

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

UNOLS SHIP SCHEDULING COMMITTEE

Report of Meeting

14 September 1992

National Trust for Historic Preservation
1785 Massachusetts Avenue, N.W.
Washington, DC 20036

SCHEDULING REVIEW MEETING

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UNOLS SHIP SCHEDULING MEETING
14 SEPTEMBER 1992
NATIONAL TRUST FOR HISTORIC PRESERVATION
1785 MASSACHUSETTS AVENUE, N.W.
WASHINGTON, D C

The UNOLS Ship Scheduling Committee met at the National Trust for Historic Preservation building in Washington DC on 14 September 1992 to review the schedules of the UNOLS fleet for the calendar year of 1993. The meeting was called to order by the Chairman, Ken Palfrey at 0830. A list of attendees is included as Appendix I.

The meeting followed the agenda which is included as Appendix II. Prior to the meeting all schedulers were encouraged to forward to the UNOLS Office copies of all 1993 Shiptime Request Forms (Form 831) held. A composite inventory list of these requests was provided the schedulers prior to the meeting and included as Appendix III. Also prior to the meeting schedulers posted on OMNET SCHEDULERS.EAST.GULF or SCHEDULERS.WEST the current proposed schedules for both 1992 and 1993 as well as the cost information for these schedules. The UNOLS Office compiled the cost figures and provided the schedulers a summary of ship costs for both 1992 and 1993. These numbers were useful in determining funding shortfalls and are included as Appendix IV.

AGENCY PRESENTATIONS

National Science Foundation. Don Henrichs provided the agency report for the NSF. He reported that NSF was responding to the UNOLS panel report on NSF Inspections by developing a policy statement that will require all NSF funded cruises to be on ships that have been appropriately inspected. They have established an MCR report which differentiates major discrepancies and safety items from findings involving routine items and recommendations for improvements. Don gave the Committee an update on the new insurance plan reporting that several institutions have responded to the proposal. ONR and NSF will review the letters and formulate their response to these concerns. He further reported on the ongoing progress in renewing ALVIN's Memorandum of Understanding between NSF, ONR and NOAA. The MOU is being circulated in draft form throughout the three agencies for comment. Don reported on the changing tasking for the ALVIN Review Committee which has now changed its name to DEep Submergence Science Committee (DESSC) to better reflect a broader mandate of including ROVs as well as more involvement in the development of undersea technology.

The NSF budget for 1993 has not yet been completed by Congress however the present reading suggests level funding or possibly even a decrease of up to 5%. This is a significant reduction from the proposed 15% increase that seemed possible at the summer scheduling meeting. The requested budget is included as Appendix V. Present plans call for the funding of the midlife refits for the Oceanus class as well as proceeding with the design phase of the Arctic research vessel.

National Oceanic and Atmospheric Administration. Scott McKellar provided the NOAA update by first introducing Captain Marty Mulhern as the replacement for Captain Dave Yeager. RADM Bill Stubblefield has replaced RADM Chris Andreasen as the NOAA representative to the UNOLS Council. Chris has left NOAA for the prestigious position of President International Hydrographic Bureau in Monaco.

The NOAA budget for 1993 is also awaiting approval by Congress. They are hoping for level funding but could also experience a reduction of up to 7%. The budget includes funding for the Fleet Replacement and Modernization plans. Funds for 1993 chartering are carryover from 1992 and therefore will not depend upon the new budget. Scott's slide on chartering is included as Appendix VI. Funding for the 1994 TOGA-TAO work is not promising at this time.

Office of the Oceanographer of the Navy. Pat Dennis provided the OON report. He explained that the delay in the AGOR-24 was caused by the bids for that ship being over budget. The Navy is reprogramming \$9 million to add to the budget and permit the process to continue. The building contract should be let after the first of the year. AGOR-25 remains in the 1994 Navy budget. Pat reported that the Navy is retiring its three pool ships which should bring science projects to UNOLS ships once the funding in these programs get transferred into R&D money, probably '95/'96. GYRE will officially be transferred to TAMU by the end of the month. R/V WASHINGTON is scheduled for transfer to Chile bringing to five (counting AGOR-24) ONR ships in the UNOLS fleet.

Office of Naval Research. Keith Kaulum briefly reported that the Navy 1993 budget for research remains steady and no reductions are foreseen.

United States Coast Guard. Captain Alan Walker provided the Scheduling Committee a summary of the Coast Guard's role in Oceanography. He discussed the status of the funding for the new USCG icebreaker which appears to be receiving favorable Congressional support. The Coast Guard has worked with the academic oceanographic community to determine the science requirements which have been incorporated in the revised design. Captain Walker gave brief schedules for the POLAR STAR and POLAR SEA. He indicated that these ships are available for ancillary work during their transits.

REVIEW AND UPDATE OF SCHEDULES

Each scheduler presented the latest proposed ship schedule for 1993. Representatives from the funding agencies commented on those cruises that were not yet in the funded category. Below is a brief summary of each presentation. Cruise tracks for the schedules presented are included as Appendix VII

WOODS HOLE OCEANOGRAPHIC INSTITUTION - ATLANTIS II. Don Moller reported that AII will be operating a full year with all of its cruises dedicated to the support of ALVIN. A total of 272 operating days have been scheduled representing 155 dives. Don was notified that the dives of Smith were not funded and that Lutz was funded for dives in the EPR and not the MAR as scheduled.

WOODS HOLE OCEANOGRAPHIC INSTITUTION - KNORR. The KNORR schedule included 282 days of funded work. A period of 43 days in Aug/Sep are unassigned. KNORR will start the year in the Southern Pacific completing several cruises before transiting the Panama Canal and moving into the Atlantic.

WOODS HOLE OCEANOGRAPHIC INSTITUTION - OCEANUS. OCEANUS is scheduled to complete its operating year at the end of August then enter a shipyard for a midlife refit. Presented was a full 165 day schedule for the first eight months of the year with all but one of these days listed as funded.

UNIVERSITY OF RHODE ISLAND - ENDEAVOR. Bill Hahn presented a schedule of 199 days that was to start 1 June upon completion of ENDEAVOR'S midlife refit. The schedule included 80 funded days with the remaining listed as pending. Bill was notified that all of the NSF pending cruises were declined reducing the schedule to 104 days.

LAMONT-DOHERTY - EWING. Mike Rawson presented several possibilities of cruise tracks for EWING including both an Atlantic plan and an excursion into the Pacific plan. Funding for several of the cruises were questioned and one cruise, Smethie, although funded, will be delayed until 1994. Long transits were also noted as a problem.

DELAWARE - CAPE HENLOPEN. Waddy Owen presented an extensive schedule including 225 operating days. This schedule included cruises in the Chesapeake as well as cruises in the Mid-Atlantic and Long Island Sound. One double booking was noted, Scheltema, and the cruises of Hill and Stanton were declined.

DUKE/UNC- CAPE HATTERAS. The schedule of CAPE HATTERAS was presented by Joe Ustach. The ship will be filling in for WEATHERBIRD II off Bermuda for the first five months of the year while that ship completes an overhaul.

The remaining schedule is primarily in and out of Beaufort, NC for a 200 day operating year. Open periods in July and Nov/Dec were noted.

BERMUDA BIOLOGICAL STATION - WEATHERBIRD II. Harry Barnes presented a 169 day operating schedule for 1993 with the first five months of the year in an overhaul period. The cruise of Dickey appears to remain in question as well as the total number of days assigned to Knap.

SKIDAWAY - BLUEFIN. A mailed copy of the BLUEFIN schedule was presented by Jack Bash. The schedule included 187 operating days with only the 15 days of Hodson's cruise in question.

HARBOR BRANCH - SEWARD JOHNSON. Tim Askew presented a 186 day schedule for JOHNSON. This included Navy, HBOI and NOAA time only.

HARBOR BRANCH - EDWIN LINK. The LINK schedule reflects 80 operating days of which 60 are assigned to NOAA. All of the work on this schedule is centered in the Ft. Pierce/Nassau area.

MIAMI - COLUMBUS ISELIN. Ron Hutchinson presented a modest schedule for ISELIN consisting of 150 operating days. Ron was advised that Pomeroy was scheduled on HENLOPEN, the Colwell work funding will be ending in 1992 and the Martin 45 days would most likely be delayed if funded at all.

MIAMI - CALANUS. The 1993 schedule of CALANUS included 153 operating days with 81 of these funded to date.

LOUISIANA UNIVERSITIES MARINE CONSORTIUM - PELICAN. Steve Rabalais provided the committee with a proposed schedule of 184 operating days for PELICAN. Of this work, 157 days are funded to date. The schedule includes funded cruises from NSF, MMS, NOAA and DOE.

TEXAS A&M - GYRE. A GYRE schedule of 103 operating days was submitted by Dean Letzring. This included cruises funded by NSF, DOE, MMS and STATE. All but one of these cruises are in the Gulf.

TEXAS - LONGHORN. A brief LONGHORN schedule representing 62 days was presented by Don Gibson. Don was advised that the cruises of Swift, 7 days, and Suttle, 21 days, would not be funded reducing the schedule to 20 days of NOAA time and 14 days assigned to UT.

MICHIGAN - LAURENTIAN. Linda Goad provided a LAURENTIAN schedule with 102 operating days with 69 of these days presently funded. This represents a modest schedule for this Great Lakes ship.

SCRIPPS - MELVILLE. Rose Dufour presented a schedule of 300 operating days for MELVILLE. All but four of these days are funded. The schedule is heavily concentrated in the area of Easter Island and Papeete with an excursion back to San Diego then returning to the Eastern South Pacific.

SCRIPPS - NEW HORIZON. A 226 day schedule for NEW HORIZON was presented. Twenty nine of these days, 25 NSF and 4 ONR remain in the pending category.

SCRIPPS - SPROUL. SPROUL'S schedule included 164 days however only 88 of these days are presently funded. Rose was advised that the cruises of Orcutt and Chrysostomelis were not funded reducing the schedule by 25 days. All of this work will be in and out of San Diego.

UNIVERSITY of SOUTHERN CALIFORNIA - VICKERS. Don Newman presented a schedule of 237 days all of which were funded. The first portion of the schedule included 88 NOAA days after which VICKERS transits to Hawaii to complete the year. This Hawaii area work includes support for 6 HOTS cruises.

MOSS LANDING MARINE LABORATORY - POINT SUR. The POINT SUR schedule was presented by Mike Prince. It included 205 days of science with all but five of these days funded. All of this work will be in and out of Moss Landing. It includes funded science from NSF, NPS, MLML and MBARI.

OREGON STATE UNIVERSITY - WECOMA. Ken Palfrey provided the committee with a schedule of 211 days which starts in the Western Pacific and ends the operating year in September at Newport. WECOMA is scheduled for a midlife refit in late 1993 which should take the ship out of service for over six months.

UNIVERSITY OF WASHINGTON - THOMPSON. The THOMPSON schedule, presented by Robert Hinton, included 289 operating days. The year starts in Honolulu working the Pacific from Papeete to Dutch Harbor and Seattle to Yokohama.

UNIVERSITY OF WASHINGTON - BARNES. A modest schedule of 88 days was presented for BARNES with 66 of these days funded to date.

UNIVERSITY OF ALASKA - ALPHA HELIX. Tom Royer provided the Scheduling Committee with a healthy 206 day schedule for ALPHA HELIX and the possibility of 61 additional State funded days. DPP is the proposed funding source for 91 of the scheduled days. The results of this funding will not be known for several months. Tom was advised that the Holbrook work would probably not go this year.

UNIVERSITY OF HAWAII - MOANA WAVE. A full 320 day schedule for MOANA WAVE was presented by Roy Wilkens. It started in Guam and remained in the Western Pacific for the entire year. A mid year shipyard maintenance period is planned.

RECOMMENDATION CONCERNING SCHEDULING PROCEDURES

Members of the Scheduling Committee were queried as to the present scheduling procedure and asked whether or not there needs to be changes. The present procedure has evolved over many years and, at least at present, appears to be successful. The Committee members had no suggestions for change.

ELECTIONS

The two year term for both the chair and vice chair of the Scheduling Committee expires. Nominations were requested from the floor. Ken Palfrey was again nominated for chair with no other nominations offered. Ron Hutchinson was nominated for vice chair and again no other nominations offered. Both candidates were elected by acclamation.

The Scheduling Meeting adjourned at 1230 PM.

**SCHEDULING REVIEW MEETING
SEPTEMBER 14, 1992
NATIONAL TRUST FOR HISTORIC PRESERVATION
1785 MASSACHUSETTS AVENUE, NW
WASHINGTON, DC**

A Scheduling Review Group met upon completion of the Fall Scheduling Meeting 14 September 1992. Present were Scheduling Chair, Ken Palfrey, Vice Chair, Ron Hutchinson, NSF representatives Don Heinrichs and Dolly Dieter, ONR representatives Keith Kaulum and Annette DeSilva, NOAA representative Scott McKellar and UNOLS Executive Secretary, Jack Bash. A review was made of all schedules presented at the morning scheduling meeting. The results of this meeting have been transmitted to all schedulers and are summarized below.

The Scheduling meeting and subsequent Review meeting saw the reduction in scheduled ship days for 1993 from 5335 to 4687. This reduction was the result of proposal declines, reductions in transits and consolidation of schedules. Recommendations are made for several ships to reduce their scheduled operating year in 1993.

ATLANTIS II

ATLANTIS II had only minor recommended changes to its schedule. R. Lutz had been scheduled for five dives on the MAR which were not funded but has been funded for nine dives in the Pacific EPR. These should be scheduled at the end of the operating year. WHOI is requested to examine the transit times for several cruises with a view towards reducing them. The Karson, Rona and Van Dover cruises were of particular concern.

KNORR

KNORR schedule was accepted as presented. ODP was concerned with the large number of transit days for the Klein cruise which should be reviewed.

OCEANUS

Only minor changes were recommended for OCEANUS' schedule. The schedule listed Stanton for work in the Sargasso which should be changed to the Gulf of Maine. A change is necessary for the Madin diving cruises. Madin's funding terminates on 30 May '93. He needs to get an extension on the grant or reschedule both cruises so that they are completed prior to 30 May. The scheduling of his 2 - 1993 cruises should be reviewed with his program manager.

ENDEAVOR

ENDEAVOR is scheduled to complete its midlife refit by 31 May '93. The schedule as presented had cruises of Watts, Caron, Cowen and Sigurdsson declined. This reduced the number of operating days to 104 with operating areas from St. John's to Barbados. It does not seem reasonable to support these cruises with such long transits and therefore it is recommended that ENDEAVOR not operate in 1993. By passing Olson, Zafiriou and Waterbury to Cape Hatteras and Rossby and Hanson to EWING it reduces transits and solidifies two other ships schedules. The Yamamoto work is in question and could be scheduled aboard Cape Henlopen.

EWING

The EWING schedule starts with a maintenance layup which is recommended to extend as late in the spring as possible. It is recommended that EWING start the year no earlier than April with Rossby then continue with Bond, Oppo, Johns, Hanson, Kasten, Weatherly, Gordon and Schilling. Smethie has been funded but should not be considered until calendar year '94. The Katz cruise has not been funded. A CTD will be necessary for Rossby. The efficiency of this schedule should reduce transits of Hanson and Kasten with EWING ending the year with just over 200 operating days.

CAPE HENLOPEN

The cruises of Hill and Stanton were declined and Scheltema booked on OCEANUS reducing CAPE HENLOPEN's schedule from 225 to 200 days. A resolution is still needed for the Colwell work. The remaining schedule appears intact which gives this ship a good operating year.

CAPE HATTERAS

The CAPE HATTERAS will be picking up WEATHERBIRD II's schedule for the first part of the year while that ship completes an overhaul. The inport days in Bermuda must be negotiated with NSF as to whether or not they are operating days. The Ammerman funding expires in February so the scheduling for that cruise must be changed. Kamykowski has been funded by NSF for only three days. It is recommended that HATTERAS pick up the cruises of Olson and Zafiriou before departing Bermuda which should save some transit time. Waterbury should also be picked up by HATTERAS for later in the year.

WEATHERBIRD II

The WEATHERBIRD II is scheduled for an overhaul for the first four months of 1993. CAPE HATTERAS will fill in for the Bermuda work. The schedule as presented includes operating days listed under Knap that were previously listed as Lipshultz whose work had been declined. An adjustment appears to be in order. The cruise of

Dickey is still pending. The above corrections should reduce WEATHERBIRD's operating days by 24.

BLUE FIN

The BLUE FIN schedule should remain essentially as presented. Hodson has been funded for five not fifteen days. The Pomeroy cruise of 20 days should go on BLUE FIN. A clutch repair will be necessary to satisfy this investigator.

SEWARD JOHNSON

The schedule of SEWARD JOHNSON was accepted as presented with a total of 185 days of NOAA/HBOI shiptime.

EDWIN LINK

EDWIN LINK presented a 90 day schedule. The funding for the Young work needs to be resolved.

COLUMBUS ISELIN

Several recommendations for the COLUMBUS ISELIN schedule reduced the operating year from 150 to 66 operating days. The Colwell cruise should be moved to 1992 if possible otherwise complete it in early January '93. Pomeroy will be accommodated on HENLOPEN and Johns on EWING. Bock should start the year in June or July followed by Fenical and Zehr. This will end the operating year unless the Martin work materializes.

CALANUS

The CALANUS schedule was accepted as presented with 77 operating days.

PELICAN

The PELICAN has a scheduled 157 days. The time and number of days scheduled for the Kirkpatrick/Mote work should be reviewed.

LONGHORN

The funding for Suttle and Swift work has been declined reducing the LONGHORN schedule to 34 days consisting of NOAA and UT work only.

GYRE

The GYRE schedule contains 103 operating days which was accepted as presented.

LAURENTIAN

The LAURENTIAN schedule of 102 days was accepted as presented.

MELVILLE

The schedule presented for MELVILLE is good. Support for two ONR days for Webb needs to be verified.

NEW HORIZON

NEW HORIZON has a solid schedule. However, NSF funding for G. Smith is still pending as is the NRL work for Hodgkiss.

SPROUL

The NSF declined work for Orcutt. Chrysostomidis was declined. Alldredge is funded by NSF for two, 8 day cruises. A third Alldredge cruise on SPROUL will depend upon ONR funding. The SPROUL cruises for Chereskin, Rosenfeld and Dorman are still pending leaving SPROUL with a modest schedule.

VICKERS

The deployment of VICKERS to Honolulu should be canceled and the schedule terminated about 28 May at Los Angeles unless other work develops. The remaining scheduled work will be transferred to MOANA WAVE. Funding for Steffin's work needs to be verified with NOAA.

