18, 1989 decision, U.S. District Judge Thomas F. Hogan barred implementation of regulations that would have required random testing of seafarers as part of the Department of Transportation's drug testing program for all transportation workers. The judge said that random testing is "more intrusive on the individual's privacy interests than with any other category of testing."

Though maritime unions say that they are committed to a drug-free workplace, they oppose random testing as not only intrusive but the least-necessary part of the government's drug-testing campaign.

In fact, Judge Hogan's ruling leaves intact DOT rules demanding four other categories of testing: pre-employment, post-casualty, reasonable cause and during periodic license application or renewal. As we went to press, it was unclear what steps the DOT would take, but the agency seemed likely to continue with the four types of testing left intact while appealing the decision. It could also try to formulate rules that would somehow permit random testing while meeting Judge Hogan's concerns. Among these was the fact that the tests even apply to crew members whose roles include few crucial safety-related functions. As drafted, for example, the rules apply equally to stewards and food handlers and ships' masters!

The merchant marine, in fact, is being burdened with an extensive drug testing program not because there is any particular reason to suppose American seafarers are major drug abusers, but because of problems in shoreside society—particularly the inner cities. Hopefully, the merchant marine drug testing program will in some vague way contribute to fighting those shoreside problems. But there should be an understanding that there *is* a price to pay for imposing such a regime. First, it is yet another cost burden on U.S.-flag operators that their competitors do not have to pay. Second, it is one more thing making life at sea even less attractive than it is already.

In, say, a year from now, the drug testing program should have yielded some clear evidence on patterns of drug abuse in the merchant marine. Maritime unions and maritime employers must be insistent that the statistical results from testing in the industry be carefully analyzed. It could well be that those results will show that the program can safely be scaled back.

Nick Blenkey

Drug test law modified and now being enforced

In the final rule, published Dec. 1 in the Federal Register, the Department of Transportation modified the drug testing rules to require that all employers submit three blind specimens to a laboratory for every 100 real specimens submitted. Medical Review Officers (MRO) may contact an employer for assistance when an employee with a positive test cannot be located. An MRO may contact an employer about an employee taking medicine if it could affect the employee's job performance.

Dec. 26, a final rule was published suspending until further notice dates for random drug testing by marine employers. All other dates will still be enforced. The suspension was associated with Fourth Amendment considerations of unreasonable searches. Companies may voluntarily continue to conduct or start a new random testing program as corporate policy, according to the Coast Guard.

Vessels with over 11 crew members are responsible for having pre-employment, post casualty, and reasonable cause drug testing programs as of Dec. 21. Any licensed vessel will have to have all other types of drug testing by the same date.

Periodic testing for original or renewal of all U.S. Coast Guard documents, licenses and certificates will be required after Dec. 21, 1990. This is the responsibility of the licensed or documented seaman, unless his company has a policy to pay for this test.

The Coast Guard has planned day and a half conferences on implementation Jan. 18-19 in Chicago, Jan. 30-31 in Boston, Feb. 7-8 in Denver and Feb. 22-23 in Dallas. They conducted conferences in Los Angeles Dec. 19-20 and in New Orleans, Jan. 4-5.

DOT seeks alcohol tests

The Department of Transportation is seeking a program to make the transportation industry free of alcohol abuse. In the Nov. 2 Federal Register as an advanced notice of proposed rulemaking, DOT suggested that transportation firms establish employee education programs on the dangers of alcohol abuse and on techniques to detect alcohol use and abuse on the job; establish self and peer-referral programs to identify alcohol abusers and encourage them to participate in rehabilitation; conduct alcohol use and abuse testing under a similar program to the newly implemented drug testing program; conduct alcohol use tests before permitting employees to begin a shift or tour of duty.

Public comments were accepted until Jan. 31.

Marine Insurers Conference Targets Industry Faults

ANTWERP, Belgium — Improperly used technology, smaller crews, older ships and poorly-trained personnel are creating new hazards at sea, an international conference of marine insurers heard.

The report was among those delivered at the International Union of Marine Insurance annual conference in Antwerp, Belgium.

