Descriptive Summary

Languages: English

Contributing Institution: Special Collections & Archives, UC San Diego
9500 Gilman Drive
La Jolla 92093-0175

Title: Walter Munk Papers

Identifier/Call Number: SMC 0017

Physical Description: 32 Linear feet (76 archives boxes, 1 flat box, and 1 map case folder)

Physical Description: 55 GB of digital files

Date (inclusive): 1908-2007

Abstract: Papers of Walter H. Munk (1917-2018), distinguished physical oceanographer and professor of geophysics at the Scripps Institution of Oceanography at the University of California, San Diego. The collection documents Munk’s scientific career and some of the subject areas where he was an influential theorist, including wave forecasting and acoustic tomography.

Scope and Content of Collection

Papers of Walter H. Munk (1917-2018), distinguished physical oceanographer and professor of geophysics at the Scripps Institution of Oceanography at the University of California, San Diego. The collection documents Munk’s scientific career and some of the subject areas where he was an influential theorist, including wave forecasting and acoustic tomography. It includes: correspondence; an incomplete assortment of Munk’s writings and lectures; collaborative research with Harald Sverdrup and the U.S. Navy on wave forecasting during World War II, including drafts of reports and photographic prints of waves and coastlines; Munk’s files from government consulting (JASON and the National Research Council); and Munk’s papers on UC San Diego, the Scripps Institution of Oceanography, and the Institute of Geophysics and Planetary Physics (IGPP).

The bulk of the collection was donated to the Library in 1987, a few years after Munk’s retirement from the University in 1982. Although he stayed professionally active until his death in 2019, only one additional group of papers were donated in 1996, along with several small accruals of audiovisual recordings, photographs and slides. There are gaps in subject documentation, and parts of the collection are not comprehensive. For example, there is relatively little material, particularly correspondence, research files, or photographic portraits, documenting Munk’s first three decades at SIO from 1939 through 1969.

Arranged in thirteen series: 1) BIOGRAPHICAL, 2) CORRESPONDENCE, 3) WAVE FORECASTING, 4) WRITINGS AND TALKS, 5) EVENTS, CONFERENCES AND MEETINGS, 6) NATIONAL RESEARCH COUNCIL, 7) ACOUSTIC TOMOGRAPHY, 8) SUBJECT/RESEARCH FILES, 9) UC SAN DIEGO, 10) IGPP, 11) WORKS BY OTHERS, 12) PHOTOGRAPHS, and 13) AUDIOVISUAL RECORDINGS.

Biography

Two short, excellent biographies of Walter Munk are available online:

UC San Diego obituary

Biographical essay by Deborah Day, former SIO Archivist.

Preferred Citation

Walter Munk Papers, SMC 17. Special Collections & Archives, UC San Diego.

Acquisition Information


OFF-SITE STORAGE

COLLECTION STORED OFF-SITE. ALLOW ONE WEEK FOR RETRIEVAL OF MATERIALS.

Publication Rights

Publication rights are held by the creator of the collection.

Digital Content

A selection of slides and photographs from the collection are in digital format; researchers may inquire in advance regarding access to these materials.

Restrictions

Original films and tapes in series 13) AUDIOVISUAL RECORDINGS are restricted; however, all have been digitized and viewing/listening copies are available upon request.
BIOGRAPHICAL

Scope and Content of Series
Series 1) BIOGRAPHICAL: The series begins with a group of folders containing copies of documents obtained by SIO Archivist Deborah Day, at Munk's behest, from the FBI and Department of Defense regarding his government security clearance and background checks in the 1940s and 1950s. These documents provide a thorough account of Munk's early years and include brief, redacted interviews with colleagues and acquaintances. The series continues in approximate chronological order with biographical supporting documentation, such as files on Munk's appointments at Scripps and UC San Diego (including recruitment correspondence), short interviews and profiles, birthday materials, and a consolidated section of awards at the end.

Walter Munk Freedom of Information Act (FOIA) security clearance files
Box 1, Folder 1
SIO Archivist memo 2001
Box 1, Folder 2
Army FOIA documents
Box 1, Folder 3-4
Defense Investigative Service FOIA documents
Box 1, Folder 5
Department of Justice - INS FOIA documents
Box 1, Folder 6-7
Federal Bureau of Investigation (FBI) FOIA documents
Box 1, Folder 8
FBI - San Diego, FOIA documents
Box 1, Folder 9
Navy FOIA documents
Box 1, Folder 10
Columbia University transcript 1937
Box 1, Folder 11
Announcement of the final examination for the PhD of Walter Munk, UC Graduate Division, Southern Section 1946
Box 2, Folder 1-4
Annual supplement to UC bio-bibliography forms 1947-1995
Box 2, Folder 5
Academic appointment and recruitment correspondence 1954-1968
Box 2, Folder 6
Autobiographical statements for McGraw Hill 1966-1979
Box 2, Folder 7
List of Walter Munk's talks and lectures 1968-1982
Box 2, Folder 8
"The music of the tides" - Profile on Munk and deep sea capsule research by unidentified author ca. 1968

Walter Munk Papers

SMC 0017
Box 2, Folder 9  Oral history transcript with corrections - Interview by Robert Calvert, Texas A & M University 1976
Box 2, Folder 10  Short interviews and profiles ca. 1980
Box 2, Folder 11  Clippings and publicity ca. 1980-1993
Box 2, Folder 12  Memo from Claude ZoBell to Betty Shor re: Munk's claim to be sole SIO 1939-47 graduate student 1980 March 20
Box 2, Folder 13  65th birthday - "The luck of Walter Munk, " essay by Roger Revelle 1982
Box 2, Folder 14  65th birthday - Correspondence 1982
Box 2, Folder 15-16  65th birthday - Symposium 1982
          General note
          Includes photographs.
Box 3, Folder 1  "Walter Munk and his 3-D ocean" - Draft profile on Munk by unidentified author ca. 1984
Box 3, Folder 2  Dept. of Defense questionnaire 1992
Box 3, Folder 3  75th birthday party - invitation 1992
Box 3, Folder 4-6  80th birthday - Cards 1997
Box 3, Folder 7  80th birthday - Celebration in Geophysics and Oceanography 1997
Box 3, Folder 8  Bibliography, including tomography contributions 1999
Awards and Recognition
Box 3, Folder 9  Miscellaneous awards and certificates 1945-1994
Box 3, Folder 10  California Scientist of the Year 1969
Box 3, Folder 11  Maurice Ewing Award 1976
Box 3, Folder 12  U.S. Navy Captain Conrad Award for Scientific Achievement 1978
Box 3, Folder 13-14  Fulbright Award, Cambridge University - Sabbatical 1980-1981
Box 3, Folder 15  National Medal of Science 1985
Box 4, Folder 1  National Medal of Science - Correspondence 1985
Box 4, Folder 2  William Bowie Medal, with remarks 1989
Box 4, Folder 3  Vetlesen Award 1993
Box 4, Folder 4  ARCS Scientist of the Year Award 1993
Box 4, Folder 5  Inamori Foundation Kyoto Prize - Schedules, ephemera and notes 1999
Box 4, Folder 6-8  Inamori Foundation Kyoto Prize - Correspondence 1998-2000
Box 4, Folder 9  Inamori Foundation Kyoto Prize - Photographs 1999