POINT SUR

The schedule presented for POINT SUR is good. The work for Tsuji needs to be verified and the work for Rosenfeld needs to be coordinated with SPROUL's schedule.

WECOMA

The 9 month schedule presented for WECOMA is good. The pending work for Hollister and Trehu in conjunction with EWING will not occur in 1993.

THOMPSON

A solid schedule has been presented for THOMPSON. This schedule should be expanded to accommodate about 20 science days for Von Herzen in conjunction with an October transit from Papeete to Lae. Also Niiler has been funded for 14 days by the NSF for a ship of opportunity to retrieve drifters in the TOGA-COARE area between November 1993 and January 1994. You should attempt to accomplish as many of the

recoveries as possible in conjunction with, but without serious disruption to other work scheduled for THOMPSON.

CLIFFORD BARNES

The 14 days for Devol included in the schedule for BARNES is not funded under the grant cited. This grant provides for only 30 days on NEW HORIZON which is scheduled. The funding source for Devol's work needs to be verified.

ALPHA HELIX

The schedule presented for ALPHA HELIX is good but a number of cruises depends upon funding decisions which are still pending with the NSF - DPP. The work for Holbrook depends upon the availability of EWING (highly unlikely in 1993) or some other seismic vessel.

MOANA WAVE

The schedule for MOANA WAVE should be changed to show a return to Honolulu after completing the work for Hallock at Yokohama in July. Alternatives to a shipyard period at Hong Kong should be considered and the scope of work discussed with the NSF. The cruises out of Honolulu previously scheduled for VICKERS should be accommodated by MOANA WAVE. NSF has declined Young. Coffin will be delayed until 1994. Von Herzen will be accommodated on a THOMPSON transit. Niiler is funded for only 14 days and can do this work with a transit by a ship of opportunity between November 1993 and January 1994.

Appendix I

UNOLS Ship Scheduling Meeting Attendees

Elizabeth Ambos	NSF
Neil Andersen	NSF
Tim Askew	Harbor Branch Oceanographic Institution
Rodger Baier	NSF
Harry Barnes	Bermuda Biological Station
Jack Bash	UNOLS
Garry Brass	RSMAS/UNOLS
Joe Coburn	WHOI
Mary D'Andrea	UNOLS
Patrick Dennis	JOI (Navy Support)
Annette DeSilva	ONR
Dolly Dieter	NSF
Rose Dufour	SIO/UCSD
Henry Fleming	NRL
Dave Garrison	NSF
Don Gibson	University of Texas
Linda Goad	University of Michigan
William Hahn	URI/GSO
Roger Hanson	NSF
Don Heinrichs	NSF
Robert Hinton	University of Washington
Ron Hutchinson	RSMAS
Eric Itsweire	NSF
Bob Knox	SIO
Dick Lambert	NSF
Dean Letzring	Texas A&M
Eric Lindstrom	WOCE
Bruce Malfait	NSF
Russ McDuff	University of Washington
Scott McKellar	NOAA
Donald Moller	WHOI
Martin Mulhern	NOAA
Don Newman	University of Southern California
Wadsworth Owen	University of Delaware
Ken Palfrey	OSU
Dick Pittenger	WHOI
Mike Prince	Moss Landing Marine Labs
Steve Rabalais	Louisiana Universities Marine Consortium
Michael Rawson	Lamont-Doherty

Lisa Rom	NSF
Tom Royer	University of Alaska
Gautam Sen	NSF
Joe Ustach	Duke University
Alan Walker	USCG
Roy Wilkens	University of Hawaii
Stan Winslow	University of Hawaii

Scheduling Review Meeting Attendees

Jack Bash	UNOLS
Garry Brass	RSMAS/UNOLS
Annette DeSilva	ONR
Dolly Dieter	NSF
Don Heinrichs	NSF
Keith Kaulum	ONR
Scott McKellar	NOAA
Ken Palfrey	University of Oregon

AGENDA

UNOLS SHIP SCHEDULING MEETING

MEETING: SCHEDULING (East & West)
DATE 14 September, 1992
PLACE: National Trust for Historic Preservation
1785 Massachusetts Avenue, NW, Washington, DC 20036
TIME: 8:30 a.m.

The Ship Scheduling Committee meeting will be called into session by Ken Palfrey, Chair.

AGENCY PRESENTATIONS. Representatives from NSF, ONR and NOAA will provide scheduling guidance, science program ship requirements and priorities, science funding decision outlook, ship ops funding outlook and related matters.

REVIEW AND UPDATE OF SCHEDULES. Each scheduler will present an updated 1993 schedule. Viewgraph presentations are preferred.

RECOMMENDATIONS CONCERNING SCHEDULING PROCEDURES. Improvements you'd like to see? Changes you'd like to make?

ELECTIONS. The Committee must elect a Chair and Vice-Chair for a two year term.

NOTE: A UNOLS Schedule Review Meeting will be held on 15 September. Participants: Ken Palfrey and Ron Hutchinson, Ship Scheduling Committee, Jack Bash, UNOLS Executive Secretary, Dolly Dieter and/or Don Heinrichs, NSF, Keith Kaulum and/or Annette DeSilva, ONR and Mike Mulhurn, NOAA.

WHAT TO BRING TO THE MEETING:

1. Viewgraphs and one hard copy to illustrate your 1993 schedule.
2. Viewgraph and one hard copy of track chart for 1993.
3. Extra copy of each Form 831, Ship Time Request not sent to the UNOLS Office.
4. YOU SHOULD HAVE ALREADY SUBMITTED YOUR SCHEDULE AND COST INFORMATION (SEE BELOW) AND SHOULDN'T NEED TO BRING COPIES.

SCHEDULES:

UNOLS Operators have posted their tentative 1993 schedules to SCHEDULERS.EAST.GULF or SCHEDULERS.WEST. Schedules should be updated no later than 8 September. NSF and ONR program managers have offered to ascertain the funding status of projects on schedules, but their time between now and the September meeting is limited, so the sooner you get your schedules in the more information you should get.

Schedule Format. Formats for schedule submission will remain unchanged from the June meeting.

COSTS:

COST INFORMATION FOR 1992 and 1993. UNOLS Operators should post not later than 8 September to SCHEDULERS.EAST.GULF and/or SCHEDULERS.WEST, cost information for 1992 and 1993.

1992	NSF	Navy	Other	Total
Ship Days/ Ship \$K				
1993	NSF	Navy	Other	Total
Ship Days/ Ship \$K				

Costs for 1992 should be your latest projection, and consistent with your last negotiation with NSF and/or ONR. Costs for 1993 should be realistic estimates. The UNOLS Office will provide summaries of 1992 and 1993 cost information at the meeting.



UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM



An association of institutions for the coordination and support of university oceanographic facilities.

DATE: August 19, 1992
TO: Ship Schedulers
FROM: UNOLS Office
SUBJECT: Fall Scheduling Meeting

Attached is the inventory of ship time requests (form 831) held by the UNOLS Office. They have been sorted by PI and Ship Requested. Please review the list and provide the UNOLS Office with any updated information.

The Scheduling Meeting will be held at 0830 hrs on the 14th of September at:

National Trust for Historical Preservation
Board Room
1785 Massachusetts Avenue, N. W.
Washington, D.C.



1993 SHIPTIME REQUESTS

19 AUG 1992

PI	INSTITUTION	AREA	SHIP REQUESTED	OPTIMUM 1993 DATES	SOURCE/ FUNDING	DAY
Allredge, A	UCSB	NP9	POINT SUR	AUG	NSF	
Allredge, A	UCSB	NP9	POINT SUR	OCT	NSF	
Ammerman	TAMU	NA6	WEATHERBIRD II	APR	NSF	
Asper, V	SO MISS	NA6	CAPE HATTERAS	JAN	NSF	
Asper, V	SO MISS	NA6	CAPE HATTERAS	FEB	NSF	1
Asper, V	SO MISS	NA6	ISELIN?	APR	NSF	1
Aubrey, D	WHOI	??	??????	???	??	?
Austin, J	WHOI	NA6	OCEANUS/END	AUG/SEP	ONR	1
Azam, F	SCRIPPS	NP9	SPROUL	MAR	??	1
Badiey, M	DEL	NA6	CAPE HENLOPEN	SEP	ONR	
Barth, C	KAPL	NA6	ATLANTIS II	SUMMER	DOE	
Berteaux, H	WHOI	NA6	WEATHERBIRD	MAR	ONR	
Berteaux, H	WHOI	NA6	WEATHERBIRD	JUN	ONR	
Bishop, J	LDGO	NA6	ENDEAVOR	APR/MAY	NSF	1
Bishop, J	LDGO	NA6	OCEANUS/END	MAY/MAY	NSF	
Blough, N	WHOI	NA6	CAPE HENLOPEN	JUL	ONR	
Blough, N	WHOI	NA6	CAPE HENLOPEN	OCT	ONR	
Bock, E	WHOI	NA6	OCEANUS	JUL	ONR	2
Bollens/Wiebe	WHOI	NP9	BARNES	APR/MAY	NSF	4
Bond/Mutter	LDGO	NP5	EWING	AUG??	NSF	3
Bottjer, D	USC	NP9	VICKERS	APR/MAY	NSF	
Bottjer, D	USC	NP9	VICKERS	SEP/OCT	NSF	
Bower, A	WHOI	NA7	MEDIUM	MAY	NSF	1
Boyle, E	MIT	NA6	MARION DUF.	ANY	NSF	
Broecker/Bond	LDGO	NA5/NA7	ENDEAVOR	MAY/SEP	NSF	2
Bryden, H	WHOI	SP3A/SP1	KNORR/LARGE	ANY	NSF	8
Buesseler, K	WHOI	NA6	ASTERIAS	APR	DOE	
Buesseler, K	WHOI	NP11	MOANA WAVE	OCT	NSF	
Buesseler, K	WHOI	NA6	WEATHERBIRD II	MAY	NSF	
Buffler, R	UT	NA9	EWING	SPRING/SUM	NSF	3
Burgige, D	ODU	NA6	CAPE HENLOPEN	OCT	NSF	
Butman, A	WHOI	NA6	OCEANUS	ANY	NSF	
Campbell, L	UH	NP8/NP11	MOANA WAVE	FEB/DEC	NSF	
Caress, D	LDGO	SP3	EWING	JUL/DEC92	NSF	5
Carlucci, A	MARLIFE	NP9	NEW HORIZON	FEB/JUN/OCT	NSF	
Caron, D	WHOI	NA6	OCEANUS	SEP	???	2
Carpenter, E	STONY BROOK	NA6	CAPE HENLOPEN	JUN	NSF	
Carpenter, E	STONY BROOK	NA6	CAPE HENLOPEN	JUL	NSF	
Carson, B	LEHIGH	NP9	ATLANTIS II	SUMMER	NSF	2
Chadwick, W	OSU	NP13	Large		NSF	1
Chamberlin, S	SYRACUSE	NA6	ATLANTIS II	MAY/AUG	NSF	
Chave, A	WHOI	NA6	CAPE HATTERAS	AUG/SEP	NSF	1
Chereskin, T	SCRIPPS	NP?	LARGE	????	NSF	?
Childress, J	UCSB	NP8	MOANA WAVE	JUN/JUL	NSF	2
Childress, J	UCSB	NP9	NEW HORIZON	SUMMER	NSF	1
Childress, J	UCSB	NP9	POINT SUR/N.H.	WINTERR	NSF	1
Christensen, J	BIGELOW	NA6	ISELIN	FEB-MAR	NSF	

Christensen, J	BIGELOW	NA6	ISELIN	MAY-JUN	NSF	
Christensen, J	BIGELOW	NA6	ISELIN	AUG-SEP	NSF	
Christie, D	OSU	IN7-8	MELVILLE	DEC	NSF	3
Chrysosostomidis	MIT	NP9	SMALL	AUG	NSF	10
Cochran, J	LDGO	IN7/IN10	EWING	NOV/FEB	NSF	3
Coffin, M	UT	NP10/NP11	EWING	1992?	NSF	3
Coffin, M	UT	SP4/7	MOANA WAVE	JAN	NSF	2
Collier, R	OSU	NP9	ATLANTIS II	JUN/OCT	???	1
Collier, R	OSU	SP3	THOMPSON	OCT/MAR	NSF	2
Collins, C	NPS	NP9	POINT SUR	MAR/NOV	ONR	
Collins, C	NPS	NP9	POINT SUR	MAY/NOV	ONR	1
Colwell, R	UMD	NA6	CAPE HATTERAS	APR/JUN	NSF	
Colwell, R	UMD	NA6	CAPE HENLOPEN	FEB/NOV	NSF	
Colwell, R	UMD	NA6	ISELIN	FEB	NSF	1
Constable, S	SCRIPPS	NP9	WECOMA	SUMMER	NSF	1
Corliss, B	DUKE	NA6	LARGE (WHOI)	SEP	NSF	
Corliss, B	DUKE	NP9	POINT SUR	JUL	NSF	
Corliss, B	DUKE	NP9	SPROUL	NOV	NSF	
Corliss, B	DUKE	NP9	VICKERS	MAR	NSF	
Corliss, B	DUKE	NA6	CAPE HATTERAS	JUN/AUG	NSF	
Cowan, J	U OF SO AL	NA9	PELICAN	JUL	???	
Cowan, J	U OF SO AL	NA9	PELICAN	DEC	???	
Cowen, E	APP.STATE	NP6	ALPHA HELIX	FALL	NSF	1
Cowen, J	UH	NP12	MOANA WAVE	MONTHLY	NSF	5
Cowles, T	OSU	NP9	WECOMA	MAY	NSF	1
Cox/Webb	SCRIPPS	NP9	NEW HORIZON	JUL/AUG	ONR	1
Cuhel, R	UWIS	GL1	LAURENTIAN	JUN	NSF	
Dacey, J	WHOI	NA6	WEATHERBIRD II	MAR/SEP	NSF	1
Davidson, K	NPS	NP9	POINT SUR	MAY	NRL/NUSC	
Davidson, K	NPS	NP9	POINT SUR	JUL	NRL/NUSC	1
Davidson, K	NPS	NP9	POINT SUR	OCT	NRL/NUSC	1
Detrick, R	WHOI	SP3A	EWING	DEC93/MAR94	NSF	2
Detrick, R	WHOI	SP3A	EWING	JUL	NSF	
Detrick, R	WHOI	NP13	EWING	MAY/SEP	NSF	2
Deuser, H	WHOI	NA6	WEATHERBIRD II	???	NSF	2
Devol, A	UW	NP9/NPB	BARNES	MAY/JUN	NSF	2
Dick, H	WHOI	NA10	ATLANTIS II	JUN/JUL	NSF	3
Dick, H	WHOI	IN6	EWING	Aust Sum	NSF	2
Dorman, L	SCRIPPS	NP10	SPROUL	SUMMER	NSF	
Dorman, L	SCRIPPS	NP10	SPROUL	SUMMER	NSF	
Dugdale, R	HIMS	NP9	POINT SUR	MAR	NSF	
Dugdale, R	HIMS	NP9	POINT SUR	MAY	NSF	
Dugdale, R	HIMS	NP9	POINT SUR	SEP	NSF	
Dugdale, R	HIMS	NP9	POINT SUR	NOV	NSF	
Embley, R	OSU	NP9	ATLANTIS II	JUL/SEP	NSF?	1
Emerson, S	UW	NP9	BARNES	MAR	NSF	
Eriksen, C	UW	SP1	WECOMA/THOMPSN	OCT	NSF/NOAA	
Etter, R	UMASS	NA6	OCEANUS	JUN	NSF	1
Etter, R	UMASS	NA6	OCEANUS	AUG	NSF	
Fell, J	RSMAS	NA9	CALANUS	JUL/AUG	NSF	1
Fenical, W	SCRIPPS	NA9	ISELIN	JUN	NSF	2
Firing, E	UH	NP5/SP5	KNORR	MAR	NSF	AN
Fisk, M	OSU	NP9	THOMPSON	JUL/SEP	NSF	1
Flood, R	STONY BROOK	SA2	EWING	ANY	NSF	3

Garfield, N	NPS	NP9	POINT SUR	FALL	ONR	
Garmany, J	UT	NP13	VICKERS	JAN/FEB	NSF	3
Garvine, R	DEL	NA6	CAPE HENLOPEN	MAR	NSF	
Garvine, R	DEL	NA6	CAPE HENLOPEN	APR	NSF	
Garvine, R	DEL	NA6	CAPE HENLOPEN	MAY	NSF	
Garvine, R	DEL	NA6	CAPE HENLOPEN	MAY	NSF	
Garvine, R	DEL	NA6	CAPE HENLOPEN	JUN	NSF	
Garvine, R	DEL	NA6	CAPE HENLOPEN	JUN	NSF	
Garzoli, S	LDGO	NA6	WEATHERBIRD II	AUG	NSF	
Goad, L	UMI	GL4	LAURENTIAN	JUL	NSF	
Goff, J	WHOI	NA6	KNORR		NSF	2
Gordon, A	LDGO	SA2/SA4	LARGE	FEB/MAR	NSF	3
Grassle, F	RUTGERS	NA6	ATLANTIS II	JUL	NOAA	1
Grebmeier, J	UTENN	NP5	ALPHA HELIX	MAY/JUN	NSF	3
Gregg, M	UW	NP12	MOANA WAVE	JAN/FEB	NSF	6
Halfman	NOTRE DAME	GL4	LAURENTIAN	AUG	NSF	1
Harbison, R	WHOI	NA6	ISELIN	APR	NSF	3
Harbison, R	WHOI	NA6	ISELIN	SEP	NSF	3
Hayes, D	LDGO	NA10/7	EWING	OCT/DEC	NSF	3
Hedge, J	UW	NP9	BARNES	SPRING	NSF	1
Henrichs,	UA	NP6	ALPHA HELIX	MAY	NSF	
Henryey, T	USC	NP9	EWING	SEP/OCT	NSF	
Hey, R	UH	SP3/SP6	EWING	AUSTRAL SUM	NSF	2
Hey, R	UH	SP3	MOANA WAVE	AUSTRAL	NSF	4
Highsmith,	UA	NP6	ALPHA HELIX	MAY/OCT	NSF	6
Hildebrand, J	SCRIPPS	SP3	NEW HORIZON	ASAP	NSF	4
Hill, R	MAR BIOTECH	A6	CAPE HENLOPEN	12 MOS	NSF	1
Hodgkiss, W	SCRIPPS	NA10	KNORR	JUL	ONR	3
Hodgkiss, W	SCRIPPS	NA10	NEW HORIZON	APR	ONR	
Holbrook, S	WHOI	NA1/NA4	EWING	SEP	NSF	3
Hollister, L	PRINCETON	NP6	WECOMA/EWING	JUN/SEP	NSF	
Houde, E	CBL	NA6	CAPE HENLOPEN	JUN	NSF	1
Houde, E	CBL	NA6	CAPE HENLOPEN	JUL	NSF	1
Hunt, G	UCI	NP5	ALPHA HELIX	JUL	NSF	3
Huyer, A	OSU	NP9	NEW HORIZON	JUN	ONR	1
Huyer, A	OSU	NP9	NEW HORIZON	AUG	ONR	1
Huyer, A	OSU	NP9	WECOMA	JUN	ONR	2
Huyer, A	OSU	NP9	WECOMA	AUG	ONR	2
Iliffe, T	TAMU	NA9/13/SP3	LARGE	ANY	NSF	AN
Jahnke, R	SKIDAWAY	NA6	CAPE HATTERAS	JUL	NSF	
Jannasch, H	WHOI	NA10	ATLANTIS II	SUMMER	NSF	1
Jenkins, W	WHOI	NP6/10 SP1/	KNORR	ANY	NSF	AN
Jenkins, W	WHOI	NA6	WEATHERBIRD II		NSF	
Johns, W	RSMAS	NA9	ISELIN	MAR	ONR	
Johns, W	RSMAS	NA9	ISELIN	MAR	NSF	
Johnson, K	MLML	NP9	POINT SUR	APR	NSF	
Johnson, K	MLML	NP9	POINT SUR	JUN	NSF	
Johnson, K	MLML	NP9	POINT SUR	OCT	NSF	
Johnson, K	MLML	NP9	POINT SUR	DEC	NSF	
Johnson, M	UA	NP6	ALPHA HELIX	MAY/SEP/NOV	NSF	4
Johnson, P	UW	NP9	BARNES	SPRING	NSF	
Johnson, P	UW	NP10	EWING/AII	SUMMER	NSF	1
Joyce, T	WHOI	NP9	WECOMA	MAY	NSF	
Jumars, P	UW	NP6	BARNES	ANY	NSF	1

