

PROCESSING RECORD  
SCRIPPS INSTITUTION OF OCEANOGRAPHY ARCHIVES

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Acoustic Thermography of Ocean Climate Project.

Acoustic Thermography of Ocean Climate Project Records, 1990-1998

Physical Description: 42 mss; DVD, videocassette tape; audiocassette tape; digital video,

Arrangement of Collection: Arranged in 9 series: 1. ATOC Meeting Minutes, 1992-1995. 2. ATOC Permits. 3. ATOC Publicity. 4. ATOC Technical Files 5. ATOC Management 6. ATOC Audio and Video Recordings. 7. ATOC Chron Files, 1991-1995. 8. MMRP/NMFS Permits. 9. ATOC Program Review.

Description: The collection consists of files documenting the Acoustic Thermometry of Ocean Climate (ATOC) project administered by Peter Worcester of the UCSD Institute of Geophysics and Planetary Physics at the Scripps Institution of Oceanography. This project was funded under DARPA MDA 9729310003. This collection consists of project correspondence, technical files, and records documenting permit hearings and project reviews. It also includes a substantial number of audio and video recordings documenting media coverage of the project. The records include correspondence and other files generated by David E. Cartwright, Cindy Roger, Susan Sheaham, and Peter Worcester.

Administrative History: The use of ocean acoustic tomography (OAT) as a tool to get a synoptic view of ocean processes was pioneered by Carl Wunsch. Acoustic Thermometry of Ocean Climate (ATOC) Project had its beginnings in 1990 when Walter Munk calculated that underwater sounds originating at Heard Island in the South Polar Sea could be heard half-way around the world in the North Atlantic and, around the world in the other direction, in the northwest Pacific. He planned to send sound signals over several years on these and other paths, and get precise measurements of changes in world ocean temperature. The hard data would offer conclusive evidence on the issue of global warming and in the shorter term climate change.

The project was initially approved and early problems getting permits from the National Marine Fisheries Service were resolved. However, marine biologists questioned the effects of noise on marine mammals, especially whales, first in email to project scientists, and later publicly. ATOC responded by including biologists in the project and studying noise in the sea and its effect on marine mammals. A series of public hearings were held to discuss this issue at project research sites including Monterey and Kauai. The project received a great deal of media attention which influenced funders, and the project was discontinued.

Marine Mammals; Ocean Thermography; Ocean sounds Measurement; Sonar; Underwater Acoustics; Cartwright, David E. correspondent; Roger, Cindy correspondent; Sheaham, Susan correspondent; Worcester, Peter F. correspondent

**ACOUSTIC THERMOMETRY OF OCEAN CLIMATE PROJECT**

**Records, 1990-1998**

**Accession No. 98-09** [AC 32]

<b>Box</b>	<b>Folder Title</b>
	<b>ATOC MEETING MINUTES SERIES</b>
1	Cartwright, David E. March 1991 - August 1993  March 1992 - January 1993  ATOC Meeting Minutes 1992-1993 November 1992 - June 1993  April - October 1993  1994 February - July 1994  August - September 1994  ATOC Meeting Minutes Notes January 1992 - April 1993  April - August 1993
2	May - July 1994  September - November 1994  October 14, 1994 - December 16, 1994  October 27, 1994 - November 14, 1994  December 1-7, 1994  December 18-30, 1994

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2	ATOC Meeting Minutes Notes (cont.) January 4-18, 1995
	January 19, 1995 - February 2, 1995
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	Cindy Roger`s Notes February 13, 1992 - June 23, 1992
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3	May 7, 1994 - February 16, 1995
	Susan Sheaham Notes, ATOC Program Office, February 7 - August 28, 1994

**ATOC PERMITS SERIES: COASTAL COMMISSION CORRESPONDENCE AND  
HEARING INFO., HAWAII MISCELLANEOUS PERMIT, CALIFORNIA PILLAR PT.  
PERMIT INFO., MBNMS CORRESPONDENCE SERIES**

California Coastal Commission  
April - September 1994

November - December 1994

January - May 1995

June - November 1995

Meeting, November 12, 1995

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3	<p>California EIS, (Environmental Impact Statement)  1994    1995    Department of Fish and Games  December 1992 - April 1994    August 1994</p>
4	<p>DLNR (Department of Land &amp; Natural Resource)/CDUA (Conservation District Use Application), August 1994 - July 1995    DLNR  July 1994 - June 1995    Hearing, July 27, 1995    General Permit Information  May - November 1994    January - February 1995    Hawaii  Consistency Certificate, January - July 1995    Current, June - December 1995    Permit Activity  July 1991    August 1992 - February 1993    May 1994 - June 1995    Kauai EIS (Environmental Impact Statement), July 1994 - August 1995</p>

