



## Digitizing Historic Oceanographic Expedition Content

- 80,000 photos & growing. Imagery requests outstripping staff. No infrastructure for repeat image requests, which are now mostly digital requests.
- UL targeted oceanography among other objectives. High interest materials likely to be funded by grants. Settled on historic expeditions dating back to 1907.
- Grants have now digitized over 5,000 images (35mm transparencies, prints, panoramas), page scans (ships' logs, news clippings, correspondence), encoded texts (expedition reports, SIO histories, The Oceans), audio (oral history), and video (TV interview).
- Capitalized on opportunities. Lined up additional funds. Learned about encoded text & did more encoded texts than planned. Learned about Quicktime VR & did 2 historic SIO panoramas outside grant projects.



1939

1950





1977



## UNIVERSITY OF CALIFORNIA

SCRIPPS INSTITUTION OF OCEANOGRAPHY  
LA JOLLA, CALIFORNIA

March 6, 1967

Office of the Special Assistant  
for Fisheries and Wildlife to the  
Under Secretary (M/FW)  
Department of State  
Washington, D.C. 20520

Dear Sir:

In accordance with the provisions given in Interagency Committee on Oceanography Pamphlet 25 (January 1966), I am enclosing information about Scripps Institution of Oceanography's NOVA Expedition, a two-ship operation in the Southwest Pacific on R/V ARGO and R/V HORIZON. The information listed below is outlined as per Appendix B of the above pamphlet.

A. 1. Name of ships, affiliation

R/V HORIZON: Scripps Institution of Oceanography  
R/V ARGO: U.S. Public Vessel - on loan to Scripps  
by U.S. Navy

2. Itinerary: See enclosed expedition plan.

3. Purpose: See enclosed expedition plan.

4. Port calls for personnel changes and supplies.

5. No special facilities needed.

6. Ships' agents: See attached agent list.

7.

	<u>HORIZON</u>	<u>ARGO</u>
Name of Master:	Capt. N. Ferris	Capt. A. Phinney
No. in crew:	19	33
No. in scientific party:	17	24







Select a title below:

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[Show document description](#)

# Expedition Report : encoded text

Exact Phrase Search (not Keyword)  Search  Expand Search [\[more info\]](#)

**DOWNWIND Expedition,  
1957-1958: Preliminary  
Report...**

PREFACE  
I. FOREWORD  
+ II INTRODUCTION  
+ III NARRATIVE  
IV TOOLS AND PROCEDURES  
+ V. PRELIMINARY REPORTS  
VI PERSONNEL  
FOOTNOTES

← → DOWNWIND Expedition, 1957-1958: Preliminary Report...

**University of California  
Scripps Institution of Oceanography**

**Preliminary Report on Expedition  
DOWNWIND**

**IGY Cruise to the Southeast Pacific**

By  
THE MEMBERS OF THE EXPEDITION  
Edited by  
R. L. FISHER  
IGY General Report Series  
Number 2  
June 26, 1958

← →

# The Oceans: encoded text



## The Oceans, Their Physics, Chemistry, and General Biology

by **H.U. Sverdrup, Martin W. Johnson and Richard H. Fleming**

### Contents

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- [Physical Properties of Sea Water](#)
- [General Distribution of Temperature, Salinity, and Density](#)
- [Theory of Distribution of Variables in the Sea](#)
- [Chemistry of Sea Water](#)
- [Organisms and the Composition of Sea Water](#)
- [The Sea as a Biological Environment](#)
- [Populations of the Sea](#)

Search this Book:

Go




## SIO in 1916: Quicktime VR





# Captioned oral history with slide show

48mb, 1 hour 13 minute QuickTime movie - *older computers may have difficulty playing.*  
Requires current version of QuickTime [[click to download](#)]




University of California, San Diego Libraries

**ROGER REVELLE INTERVIEW**

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**Interview History**  
Sarah Sharp of the Regional Oral History Office (ROHO), The Bancroft Library, University of California, Berkeley interviewed Roger Revelle in 1984 and 1985. The interviews represented in this excerpt were recorded in La Jolla on 13 and 14 August 1985. The transcript of the interviews was edited both by the interviewer and the interviewee, who was allowed to make corrections and additions. For this reason, the transcript is not a literal transcription of the audiorecording.