Kadko, D	RSMAS	NA10	ATLANTIS II	SUMMER	NSF	
Kamykowski, D	NCSU	NA6	CAPE HATTERAS	SPRING	NSF	
Karner, G	LDGO	SP1	MOANA WAVE	AUSTRAL	NSF	2
Karson, J	DUKE	NA7	ATLANTIS II	MAY/SEP	NSF	30
Kasten, K	LDGO	NA10	EWING	1990	NSF	20
Katz, E	LDGO	NA4/7	MEDIUM	SPRING/SUM	NSF	2
Keeling, C	SCRIPPS	SP2	MEDIUM	MAR/APR	??	
Keeling, C	SCRIPPS	SP2	MEDIUM	MAR/APR	NSF	
Keigwin, L	WHOI	NA6	KNORR	NOV/DEC	NSF	1
Kelly, J	UA	NP6	ALPHA HELIX	MAR	STATE	
Kemp, M	UMD	NA6	CAPE HENLOPEN	FEB/OCT	NSF	5
Kent, D	LDGO	SP6	MELVILLE/EWING	MAY	NSF	
Kerfoot, W	MTU	GL1	LAURENTIAN	AUG	NSF	AN
Kerfoot, W	MTU	NA6	Small	AUG	NSF	AN
Kirkpatrick, G	MOTE ML	NA9	PELICAN	JUN	NSF/ONR	
Klimley, A	SCRIPPS	NP9	SPROUL	AUG	NSF	
Knap, A	BBS	NA6	WEATHERBIRD II	ALL YEAR	NSF	9
Knap, A	BBS	NA6	WEATHERBIRD II	ALL YEAR	NSF	3
Kramer, J	UMD	NA6	MEDIUM	APR/MAY	NSF	
Kulm, L	OSU	NP9	THOMPSON/MED	JUN/SEP	NSF	1
LaBrecque, J	LDGO	SA1	EWING	JAN/MAY	NSF	30
Lehman, J	UMI	GL4	LAURENTIAN	MAY	NSF	2
Levin, L	SCRIPPS	NA6	ATLANTIS II	FALL	NOAA	
Lilley, M	UW	SP3A	THOMPSON	LATE 93	NSF	2
Lilley/Collier	UW	NP9	ATLANTIS II	SEP	NSF	
Lipschultz, F	BBS	NA6	WEATHERBIRD II	SPRING/SUM	NSF	2
Long, D	UMI	GL4	LAURENTIAN	JUL	S. GRANT	
Lonsdale, P	SCRIPPS	SP8/SP9	MELVILLE	JAN/FEB93	NSF	3
Lonsdale, P	SCRIPPS	SP3/NP13	MELVILLE	MAY	NSF	2
Lonsdale, P	SCRIPPS	SP9	MELVILLE	DEC	NSF	4
Lukas, R	UH	NP10/SP1	MOANA WAVE	MAR	NSF	3
Lukas, R	UH	NP10/SP1	WECOMA	JAN/MAR	NSF/NOAA	6
Luther, G	DEL	NA6	CAPE HENLOPEN	APR/JUL/AUG	NSF	2
Lutz, R	RUTGERS	NP13	ATLANTIS II	FEB	NSF	2
Lutz, R	RUTGERS	NP13	ATLANTIS II	NOV	NSF	2
Madin, L	WHOI	NA6	OCEANUS	FEB	NSF	
Madin, L	WHOI	NA6	OCEANUS	AUG	NSF	
Mann, P	UT	SP1	EWING	JAN/DEC	NSF	2
Marra, J	LDGO	NA4	LARGE/MEDIUM	MAY	NSF	1
Martin, C	UNC	NA6	CAPE HATTERAS	SEP	NSF	1
Martin, J	MLML	NP13/SP3	MEDIUM/LARGE	FALL	NSF/ONR	4
Martin, J	MLML	SP3/NP9	POINT SUR	SUMMER	NSF	
Martin/Sayles	WHOI	NA10	OCEANUS	FEB-APR	NSF	1
Mathisen, O	UA	NP6	ALPHA HELIX	JUN	NSF	2
McCorkle, D	WHOI	NA6	????	???	NSF	AN
McCoy, F	WHOI	NA8	ATLANTIS II	TBD	NSF	?
McKee, B	LUMCON	NA9	PELICAN	OCT	NSF	1
Meyers, P	UMI	GL4	LAURENTIAN	AUG	SEA GRANT	
Michael, P	TULSA	SA1/4	EWING	JAN	NSF	3
Milliman, J	WHOI	NP6	ALPHA HELIX	???	NSF	2
Moore, C	UCSC	NP9	ATLANTIS II	MAY/SEP	ONR	
Mottl, M	UH	NP9	ATLANTIS II	JUL/AUG	NSF	1
Moun, J	OSU	SP9	MOANA WAVE	JAN/FEB	NSF	3
Mullin, M	SCRIPPS	NP9	SPROUL	MAR/JUL	NSF	1

Mullineaux, L	WHOI	??	ATLANTIS II	???	???
Mullins, N	SYRACUSE	NA9	CAPE HATTERAS	SPRING	NSF
Murray, J	UW	NP12/SP2	THOMPSON	JAN	NSF
Murray, S	LSU	SP1	MEDIUM	FEB	NSF
Mutter, J	LDGO	NP5	EWING	AUG91	NSF
Naar, D	USF	SP3	EWING	AUSTRAL SUM	NSF
Natland, J	SCRIPPS	SP6/9	MELVILLE	JAN	NSF
Nelson, D	UCDAVIS	SP3	ATLANTIS II	EARLY 93	NSF
Niiler, P	SCRIPPS	NA10	SPROUL	MAY/JUN	NSF/NOAA
Oppo, D	WHOI	NA5	EWING	SUMMER	NSF
Orcutt, J	SCRIPPS	NP9	NEW HORIZON	SUMMER	NSF
Ortner, P	RSMAS	NA9	CALANUS	MAR	ONR
Owens, D	TAMU	MP13	GYRE	JAN/MAY	NSF
Paduan, J	NPS	NP9	POINT SUR	JUL	ONR
Paul, J	USF	NA9	PELICAN	JUN	NSF
Paull, C	UNC	NA6	CAPE HATTERAS	JAN	NSF
Paull/Spiess	UNC	NA6	EWING	Spring/Fall	NSF
Pomeroy, L	U OF GA	NA6	CAPE HENLOPEN	JAN/FEB	NSF
Pomeroy, L	U OF GA	NA6	BLUE FIN	APR/OCT	NSF
Porter, R	UW	NP9	WECOMA	SEP	ONR
Powell, E	TAMU	NA9	GYRE	MAR	
Powell, E	TAMU	NA9	GYRE	JUN	
Powell, E	TAMU	NA9	GYRE	SEP	
Powell, E	TAMU	NA9	GYRE	DEC	
Powell, E	TAMU	NA9	GYRE	OCT	
Prahl, F	OSU	NP9	NEW HORIZON	OCT	NSF
Prahl, F	OSU	NP9	WECOMA	JUL	NSF
Prahl, F	OSU	NP9	WECOMA	JUL	NSF
Purdy, M	WHOI	MP13	Med/Large	Summer	NSF
Ramp, S	NPS	NP9	POINT SUR	MAY	ONR
Ramp, S	NPS	NP9	POINT SUR	APR	ONR
Reid, P	RSMAS	NA9	CALANUS	APR	NSF
Reimers, C	SCRIPPS	NA10	OCEANUS	MAR	NSF
Reimers, C	SCRIPPS	NP9	SPROUL	JAN	NSF
Repeta, D	WHOI		MELVILLE		
Repeta, K	WHOI	NA6	OCEANUS	APR	NSF
Roemmich/Bray	SCRIPPS	SP1/SP2	MELVILLE	OCT	NSF
Rona, P	NOAA/AOML	NA10	ATLANTIS II	SUMMER	NSF/NOAA
Rosenfeld, L	MARBI	NP9	POINT SUR	APR	NSF
Rosenfeld, L	MARBI	NP9	POINT SUR	MAY	NSF
Rosenfeld, L	MARBI	NP9	POINT SUR	JUL	NSF
Rosenfeld, L	MARBI	NP9	POINT SUR	AUG	NSF
Rosenfeld, L	MARBI	NP6	SMALL/MEDIUM	JUL/AUG	ONR
Rosenfeld, L	MARBI	NP9	POINT SUR	SEP	NSF
Rossby, T	URI	NA6/4	ENDEAVOR	JUL	NSF
Sambrotto, R	LDGO	NA6	CAPE HATTERAS	APR	NSF
Sayles, F	WHOI	NA6	WEATHERBIRD II	ALL YEAR	NSF
Schelske, C	U OF FL	GL4	LAURENTIAN	APR	NSF
Schelske, C	U OF FL	GL4	LAURENTIAN	AUG	NSF
Schelske, C	U OF FL	GL4	LAURENTIAN	SEP	NSF
Scheltema, R	WHOI	NA6	OCEANUS		NSF
Schilling, JG	URI	SA5	LARGE	AUSTRAL SUM	NSF
Sempere, J	UW	IN8-IN11	EWING	DEC92/MAR93	NSF

Shaprio, L	UO	NP9	NEW HORIZON	ANY	???	AN
Sharp, J	DEL	NA6	CAPE HENLOPEN	TBD	NSF	5
Siegel, D	UCSB	NA6	WEATHERBIRD II	JUL	NSF	
Sigurdsson, H	URI	NA9	EWING	OCT92/JUN93	NSF	2
Silver, E	UCSC	NP13	KNORR/EWING	JUN/DEC	NSF	2
Sinton, J	UH	SP3	MOANA WAVE	NOV92/MAR93	NSF	2
Smethie, W	LDGO	SA1	EWING	AUG92/MAR93	NSF	4
Smith, C	UH	SP3	ATLANTIS II	FALL	NSF	1
Smith, K	SCRIPPS	NP9	NEW HORIZON	FEB	NSF	1
Smith, K	SCRIPPS	NP9	NEW HORIZON	JUN	NSF	1
Smith, K	SCRIPPS	NP9	NEW HORIZON	JUL	NSF	
Smith, K	SCRIPPS	NP9	NEW HORIZON	AUG	NSF	
Smith, K	SCRIPPS	NP9	NEW HORIZON	NOV	NSF	
Spieess, F	SCRIPPS	NP6	MELVILLE	MAY/AUG	NSF	2
Spieess, F	SCRIPPS	NP9	NEW HORIZON	????	???	2
Stanton, T	NPS	NP9	POINT SUR	MAR/APR	ONR	
Stanton, T	WHOI	NA6	OCEANUS	APR-AUG	NSF	2
Stephen, R	WHOI	NP11/12	Large	APR	NSF	
Stephen, R	WHOI	NP11/12	MOANA WAVE	APR	NSF	
Stephen, R	WHOI	NP11/12	MOANA WAVE	APR	NSF	
Stern, R	UT	NP10	MOANA WAVE	SPRING	NSF	1
Szmant, A	RSMAS	NA9	CALANUS	OCT/DEC	???	4
Talwani, M	LDGO	NP9	EWING	JUN/SEP	NSF	
Taylor, B	UH	SP1	MOANA WAVE	SPRING	NSF	2
Thompson, G	WHOI	MA10	KNORR	JAN-APR	NSF	3
Toole, J	WHOI	SP9	LARGE	1991??	NSF	1
Townsend, D	BIGELOW	NA6	CAPE HATTERAS	JUL	NSF	1
Townsend, D	BIGELOW	NA6	Medium	AUG	NSF	2
Trefry, J	FL INS TECH	NP9	ATLANTIS II	AUG 94	NSF	
Trehu, A	OSU	NP9	WECOMA	AUG	NSF	1
Trehu, A	OSU	NP9	EWING	AUG	NSF	2
Tsuji, F	SCRIPPS	NP9	BARNES	JUN/JUL	NSF	
Tsuji, F	SCRIPPS	NP12	MOANA WAVE	AUG	NSF	1
Tsuji, F	SCRIPPS	NP9	POINT SUR	APR/JUL	NSF	1
Tucholke, B	WHOI	NA6	EWING	JUL	NSF	2
Tucholke, B	WHOI	NA6	KNORR	MAY	ONR	3
Twilley, R	U of SW LA	NA9	PELICAN	AUG	NSF	1
Van Dover, C	WHOI	NA6	ATLANTIS II	JUN	NSF	2
Van Dover, C	WHOI	NP9	ATLANTIS II	AUG	ONR/NASA	
Vetter, R	NOAA	NP9	SPROUL	MAR	NOAA	
Vetter, R	NOAA	NP9	SPROUL	JUN	NOAA	
Villereal, T	WHOI	NP8/NP9	MEDIUM	JUN	NSF	1
Von Herzen, R	WHOI	NA10	ATLANTIS II	APR/NOV	NSF	3
Von Herzen, R	WHOI	IN3/IN6	EWING	JAN	NSF	
Von Herzen, R	WHOI	SP1	LARGE/MED	AUG92	NSF	2
Von Herzen, R	WHOI	NA6	MEDIUM/LARGE	JUN/OCT	NSF	AN
Von Herzen, R	WHOI	SP1	MEDIUM/LARGE	ANY	NSF	3
Ward, B	UCSC	NP9	POINT SUR	MAR	NSF	
Ward, B	UCSC	NP9	POINT SUR	AUG	NSF	
Warren, B	WHOI	NP7	Medium	MAY	NSF/ONR	2
Waser/Bacon	WHOI	NA6	WEATHERBIRD II	MAY/NOV	NSF	3
Waterbury,	WHOI	NA6	OCEANUS	AUG/OCT	NSF	1
Watts, R	URI	NA4	ENDEAVOR	JAN/JU/	NSF/ONR	2
Weatherly, G	FSU	SA1	ISELIN	MAR/JUN	NSF	1

Webb, C	SCRIPPS	NP6	MELVILLE	1992?	NSF	1
Webb, S	SCRIPPS	NP9	MELVILLE/N.HOR	JAN	NSF	
Webster, M	VANDY	NP12	MOANA WAVE	FALL92	???	2
Webster, M	VANDY	NP12	VICKERS	JUL	NSF	1
Webster, M	VANDY	NP12	MELVILLE	JUL	NSF	1
Webster, M	VANDY	NP12	MELVILLE	SEP	NSF	1
Webster, M	VANDY	NP12	VICKERS	SEP	NSF	1
Weisberg, R	USF	SP2	MOANA WAVE	MAR	NSF	
Weisberg, R	USF	SP1/NP11	MOANA WAVE/WEC	FEB	NSF	2
Weiss, R	SCRIPPS	SP4/5	KNORR	ANY	DOE	AN
Weller, R	WHOI	NA10	KNORR	JUN	ONR	2
Weller, R	WHOI	SP1/NP17	WECOMA	MAR	NSF	2
Welschmeyer, N	MLML	NP9	POINT SUR	MAY/JUN	NSF	2
Welschmeyer, N	MLML	NP9	POINT SUR	AUG/SEP	NSF	2
Wilkens, R	UH	NP12	MOANA WAVE	??	NSF	1
Winant, C	SCRIPPS	NP9	SPROUL	APR	MMS	2
Wishner, K	URI	NP13	ATLANTIS II	OCT	NSF	4
Witman, J	NORTHEASTERN	NA6	CAPE HATTERAS	JUL/AUG	NSF	2
Worcester, P	SCRIPPS	NA6	KNORR	??	??	?
Yamamoto, T	RSMAS	NA6	OCEANUS	MAY/SEP	ONR	
Yayanos, A	SCRIPPS	NP9	SPROUL	JAN/OCT	NSF	1
Young, K	UW	NP12	THOMPSON	JUL	NSF	
Young, K	UW	NP12	THOMPSON	SEP	NSF	
Zehr, J	STONY BROOK	NA9	ISELIN	OCT	NSF	2
Zumberge, M	SCRIPPS	NP12	MELVILLE	OCT	NSF	2
Zumberge/Hilde	SCRIPPS	NP12	NEW HORIZON	SUMMER	ONR	