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**ATOC PERMITS SERIES: COASTAL COMMISSION CORRESPONDENCE AND HEARING INFO., HAWAII MISCELLANEOUS PERMIT, CALIFORNIA PILLAR PT. PERMIT INFO., MBNMS CORRESPONDENCE SERIES (cont.)**

- 5                    MBNMS (Monterey Bay National Marine Sanctuary)  
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- March 1994 - March 1995
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- NPGS Pt. Sur NAVFAC Agreement, August 1994 - December 1994
- Permits
- SLC (States Land Commission) Activity, June 1993
- New Zealand, March - June 1993
- Permits Information, January - May 1995
- Pillar Point Information
- June 1994 - February 1995
- March 1995
- SCLDF (Sierra Club Legal Defense Fund) Settlement Proposal, April - June 1995
- 6                    Stepath vs. DLNR  
                          May 15 - July 10, 1996
- November 1996
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**ATOC PERMITS AND PUBLICITY SERIES: COMMENTS ON EIS, MARM MAR MESSAGES, PRESS RELEASES 1993 - 1995**

California Deis, Critical Response File, January - February 1995

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6	<p>California EIS, June 1994</p> <p>California EIR, May 1994 - April 1995</p> <p>Comments on EIS/EIR in California, July 1994 - February 1995</p> <p>Comments on EIS/EIR in Kauai, March 1995</p> <p>EIS (Environmental Impact Statement) April - May 1994</p> <p>June - October 1994</p> <p>Hawaii, EIS, June 1994, May 1995</p> <p>Mar Mam [Marine Mammal Listserver] Messages February - April 1994</p>
7	<p>April 1994</p> <p>Press on ATOC 1993</p> <p>March 1994</p> <p>April 1994</p> <p>May 1994</p> <p>September - November 1994</p> <p>December 1994</p> <p>January - February 1995</p> <p>March 1995</p>
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8	<p>Press at ATOC (cont.) June - July 1995</p>
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	<p>Responses to Comments, California EIS, January - March 1995</p>
	<p>Transcript of an Audiotape from the Public Hearing, DLNR, Honolulu, Hawaii, July 27, 1995</p>
	<p align="center"><b>ATOC TECHNICAL AND CORRESPONDENCE SERIES: ARCTIC, NEW ZEALAND, &amp; GAMOT CORRESPONDENCE AND AET, VLA &amp; SOURCE INFO.</b></p>
	<p>Acoustic Engineering Test (AET) April - September 1994</p>
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	<p>Folder 2 of 2</p>
	<p>AET/FLIP Test, September - December 1994</p>
9	<p>AET/FLIP/APL Reports, November - December 1994</p>
	<p>AET/FLIP/ATOC Data Centre, October - November 1994</p>
	<p>Addendum to CDR Documentation Package, July 16, 1993</p>
	<p>An Updated Array Design, Keith van der Heyat, WHOI, January 21, 1993</p>
	<p>Arctic, April 1993, April 1994, P. Mikhalevsky</p>
	<p>Arctic, February - December 1994</p>
	<p>Atlantic, February - December, 1993</p>

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ATOC TECHNICAL AND CORRESPONDENCE SERIES: ARCTIC, NEW ZEALAND, & GAMOT CORRESPONDENCE AND AET, VLA & SOURCE INFO. (cont.)	
9	<p>Atlantic Receiver Locations, n.d.</p> <p>Executive Committee Agenda, July - September 1993</p> <p>Gamot, March - December 1994</p> <p>Gamot, Correspondence, November 1993</p> <p>General Backup            July 1993 - January 1994</p> <p>    February - July 1994</p> <p>Hydroacoustic Proposal, April 2, 1993</p> <p>Jervis Island Initial Source Test, October 18-22, 1993</p> <p>Jervis Inlet Source Test, October 20, 1993</p> <p>Kauai ATOC PE Predictions, March 17, 1993</p> <p>Memo from Dave Schiefen Regarding ATOC New Zealand Trip Report, September 10, 1993</p> <p>ATOC Memorandum, SAIC (Maripro), VLA Design Input, March 1993</p> <p>Mike Guthrie's Propagation Info., May 7, 1993, Meeting at ATOC</p> <p>New Zealand            Agreement, May - July 1993</p> <p>    Autonomous VLA Experiment Plan, March 9, 1994</p> <p>    Bathymetry, n.d.</p>
10	<p>Correspondence</p> <p>Correspondence Received, July 30, 1993 from D. Carter</p>

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10	New Zealand (cont.)
	Fish Issues, July - September 1993
	Map of Potential Paths, n.d.
	Miscellaneous, n.d.
	Presentation, n.d.
	Propagation Runs, Guthrie's View graphs, n.d.
	Report, n.d.
	"Shot", n.d.
	Plans, January - February 1994
	Pt. Sur Communication Issues, June - July 1993
	Pt. Sur Facility Issues, September 1993
	P.E. Predictions, March 17, 1993
	Receivers, VLAs, February 1993 - January 1994
	Report on European Interest ATOC Program, September 1992
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11	Source Issues, July - September 1993
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	VLA (Vertical Line Array) n.d.