CORRESPONDENCE
Scope and Content of Series
Series 2) CORRESPONDENCE. Correspondence is arranged as it was when it was donated by Munk, in two subseries: A) A-Z, and B) Chronological. It is possible that letters from a single correspondent may be found in both subseries. Given the exceptional length of Munk's career and his decades of close collaboration with other scientists, the correspondence collected here is not comprehensive. However, additional correspondence (including print-outs of emails) can be found in other series where it was filed by Munk among related materials, particularly in the NATIONAL RESEARCH COUNCIL, ACOUSTIC TOMOGRAPHY, and UC SAN DIEGO series.

A) Alphabetical (A-Z): Arranged by surname of the correspondent, or in some cases, topic of the correspondence (an example is the Carl Eckart files, which contain more letters about the Eckart estate and memorial arrangements than letters directly exchanged between Munk and Eckart). Highlights of the alphabetical correspondence includes Munk's letters with Henry Stommel, Harald Sverdrup, Cecil Green, William Nierenberg, the American Miscellaneous Society (AMSOC), and two folders of letters sent by UC San Diego chancellors.

B) Chronological: The chronological correspondence files begin in earnest in 1980, with only a handful of letters written before that date. It includes both incoming correspondence and carbon copies of Munk's outgoing replies.

Alphabetical (A-Z)
Box 5, Folder 1  Abelson, Philip 1985
Box 5, Folder 2  Acoustical Oceanography Group 1990-1991
Box 5, Folder 3  Acoustical Society of America 1975
Box 5, Folder 4  Advanced Research Projects Agency (ARPA) ca.1960
Box 5, Folder 5  American Academy of Arts and Science 1971-1980
Box 5, Folder 6  American Association for the Advancement of Science (AAAS) - Consortium of Affiliates for International Programs (CAIP) 1985
Box 5, Folder 7  American Geophysical Union (AGU) - General correspondence 1965-1988
Box 5, Folder 8  AGU - Nomination of John Orcutt for M. Ewing Medal 1993
Box 5, Folder 9  American Meteorological Society 1970, 1994
Box 5, Folder 10-15  General note
Includes folder on Michèle Fieux, Albatross Laureate.

Box 5, Folder 16  American Philosophical Society 1963-1983
Box 5, Folder 17  Anastasion, Steven N. (re: Doherty Lecture) 1989
Box 5, Folder 19  Arrhenius, Gustaf 1968, 1973
Box 5, Folder 20  Asmus, John 1963-1978
Box 6, Folder 1  Backus, George 1966-1995
Box 6, Folder 2  Baker, James 1993-1996
Box 6, Folder 3  Baker, Mark 1982-1985
Box 6, Folder 4  Barger, James E. 1978-1982
Box 6, Folder 5  Barnett, Tim 1983-1985
Box 6, Folder 6  Bates, Charles (Naval Oceanographic Office) 1968
Box 6, Folder 7  Beebe, Mary (Stuart Collection and Committee on External Art) 1983-1986
Box 6, Folder 8  Bennett, Andrew and David Cartwright 1983
Box 6, Folder 9  Bezdex, Hugo 1982-1990
Box 6, Folder 10  Birch Aquarium 2000-2001
Box 6, Folder 11  Bradner, Hugh 1971-1982
Box 6, Folder 12  Brown, Michael 1978-1996
Box 6, Folder 13  Brunno, Franco (cousin of Walter Munk) 1987-1991
Box 6, Folder 14-15  General note
Includes letter by Roger Revelle.

Box 6, Folder 16  California Institute of Technology 1966
Box 6, Folder 17  Cambridge University Press re: Edits to new edition of The Rotation of the Earth 1974-1975
Box 6, Folder 18  Campbell, William re: Nelly Mognard 1982
Box 6, Folder 19  Carrier, George 1954-1973
Box 7, Folder 1  Charnock, Henry re: Wave forecasting with Sverdrup 1976-1986
Box 7, Folder 2  Committee on Climate Change and the Ocean (CCCO) 1989
Box 7, Folder 3  Cook, A. H. re: Commemorative service for Sir Edward Bullard 1980
Box 7, Folder 4  Cosmos Club 1977-1993
Box 7, Folder 5  Craig, Harmon re: Award nominations for Hans Suess 1991
General note
Includes letter by Roger Revelle.