SUMMARY OF SHIP USE AND COSTS

YEAR: 1992

SHIP/CLASS	NSF			NAVY			OTHER			TOTAL		DAILY RATE
	DAY		\$	DAY		\$	DAY		\$	DAY	\$	
MELVILLE	137		1,822	25		333	10		133	172	2,288	13,302
KNORR	271		4,684	0		0	0		0	271	4,684	17,284
ATLANTIS II	145		2,755	7		133	29		551	181	3,439	19,000
EWING	190		3,008	40		633	71		1,124	301	4,765	15,830
T.G. THOMPSON	231		3,366	7		240 ^a	39		568	277	4,036	14,570
T. WASHINGTON	94		1,061	9		102	2		23	105	1,186	11,295
MOANA WAVE	219		2,123	59		572	7		68	285	2,763	9,695
CLASS II TOTAL	1,287		18,819	147		2,013	158		2,467	1,592	23,161	- -
AVE: (7)	184		2,688	21		288	23		352	227	3,309	- -
EDWIN LINK	23		179	17		133	107		835	147	1,147	7,800
ENDEAVOR	148		1,610	38		413	13		141	199	2,164	10,874
OCEANUS	172		1,354	127		1,000	15		118	314	2,472	7,873
GYRE	41		270	0		0	85		672	126	942	7,476
ISELIN	200		2,046	24		245	0		0	224	2,291	10,228
NEW HORIZON	138		1,290	15		140	33		309	186	1,739	9,349
SEWARD JOHNSON	38		296	24		187	145		1,131	207	1,615	7,800
VICKERS	54		621	0		0	152		1,748	206	2,369	11,500
WECOMA	231		1,964	41		348	0		0	272	2,312	8,500
CLASS III TOTAL	1,045		9,631	286		2,466	550		4,954	1,881	17,050	- -
AVE: (9)	116	0	1,070	32	0	274	61	0	550	209	1,894	- -
PELICAN	34		126	0		0	127		469	161	595	3,696
LONGHORN	14 *		42 *	0 *		0 *	54 *		162 *	68	204	3,000
POINT SUR	79		492	68		424	34		212	181	1,128	6,232
CAPE HATTERAS	163		1,109	20		143	29		208	212	1,460	6,887
ALPHA HELIX	102		971	0		0	44		419	146	1,389	9,514
R. SPROUL	109		533	7		34	47		229	163	796	4,883
CAPE HENLOPEN	121		720	2		12	40		238	163	970	5,951
WEATHERBIRD II	254		971	0		0	3		11	257	982	3,823
CLASS 1V TOTAL	876		4,964	97		613	378		1,948	1,351	7,525	- -
AVE: (8)	110	0	620	12	0	77	47	0	244	169	941	- -
BLUE FIN	74		132	0		0	38		68	112	200	1,786
LAURENTIAN	28		114	0		0	31		126	59	240	4,075
BARNES	110		224	5		10	21		42	136	276	2,029
CALANUS	67		141	27		57	7		15	101	212	2,101
CLASS 1V TOTAL	279		611	32		67	97		251	408	929	- -
AVE: (4)	70	0	153	8	0	17	24	0	63	102	232	- -
FLEET TOTAL	3,487		34,024	562	0	5,159	1,183	0	9,620	5,232	48,664	- -
AVE: (28)	125		1,215	20	0	184	42	0	344	187	1,738	- -

NOTES: * Figures have not been updated since Sept. 91 Scheduling Meeting
a Navy includes NAVSEA \$ 138K

SUMMARY OF SHIP USE AND COSTS

YEAR: 1993

SHIP/CLASS	NSF		NAVY		OTHER		TOTAL		DAILY RATE
	DAY	\$	DAY	\$	DAY	\$	DAY	\$	
MELVILLE	270	4,019	30	447	0	0	300	4,466	14,887
KNORR	170	2,635	112	1,736	0	0	282	4,371	15,500
ATLANTIS II	162	2,592	53	848	57	912	272	4,352	16,000
EWING	303	4,816	0	0	31	493	334	5,309	15,895
T.G. THOMPSON	222	3,027	14	191	53	722	289	3,940	13,633
MOANA WAVE	248	2,382	39	375	33	317	320	3,074	9,606
CLASS II TOTAL	1,375	19,471	248	3,597	174	2,444	1,797	25,512	--
AVE: (6)	275	3,894	50	719	35	489	300	4,252	--
EDWIN LINK	30	234	0	0	60	468	90	702	7,800
ENDEAVOR	154	1,600	45	468	0	0	199	2,068	10,392
OCEANUS	91	910	68	680	6	60	165	1,650	10,000
GYRE	16	128	0	0	87	691	103	819	7,990
ISELIN	217	2,170	9	90	21	210	247	2,470	10,000
NEW HORIZON	122	1,131	72	668	32	297	226	2,096	9,274
SEWARD JOHNSON	0	0	18	140	168	1,310	186	1,451	7,800
VICKERS	189	2,230	0	0	90	1,062	279	3,292	11,799
WECOMA	152	1,642	59	637	0	0	211	2,279	10,801
CLASS III TOTAL	971	10,045	271	2,683	464	4,098	1,706	16,827	--
AVE: (9)	108	1,116	30	298	52	455	190	1,870	--
PELICAN	51	204	0	0	133	532	184	736	4,000
LONGHORN	a	a	a	a	a	a	a	a	
POINT SUR	106	624	81	476	18	106	205	1,206	5,883
CAPE HATTERAS	189	1,336	2	14	9	64	200	1,414	7,070
ALPHA HELIX	202	1,816	0	0	4	36	206	1,852	8,990
R. SPROUL	48	252	24	126	61	321	133	699	5,256
CAPE HENLOPEN	206	1,133	11	61	0	0	217	1,194	5,502
WEATHERBIRD II	156	1,080	4	28	0	0	160	1,108	6,925
CLASS IV	958	6,445	122	705	225	1,059	1,305	8,209	--
AVE: (8)	137	921	17	101	32	151	186	1,173	--
BLUE FIN	108	141	0	0	74	96	182	237	1,302
LAURENTIAN	97	395	0	0	5	20	102	416	4,075
BARNES	69	140	0	0	19	39	88	179	2,034
CALANUS	91	200	44	97	20	44	155	341	2,200
CLASS IV TOTAL	365	876	44	97	118	199	527	1,173	--
AVE: (4)	91	219	11	24	30	50	132	293	--
FLEET TOTAL - A	3,669	36,837	685	7,082	981	7,801	5,335	51,720	--
AVE: (27)	147	1,473	27	283	39	312	205	1,989	--

NOTES: a No cost figures provided

OCEAN SCIENCES DIVISION

	<u>Actual FY 1990</u>	<u>Actual FY 1991</u>	<u>Estimated FY 1992</u>	<u>Requested FY 1993</u>
Ocean Sciences Division	\$147.4 M	\$164.8 M	\$178.8 M	\$206.4 M
Ocean Sciences Research	72.9 M	82.1 M	90.8 M	109.3 M
Ocean Drilling Program	32.0 M	35.0 M	36.4 M	37.8 M
Oceanographic Facilities	42.5 M	47.7 M	51.6 M	59.3 M

OCEANOGRAPHIC FACILITIES DETAIL

Operations

Ship Operations	\$ 22.4 M*	\$ 26.7 M*	\$ 30.2 M*	\$ 34.0 M*
ALVIN, Aircraft, etc.	1.4 M	1.8 M	1.3 M	1.5 M
Marine Techs	<u>3.7 M</u>	<u>4.0 M</u>	<u>4.3 M</u>	<u>4.6 M</u>
	27.5 M	32.5 M	35.8 M	40.1 M

Infrastructure

Science Instruments	\$ 1.8 M	\$ 1.9 M	\$ 4.0 M	\$ 4.5 M
Shipboard Equipment	2.1 M	2.2 M		
Ships, Upgrades	3.4 M	3.7 M	3.3 M	6.1 M
UNOLS, Misc.	<u>0.6 M</u>	<u>0.6 M</u>	<u>0.7 M</u>	<u>0.7 M</u>
	7.9 M	8.4 M	8.0 M	11.3 M

Technology, Centers, Reserves

Technology Development	\$ 3.5 M	\$ 4.2 M	\$ 4.5 M	\$ 5.0 M
AMS Center	1.8 M	1.7 M	1.5 M	1.1 M
Cross Directorate/Reserves	<u>1.8 M</u>	<u>0.9 M</u>	<u>1.8 M</u>	<u>1.8 M</u>
	7.1 M	6.8 M	7.8 M	7.9 M

* Plus \$1.0 M from ODP (1990), \$1.6 M (1991 and 1992) , \$1.5 M (1993)

NOAA-CHARTERED UNOLS VESSELS

FY 1992

<u>VESSEL</u>	<u>PROJECT</u>	<u>DAYS</u>	<u>\$K</u>
CAPE HATTERAS	S. ATLANTIC BIGHT RECRUITMENT	7	23.1
VICKERS	GLOBAL CHANGE	91	1203.0
PELICAN / LONGHORN	NECOP	60	246.0
OCEANUS	DWD-106 BOX CORING	9	98.4
MISCELLANEOUS	NOAA UNDERSEA RESEARCH PROGRAM (SUBMERSIBLE SUPPORT)	*625	*4500.0
ALASKA	BOTTOM TRAWL SURVEY	<u>70</u>	<u>299.0</u>
	TOTAL	862	6369.5

*ESTIMATES ONLY

NOAA CHARTERING

<u>SOURCE</u>	<u>1992</u>	<u>1993*</u>	<u>1994*</u>
VICKERS	91	115	80
OTHER UNOLS	701	708	754
COMMERCIAL FISHING	696	730	923
<u>COMMERCIAL CHARTING</u>	<u>28</u>	<u>250</u>	<u>200</u>
TOTAL	1516	1803	1957

*Estimated and subject to funding

FUTURE UNOLS CHARTERING

FY 1993

<u>VESSEL</u>	<u>PROJECT</u>	<u>DAS</u>	<u>\$K</u>
VICKERS	TOGA COARE	115	1,380
PELICAN/OTHERS	NECOP	120	498
TBD	MONITOR	23	222
VARIOUS	NURP	625	4,500

FY 1994

<u>VESSEL</u>	<u>PROJECT</u>	<u>DAS</u>	<u>\$K</u>
VICKERS	WOCE	80	960
TBD	TOGA TAO	109	1,300
VARIOUS	NURP	625	4,500

* NURP (SUBMERSIBLE SUPPORT) DATA IS ESTIMATED

CHARTER FOR TOGA-TAO

FY 1994

- **NOAA HAS REQUESTED UNOLS ASSISTANCE IN TOGA-TAO (109 DAS)**
- **UNOLS RESPONDED WITH VARIOUS OPTIONS FROM:**
 - **UNIVERSITY OF WASHINGTON**
 - **SCRIPPS INSTITUTION OF OCEANOGRAPHY**
 - **UNIVERSITY OF HAWAII**
 - **UNIVERSITY OF SOUTHERN CALIFORNIA**
 - **COLUMBIA UNIVERSITY**
- **CHARTER SUBJECT TO AVAILABILITY OF FUNDS**

SUPPLEMENTAL SUPPORT

	FY 93	FY 94	FY 95	FY96
OCEANOGRAPHER	N.O.	RTE ?	240	240
DISCOVERER	221	205	RTE	240
MALCOLM BALDRIGE	171	180	180	RTE ?
SURVEYOR	180?	193?	180?	180?

CHARTER DAS

UNOLS	258	189	240?	240?
COMM. MAPPING	250	200	?	?
COMM. FISHING	30	108	?	?

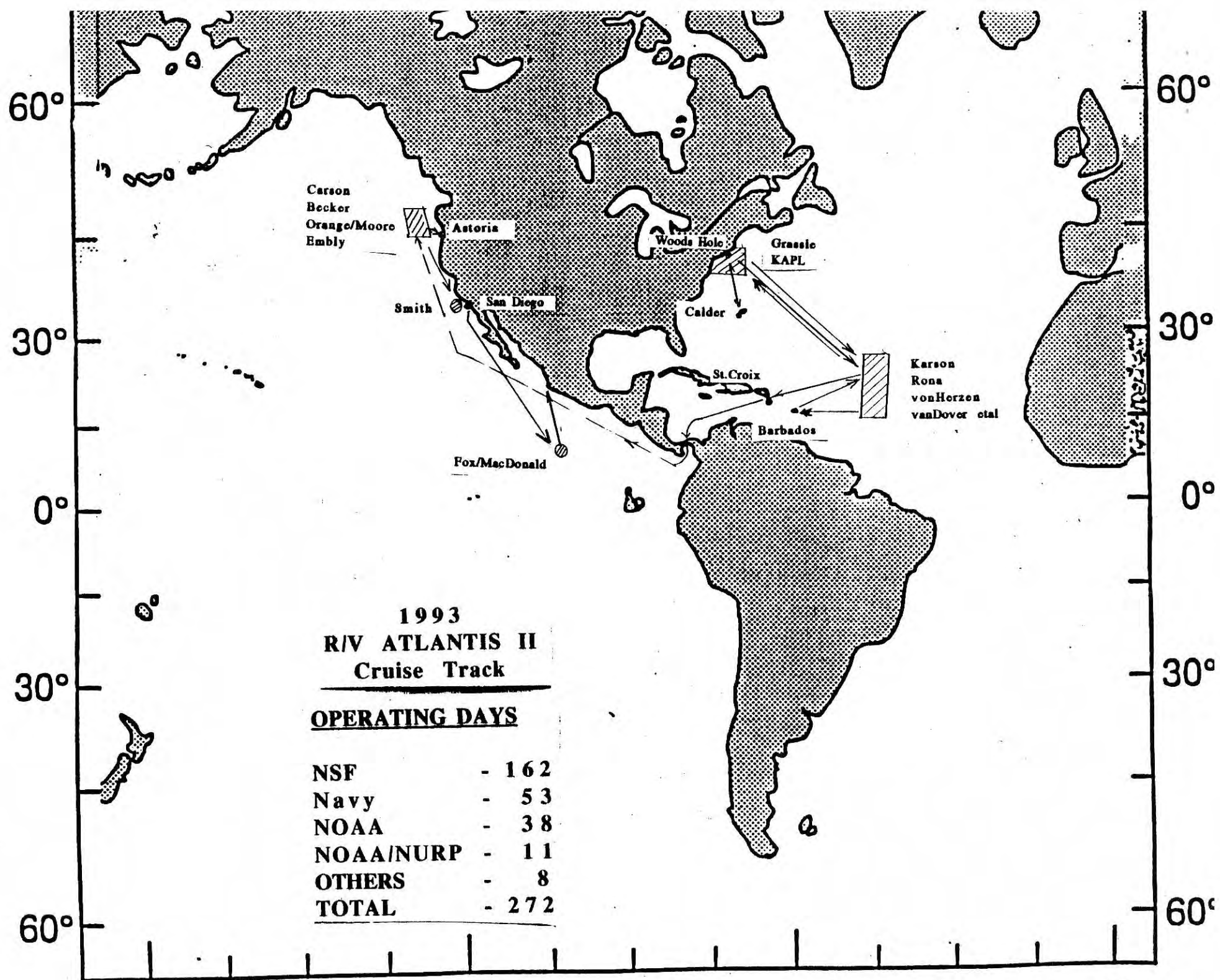
CHARTER \$ AVAILABLE

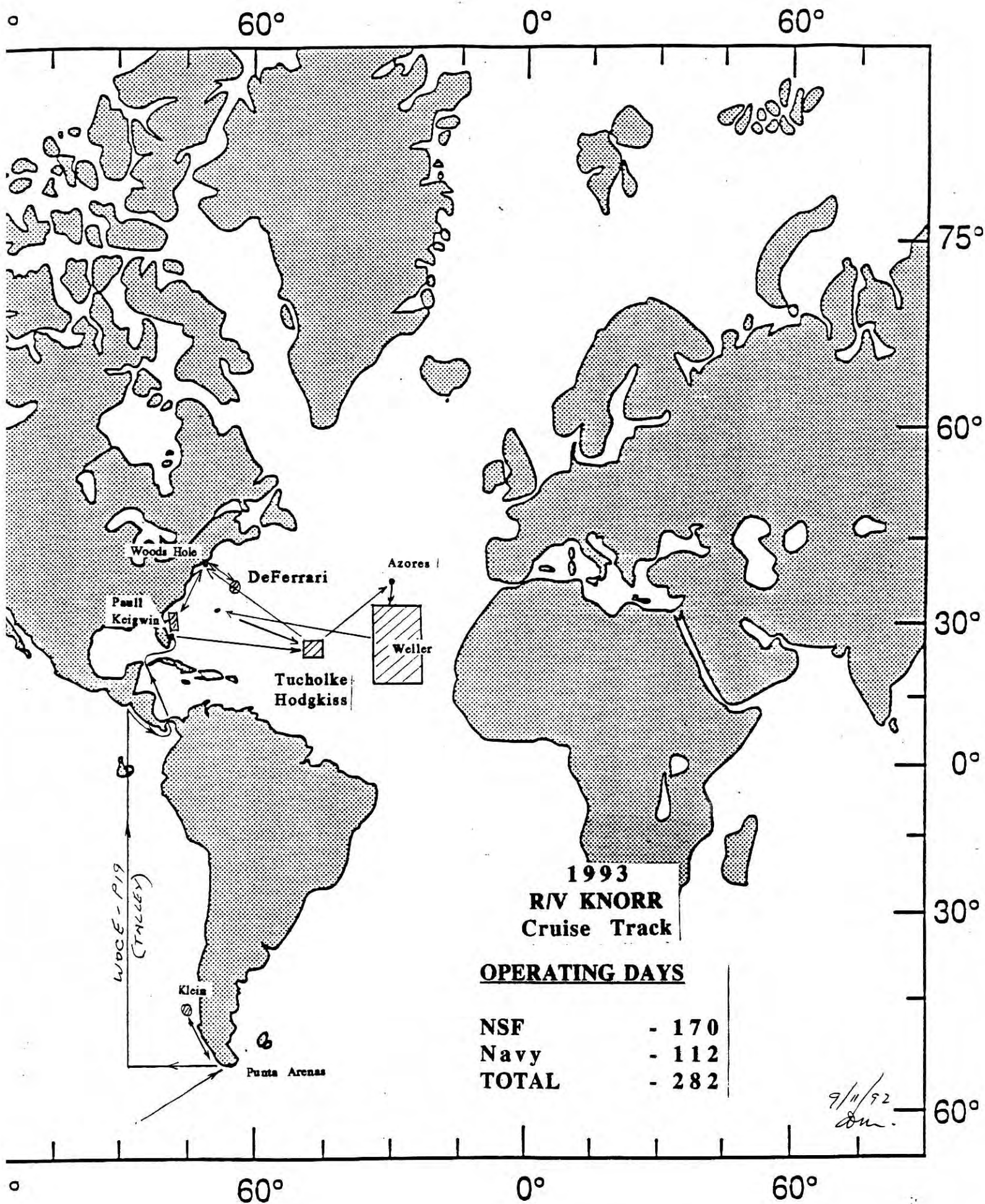
UNOLS	\$2.1M	\$2.26M	?	?
COMM. MAPPING	\$4.0M	\$.5M	?	?
COMM. FISHING	\$.6M	\$1.14M	?	?