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11	VLA (Vertical Line Array) (cont.) March - April 1993
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	VLA Source Position, August 1993
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	AET/FLIP/APL Reports, [Nov - Dec, 1994]
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	<p align="center"><b>ATOC MANAGEMENT SERIES: 1996 CHRONOLOGICAL FILES, GREAT WHALES FOUNDATION VS. UC LAWSUIT, HAWAII CONTESTED CASE CORRESPONDENCES SERIES</b></p>
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	APL, Applied Physics Laboratory, July 25, 1995
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	Chronological Files, 1996
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	January 1996
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	February 1-16, 1996
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	February 19-20, 1996
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	February 20-23, 1996
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12	February 26-29, 1996
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	March 1-10, 1996
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	March 13-19, 1996
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	March 20-26, 1996
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	March 28-29, 1996
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	April 2-19, 1996
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	April 22-29, 1996
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	May 1-10, 1996
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	May 11-28, 1996
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	June 4-13, 1996
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14	Waltner, Alan
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17	December 1993
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18	February 3-8, 1994
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23	September 13-16, 1994
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24	October 25-31, 1994
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26	January 24-25, 1995
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29	June 19-23, 1995
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	September 13, 1995
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30	October 4-17, 1995
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30	November 16-26, 1995
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31	December 13-19, 1995
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**MMRP SERIES: MMRP HEARING TRANSCRIPTS, CALIFORNIA EIS COMMENTS,  
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California Coastal Commission Public Hearing, June 15, 1995

Hawaii Hearing Statements, April 14, 1994

Hearing Testimony, June 23, 1994

Kauai DLNR Comments to EIS, March -May, 1995

MMRP (Marine Mammal Research Program) Draft EIS/EIR, January 1995,  
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31	MMRP (Marine Mammal Research Program) Draft EIS/EIR, January 1995, Comments Received and Responses (cont.) Volume II (cont.) C-183 to C-210
32	MMRP Scientific Research Permit Application #P557A, Transcript, May 16, 1994 Pg. 1- 99  Pg. 100 - 199  Pg. 200 - 290 (end)
	MMRP Scientific Research Permit Application #P557B, Condensed Transcript, January 6, 1995
	MMRP Scientific Research Permit Application #557B, Transcript, January 6, 1995 pg. 1-111  pg. 112-223 (end)
	NOAA (National Oceanic and Atmospheric Administration), Hearing Transcript on Application #P557 and #P557A, March 22, 1994  April 14, 1994 pg. 1-99  pg. 100-199  pg. 200-end
33	April 15, 1994 pg. 1-99  pg. 100-199  pg. 200-end

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33	Public Scoping Meeting, June 23, 1994  References on Radiated Noise for Carol Fairfield February 1994 March 1994
	<b>MMRP SERIES: MMRP CORRESPONDENCES, NMFS PERMIT APPLICATIONS, PROTOCOLS, FEDERAL REGISTRAR NOTICES</b>
	Applications for Permits January 1991 - August 1993  August 2-16, 1993  August 17- September 7, 1993
34	September 9, 1993 - January 3, 1994  California EIR Initial Study, May 31, 1994  California Marine Mammal Permit Request (Coversheets), December 8, 1993  COROS Array, March 1994 - February 1995  Correspondence September - October 1993  November - December 1993  Federal Register, March 1994 - May 1995  Federal Register Notices, November 1993 - May 1994  Kauai Deis Correspondence, May - June 1994  Kauai MMRP Pilot Study Protocol, Current Version, July 14, 1994  Kauai Marine Mammal Permit

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	Old, November 30, 1993
	Kauai Permits Request, Ann Bowes, September 20, 1993, Not Submitted
	Mar Mar, B-B, February 1994 - July 1995
	Mar Mar Research Program February 1994 - June 1994
	July 1994 - May 1995
35	MMRP Application For Permit Kauai, Hawaii, October 25, 1993
	Pt. Sur, December 8, 1993
	MMRP Research Protocols, April 1994 - November 1995
	Marine Mammal Permit Figures and Tables, n.d.
	Marine Acoustic Inc., Corporate Capabilities Overview, 1993
	Marine Mammal Curriculum- Avitae, January - August 1993
	Marine Mammal Correspondence Pre- September 1993
	1994
	Marine Mammal Permit, September 14, 1993, Current Version Submitted to NMFS
	Modification to Kauai, January 18, 1995

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35	NMFS (National Marine Fisheries Service), Application for Permit for Scientific Research, September 1996
	Old Protocol Stuff July 1994
36	November 1994 - January 1995
	OSU (Oregon State University), Approval of MMRP on Endangered Whales, May - August 1994

**ATOC PROGRAM REVIEW, MEETING PRESENTATION MATERIAL  
& VIEW GRAPHS, AND SCOR MEETING REPORT SERIES**

Acoustic Engineering Test (AET), n.d.