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**Interview with Roger Revelle (1909-1991)**  
Recorded August 13 and 14, 1985  
Interview conducted by Sarah Sharp  
Transcription by Regional Oral History Office at UC Berkeley  
Images selected by Deborah Day, SID Archives  
Presentation & Captioning by Shared History

**IMAGE INFO**  
on | off

**CLOSED CAPTIONS**  
on | off

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Chapters ([click here](#))

**Tip** Click right-pointing triangle to play. For best results, wait for several megabytes to download before playing.

**Tip** Click down-pointing triangle and select "Save as QuickTime Movie..." to save to your hard drive (available after movie download is complete).



## Building an infrastructure via grants

- Set scanning & image standards. Scan several sizes & resolutions. No image editing; images are digital surrogates. All images on internal UCSD Libraries server. No public access to TIFs.
- CONTENTdm for UCSD Libraries public image server. Select one med res image for public display, suitable for PowerPoint, a common user request. Surrogate records link to non-CONTENTdm items, e.g. panoramas.
- Access database for selection, tracking, metadata creation. 56 metadata fields with mandatory fields specified incl. Dublin Core. 18 fields display to public.
- Metadata designed for needs of 2 grants: general public interest in ocean; geospatial correlation with SIO datasets.
- Metadata designed for SIO Archives' **ongoing** digital library needs, based on experience, collection, and user needs.

# CEO presents an expedition view

## Expeditions

### Scripps Institution of Oceanography

- 1939 Gulf of California Expedition
- 1940 Gulf of California Expedition
- 1950 MidPac Expedition
- 1952 Capricorn Expedition
- 1952 Shellback Expedition
- 1953 Transpac Expedition
- 1955 NORPAC Cruise
- 1957-1958 Downwind Expedition
- 1959-1961 Naga Expedition
- 1959 Vermillion Sea Expedition
- 1962 Lusiad Expedition
- 1967 Nova Expedition

## EXPEDITIONS

Scripps Institution of Oceanography built a fleet of ships, and after World War II its scientists sailed the oceans of the world to study the seas, marine life and the geology of the sea floor. See what they did, where they went, what they saw, what they found, and what they published.



### Scripps Institution of Oceanography



**1939  
Gulf of California Expedition**  
First hydrographic survey of the Gulf of California.



**1940  
Gulf of California Expedition**  
This expedition followed up on the findings of the 1939 Expedition.



**1950  
MidPac Expedition**  
Discovered the Mid-Pacific Mountain Range on the bottom of the Pacific.



**1952  
Capricorn Expedition**  
Used scuba divers to explore the Pacific seafloor and studied the 35,400 foot deep Tonga Trench.



**R/V  
Horizon**  
by H. W.  
Menard

# Framework of expedition content

**CALIFORNIA**  
Explores the Ocean

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## Expeditions



**Scripps Institution of Oceanography**

- 1907 Alexander Agassiz Expedition
- 1939 Gulf of California Expedition
- 1940 Gulf of California Expedition
- 1950 MidPac Expedition
- 1952 Capricorn Expedition
- 1952 Shellback Expedition
- 1953 Transpac Expedition
- 1955 NORPAC Cruise

## SCRIPPS INSTITUTION OF OCEANOGRAPHY

### U.S. Navy Electronics Laboratory

### MidPac Expedition, 1950



#### MidPac Expedition, 1950 - Home

This joint Scripps Institution of Oceanography-U.S. Navy expedition discovered the Mid-Pacific Mountain Range on the bottom of the Pacific Ocean and confirmed Darwin's theory about the origin of atolls. Expedition scientists on the research ship HORIZON and the navy ship PCE(R) 857 were surprised to find that the seafloor was young, deep and rocky, not flat, old and filled with sediments. Measurements of continental heat flow from the ocean raised questions about the history of the Pacific Ocean basin that were later answered by Plate Tectonics theory.