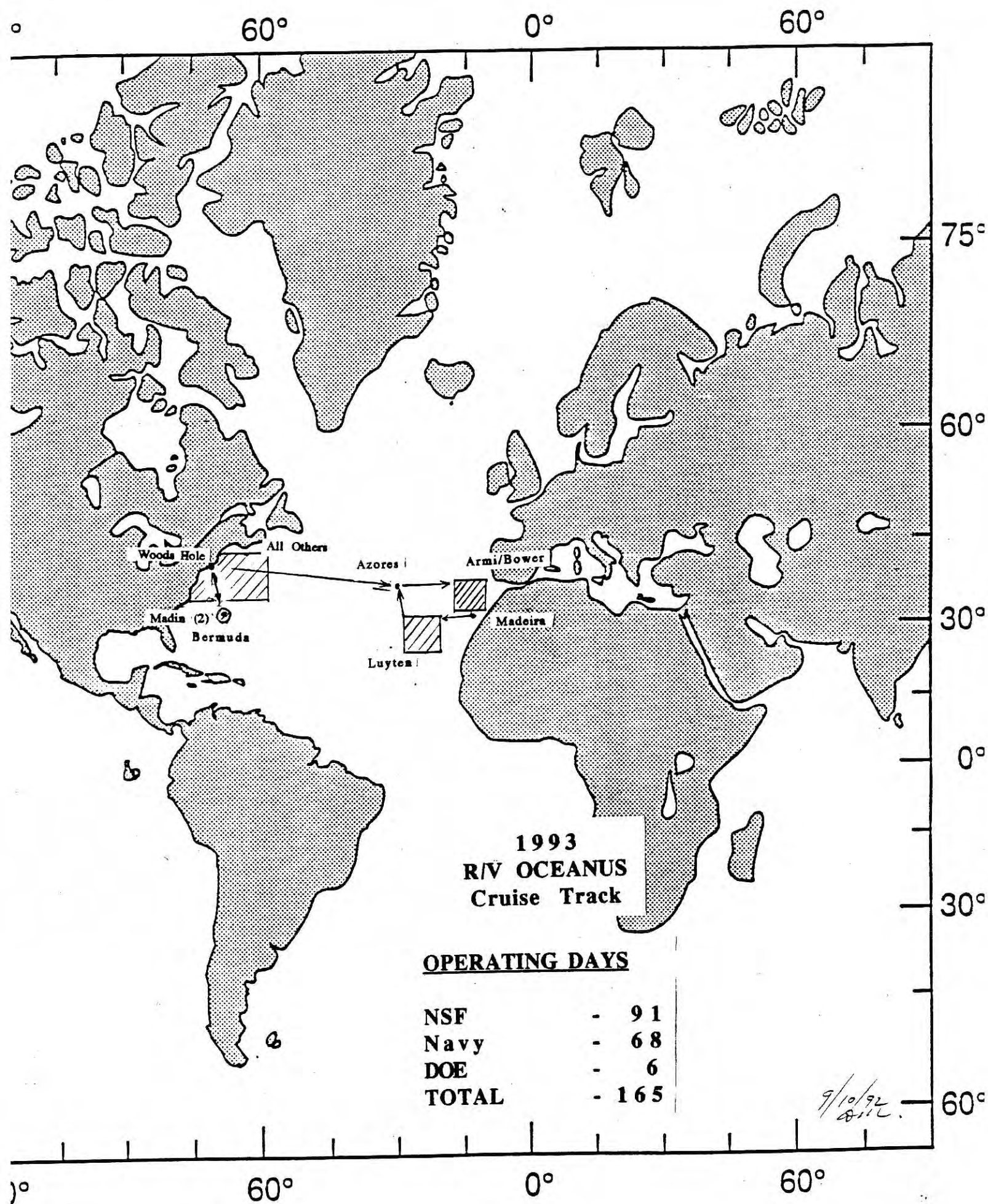
SOURCE OF FUNDS

C & GC	\$.6M	\$.5M	?	?
FLEET MOD. *	\$1.5M	\$4.0M?	\$4.0M?	\$4.0M?
CONGRESS. INTENT	\$4.0M	\$0M	\$0M	\$0M
FY 92 CARRY OVER	\$.6M	\$0M	\$0M	\$0M

* Subject to Budget & Allocation (FY 94-96)







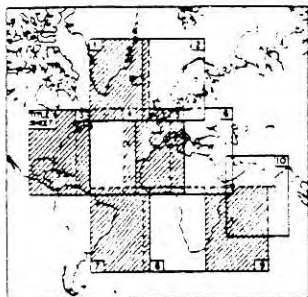
3

N. M. L.

PLOTING SHEET SERIES

MERCATOR PROJECTION

1" LONGITUDE = 0.75 INCHES - SCALE 1:5,845,000

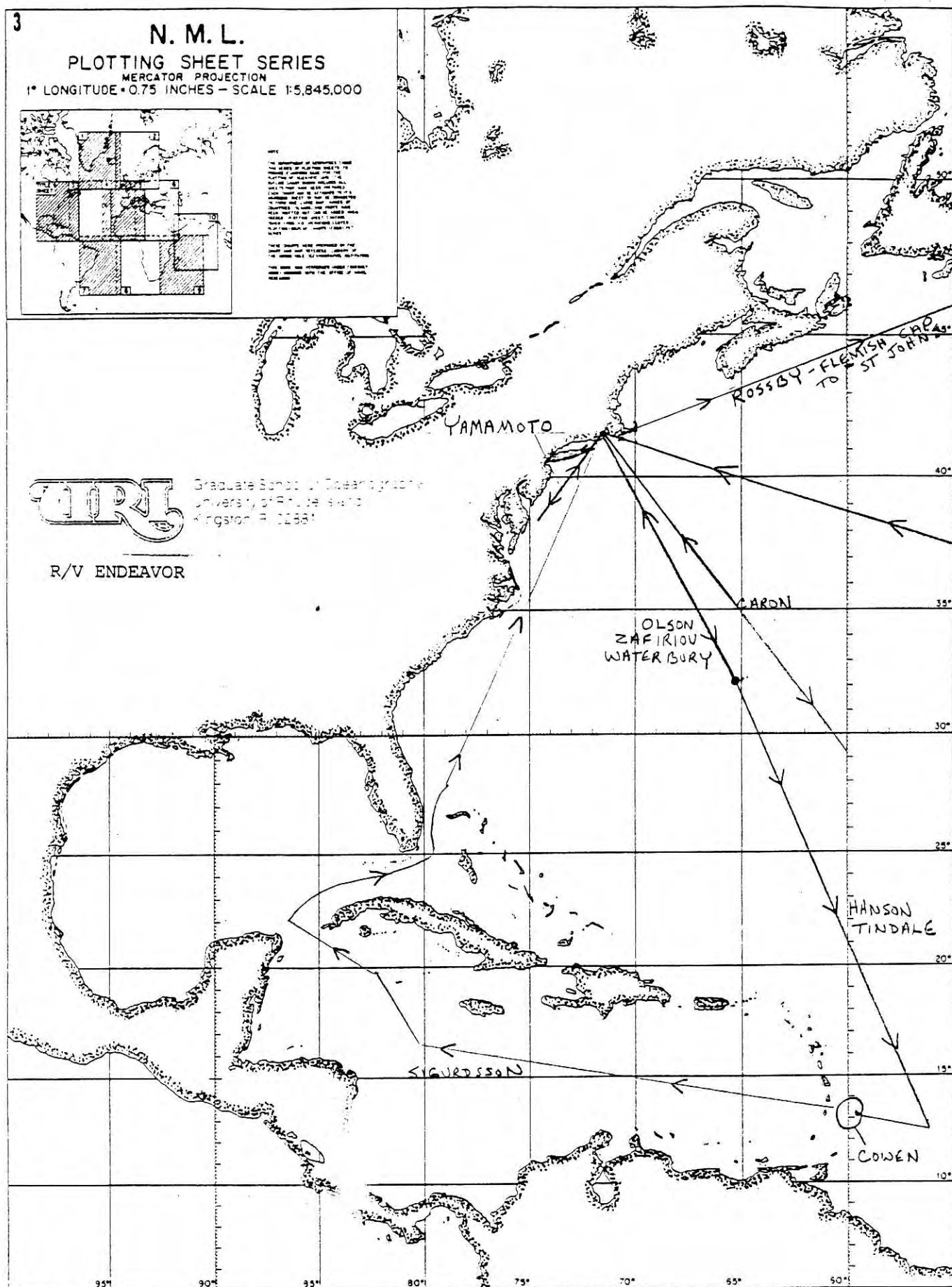


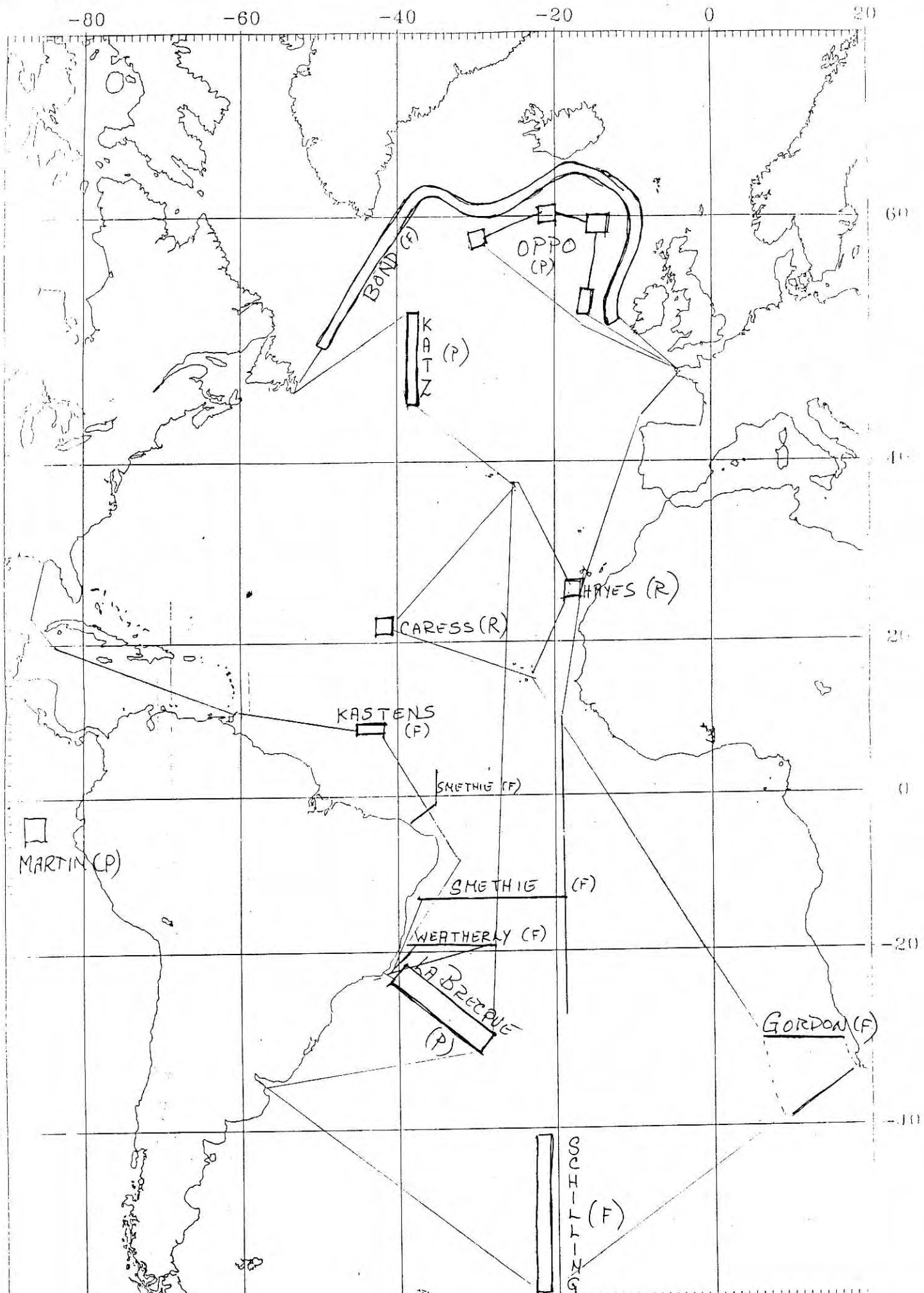
ALL DISTANCES ARE MEASURED IN THE
MIDDLE OF THE TRACKS TO THE
NEAREST 1000 YARDS. THE
DISTANCE BETWEEN THE TRACKS
IS 1000 YARDS. THE DISTANCE
BETWEEN THE TRACKS IS 1000
YARDS. THE DISTANCE BETWEEN
THE TRACKS IS 1000 YARDS.
THE DISTANCE BETWEEN THE
TRACKS IS 1000 YARDS.



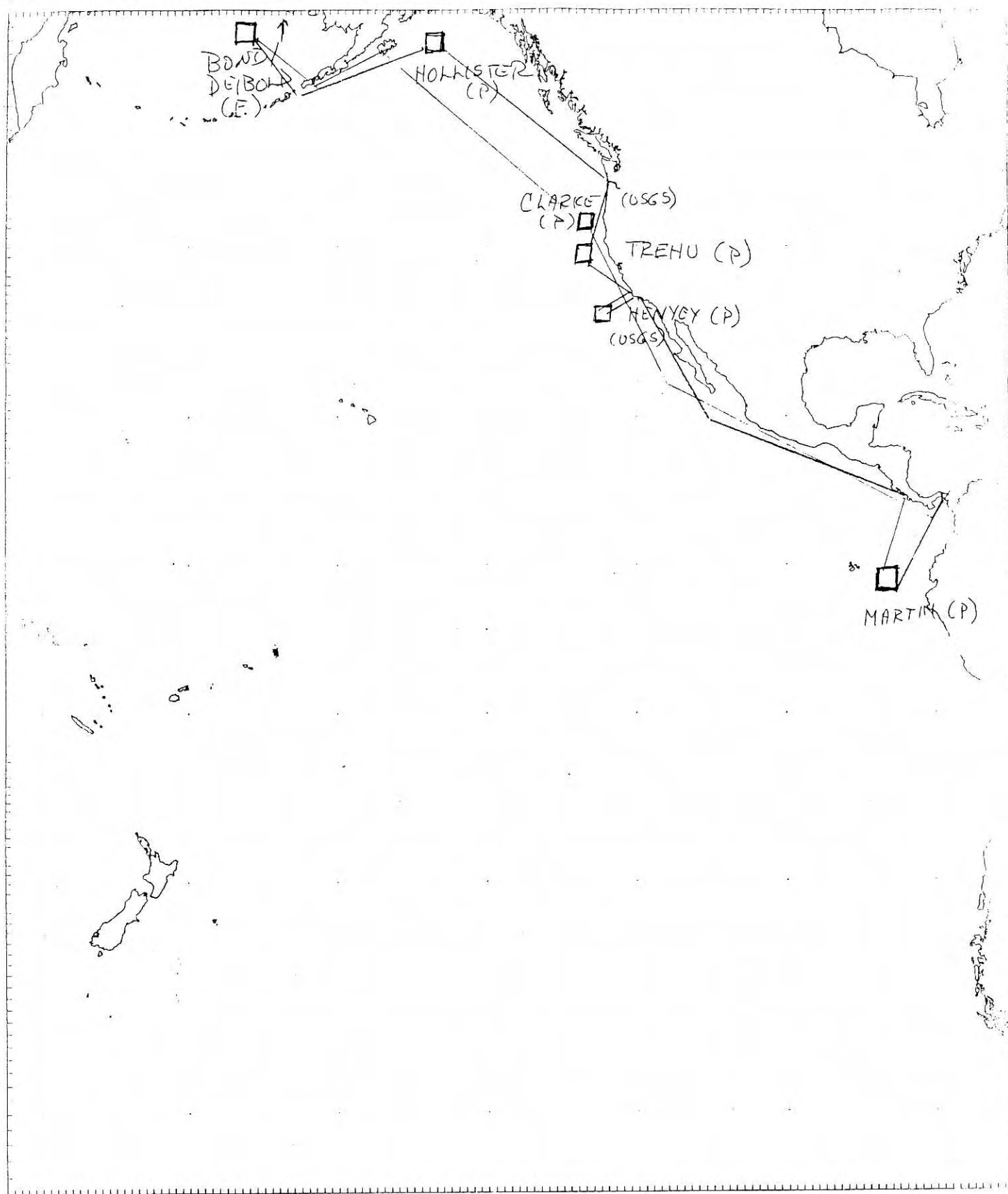
Graduate School of Oceanography
University of Rhode Island
Kingston, R.I. 02881