Shipowners' efforts to remain competitive in the international marketplace have led them to try to improve efficiency by using more automation technology and fewer crew members, said Harry S. Keefe, president, GRE America. Keefe is a hull-loss prevention expert and vice chairman of the American Institute of Marine Underwriters.

However, Keefe said, true efficiency must incorporate a level of safety "tolerable" to society.

He added the so-called "ships of the future" being constructed in West Germany, Japan, Norway, France and the Netherlands have used automation to cut crew sizes down to as few as 11 people. A Danish-built 84,000-ton tanker will use only one person on bridge watch night or day, he said.

"Logic tells me that if a huge, fast ship loaded with complicated, high-technology gear is to be crewed by 11 persons, they had better be very high quality people who have had extensive training."

But there has been a virtual training standstill in the maritime field for the past 10 years, he added.

"We have had a revolution in technology accompanied by a de-emphasis on maritime training."

Harry S. Keefe
President
GRE American

Keefe also said that economics forces shipowners to retire ships at more advanced ages.

He cited statistics that show the average age of the world fleet is increasing: 35 percent of the tanker and bulk-carrier fleet is estimated at between 15 and 19 years old and data from Lloyd's Register shows 70 percent of all steam and motor ships were more than 10 years old in 1988.

Keefe said the drive to remain competitive by reducing operating costs may be leading shipowners to reduce crew sizes on older vessels as well. He noted published reports alleging that automation is being forced on older ships not designed for it and that crews have been reduced to dangerously low levels.

Ship pilots from such widely-separated areas as New York harbor and the Suez Canal have told him they are concerned not only about the small numbers of crews, but also about the limited skills modern seafarers possess.

The National Cargo Bureau has found a growing disregard for proper lashings on containers stowed on deck, which the organization partially attributes to reduced crew size.

Keefe said the growing number of vessels flying flags of convenience may not be properly regulated by flag states, such as Panama, Cyprus and a multitude of new flag states.

"I think this is a significant factor in reducing ship safety," said Keefe. "I do not believe that the organizations responsible for enforcement of maritime regulations in these countries have the structure, experience or power that their counterparts in traditional maritime nations have enjoyed."

Such nations are in competition for the business of registering ships, said Keefe, which makes it difficult for them to maintain and enforce safety standards.

He also observed that the effectiveness of classification societies—organizations that develop ship design criteria and inspect vessels to see they meet these standards—and even marine underwriters are affected by market forces.

"At the same time, we have had a revolution in technology accompanied by a de-emphasis on maritime training," he said. "In this scenario, who cares about safety?"□

Drugs, alcohol and accidents

Of all the P&I cases claims manager Ron Walsh has handled for fishing boat injuries during his 17 years with New Bedford's International Marine Services (IMS), not one has been substantiated as caused by drug or alcohol abuse.

In 1988 alone, Walsh filed 400 such P&I claims. He says he suspects "a few were related to drug or alcohol abuse, but there was no evidence to prove it."

Walsh thinks that in the fishing community, drug and alcohol abuse are more widespread ashore than at sea. While there is concern in the fishing industry, as in other businesses, about substance abuse, there simply are no figures to establish a strong link between substance abuse and on-board accidents.

Tom Purtell, chief of the U.S. Coast Guard's marine safety evaluation branch, agrees. Between 1981 and 1987, there were 608 deaths and 214 injuries related to fishing vessel accidents, he says. Of those, only one injury and 19 deaths were documented as related to drug or alcohol use.

During the same period, there were 197 deaths and 437 injuries classified as personal casualties on fishing boats. Of these only 18 deaths and three injuries were related to drug and alcohol use, Purtell says.

Purtell believes that the incidences of drug and alcohol use and at-sea casualties on fishing boats are underreported. However, he says "There is no reason to believe the fishing industry is any more inclined to use drugs than the rest of society."

New drug-testing regulations should provide the Coast Guard with a better means to determine drug and alcohol-related casualties on fishing boats, he says. — S.P.

National Fisherman