Box 7, Folder 6  CSIRO, Australia 1981-1982
Box 7, Folder 7  Dashen, Roger re: Joint U.S.-Canadian experiment on SAR imaging on Georgia Strait 1983
Box 7, Folder 8  Day, Deborah re: Edits to Day's account of Roger Revelle 1984
Box 7, Folder 9  deGroot-Hedlin, Catherine 1993
Box 7, Folder 10  di Sciara, Giuseppe 1984-1988
General note
Includes planning correspondence for Cambridge Honorary Degree.
Box 7, Folder 11  Doel, Ron re: Munk oral history 1998
Box 7, Folder 12  Dworski, George 1990-1994
Box 7, Folder 13  Eckart, Carl - Retirement, memorial and estate 1969-1974
Box 7, Folder 14  Emery, W. J. 1982-1984
Box 7, Folder 15  Fisher, Robert re: Roger Revelle 1991
Box 7, Folder 16  Flatté, Stanley M. re: Fluctuations of Sound Transmission in the Sea 1975
Box 7, Folder 17  Fofonoff, Nicholas 1970
Box 7, Folder 18  Forbes, Andrew 1989-1996
Box 7, Folder 19  Gaffney, Paul G. 2000
Box 7, Folder 20  Gagosian, Richard re: Henry Stommel Medal 1999
Box 7, Folder 21  Gardner, David Pierpont 1985
Box 7, Folder 22  Garrett, Christopher 1975-1992
Box 7, Folder 23  Geophysical Fluid Dynamics (editorial board, editor Paul Roberts) 1976-1978
Box 7, Folder 24  Georges, T. M. (Wave Propagation Lab, NOAA) 1987
Box 7, Folder 25  Georgevic, Robert 1979
Box 7, Folder 26  Gill, Adrian 1982-1988
Box 7, Folder 27  Godfrey, Stuart and Elizabeth 1984
Box 7, Folder 28  Goldberg, Ed 1980-1987
Box 8, Folder 1-9  Green, Cecil 1960-1980
Box 8,  Green Foundation 1982-1985
Folder 10-12
Box 9, Folder 1-2  Green Foundation 1986-1989
Box 9, Folder 3  Groves, Gordon 1964-1983
Box 9, Folder 4-5  Guggenheim Fellowship 1947-1952
Box 9, Folder 6  Hackett, Edward (NSF, re: Rainger's Revelle proposal) 1996
Box 9, Folder 7  Hall, Anita 1983
Box 9, Folder 8  Hasselman, Klaus (Max-Planck Institut) 1980-1992
Box 9, Folder 9  Hitch, Charles 1969-1971
Box 9, Folder 10  Hollister, Charles 1986
Box 9, Folder 11  Huppert, Herbert E. (re: Australia National University) 1991
Box 9, Folder 12  Inamori, Kazuo 2000

General note
Includes photograph.

Box 9, Folder 13  Isaacs, Mary Carol (re: John Dove Isaacs Chair in Natural Philosophy and AMSOC award) 1982-1983
Box 9, JASON 1974-1983
Folder 14-17
Box 10, Folder 1-3  JASON 1984-2001
Box 10, Folder 4  Jones, James 1983
Box 10, Folder 5  Keeling, Ralph 1999
Box 10, Folder 6  Kennedy, John and Timothy Shriver 1975
Box 10, Folder 7  Kennel, Charles 1998-2005
Box 10, Folder 8  Kerr, Clark 1959-1996
Box 10, Folder 9  Keynes, Richard O. 1992
Box 10, Folder 10  Knox, Robert 1985-1986
Box 10, Folder 11  Kvammen, Ken (re: Han Li Mao) 1998
Box 10, Folder 12  LaFond, Eugene (re: Exodus and red sea tides) 1972
Box 10, Folder 13  Lancaster, Justin 1981-1994
Box 10, Folder 14  Lazier, John (re: plankton distribution) 1988-1989
Box 10, Folder 15  Ledwell, Jim 1999
Box 10, Folder 16  Loder, Anthony c/o Peter Y. Hong, Los Angeles Times re: Hedy Lamarr 1997
Box 10, Folder 17  Luther, Douglas 2001
Box 10, Folder 18  Mandelbrot, Benoît B. 1975
Box 10, Folder 19  Marine Technology Society 1978-1985
Box 10, Folder 20  Marqueze, R. (French Syndicate, America's Cup) 1994
Box 10, Folder 21  McKisic, Mike 1985
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<th>Box 10, Folder 22-23</th>
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<td>Box 11, Folder 1</td>
<td>Miles, John 1982-1994</td>
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<td>Box 11, Folder 2</td>
<td>Miller, Jack C. 1977-1984</td>
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<td>Box 11, Folder 3</td>
<td>Moncur, Rex (Director, Antarctic Division) 1989</td>
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<td>Box 11, Folder 4-5</td>
<td>Monin, Andrei S. 1969-1992</td>
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<td>General note</td>
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<td>Includes correspondence relating to publication of Monin's book, <em>Earth's Rotation and Climate</em>.</td>
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<td>Box 11, Folder 6</td>
<td>Moore, Dennis 1968-1970</td>
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<td>Morawitz, Werner 1989-1995</td>
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<td>Most, Nathan 1995</td>
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<td>Munk, Alfred Otto (brother) re: James Schlesinger 2000</td>
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<td>Box 11, Folder 10</td>
<td>Murray, Bruce 1982</td>
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<td>Box 11, Folder 12</td>
<td>National Science Board re: Roger Revelle receiving Vannevar Bush Award 1984</td>
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<td>Box 11, Folder 13</td>
<td>Naval Underwater Systems Center, New London, CT 1979</td>
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<td>Box 11, Folder 14</td>
<td>Nierenberg, William A. 1968-1993</td>
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<td>Box 11, Folder 15</td>
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<td>O’Conner, John 1983</td>
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<td>Box 11, Folder 17</td>
<td>Patrinos, Aristides 1991-1992</td>
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<td>Box 11, Folder 18</td>
<td>Penner, Sol 1968</td>
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<td>Box 11, Folder 19</td>
<td>Phi Beta Kappa 1988</td>
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<td>Box 11, Folder 20</td>
<td>Planeix, J.M. re: ISSC ’88 meeting 1987</td>
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<td>Box 11, Folder 21</td>
<td>Pleass, Charles M. 1976-1977</td>
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<td>Box 11, Folder 22</td>
<td>Powers, Dennis 1993</td>
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<td>Box 11, Folder 23</td>
<td>President’s Committee on the National Medal of Science 1995</td>
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<td>Box 11, Folder 24</td>
<td>Press, Frank 1959-1977</td>
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<td>Box 12, Folder 1</td>
<td>Radok, Rainer 1965-1976</td>
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<td>Box 12, Folder 2</td>
<td>Raleigh, Barry re: Continental Margins Workshop 1987</td>
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<td>Box 12, Folder 3</td>
<td>Rausing, Hans 1999</td>
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<td>Box 12, Folder 4</td>
<td>Rehder, Harald (Smithsonian Institution) 1970</td>
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<td>Revelle, Roger 1942-1991</td>
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<td>Box 12, Folder 11</td>
<td>Romm, Joseph 1984-1987</td>
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<td>Box 12, Folder 12</td>
<td>Rossby, H. Thomas 1975</td>
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<td>Royal Astronomical Society, London 1983</td>
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<td>Runcorn, S. Keith 1963-1969</td>
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<td>The Royal Society, London 1976-1980</td>
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<td>Ryan, Paul (ed. <em>Oceanus</em>) 1984</td>
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<td>San Diego Museum of Man 1971</td>
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<td>Sanford, Thomas B. 1984</td>
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<td>Box 12, Folder 19</td>
<td>Savit, Carl H. 1988</td>
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<td>Box 12, Folder 20</td>
<td>Schauer, Charles and Peggy 1979</td>
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<td>Box 12, Folder 21</td>
<td>Send, Uwe 1995-1996</td>
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<td>Box 12, Folder 22</td>
<td>Shrock, Robert re: “Spring Stirring” diorite by D. Hord 1985</td>
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<td>Singer, S. Fred re: Revelle <em>Cosmos</em> controversy 1992, 1999</td>
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<td>Box 12, Folder 24</td>
<td>Società Italiana di Fisica 1979</td>
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<td>Box 12, Folder 25</td>
<td>Spiess, Fred 1985-1987</td>
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<td>Box 12, Folder 26</td>
<td>Sproul, Robert G. 1953-1956</td>
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<td>Stevens, Raymond 1979</td>
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<td>Stewart, R. W., Symposium in honor of - Planning 1990</td>
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<td>Box 13, Folder 2</td>
<td>Stewart, Robert H. 1975-1989</td>
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<td>Stommel, Henry 1947-1993</td>
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<td>Stommel Memorial Fund 1994-1995</td>
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Thursday Club 1986-1987