R/V ENDEAVOR



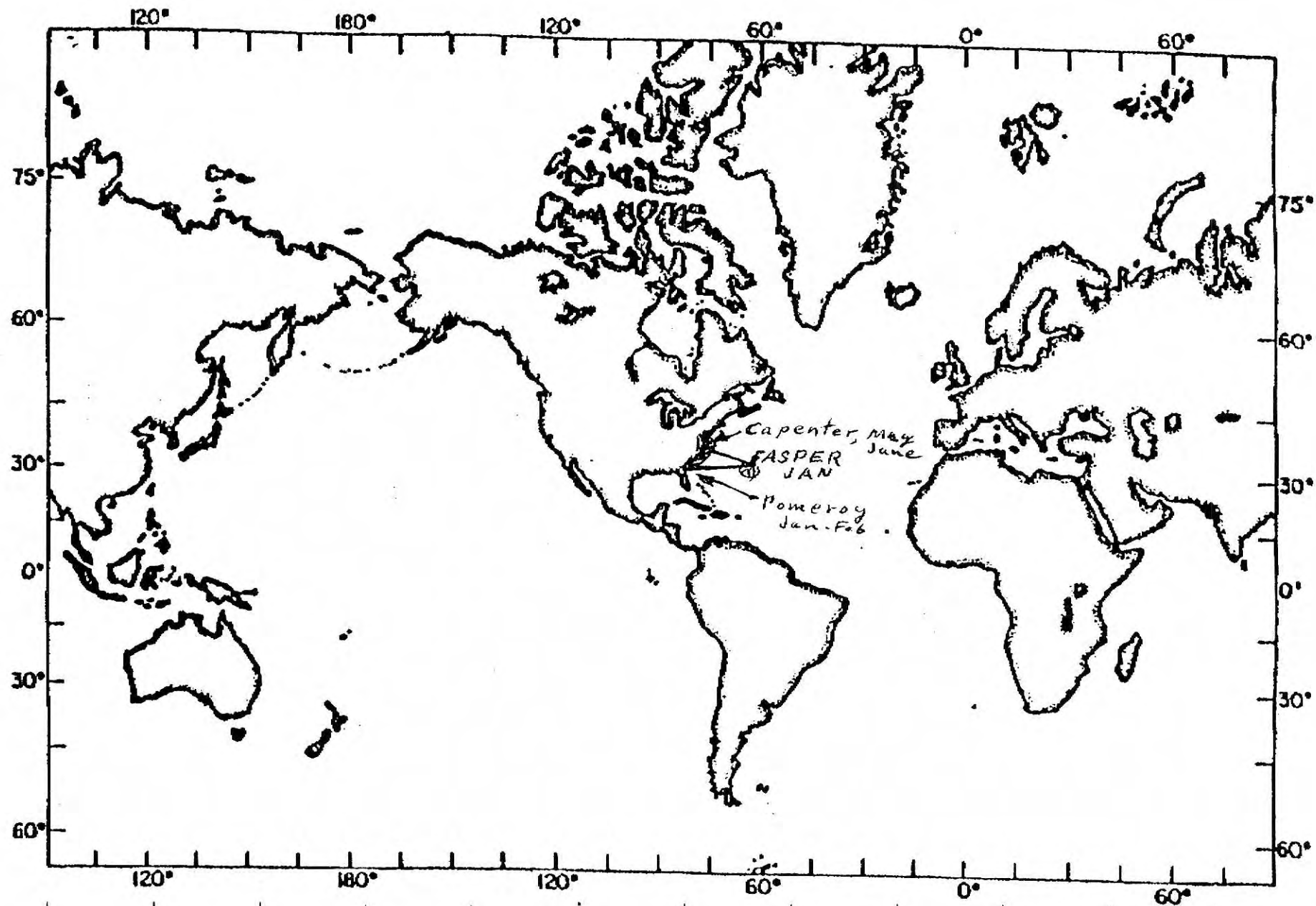


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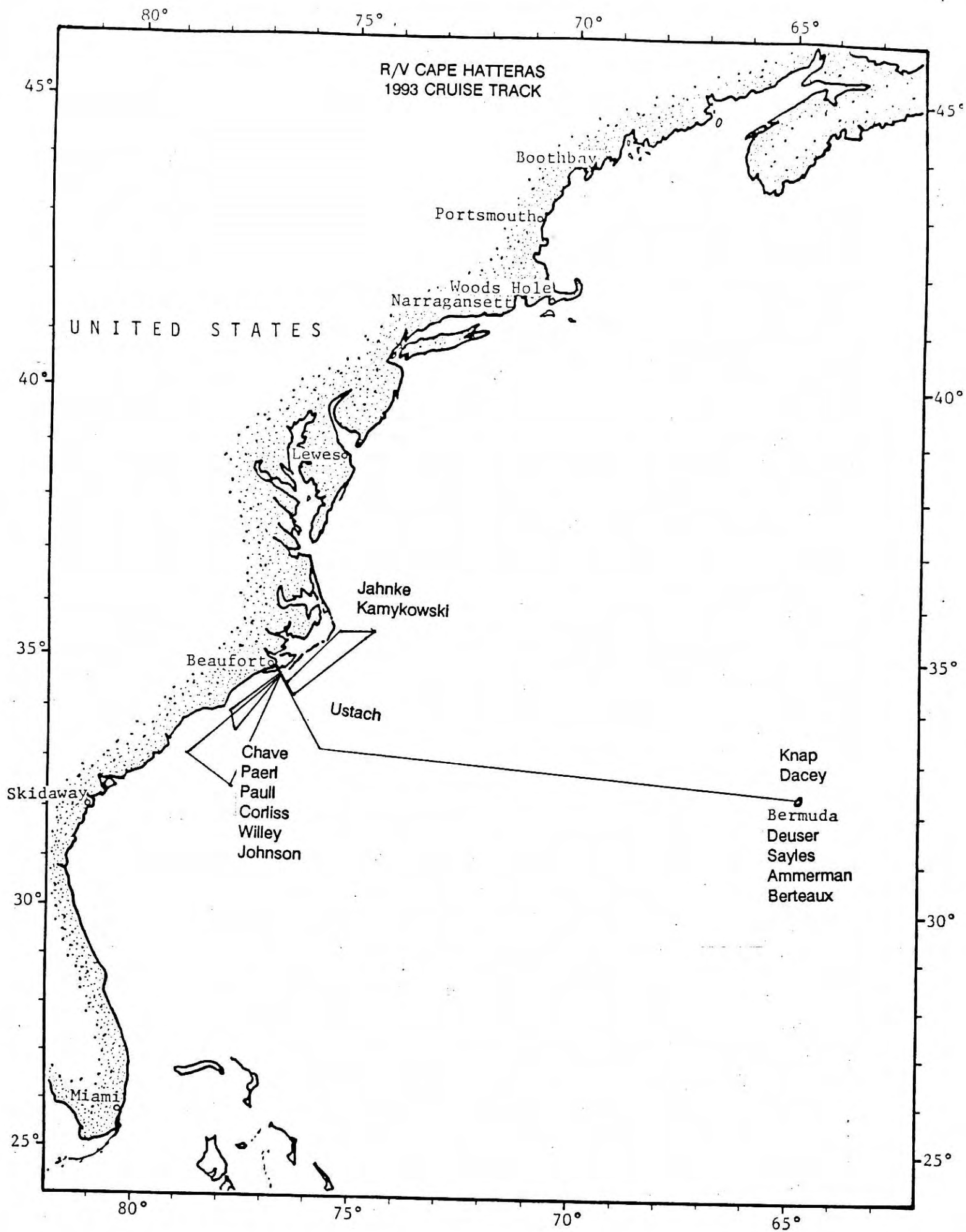
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ELWING

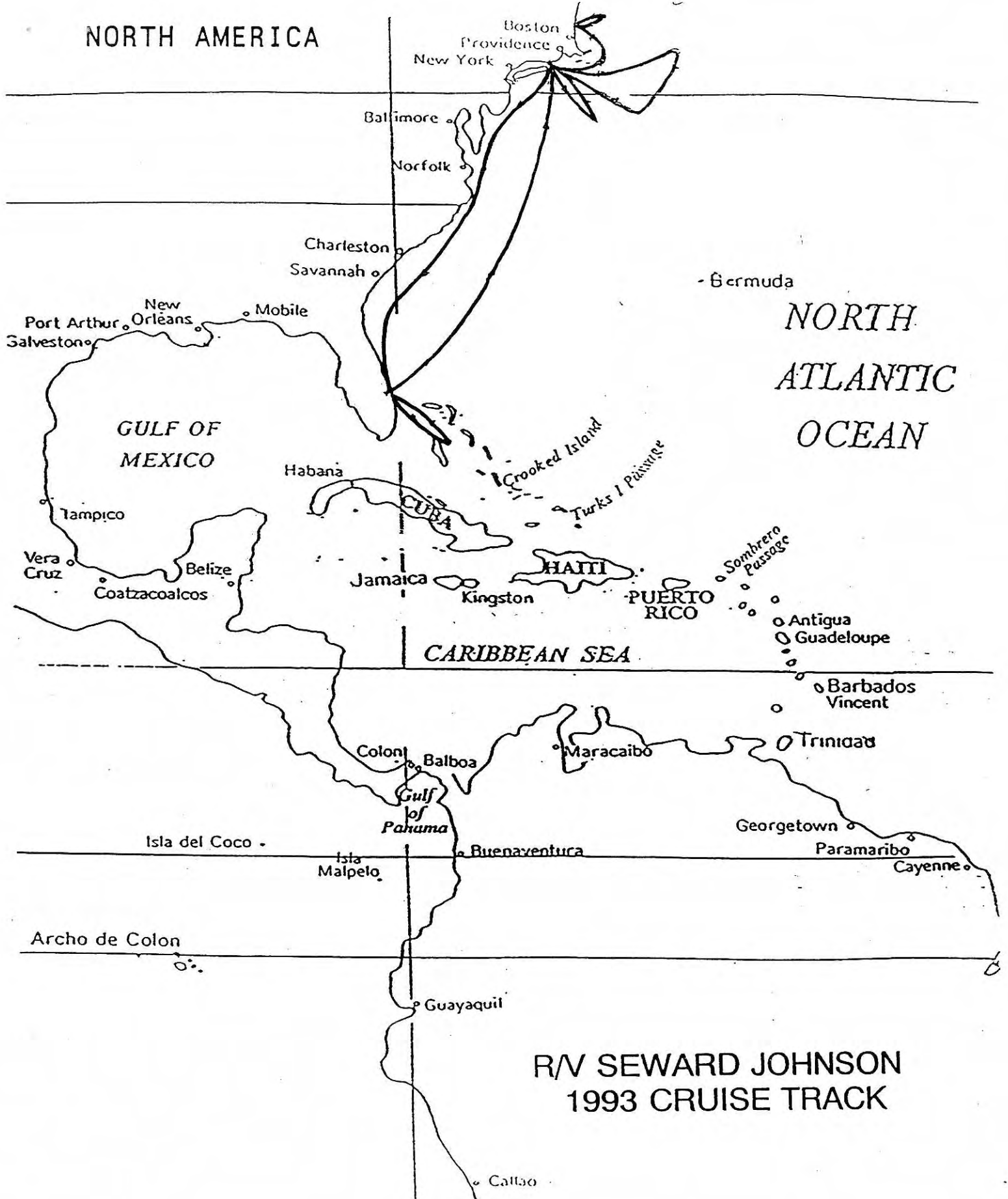


*R/V Cape Henlopen
1993*

*Bermuda - Georgia,
Long Island Sound
Chesapeake and Delaware
Bays and coastal region*