- Report
- Letters, Clippings, Ships' Logs
- Published Research
- Photos & Other Media
- MidPac Home



# Expedition content

**CALIFORNIA**  
Explores the Ocean

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## Photographs & Other Media

### San Diego Historical Society

- Oral Histories
- Photographs

### Scripps Institution of Oceanography

- Expedition Photographs
- Letters, Clippings, Ships' Logs
- Oral Histories

### Image Use & Copyright

- San Diego Historical Society
- SIO Archives

## SEARCH RESULTS

Your search retrieved **243** matching item(s).

Click on the thumbnail or title to view the item and corresponding description.

**Tip** Search Tips

- Use quotation marks to search for exact phrases.
- Search terms are not case sensitive.
- Truncation: **whal\*** finds whale, whales, whaling, etc.
- It's not necessary to use "and" between keywords.

### Search

Search by keyword (category list)

Collection

[Advanced Search](#)

73. Galley & crew's mess, K/M Samudera, Indopac Leg 13

74. Gary Sullivan & 133 lb charge, Indopac Leg 5

75. George G. Shor and Bob Kieckhefer [making up explosives charge]

76. George G. Shor and Gary Sullivan [making up explosives charge]

77. George G. Shor making up explosives charge

78. George Shor and ben Chao with explosives (133 lb), Indopac Leg 5

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# Search across content via CONTENTdm

**CONTENTdm Search** Home Browse Search My Favorites Help

**Collection: California Explores the Ocean-SIO Archives**

▶ **Enter search terms** in one or more fields or use the "Browse Terms" box on the right to find indexed words for each field. Use quotation marks to search for phrases.





Identifier	
Title	
Collection Title	
Across All Fields	current

▶ **Search** Clear Select Collections Preferences

▶ **Browse Terms**

▶ Select field to match terms  
-choose-

▶ Click on a thumbnail to view the full-sized item and corresponding description

			
1. Bureau of Ships Telemetering Current Meter, indicating unit	2. Bureau of Ships Telemetering Current Meter, underwater sensi	3. Current discontinuity and discolored Water line #6 South chi	4. Current drogue tracking equipment [on Horizon]

Results: 15 matches

Backward Forward



## Some Metadata Fields

- Many of our 58 fields are expected; some developed for special needs:
- **Document Type field** = data type of the original source: Expedition Report, Bibliography of Scientific Paper, Published Scientific Paper, Manuscript, Photograph, Track Chart, Seaman's Narrative, Ships Log, Biography of Key Scientist, Drawings of Instrument, Newspaper Clipping.
- **Genre field** = category or characteristic of an item using LCSH or local: logbooks, maps, nautical charts, clippings, drawings, caricatures and cartoons, portraits and posters.
- Local genre headings derived from LC Thesaurus for Graphic Materials II: Genre and Physical Characteristic Terms (TGM II): headings include cruise certificates, shipboard communication, aerial photographs, underwater photographs, trick photographs.