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Tukey, John 1959-1966, 1985

Box 14, Folder 5
Twelve-Thirty Club of La Jolla 1986

Box 14, Folder 6-7
UC San Diego Chancellor correspondence 1967-2006

Box 14, Folder 8
U.S. House of Representatives, Subcommittee on Oceanography 1983

Box 14, Folder 9
U.S. Navy and Medea 1984

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U.S. Navy. ONR correspondence 1975-1979

Box 14, Folder 14
University Corporation for Atmospheric Research 1984

Box 14, Folder 15
University of Alaska, Fairbanks - Chapman Lecture 1994

Box 14, Folder 16
Wadhams, Peter 1988-1992

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Wallich, Henry C. 1979

Box 14, Folder 18
Washburn, Wilcomb E. re: Revelle/Singer Cosmos controversy, and Cosmos Club 1995

Box 14, Folder 19
Welander, Pierre 1958-1971

Box 14, Folder 20
Weiss, Ray 1988

Box 14, Folder 21
Westinghouse Electric Corporation, Oceanic Division 1967-1979

Box 14, Folder 22
Whitcomb, James H. (ISTAC, Inc.) re: seafloor positioning 1984-1985

Box 15, Folder 1
Wilcox, Howard A. (Naval Ocean Systems Center) 1982

General note
Includes copies of Wilcox's publications and technical memoranda on underwater acoustics.

Box 15, Folder 2
Wimbush, Mark 1969-1976

Box 15, Folder 3
Woods Hole Oceanographic Institution 1966-1973

Box 15, Folder 4
Woods, John

Box 15, Folder 5
Wunsch, Carl

General note
Additional correspondence with Wunsch may be found in the WRITINGS and ACOUSTIC TOMOGRAPHY series within related files.

Box 15, Folder 6
Wynn, Walter 1977-1984

Box 15, Folder 7
Wyrtki, Klaus re: sea level data and Chandler wobble 1986

Box 15, Folder 8
Yunwu, Li (VP, Institute of Oceanographic Instrumentation, National Bureau of Oceanography, China) 1982

Box 15, Folder 9-12

Chronological

Box 15, Folder 13
1963, 1968-1979

Box 15, Folder 14-16
1980 January-June

Box 16
1980 July-1982 August

Box 17
1982 September-1984 October

Box 18
1984 November-1986 June

Box 19
1986 July-1988 February

Box 20
1988 March-1990 June
Series 3) WAVE FORECASTING: During World War II, Walter Munk and Harald Sverdrup conducted research for the Department of Defense and Hydrographic Office (HO), investigating the problem of accurate wave forecasting to support proposed Allied amphibious landings off the North African coast. Their first report, *Wind waves and swell, a basic theory for forecasting* was printed in 1943. It was the basis for HO 601, *Wind, sea and swell: Theory of relations for forecasting* (1947), which became the classic reference for the subject. This series includes preliminary, typescript reports and training materials from the SIO wave research program, reports from parallel programs at WHOI, and photographic plates of waves, beaches and coastlines taken at the various measuring stations. It also includes some photographs of training exercises for LCVP landing craft.

Arranged in three subseries: A) SIO Wave Project, B) WHOI Wave Project, and C) Photographs.

SIO Wave Project

Box 23, Folder 1
Program for wave measurements proposed by Hydrographic Office, U.S. Navy at the Scripps Institution of Oceanography and Woods Hole- Proposal, memoranda, etc. 1943-1944

Box 23, Folder 2
Growth of wind waves - Figures

Box 23, Folder 3
Wind, Waves and Swell - Memoranda, drafts and corrections with Sverdrup 1942-1944

general note
Includes research on group velocity, decay of surface waves, wave trains, "the state of the sea," and damping of waves by oil.

Box 23, Folder 4
Wind, Waves and Swell (index and parts A-E, incomplete)

Box 23, Folder 5
Indices to SIO Wave Project reports

Box 23, Folder 6
Volume 1: Beach Erosion - Index and reports

general note
Includes reports 40 and 46 on longshore currents; missing report 38, Effect of wave refraction on breaker heights.

Box 23, Folder 7
Volume 2: Breakers and Surf - Index

general note
The collection is lacking the following Volume 2 reports: 9. Transformation of waves in shallow water: Introduction; and 24. Effect of bottom slope along SIO pier.