Acoustic Monitoring of the Global Ocean, A Report to SCOR Submitted by Working Group 96, February 1995

Acoustic Source, n.d.

ARPA Global Ocean Climate Program Review, ATOC/GAMOT, June 7, 1993  
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ARPA Program Review, September 16, 1993

ATOC Purple Magic Globe, n.d.

ATOC Proposal Material, (Graphics, etc.), n.d.

ATOC View Graph, n.d.  
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36	<p>ATOC Transmitter at Pt. Sur, CA., n.d.</p> <p>Color/B&amp;W Hard Copies, n.d.</p> <p>Data Recovery, n.d.</p> <p>Extended Network Graphic, [n.d.]</p> <p>Extended Network Graphic, December 17, 1993</p>
37	<p>First International Meeting on Global Acoustic Monitoring of the Ocean, June 8-10, 1992</p> <p>First International Meeting on Global Acoustic Monitoring of the Ocean, Abstract, June 8-10, 1992</p> <p>Harley Hurlburt Graphics, n.d.</p> <p>Hi Test/LICE 89/ATOC CA Source/ATOC Hawaii Source, n.d.</p> <p>HLF-6 Hydroacoustic Source, n.d.</p> <p>Major Milestone View Graph, n.d.</p> <p>Model Sea Surface Temperature, Dzieciuch, n.d.</p> <p>Original View Graph Presentation, June 7, 1993, ARPA Review</p> <p>Pacific Paths View Graphs, n.d.</p> <p>Participant View Graph, n.d.</p> <p>Potter dB Level Comparison, n.d.</p> <p>Program Review Meeting, View Graph Originals, September 16, 1993  Folder 1 of 2  Folder 2 of 2</p>

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	<p>ATOC PROGRAM REVIEW, MEETING PRESENTATION MATERIAL &amp; VIEW GRAPHS, AND SCOR MEETING REPORT SERIES (cont.)</p>
37	<p>Scientific and Engineering Overview of the ATOC Project for the SERDP Advisory Board, January 26, 1994</p> <p>Scientific Committee on Oceanic Research Working Group 96 Meeting, June 10, 1992</p> <p>Sea Level Change (Hamburg Mode), n.d.</p> <p>Second International Meeting g on Global Acoustic Monitoring of the Ocean, June 20-22, 1993</p> <p>Science Advisory Board Meeting</p>
38	<p>Scientific Committee on Oceanic Research, Acoustic Thermometry in the Atlantic, n.d.</p> <p>Seminar on Propagation and Climate, Minutes, January - June 1994</p> <p>Source Graphics/View Graphs, n.d.</p> <p>Sound Level Comparison, n.d.</p> <p>Surface Warming (Wunch, Roemmich, Parilla et al.), n.d.</p> <p>Tidal Predication Models View Graphs (D. Cartwright), n.d.</p> <p>Various View Graphs, n.d.</p> <p>Vertical Line Array View Graph, n.d.</p> <p>ATOC View Graphs, n.d.</p> <p>View Graphs, June 1992</p> <p>ATOC VLA Design Meeting, April 15, 1993, View Graphs Folder 1 of 2</p> <p>Folder 2 of 2</p>

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	<b>ATOC AUDIO AND VIDEO CASSETTE SERIES</b> <b>** See descriptions below **</b>
	Audio Cassettes:
38	NPR Morning Edition, ATOC Story, May 1994 (Spindell), (3 Copies)
39	Radio Interview  To the Best of Our Knowledge: Oceans. Wisconsin NPR  Conversations' with Susan McInnis (Fran Sople): KUAC-FM  February 10, 1994, Simulations of the Digital Pt. Sur and Kauai Source  Unmarked Tape (?)
	Video Cassettes
	Pt. Sur Source Site Survey, September 30, 1994
	Flip Flops, VLA thru Flip Chute, Kevin Hardy, November 9, 1993
	Flip Flops off Pt. Loma, Kevin Hardy, November 12, 1993
	VLA thru Flip Chute, Kevin Hardy, November 11, 1993
	ATOC VLA thru Flip Chute, Kevin Hardy, November 11, 1993
	Arthur Baggeroer's Rendition of VLA Flip Test, November 12, 1993
	VLA System Integration (ATOC IGPP, October 14, 1993)
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	Pt. Sur SAR #2, 'The Recovery'
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	ATOC Array Video Survey Parts 1 and 2, September 29, 1994
	Good Morning America, ATOC
40	Global Ocean Climate Model Temperature Animation
	ATOC #1, Underwater Footage
	ATOC #2
	ATOC Meeting, October 26, 1993 and October 27, 1993, Parts 1 and 2
	CNN Interviews, Walter, Peter, Dane, January 1994
41	ATOC-AET, November 9-30, 1994
	ARPA, Acoustic Monitoring of Global Ocean Climate (ATPC/Gamot), Status Report, November 1993
	Gamot, April 22, 1994
	Gamot, SSAR Sea Trials off Bermuda, November 1993, Tapes 1-8, (actually on 2 tapes)
	SIO, Scenery Only
	Rough Cut, Cable Installation Half Moon Bay, October 5, 1995
	ATOC Source Form APL
42	ARPA Status Report ATOC and Gamot, November 1993