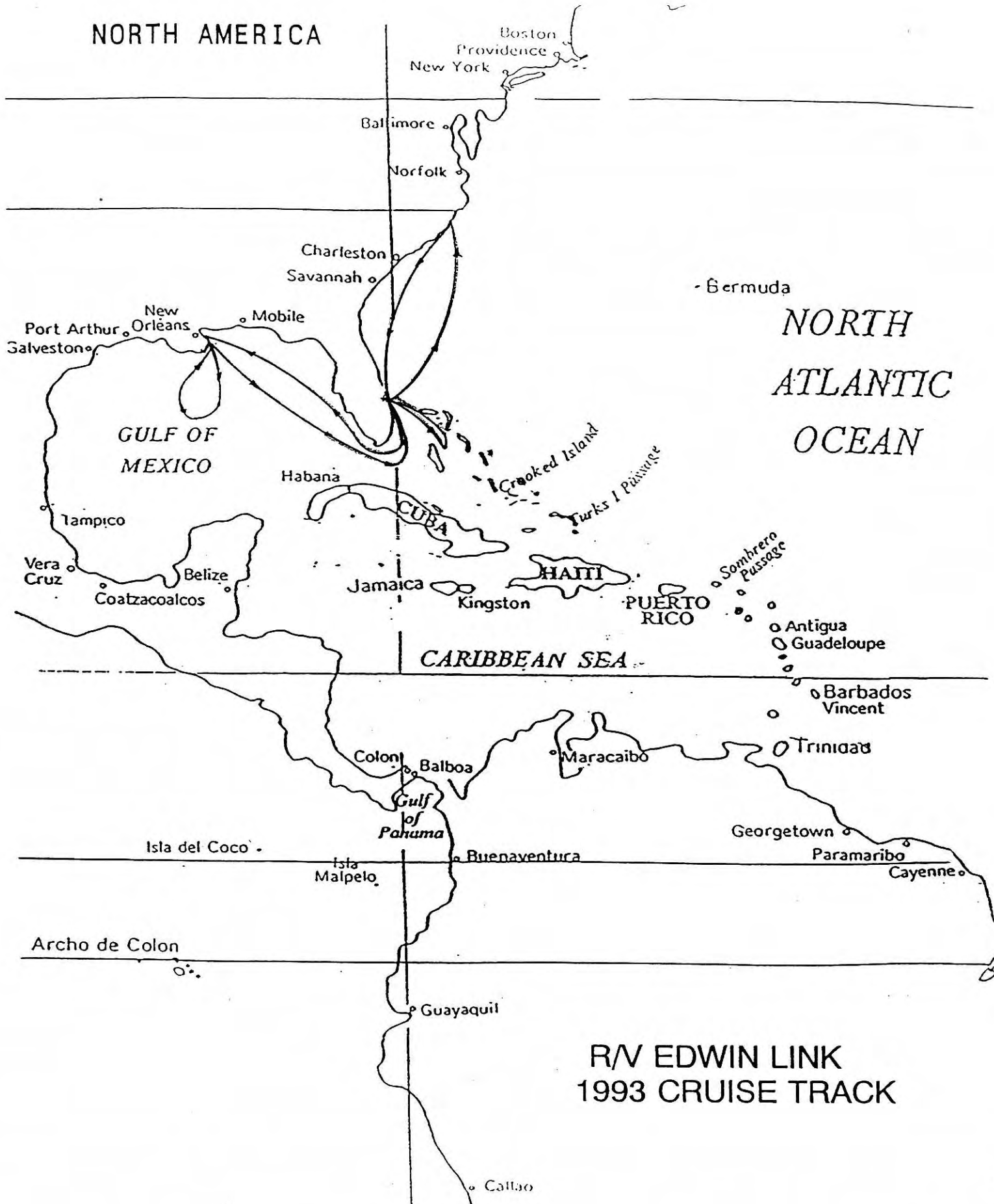


NORTH AMERICA



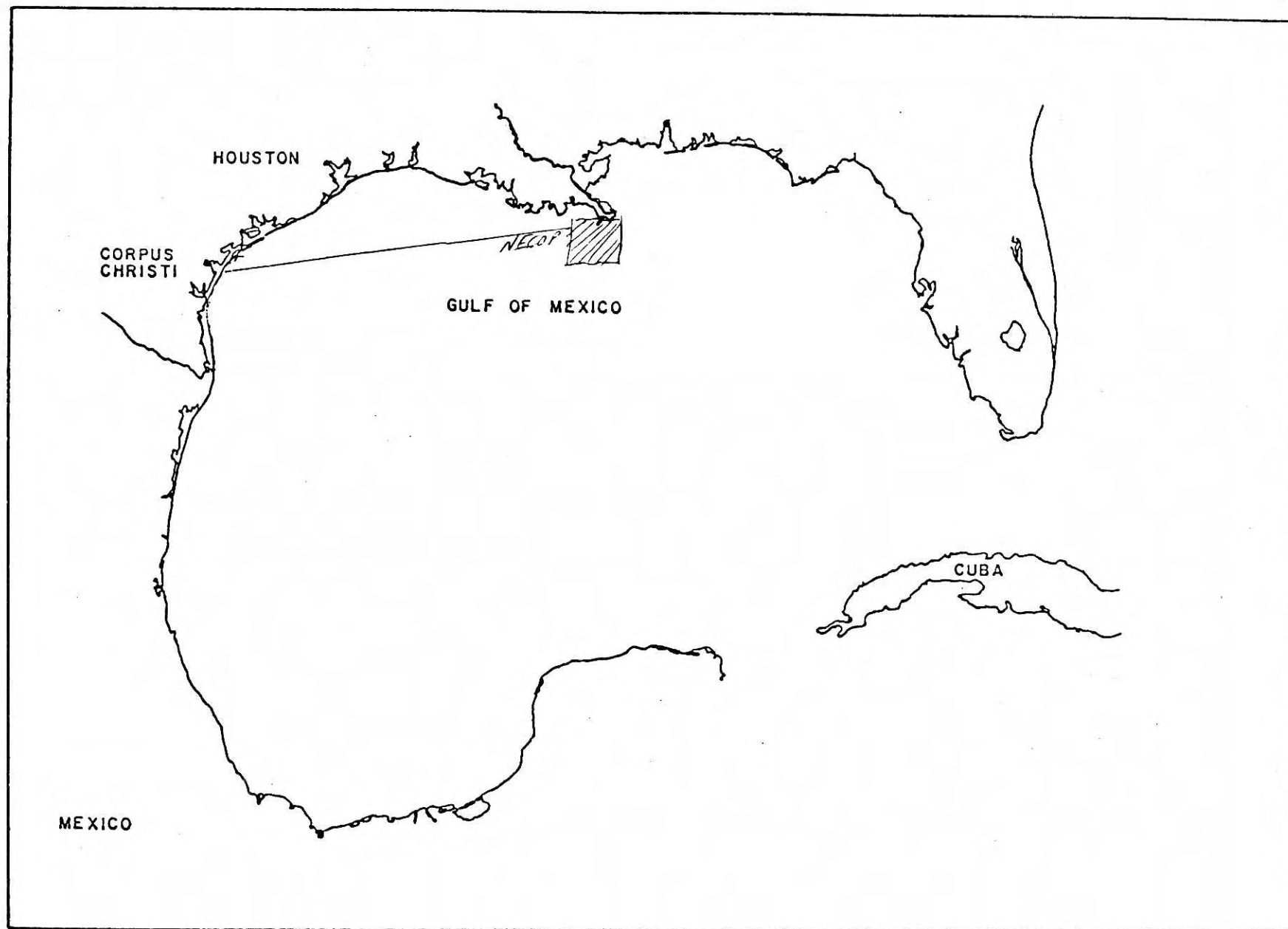
R/V SEWARD JOHNSON
1993 CRUISE TRACK

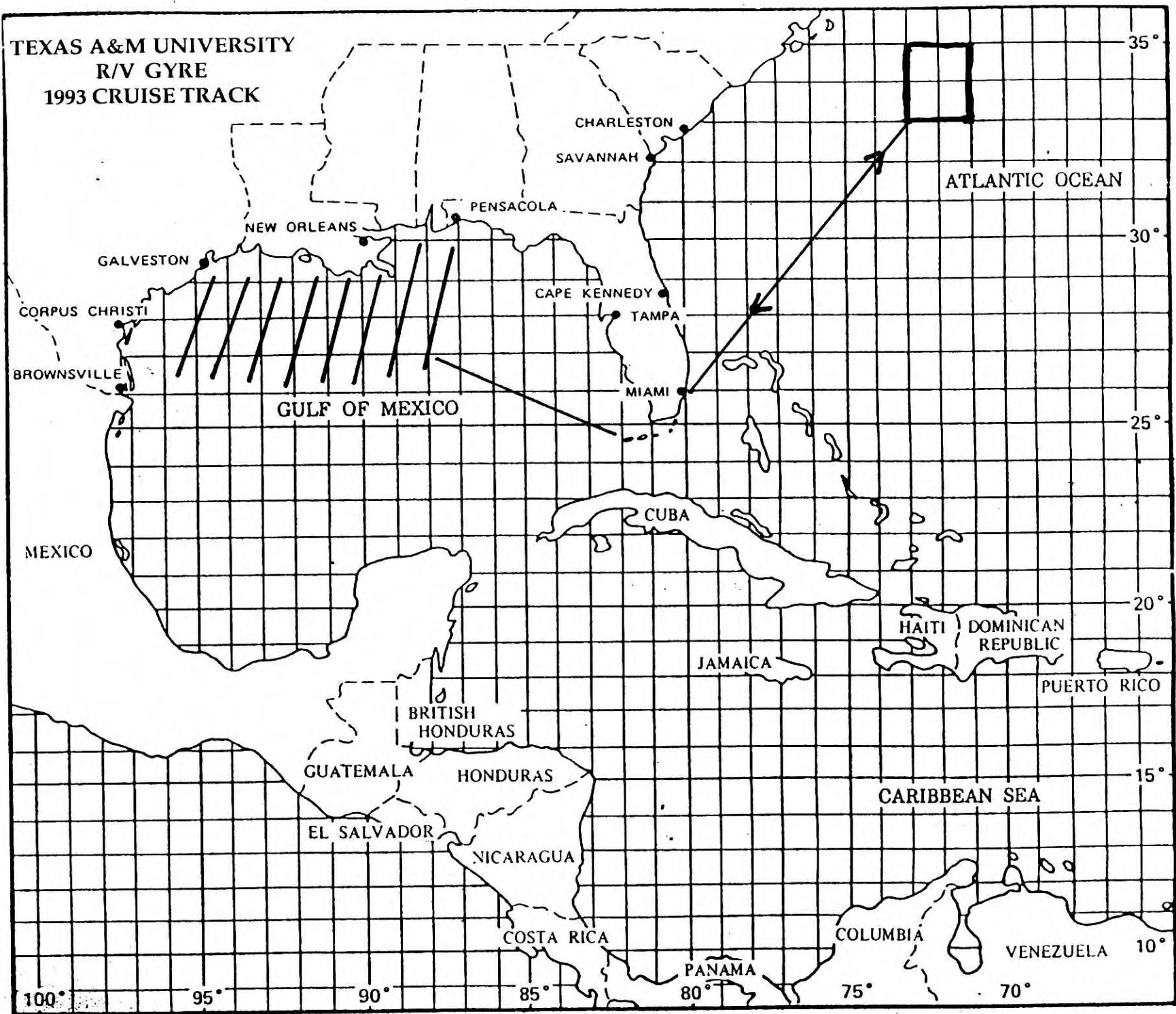
NORTH AMERICA

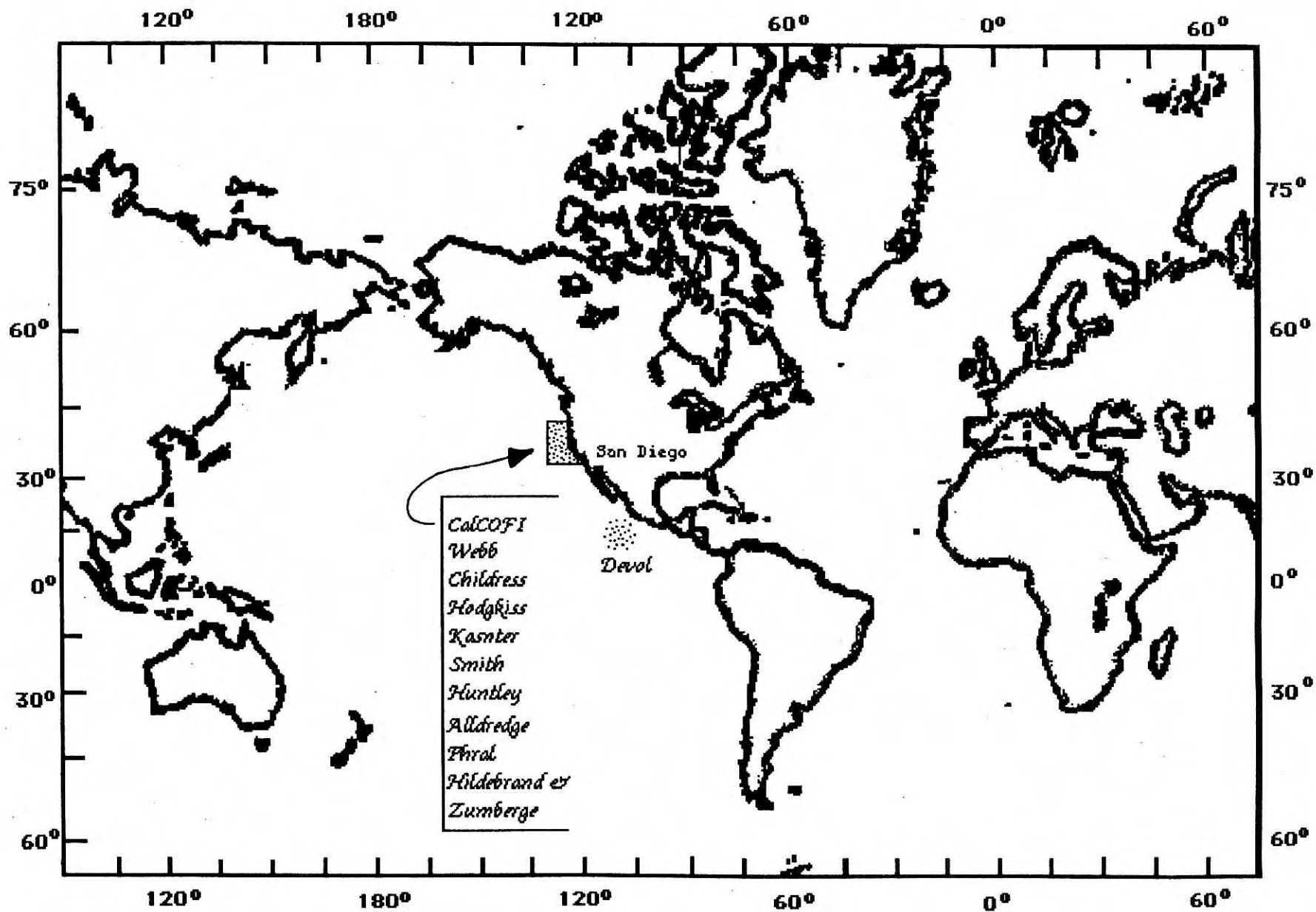


R/V EDWIN LINK
1993 CRUISE TRACK

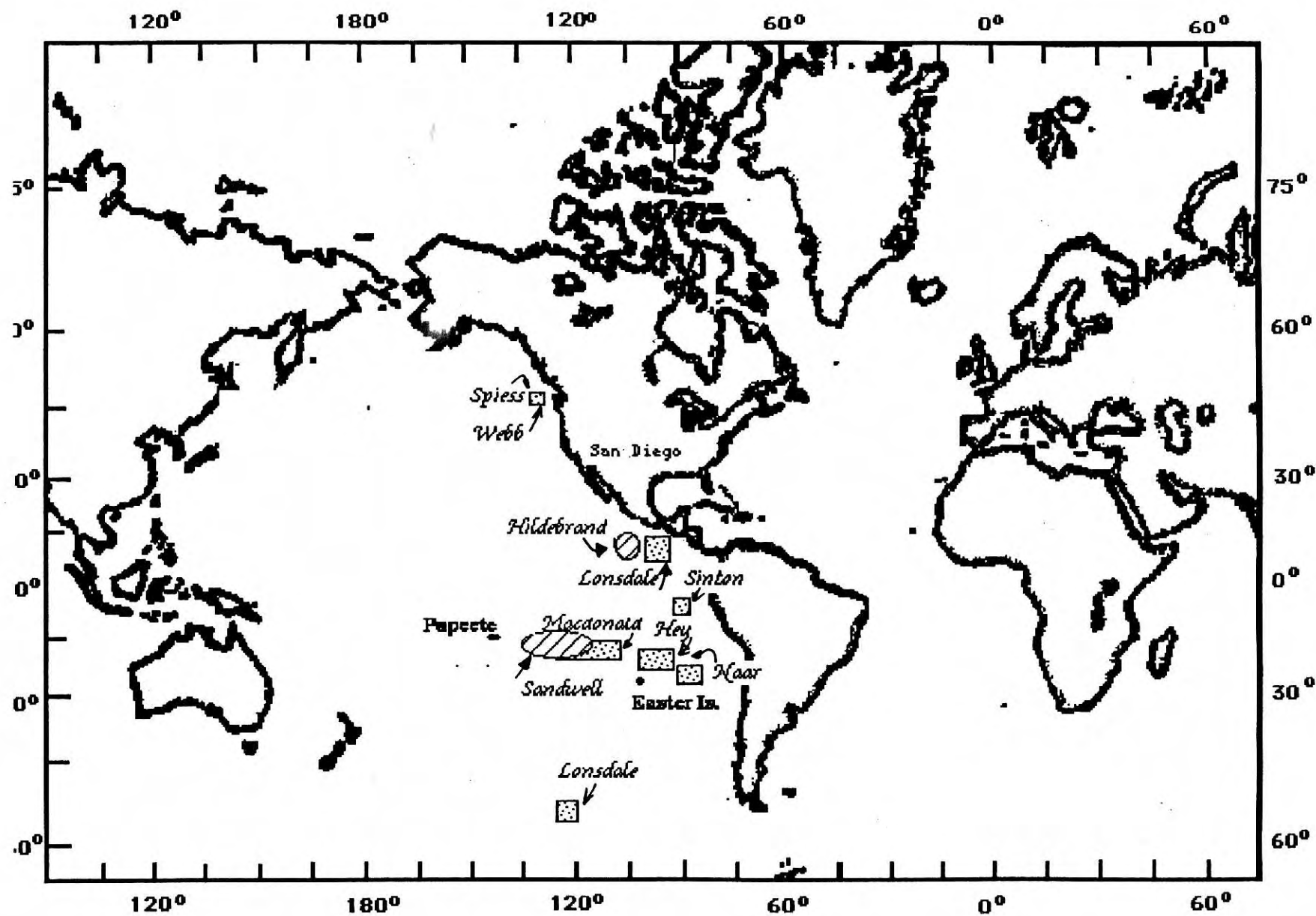
LONG-HORN







MELVILLE



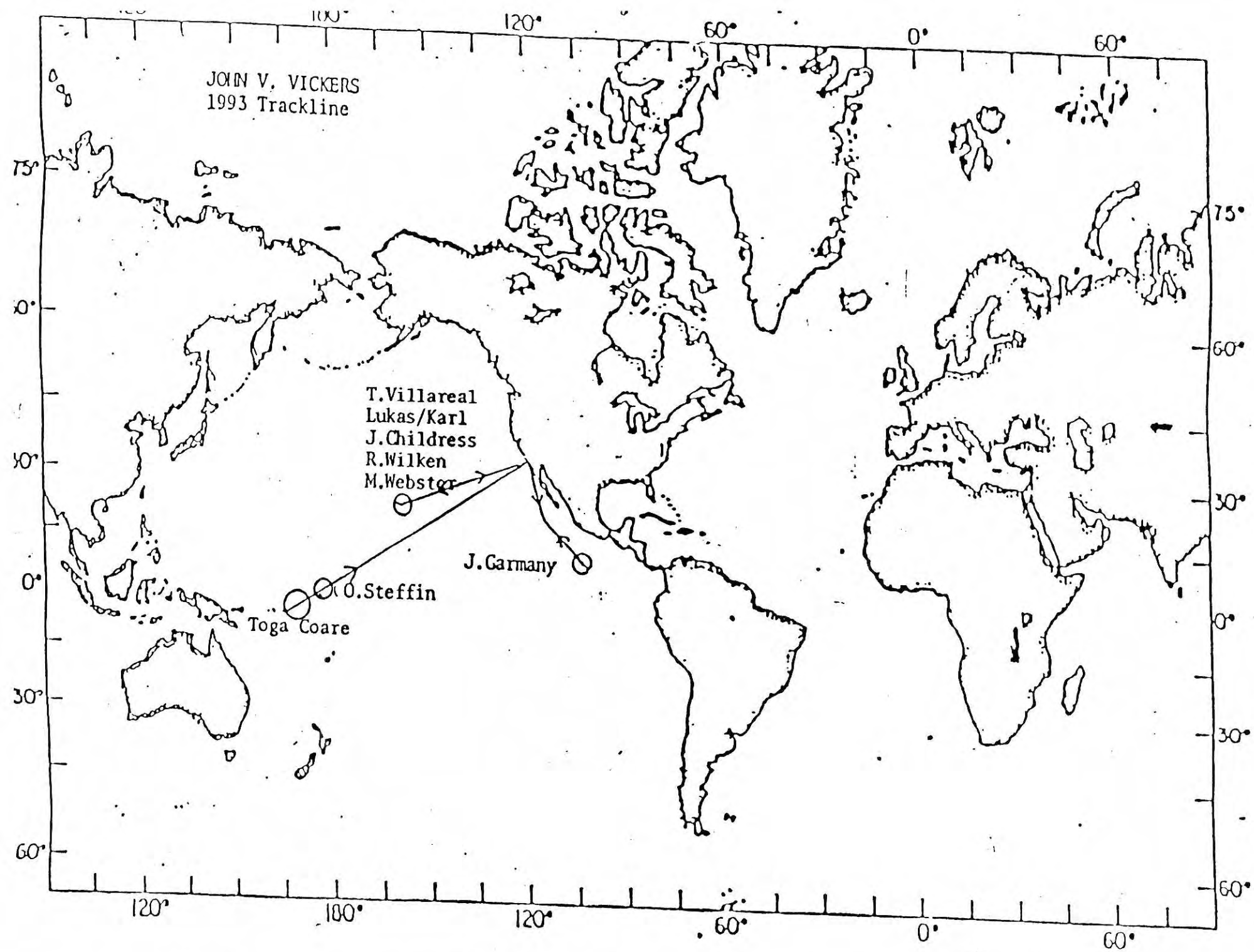
JOHN V. VICKERS
1993 Trackline

T.Villareal
Lukas/Karl
J.Childress
R.Wilken
M.Webster