Box 23, Folder 8

Box 23, Folder 9

Box 23, Folder 10
Vol. 2, Reports 16 and 17. Waves in shallow water

Box 23, Folder 11
Vol. 2, Report 27. Observed changes in wave heights from deep to shallow water

Box 23, Folder 12
Vol. 2, Report 8. Height of breakers and depth at breaking: Preliminary report on results obtained at La Jolla and comparison with South Beach data and B.E.B tank results

Box 23, Folder 13
Vol. 2, Report 47. Height of breakers and depth of breaking: A re-examination of all available field and laboratory data

Box 23, Folder 14

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<th>Vol. 2, Report 43. New instructions for use of Plate III, H.O. 234</th>
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<td>Box 23, Folder 18</td>
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**General note**


**Box 24, Folder 1**

Volume 4: Depth Determination - Index and parts A-R

**Box 24, Folder 2**

Volume 5: Instruments and Observations - Index and parts 1A-7A

**Box 24, Folder 3**

Volume 5: Instruments and Observations (index and parts 8A-9A)

**Box 24, Folder 4**

Volume 6: Refraction, Diffraction, Laboratory: Landing Craft Characteristics

**Box 24, Folder 5**

Volume 7: Sea and Swell Codes, Miscellany (index and parts 1-11)

**Box 24, Folder 6**

Confidential papers issued to Navy classes in sea and swell forecasting (index and parts A-Q, incomplete) 1945

**Box 24, Folder 7**

Memorandum on a permanent swell recorder station at the Scripps Institution 1945, 1948

**Woods Hole Oceanographic Institution (WHOI) Reports**

**Box 25, Folder 1**

WHOI reports index

**General note**


**Box 25, Folder 2**

Photographic method for the measurements of surf (preliminary report) 1944 December 1

**Box 25, Folder 3**

Photographs of surf taken simultaneously from the ground and from the air during November and December 1944 1945 January 10

**Box 25, Folder 4**

Aerial photographs of measured surf conditions 1945 February 1

**Box 25, Folder 5**

Photographs of surf taken simultaneously from the ground and from the air during February 1945 1945 March 15

**Box 25, Folder 6**

Photographic illustrations of the Steere Surf Code 1945 April 15

**Box 25, Folder 7**

Steere Surf Code - Photographic plates 1-50 1945 April 15

**Box 25, Folder 8**

Steere Surf Code - Photographic plates 51-115 1945 April 15

**Photographs**

**Box 25, Folder 9**

Beach scenes - Setting up measuring stations, landing vehicles, etc. ca. 1939-1948

**Box 25, Folder 10**

Gifford Ewing - Aerial shots of breaking waves, impulsive trains, and the sea surface

**Box 25, Folder 11**

Beach breakers, primarily La Jolla ca. 1945-1947

**Box 25, Folder 12**

LCP landing craft training 1944 June

**Box 25, Folder 13**

Air at sea surface

**Box 25, Folder 14**

Aerial shots of bays 1945

**Box 26, Folder 1**

Oregon coastline 1945

**Box 26, Folder 2**

Farallon Islands, aerial views 1945

**Box 26, Folder 3**

Aerial views of Redondo Beach

**Box 26, Folder 4**

Aerial views of La Jolla coastline 1944-1945

**Box 26, Folder 5**

Aerial views of La Jolla coastline, taken by or for Sverdrup 1944 October 6

**Box 26, Folder 6**

Aerial views, miscellaneous 1944-1946

**Box 26, Folder 7**

Aerial views of coastlines with submarine ridges 1944-1946

**Box 26, Folder 8**

Aerial views of wave refraction on beaches and headlands 1944-1945

**Oversize MC-138, Folder 15**

Panorama double-print of the SIO pier from directly above 1944 June 2
WRITINGS AND TALKS

Scope and Content of Series
Series 4) WRITINGS AND TALKS: A selection of Munk's manuscript and typescript drafts of writings for publication, and lectures and/or public remarks. The writings are not comprehensive and do not include drafts of some important works. Munk often delivered remarks from roughly sketched outlines; a few additional outlines for public presentations can be found in the next series, embedded within his travel files for events, conferences and meetings (and are noted where they occur). Materials are arranged chronologically.

Box 27, Folder 1
Increase in the period of waves traveling over large distances: With applications to tsunamis, swell, and seismic surface waves - Dissertation for degree Doctor of Philosophy in Physical Oceanography 1946 October

Box 27, Folder 2
Putnam, Munk, and Traylor. The prediction of longshore currents 1948 May

General note
Wave Report no. 74, Hydrographic Office of Naval Research contract N6ori-111. Includes wave refraction figures.

Box 27, Folder 3
Harald Ulrik Sverdrup: An appreciation / In memoriam 1948, 1957

Box 27, Folder 4
Munk, Pierson, and Arthur. Convergence of wave energy along a refracted ray 1950

Box 27, Folder 5
Munk and Gordon Groves. A note on decompression for Aqua-lung divers ca. 1951

Box 27, Folder 6
Technical report ONRL-94-54. Oceanographic and Earth's Interior Program at the International Union of Geodesy and Geophysics meeting, Rome, Italy 1954 October 22

Box 27, Folder 7
Munk, Miller, Snodgrass and Barber. Directional recording of swell from distant storms 1963

Box 27, Folder 8
Munk and Cartwright. Tidal spectroscopy and prediction (photocopy with annotations) 1966

Box 27, Folder 9
Eulogy for Donal Hord 1966 July

Box 27, Folder 10

Box 27, Folder 11-12

General note
Published 1971. Includes correspondence and drafts.

Box 27, Folder 13
"Variability and prediction," lecture presented in Seattle, WA 1968 January

Box 27, Folder 14
Ocean tides and waves (abstract). Paper presented at UC Centennial Symposium on Oceanography, La Jolla, CA 1968 February 1

Box 27, Folder 15
AGU Bowie Medal citation for Roger Revelle 1968 April

Box 27, Folder 16
Comments on UCSD, the Regents, and the students. Unitarian Church, La Jolla 1968 December 1

General note
Comments on Herbert Marcuse.

Box 27, Folder 17-18
Munk, Snodgrass and Wimbush. Tides off-shore: Transition from California coastal to deep-sea waters - Correspondence and data 1968-1970

General note
Published 1970. Correspondents include: Carl Wunsch, Gordon Groves, Steacy Hicks, Ali Nowrooz, Bernard Zetler, Maurice Ewing, and David Cartwright.