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42	ATOC Global Array Design Software, November 1993
	ATOC Interviews, December 22, 1993, Peter & Walter
	ATOC Interviews, January 20, 1994, Spindell
	Standard SSAR, Deployment off Bermuda, November 1993, Gamot Project
	Beyond 2000, series 12, Episode 35ntsc
	NRL, Decadal Effects of El Niño, 1982-1983
	Kauai Source Installation, October 21, 1996
	ARPA Status Report, November 1993
	Unmarked Tape

**Box**            **Folder Title**

**DESCRIPTION OF AUDIO AND VIDEOTAPES**

**AUDIO**

February 10, 1994, Simulations of the Digital Pt. Sur and Kauai Source: a) Pt. Sur, Pure Tone, @ 75H; b) Pt. Sur, M-Sequence  
1 audiocassette tape, 60 minutes

**98-9; AC 32**

This 60 minute audiocassette tape is labeled 10 Feb 94, Simulations of the Digital Pt. Sur and Kauai Source: a) Pt. Sur, Pure Tone, @ 75H; b) Pt. Sur, M-Sequence @ 75H; c) Kauai, M-Sequence @75H; d) Kauai M-Sequence then Kauai, Pure Tone @150H. These are sounds of the source used in the ATOC Project.

**MORNING EDITION: ATOC STORY**

May 1994. National Public Radio

1 audio cassette tape

**98-9; AC32**

This tape is labeled NPR- ATOC Story – Morning Edition 5/94 (Spindel). There are two tapes with this same label in box 14 of 98-9, these may be dups.

**MORNING EDITION: ATOC STORY**

May 2, 1994. National Public Radio

1 audiocassette tape recording

**98-9; AC32**

This is a segment of the NPR Morning Edition radio program in which Joe Palka discusses the ATOC (Acoustic Tomography of the Ocean Climate) Project. NPR Recorded this tape.

**CONVERSATIONS WITH SUSAN McINNIS (FRAN SOPLER)**

November 10, 1994. KUAC-FM

1 audio cassette tape

**98-9; AC32**

Susan McInnis produced and hosted Conversations with Susan McInnis for KUAC-FM in Fairbanks, Alaska, 1988-1995. This interview is with Fran Soplér and concerns the ATOC (Acoustic Tomography of the Ocean Climate) Project.

**TO THE BEST OF OUR KNOWLEDGE: OCEANS**

April 4, 1995. Wisconsin Public Radio

1 audiocassette recording

**98-9; AC32**

A segment of the Wisconsin Public Radio program ‘To the Best of our Knowledge on Oceans’ with a discussion of the ATOC (Acoustic Tomography of the Ocean Climate) Project.

**Box**            **Folder Title**

## **VIDEO**

### **PT. SUR SOURCE SITE SURVEY**

November 30, 1994.

1 Hi8 videocassette tape

**98-9; AC 32**

There is no further description on the tape other than the title

### **FLIP FLIPS! GIMBLED CAM VLA THRU FLIP CHUTE**

November 9, 1993. Kevin Hardy

8mm videocassette tape

**98-9; AC 32**

This videocassette tape recording is labeled Kevin Hardy, SIO. FLIP FLIPS! Gimble Cam 11-9-93 VLA thru FLIP chute.

### **VLA THROUGH FLIP CHUTE; AVATOC THROUGH FLIP CHUTE**

November 11, 1993. Kevin Hardy.

8mm videocassette tape

**98-9; AC32**

This videocassette tape recording is labeled Kevin Hardy SIO At Sea, Off Pt. Loma. VLA through FLIP Chute, AVATOC through FLIP chute.

### **FLIP FLOPS OFF PT. LOMA**

November 12, 1993. Kevin Hardy.