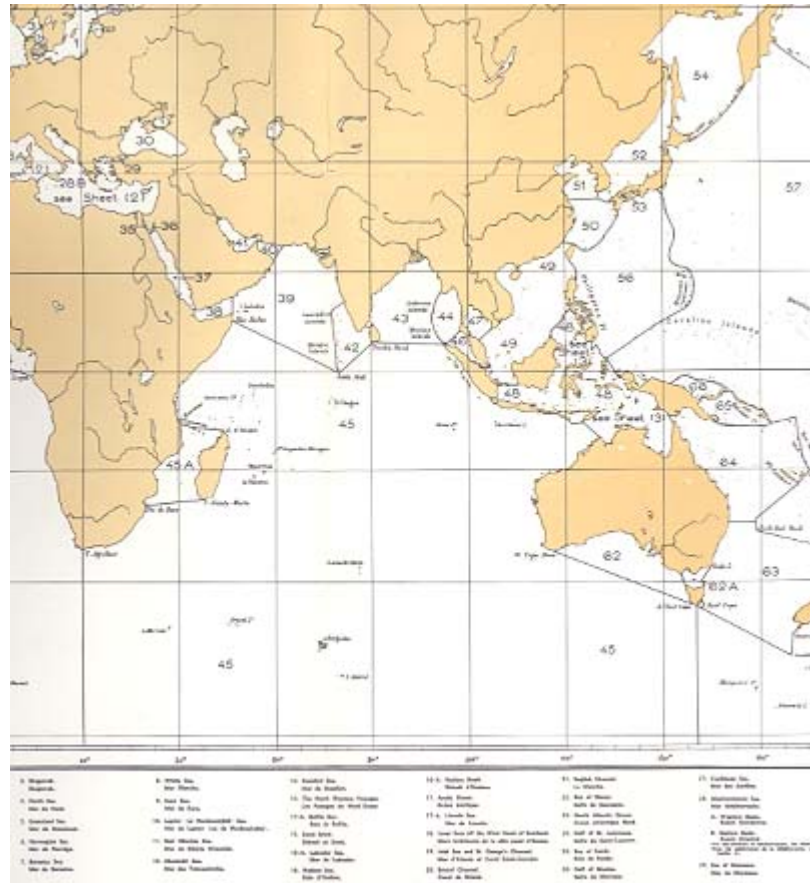


## Geospatial Metadata Fields

- Terrestrial locations from Alexandria Digital Library Gazetteer, includes terms from US Geological Survey, US National Imagery & Mapping Agency; ensures interoperability with other UC and NSF digital library endeavors
- Terrestrial locations from LCSH; map to the considerable SIO historical information in cataloged library collection.
- Differences: Samoa Islands (LCSH); Samoan Islands (ADL/USGS/NIMA)
- Underwater features from GEBCO Gazetteer of Undersea Feature Names
- International Hydrographic Orgn Special Publication 23, Limits of Oceans and Seas: designations & boundaries of oceans & seas in the world
- Use IHO numbers and names for interoperability with SIO Geological Data Center ....data usually more granular than archival materials



# IHO Limits of Oceans and Seas



•IHO latitude/longitude polygons digitized by US National Geophysical Data Center



## Subject Metadata Fields

- ASFA Thesaurus considered & not selected. Already use LCSH for archival collection records & library collection, so our digital content maps well with LCSH. Need general headings only, so LCSH works well & is familiar.
- Internal documents outline practice & preference for metadata and subject cataloging our digital objects using LCSH & local subject headings
- Local headings for significant holdings, e.g. "Crossing the Equator" for equator crossing ceremonies; "Oceanographic research ships -- Interiors" for interior photos of research ships; a subject heading subdivision "Press conferences."
- Expeditions divided into cruises and legs, which are referenced to a technical report authority list. Maps to SIO Geological Data Center Cruise Index and datasets.
- Use UNOLS ship names.



## Subject Category

- Provides quick access & intended for general public interest alongside content from San Diego Historical Society grant partner
- 14 broad headings from TGM I & II, or local variant, e.g. Vessels, instead of Boats
- Used for predefined query against CONTENTdm database.
- Aerial Views; Beaches; Diving; Events; Fishing; Fishing Industry; Harbors; Navigation And Communication; Ocean Life; Ocean Resources; Oceanography; People; Scientific Equipment; Vessels



## Copyright & Technical Fields

- 17 fields record copyright or technical information about the digital object and its creation
- Rights & granting permission is clear when Archives has a recorded deed of gift, OR knows that rights were not granted.
- Many items exist in collection without a recorded deed of gift, particularly early SIO images & studio portraits of early SIO scientists.
- Expand copyright metadata to document the steps we followed in unsuccessfully locating the image owner **IF** we decide to grant permission to use that image?
- Due diligence: Need our trail of effort recorded if our rights to an image are contested in the future?





## Infrastructure built by grants.... now what?

- Successful request during incredibly tight budget time to re-purpose library reference assistant FTE to Digital Archives Technician (combined with Computing Support duties). Fully equipped position starts 8 Oct '03.
- Utilize scanning vendor experience to process large batches when funds available. Scan in-house to meet user requests and chip away at high interest items.
- Work away at high-interest images & documents that will not attract grant support, e.g. extensive portrait file; materials about founding of SIO as Marine Biological Association of San Diego
- Well positioned as photo repository & image management system for SIO. More awareness of holdings should lead to increased acquisition rate.
- Gather more images from SIO Director's Office, which is holding onto color photos from disbanded Photo Lab, with no image management system on their horizon.