Box 28, Folder 1
Munk, Snodgrass and Wimbush. Tides off-shore: Transition from California coastal to deep-sea waters - Figures and data 1968-1970

Box 28, Folder 2
Waves and turbulence ca. 1970

Box 28, Folder 3
Deep-sea tides (abstract). Presented at 8th Symposium on Naval Hydrodynamics, Rome, Italy 1970 August

Box 28, Folder 4
Concluding remarks and abstract, Joint Oceanographic Assembly on Physical Oceanography, Tokyo, Japan 1970 September
Garrett, Christopher and Munk. Space-time scales of internal waves - Draft and related correspondence 1970-1972
Box 28, Folder 5-6

Garrett, Christopher and Munk. Space-time scales of internal waves - Data printouts (oversize) 1970-1972
Box 77, Folder 1

Irish, Munk and Snodgrass. M₂ amphidrome in the Northeast Pacific 1971
Box 28, Folder 7

Box 28, Folder 8

On Columbus O'Donnell Iselin, published in Oceanus 1971 June
Box 28, Folder 9

Turbulence in a stratified ocean. Proceedings of a symposium at UC San Diego 1971 July
Box 28, Folder 10

Asmus, Wuerker, and Munk. Lasers and holography in art preservation and restoration 1972
Box 28, Folder 11

Intermittent temperature and salinity inversions by internal wave straining and their role in double-diffusion 1972
Box 28, Folder 12

Nierenberg and Munk. Sea spectra and radar scattering. Institute for Defense Analyses, JASON Summer Study Note N-817 1972 August
Box 28, Folder 13

Morse, Andrews and Munk. Report on exploratory development programs in the ocean sciences (Navy SysComs report) 1973
Box 28, Folder 14

Brown, Munk, Snodgrass and Zetler. Bottom pressures in the mode region 1973 August 3
Box 28, Folder 15

Munk, Snodgrass and Zetler. Oceanography from the bottom up. Published in Naval Research Reviews 1973 September
Box 28, Folder 16

Hendershott, Munk and Zetler. Ocean tides from SEASAT-A 1974
Box 28, Folder 17

Citation for Sir Edward Bullard on receipt of the William Bowie medal 1974-1975
Box 28, Folder 18

Spiess, Munk, Isaacs and Liebermann. Carl Eckart obituary 1974-1975
Box 28, Folder 19

The painful task of measuring low-frequency geophysical processes with drifting instruments (“clock problems”) ca. 1975
Box 28, Folder 20

Cairns, Munk and Winant. On the dynamics of neutrally buoyant capsules: An experimental drop in Lake Tahoe 1975-1977
Box 28, Folder 21-22

Munk and Worcester. Monitoring the ocean acoustically. Prepared for ONR’s 30th anniversary publication, Science Perspectives 1976
Box 29, Folder 1

Response to award of Maurice Ewing and Agassiz medals 1976 April
Box 29, Folder 2

Box 29, Folder 3

Sound transmission through a fluctuating ocean ed. Stanley M. Flatté ca. 1976-1979
Box 29, Folder 4-6

General note
Includes extensive correspondence and drafts.

Freak waves: Can they be avoided? 1977
Box 29, Folder 7

General note
Includes copy of MPL report on FLIP casualty in 1969 400 miles north of Oahu.

Visit to Tsingtao [China], based on notes by Jack Bryant and Walter Munk 1977
Box 29, Folder 8

General note
General Scientific Delegation (1977 trip) sponsored by Committee on Scholarly Communication with the People's Republic of China (CSCPRC).

Personal diary of journey to People’s Republic of China 1977 June-July
Box 29, Folder 9

General note
General Scientific Delegation (1977 trip) sponsored by Committee on Scholarly Communication with the People's Republic of China (CSCPRC).

Revelle model for the CO₂ pulse associated with the industrial revolution 1977
Box 29, Folder 10

Box 29, Folder 11
Box 29, Folder 12

General note
Includes lengthy technical memoranda regarding underwater acoustics.

Box 30, Folder 1

General note
Published as "Scattering of sound by internal wave currents: The relation to vertical momentum flux."

Box 30, Folder 2
Garrett, Christopher and Munk. Internal waves in the ocean, for Annual Review of Fluid Mechanics 1978

Box 30, Folder 3
AIP volume dedication to Sir Edward Bullard 1978

Box 30, Folder 4
Citation for Sir Edward Bullard on receipt of the Maurice Ewing Medal 1978

Box 30, Folder 5
Sabbatical leave report - Australia; and oceanographic delegation sponsored by Committee on Scholarly Communication with the People's Republic of China (CSCPRC) 1978 November

Box 30, Folder 6
Miscellaneous untitled lecture notes 1978-1979

Box 30, Folder 7-8

General note
Autobiographical essay (two versions; second version includes a biographical statement and bibliography for Munk). First folder includes a letter to Bullard.

Box 30, Folder 9
Horizontal deflection of acoustic paths by mesoscale eddies 1979

Box 30, Folder 10
Munk and Zetler. Tidal effects on long-range sound transmission - Correspondence and research notes 1979-1980

Box 30, Folder 11
Joint venture to study ocean acoustic tomography. Presented at OARS workshop, Seattle, WA 1980 January

Box 30, Folder 12
Internal wave spectra at the buoyant and inertial frequencies 1980

Box 77, Folder 3
Internal wave spectra at the buoyant and inertial frequencies - Graphs and plots (oversize) 1980

Box 31, Folder 1
Oceanic variability: How not to measure it. Presented at Cimas, University of Miami, FL 1980

General note
Includes transcript of discussion following lecture.

Box 31, Folder 2-3
Acoustics and ocean dynamics. Presented at Woods Hole Symposium on The Future of Oceanography 1980

Box 31, Folder 4

Box 31, Folder 5
Oceanic tomography: Hybrid analysis using rays and normal modes 1981

Box 31, Folder 6
Why is the Earth a poor timekeeper? Comments on The Earth’s variable Rotation: Geophysical Courses and Consequences by Kurt Lambeck 1981-1982

Box 31, Folder 7

Box 31, Folder 8
Munk and Wunsch. Observing the ocean in the 1990s 1982

Box 31, Folder 9
Munk and Wunsch. Up/down resolution in ocean acoustic tomography 1982

Box 31, Folder 10
Outline of Munk’s IGPP retirement speech 1982

Box 31, Folder 11
Dashen, Munk and Zachariasen. Letter to Andreassen and Harper (JASON document JSN-83-01) 1982 December

Box 31, Folder 12
Dashen and Munk. Three models of global ocean noise 1982-1983

Box 77, Folder 4
Dashen and Munk. Three models of global ocean noise - Data (oversize) 1982-1983