8mm videocassette tape

**98-9; AC 32**

This videocassette tape recording is labeled Kevin Hardy, SIO FLIP Flops Off Pt. Loma, 11/12/93 Gimble cam.

### **ATOC GLOBAL ARRAY DESIGN SOFTWARE**

September 15, 1993. Applied Physics Laboratory. University of Washington.

1 ½ inch videocassette tape, color, sound, 12 minutes

**98-9; AC 32**

This video is entitled ATOC GLOBAL ARRAY DESIGN SOFTWARE. It was conceived by Bruce Howe and written by Shaun Leach and copyrighted by the University of Washington. The video demonstrates a software package written by Shaun Leach. The video is introduced by Bruce Howe. Shaun Leach presents the plan for the software which will be used for the ATOC experiment.

**Box            Folder Title**

## ATOC-IGPP

October 14, 1993. Cindy Rogers

Hi8 videocassette

**98-9; AC 32**

This is a Sony Hi 8 original video cassette. It is entitled ATOC IGPP 10/14/94. The label identified the producer as Cindy Rogers, Camera: Alex Plumb, VLA System Integration, Worcester Lab, K. VonderHeydt, DirecLam

## ATOC MEETING

October 26, 27, 1993. Mississippi State University Television Center

3 ½ inch videocassette tapes.

**98-9; AC 32**

These three tapes record a meeting held at Scripps Institution of Oceanography on October 26 and 27, 1993. Tape 1 and 2 contain footage of the meeting. Tape 3 is labeled SIO Scenery only.

ARPA-ACOUSTIC MONITORING OF GLOBAL OCEAN CLIMATE (ATOC/GAMOT)  
STATUS REPORT

November 1993.

¾ inch KSP-S20 Videocassette, color, silent

**98-9; AC 32**

This KSP-S20 video cassette is labeled ARPA-Acoustic Monitoring of Global Ocean Climate (ATOC-GAMOT) Status Report, November 1993.

## ARPA STATUS REPORT ATOC &amp; GAMOT

November 1993. ARPA

1 ½ inch VHS videocassette tape, color, silent, 8 minutes, 45 seconds

**98-9; AC 32**

This videocassette recording begins with the ARPA logo and an ATOC Title Frame, a graphic shows the ATOC members. This is followed by a series of silent, color film segments showing the ATOC source on shipboard, FLIP at sea, and other footage related to the ATOC experiment. There is a November 11, 1993 segment on shipboard showing the deployment of the source, possibly off Kauai. The source is shown underwater, with diagrams. A global ocean model is shown. The footage includes the GAMOT logo, followed by a model of the Atlantic. Graphics of the SSAR buoy are shown. The SSAR is shown being deployed at sea.

## ATOC SOURCE FROM APL

n.d. Applied Physics Laboratory. University of Washington

1 ½ inch videocassette tape, color, silent, appx. 3 minutes

**98-9; AC 42**

This video includes several segments of silent film showing the ATOC source on a dock and being loaded on ship.

**Box                    Folder Title**

**ARPA STATUS REPORT**

November 1993. ARPA

½ inch videocassette, color, silent

**98-9; AC 32**

This is a series of silent moving images, including animation, shipboard footage and other images that may have been prepared as supporting material for a meeting. The ARPA logo appears at the beginning of the footage.

**GAMOT-SSAR SEA TRIALS OFF BERMUDA**

November 1993.

2 ½ inch videocassette tapes, color, sound, 30 minutes each

**98-9; AC 32**

GAMOT stands for Global Acoustic Mapping of Ocean Temperatures. The first tape is identified as GAMOT-SSAR Sea Trials Off Bermuda Nov 93 Tapes 1-4. The second tape is identified as GAMOT-SSAR Sea Trials Off Bermuda Nov 93 Tapes 5-8

**GAMOT-SSAR SEA TRIALS OFF BERMUDA**

November 1993. Woods Hole Oceanographic Institution

1 ½ inch videocassette tapes, color, sound, approx. 30 minutes

**98-9; AC 32**

GAMOT stands for Global Acoustic Mapping of Ocean Temperatures. The tape is identified as Standard SSAR, Deployment off Bermuda, November 1993. GAMOT Project, Courtesy Woods Hole Oceanographic Institution.

**ATOC-ACOUSTIC ENGINEERING TEST (AET)**

November 9-30, 1993.

¾ inch KSP-S20 Videocassette, color

**98-9; AC 32**

This KSP-S20 video cassette is labeled ATOC-Acoustic Engineering Test (AET) and dated November 9-30, 1994, Scripps Institution of Oceanography. AET was a precursor to ATOC.

**ARTHUR BAGGEROER'S RENDITION OF VLA FLIP TEST, NOVEMBER 12, 1993.**

November 12, 1993. Arthur Baggeroer

Video8 cassette

**98-9; AC32**

This is a Sony NTSC video 8 cartridge marked MADE IN JAPAN. There is no information on content except the title. This cartridge is from box 14 of the ATOC collection.