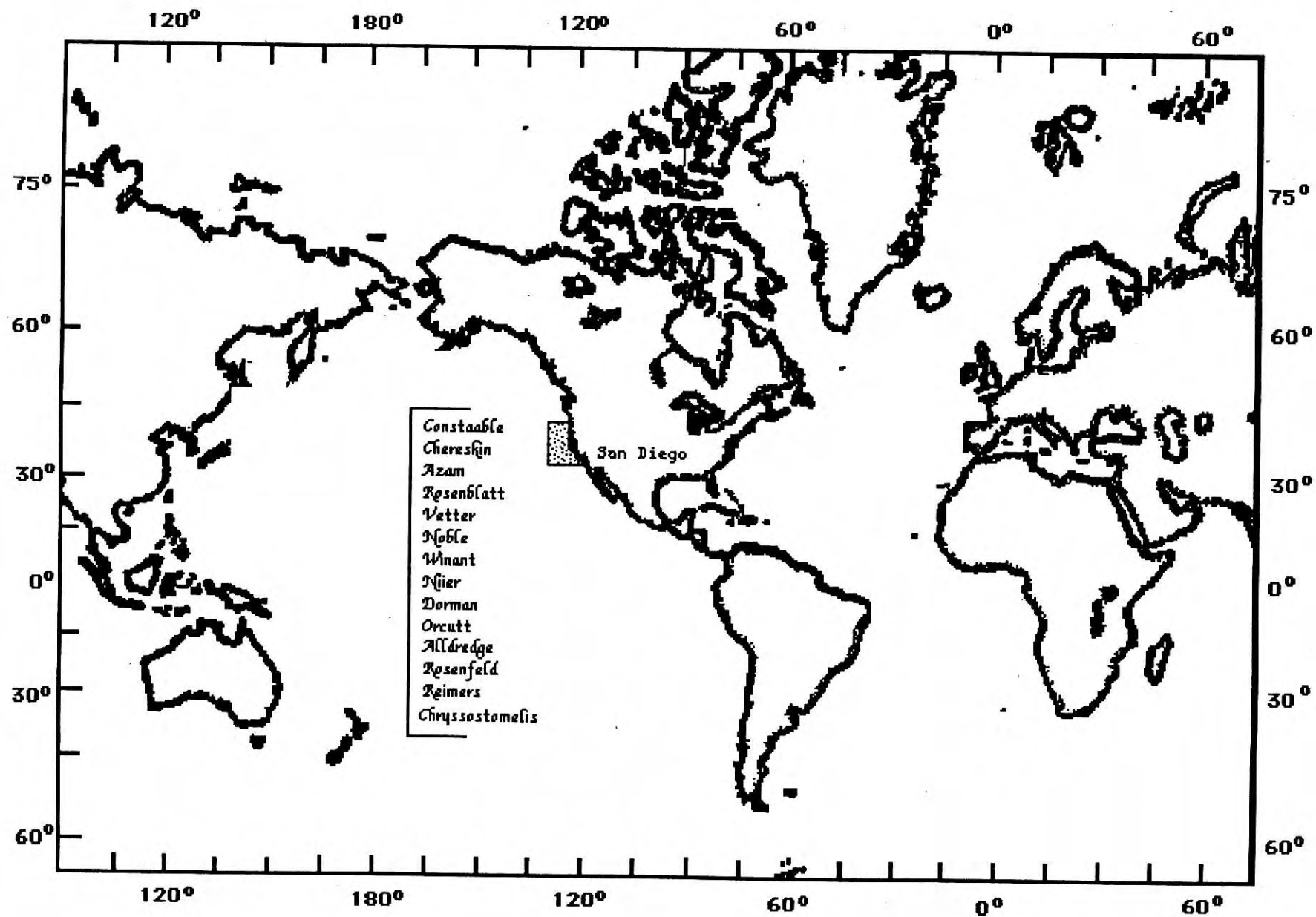
J.Garmany

O.Steffin

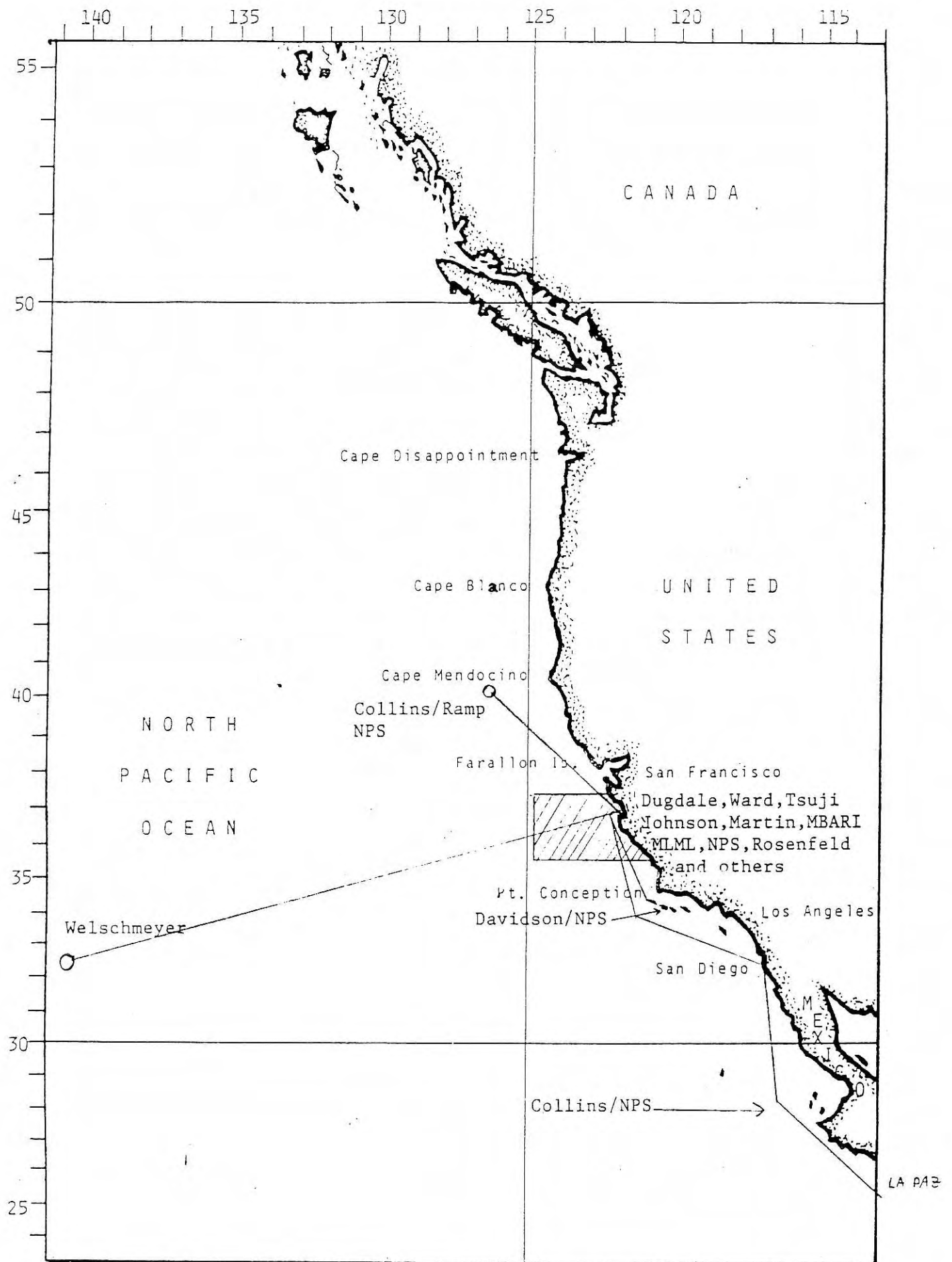
Toga Coare

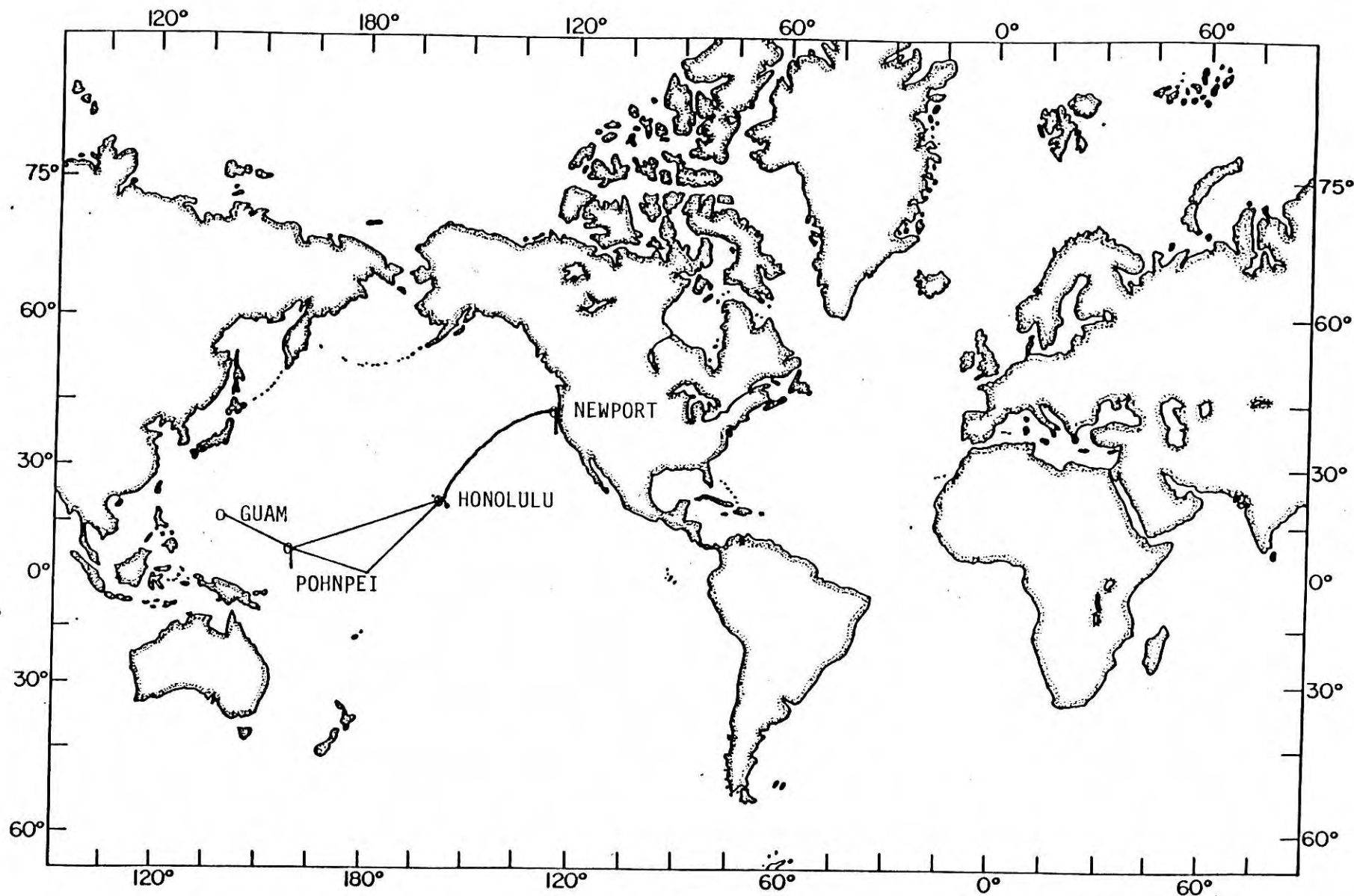


S. PAUL

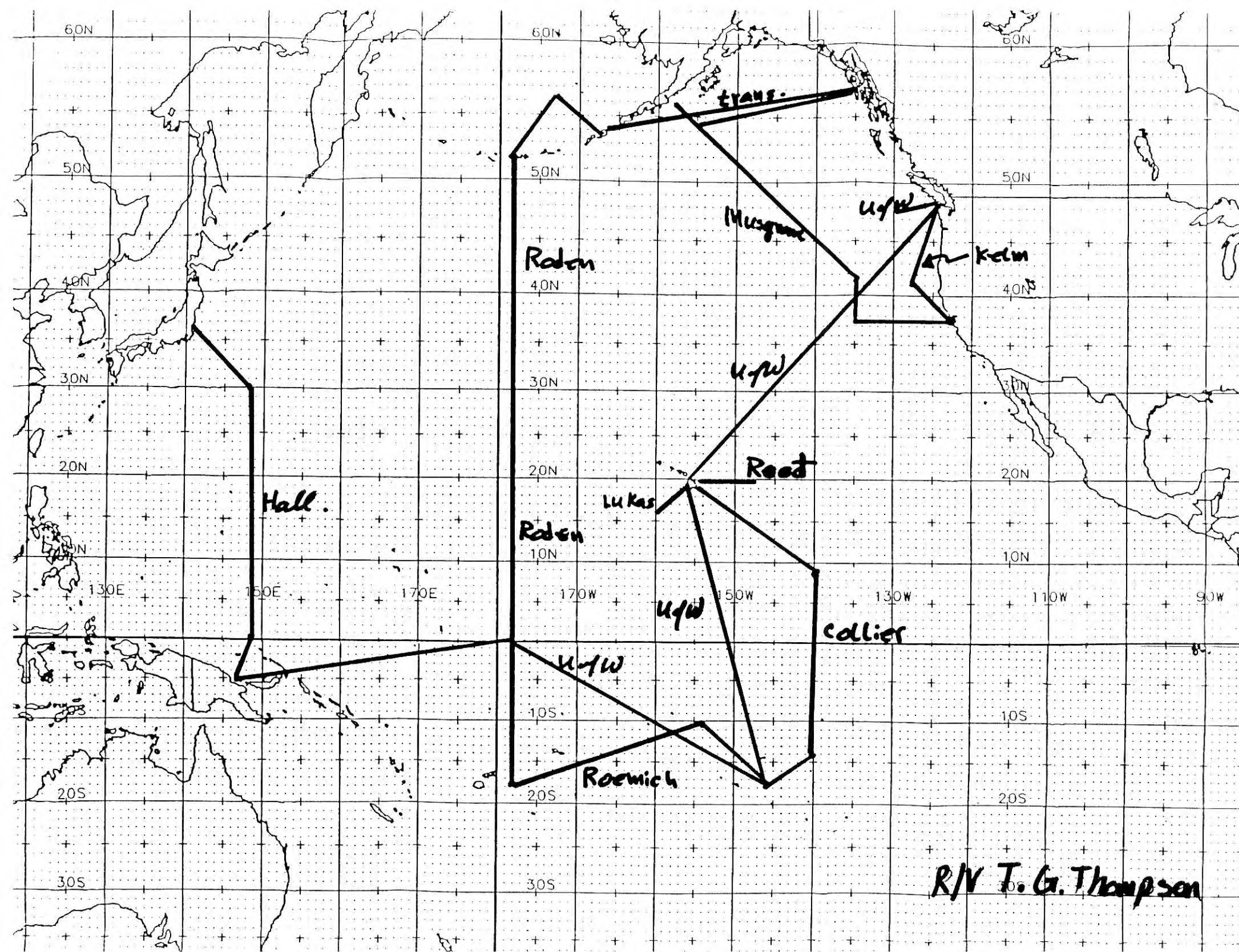


1993 R/V POINT SUR CRUISE TRACKS

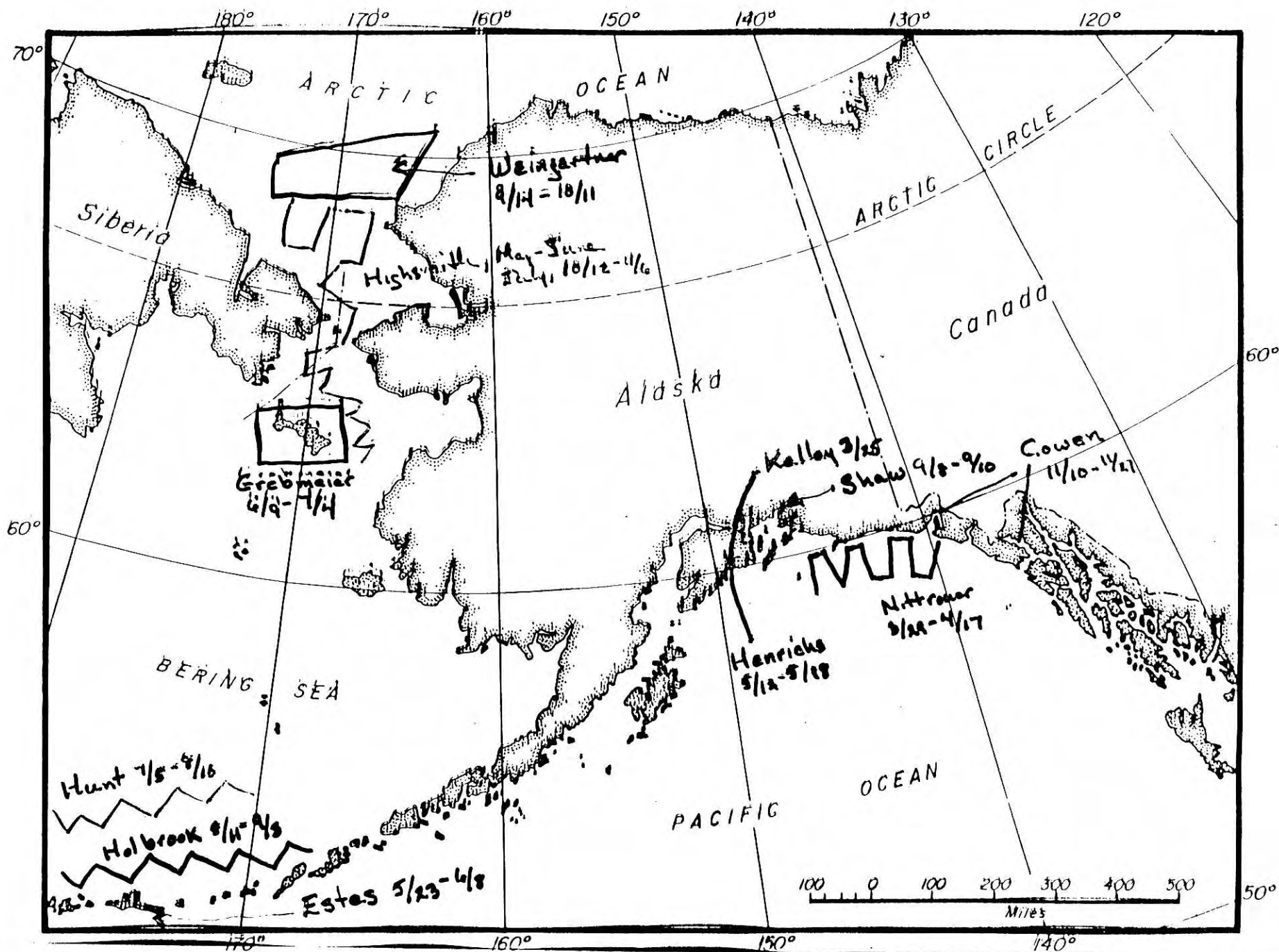


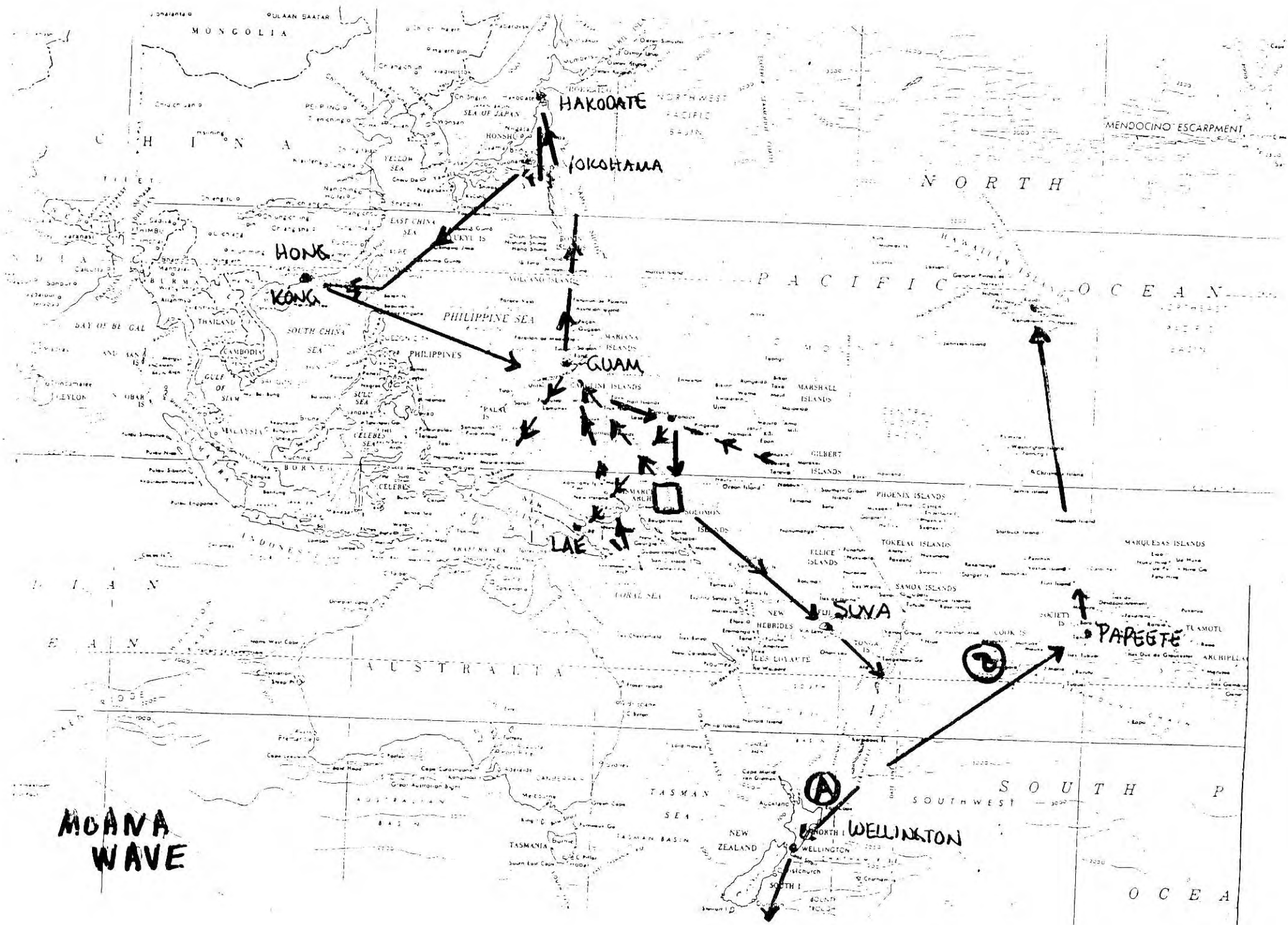


**1993
PROPOSED CRUISE TRACKS
R/V WECOMA
OREGON STATE UNIVERSITY**



ALPHA
HCLNY





HAKOATE
YOKOHAMA

HONG
KONG

GUAM

LAE

SUVA

PAPEETE

A

WELLINGTON

B

MOANA
WAVE