Box 32, Folder 1

Box 32, Folder 2
Briefing on state of science and technology understanding ocean circulation 1983 April 15
Box 32, Folder 3  Wave predictability: Short range and long range. Presented at Symposium on the Safety of Life Offshore, International Assoc. of Drilling Contractors (IADC), La Jolla 1983
Box 32, Folder 4  Acoustic sources. Presentation at Workshop on Transducers for Acoustic Tomography, Woods Hole 1983 August
Box 32, Folder 5  Remarks at Symposium in Honor of W. A. Nierenberg’s 65th Birthday 1983-1984
   General note
   Includes supporting materials.
Box 32, Folder 6  Talk on satellite observations given at International Ocean Technology Workshop, Nantucket Island 1984
Box 32, Folder 7  Memo on Test-Ban Treaty to Frank Press, President National Academy of Sciences 1984 August 27
Box 32, Folder 8  Cornuelle et al. Tomographic maps of the ocean mesoscale 1984
Box 32, Folder 9-11  Munk and Wunsch. Biases and caustics in long-range acoustic tomography 1984-1985
Box 33, Folder 1  Methods for exploring the large scale ocean turbulence. Prepared for Symposium on Perspectives in Fluid Dynamics in honor of Hans Liepmann, Cal Tech 1985
Box 33, Folder 2  Munk et al. Planning for the Ocean Science and Technology Directorate (JASON document JSR-85-208) 1985 July
Box 33, Folder 3  Introductory comments and rough transcript of oral history for ONR 40th Anniversary Symposium, Washington, D.C. 1985-1986
   General note
   Includes photographs and correspondence.
Box 33, Folder 9  "The IGPP mug shots: a Halloween surprise" - Notes and slides for a Geophysics Seminar on personal and architectural history of IGPP 1986 October 31
   General
   For a recording of this talk, see the AUDIOVISUAL RECORDINGS series.
Box 34, Folder 1-2  Munk and Wunsch. Acoustic tomography by Hamiltonian methods including the Adiabatic Approximation 1986-1987
   General note
   Includes notes entitled, "Adiabatic case à la Wunsch."
Box 34, Folder 3  Citation for Gordon Hamilton, and luncheon remarks, Baltimore, MD 1987
Box 34, Folder 4  Munk and Melbourne Briscoe. Sea-going measurements: Diminished by satellites and super-computers? 1987
Box 34, Folder 5  Munk and Worcester. Ocean acoustic tomography 1988
Box 34, Folder 6  Cornuelle, Munk and Worcester. Ocean acoustic tomography from ships 1988
Box 34, Folder 7  Munk, O'Reilly and Reid. Australia-Bermuda sound transmission experiment (1960) revisited 1988
Box 34, Folder 8  Munk and Forbes. Global ocean warming: An acoustic measure? 1989
Box 34, Folder 9  Refraction of acoustic modes in very long-range transmissions 1990
Box 34, Folder 10  The Heard Island Experiment. Inaugural lecture of the International Science Series, Washington, D.C. 1990 November 2
Box 34, Folder 11  Remarks for Roger Revelle memorial services 1991 July
Box 34, Folder 12  Scripps Institution of Oceanography: The Revelle Years 1991 August
WRITINGS AND TALKS

Box 34, Folder 13 Untitled paper on Roger Revelle and ONR 1991 September 25
Box 35, Folder 1 Global ocean warming. Presented at Roger Revelle Memorial Symposium, Harvard University, Cambridge, MA 1992 October 23-24
Box 35, Folder 2 Acoustic tomography of ocean climate. Presented at OECD Megascience Forum Expert meeting on Oceanography, Tokyo, Japan 1993

General note
Includes planning materials and visit to JAMSTEC.

Box 35, Folder 3-7 Ocean Acoustic Tomography - Correspondence re: comments and publication 1994-1995
Box 35, Folder 11 Remarks prepared for 10th Anniversary Meeting of the OSB, Woods Hole, RI 1995
Box 35, Folder 12 Remarks for Edward Frieman Symposium 1993 July 26
Box 35, Folder 13 The moon and mixing: Abyssal recipes II 1997 March-April
Box 35, Folder 15 “Sampling the oceans from above and beneath.” IAPSO President’s Invited Lecture 1997 June
Box 35, Folder 16 Munk and Wunsch. The moon, of course... 1997 December
Box 36, Folder 1 Remarks on Fred Zachariasen 2000 January 9
Box 36, Folder 2 “People, institutions, and discovery.” Remarks at ONR’s Oceanography: The Making of a Science colloquium 2000 February

General note
Includes correspondence on ocean drilling with Jerry Winterer, and historical notes on ONR/Navy support for SIO by Deborah Day. Presentation includes reminiscences on Maurice Ewing, Columbus Iselin, and Roger Revelle.

Box 36, Folder 3 “Ocean greats.” Remarks, at ONR’s Oceanography Greats Gala, Washington, D.C. 2000 March
Box 36, Folder 4 “Listening to climate change.” Reimer Lüst Lecture, Max Planck Institute of Meteorology 2000 March-April
Box 36, Folder 5 Harald Ulrik Sverdrup (1888-1957): Celebrating the return of the MAUD seventy-five years ago. Presented at Fram Museum, Oslo 2000 September 21
Box 36, Folder 6 Munk et al. Monitoring the ocean acoustically: A review and strategy for the future 2001
Box 36, Folder 7 "Tides and the climate." Remarks prepared for IAPSO/SCOR meeting, Victoria, B.C. 2004

General note
Includes information on Otto Pettersson, Harald Sverdrup, and internal tide research.

EVENTS, CONFERENCES AND MEETINGS

Scope and Content of Series
Series 5) EVENTS, CONFERENCES AND MEETINGS: Munk’s professional engagement files, arranged chronologically. Files include correspondence and materials relating to events and conferences, including travel itineraries, research agendas, and occasionally outlines of Munk’s contributions. With one early (1961) exception, the files begin in the 1970s, indicating Munk generally did not retain materials relating to professional travel and conference attendance prior to that date.