**Box                      Folder Title**

**ATOC INTERVIEWS**

December 22, 1993. Scripps Institution of Oceanography  
1 ½ inch videocassette tape, color, sound

**98-9; AC 32**

This tape is labeled, ATOC INTERVIEWS 12-22-93 Peter Worcester, Walter Munk, Duplicate tape from ¾ SP Master? The tape records interviews with Peter Worcester and Walter H. Munk at the Library of the Institute of Geophysics and Planetary Physics at Scripps Institution of Oceanography. There is no interviewer, although the voices of Cindy Clark and Chuck Colgan are heard in the background. Worcester introduces himself at the beginning of the footage.

**GLOBAL OCEAN CLIMATE MODEL TEMPERATURE ANIMATIONS – BERT SEMTNER, NAVAL POSTGRADUATE SCHOOL**

C1994. U.S. Naval Postgraduate School  
1 ½ inch videocassette tape, master copy

**98-9; AC 32**

This videocassette is marked MASTER and identified as Original X10 Global Ocean Climate Model Temperature Animations [made by] Bert Semtner, Naval Postgraduate School. There is a note attached to the tape: Walter: I had a new tape made of Bert's film where the temperature animation of each ocean was repeated 10 times, so that you can concentrate on particular features in a more leisurely way. This appears to be an animation of a climate model used by Walter H. Munk in presentations related to the ATOC project.

**NRL-DECADAL EFFECTS OF 1982-1983 EL NINO**

C1994. Naval Research Laboratory  
½ inch VHS videocassette recording, color, silent, approx 30 minutes  
Audience: Scientists

**98-9; AC42**

This is a computer simulation of the decadal effects of the El Nino, showing the worlds oceans over a time frame that runs from 1982 to 1993.

**[SHIPBOARD FOOTAGE THOMAS G. THOMPSON AT SEA]**

C1994. Scripps Institution of Oceanography MMG  
1 ½ inch videocassette tape, color, sound, approx. 30 minutes

**98-9; AC 32**

This is footage taken aboard R/V THOMAS G. THOMPSON showing work on the ATOC project. While there is background sound, there is no narration. Footage includes images of the vessel, work on deck, deployment of ATOC source, a field party of biologists on the coast monitoring marine mammals.

**Box Folder Title**

INTERVIEWS COPY FROM SOURCE WALTER PETER JANE

January 1994. Institute of Geophysics and Planetary Physics. Scripps Institution of Oceanography  
Betacam SP

**98-9; AC 32**

This is a broadcast quality Betacam SP video related to the ATOC project.

ATOC INTERVIEW SPINDEL

January 20, 1994. Scripps Institution of Oceanography  
1 ½ inch videocassette tape, color, sound, appx. 30 minutes

**98-9; AC 32**

This recording has no title. It records an interview with Robert Spindel at the Library of the Institute of Geophysics and Planetary Physics at Scripps Institution of Oceanography on January 20, 1994 on ATOC. The interviewer is heard but not seen or identified. Chuck Colgan asks some questions.

GAMOT MSU/NSF/ERC

April 22, 1994. Mississippi State University  
1 ½ inch VHS videocassette recording, color, sound, appx. 5 minutes

**98-9; AC 32**

Title frame identifies this videotape as GAMOT from Mississippi State. It presents an animation with music but no narration of a climate model. GAMOT stands for Global Acoustic Mapping of Ocean Temperatures. The final frames include the logo of the MSU Engineering for Research Center, Computational Field Simulation.

ATOC ARRAY VIDEO SURVEY

September 29, 1994. Institute of Geophysics and Planetary Physics. Scripps Institution of Oceanography  
2 ½ inch videocassette tapes

**98-9; AC32**

These two videocassette tapes are marked Master. Both are identified as ATV Dive #94-53-97 and dated 29 September 1994.

NEW ATOC SITE

C1994. Institute of Geophysics and Planetary Physics. Scripps Institution of Oceanography  
1 ½ inch videocassette tape

**98-9; AC32**

This videocassette tape is marked Master. It is labeled Dive #94-54-98

**Box                      Folder Title**

PT. SUR SAR #1: THE DISCOVERY

C1994.

1 videocassette Hi-8 tape, approx. 90 minutes

**98-9; AC 32**

The label on this tape is Pt. Sur SAR #1: The Discovery. This may be related to the Pt. Sur site for ATOC.

PT. SUR SAR #1: THE DISCOVERY

C1994. Institute of Geophysics and Planetary Physics. Scripps Institution of Oceanography

1 ½ inch videocassette tape.

**98-9;AC 32**

The label on this tape is Pt. Sur SAR #1: The Discovery. Dub rom Hi-8. This may be related to the Pt. Sur site for ATOC.

PT. SUR SAR PT. 2: THE RECOVERY

C1994.

1 videocassette Hi-8 tape, approx. 90 minutes

**98-9;AC 32**

The label on this tape is Pt. Sur SAR Pt. 2: The Recovery. This may be related to the Pt. Sur site for ATOC.

PT. SUR SAR PT. 2: THE RECOVERY

C1994. Institute of Geophysics and Planetary Physics. Scripps Institution of Oceanography

1 ½ videocassette tape

Audience: Unspecified

**98-9;AC 32**

The label on this tape is Pt. Sur SAR Pt. 2: The Recovery. This may be related to the Pt. Sur site for ATOC.

PT. SUR SOURCE SITE SURVEY

September 30, 1994. Institute of Geophysics and Planetary Physics. Scripps Institution of Oceanography

1 ½ videocassette, color

**98-9; AC 32**

This videocassette is labeled Dub from Hi-8

**Box                      Folder Title**

**CNN INTERVIEW [ATOC]**

December 8, 1994. CNN

1 ½ inch videocassette tape, color, sound

**98-9; AC 32**

This is a recording of CNN News on December 8, 1994 which includes a 2 minute, 47 second segment entitled Science and Technology News on ATOC. Susan Reed uses footage of AGU meetings, FLIP and shipboard images, and comments by scientists including Andrew Forbes, Virginia Handley, Walter Munk and Norman Seaton to discuss the work on the ATOC project including opposition from biologists and others.

**ATOC #1 PIONEER UNDERWATER FOOTAGE**

C1995. U.S. Government

1 ½ inch videocassette tape

**98-9; AC 32**

This cassette is labeled, ATOC #1 Pioneer Underwater footage. Notes on the case read remote camera, remote arm, segment minus 03.29.27. The ATOC acoustic source was installed on Pioneer Seamount during October and November 1995

**ATOC #2 PIONEER**

C1995. U.S. Government

1 ½ inch videocassette tape

**98-9; AC 32**

This cassette is labeled, ATOC # 2 Pioneer. The ATOC acoustic source was installed on Pioneer Seamount during October and November 1995

**ROUGH-CUT – CABLE INSTALLATION HALF MOON BAY**

October 5, 1995. Scripps Institution of Oceanography MMG

1 ½ inch videocassette tape, color, sound, 23 minutes

**98-9; AC 32**

This video has no title. While there is sound, there is no narrative. The first segment begins on the beach at Half Moon Bay, California showing a group digging a hole and pulling a line that stretches from the beach to a ship off the coast. The line is attached to a cable which is received from the ship; this cable is then spliced to the land cable. This instrumentation is related to the ATOC experiment. In the next segment the ship LANEY CHOUEST is shown in Cisco Harbor in San Francisco, the ATV is loaded on the ship. There is some narrative on this segment, but the speaker is not identified. The ship leaves the harbor, passes under the Bay Bridge, Alcatraz and city scenes are shown. The ship approaches the Golden Gate Bridge and passes under it. The narrator announces that sea conditions are too rough to launch the ATV. There are closeups of the ATV and speakers. There is footage of men and the submersible inside the ship's hanger. The submersible is moved from the hanger to the fantail, lifted by the A frame and deployed in the sea in the dark. In the next segment, it is foggy daylight and two men stand on the submersible with is off the ship's stern. A cable is attached to the submersible, and it is winched up to the A frame and brought aboard. Men exit the submersible.

**Box                    Folder Title****BEYOND 2000**

May 9, 1996. Beyond International Pty., Ltd.

1 ½ inch videocassette, color, sound, 21 minutes, 30 seconds.

**98-9; AC 32**

Series 12, Episode 35 of a program produced in Australia. Dr. Caroline West hosts includes a segment on competition to circumnavigate the earth by balloon. Anthony Griffis presents a segment on ATOC at Scripps Institution of Oceanography. Kevin Hardy, Andrew Forbes and others are shown or interviewed. The final segment is devoted to snowboarding. This tape is in box 8 of the collection. There is a second copy of this program in 2005-19 (AC 54).

**KAUAI SOURCE INSTALLATION**

October 21, 1996.

½ inch videocassette, color, sound, appx. 30 minutes

**98-9; AC 32**

There is no title to this film, which begins with a 4 minute segment showing an ATOC instrument aboard the docked ship. While background sound is recorded, there is no narration. Ship departs Honolulu Harbor at sunset, good pans of the channel, the harbor, Diamond Head and the coast. Men working on the vessel fantail. Another segment shows men on the deck of the vessel preparing to hoist the ATOC instrument and deploy it. A small rubber boat is hoisted over the side and three men board it.