Box 36, Folder 8 Pugwash Conference (9th) on Science and World Affairs - Agenda for working groups 1962
Box 36, Folder 9 Fliers for Munk speaking events ca. 1971
Box 36, Folder 10 Physics Department Colloquium, UC Irvine 1973 January 12
Box 36, Folder 11  Aerospace Corporation - Scientific Data Potential of Military Satellites meeting 1977
Box 36, Folder 12  Naval Ocean Research and Development Activity (NORDA) lecture series 1979 November, 1984
Box 36, Folder 13  American Society of Limnology and Oceanography (ASLO) winter meeting, Los Angeles 1980 January
Box 36, Folder 15  Nonlinear Properties of Internal Waves workshop 1980
Box 36, Folder 16  U.S. Navy. Marginal Ice Zone (MIZ) Steering Committee meeting, Voss, Norway 1980
Box 36, Folder 17  3rd Conference on Atmospheric and Oceanic Waves and Stability 1980-1981
Box 36, Folder 18  World Climate Research Programme (WCRP). Committee on Climatic Changes and the Ocean (CCCO) and Joint Scientific Committee (JSC) study conference on Large-scale Oceanographic Experiments, Tokyo, Japan 1981-1982
Box 36, Folder 19  AGU annual meeting, Philadelphia, PA 1982
Box 36, Folder 20  Naval Research Laboratory, John W. Wright Memorial Lecture 1982
Box 36, Folder 22  UC Berkeley, Ocean Engineering graduate seminar 1982-1983
Box 36, Folder 23  PSAG meeting, Washington, D.C. 1983
Box 36, Folder 24  Celebration for Jule Charney, MIT 1983
Box 36, Folder 25  Alfred C. Redfield Memorial, Woods Hole 1983
Box 36, Folder 26  Integrated Global Ocean Monitoring (MONOC) symposium, Tallin, USSR 1983
Box 36, Folder 27  Scripps Anniversary Celebration: 80 years of Science and Service 1983

General note
Includes introductory remarks for Nierenberg and Frautschy, delivered by Munk.

Box 37, Folder 1  Alfred Wegener Konferenz on Air-Sea-Ice Interaction, Bremerhaven 1983
Box 37, Folder 2  Integrated Global Ocean Observing System (IGOSS) subject experts meeting 1983
Box 37, Folder 3  12-meter Design/Technology meetings for SAIC (re: America's Cup conditions off Perth) 1984
Box 37, Folder 4  Conference on the TOGA Scientific Programme, UNESCO, Paris 1984
Box 37, Folder 5  Frank Press 60th birthday symposium, Cambridge, MA 1984
Box 37, Folder 6  DOD Research Topical Review on Environmental Science, Annapolis, MD 1984
Box 37, Folder 7  AGU. Geophysics Research Forum Panel on Sea-Level Change (Chair, Roger Revelle), San Francisco, CA 1984
Box 37, Folder 8  CRP Review of Ocean Sciences Division of ONR, Washington, D.C. 1984
Box 37, Folder 9  U.S. Navy. Office of Naval Research (ONR) - Site reviews 1984-1990, 1994
Box 37, Folder 10  "Suess-Fest" to celebrate Hans Suess' 75th birthday, La Jolla, CA 1985
Box 37, Folder 11  CiMAS Visiting Scientist appointment, with trip to Haiti 1985
Box 37, Folder 12  American Statistical Association Symposium in Honor of John Tukey; Bell Laboratories Defense Policy and Technology Colloquium, New Jersey 1985
Box 37, Folder 13  H. Burr Steinbach visiting scholar at WHOI 1985
Box 37, Folder 14  ISFARS. 3rd Symposium on Acoustic Remote Sensing of Atmosphere and Ocean, Paris 1985
Box 37, Folder 15  PSAG, ONR, and NRC-OSB meetings, Washington, D.C. 1985
Box 37, Folder 16  Oceans 85. 10th anniversary joint MTS/IEEE Conference on Ocean Engineering and the Environment, San Diego, CA 1985
Box 37, Folder 17  Bell Laboratories General Research Colloquium 1985
Box 37, Folder 18  SIO-IEEE 4th Working Symposium on Oceanographic Data Systems, San Diego, CA 1986
Box 37, Folder 19  Honorary Degree ceremony, Cambridge University, followed by travel to Italy 1986

General note
Includes logistics and congratulatory correspondence; the Munk's visited Milan, Venice and Trieste and made arrangements with Giuseppe N. di Scara, Munk's aunt Hilda Brunner, and cousin Mark Brunner.

Box 37, Folder 20  International WOCE Core-3 project meeting, London 1986 September 2-5
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<td>Victor Starr Memorial Lecture, MIT, MA 1986</td>
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<td>National Academy of Sciences - 25th Anniversary of Deep Ocean Drilling symposium 1986</td>
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<td>National Academy of Sciences - Ocean Lithosphere Genesis and Ridge Crest Processes workshop 1986-1987</td>
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<td>Gifford C. Ewing Memorial, SIO, La Jolla 1987</td>
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<td>7th Joint Working Group Meeting for the U.S.-PRC (China) Marine and Fishery S &amp; T Cooperation Protocol, Catalina, CA 1987</td>
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<td>Ocean Principals Meeting (with Munk's introductory remarks), Washington, D.C. 1987</td>
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<td>NATO Advanced Research Workshop, France 1987</td>
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<td>Box 38, Folder 7-8</td>
<td>Tomography celebration and review meeting at SIO, La Jolla 1987</td>
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| Box 38, Folder 9  | IUGG - IAPSO General Assembly, Vancouver, Canada 1987        |
| Box 38, Folder 10 | PRC (China) Delegation visit for Ocean Resources Research, Development and Protection 1987 |
| Box 38, Folder 11 | Oceans 87, Halifax, Nova Scotia 1987                         |
| General note      | Includes Munk's outline of remarks for plenary session        |

| Box 38, Folder 12 | Applied Physics Laboratory (APL) building dedication, Seattle WA 1987 |
| Box 38, Folder 13 | Visit to Shirshov Institute of Oceanology, Moscow, USSR 1987      |
| General note      | Includes photograph                                             |

| Box 38, Folder 14 | Scientific Advisory Committee meeting of the Max-Planck-Institut, Hamburg 1987 |
| Box 38, Folder 16 | WOCE and POEM workshop, European Geophysical Society, Bologna, Italy 1988 |
| Box 38, Folder 17 | Institute of Acoustics Spring Conference, Cambridge, England 1988 |
| Box 38, Folder 18 | ONR Distinguished Speaker Colloquium, Washington, D.C. 1988 |
| Box 38, Folder 19 | Summer School of Theoretical Physics, "Tomography in geophysics" session, Les Houches, France 1988 |
| Box 38, Folder 20 | Tsunami Society Conference on Natural and Man-made Disasters in the Marine Environment, La Jolla CA 1988 |
| Box 39, Folder 1  | Ocean-Acoustic Modeling Interface Meeting, Washington, D.C. 1989 |
| Box 39, Folder 2  | SCOR-JOC Committee on Climatic Changes and the Ocean (CCCO), Halifax, Nova Scotia 1989 |
| Box 39, Folder 3  | WOCE Core Project 3 (CP3) meeting, Woods Hole, RI 1989          |
| Box 39, Folder 4  | The Oceanography Society (TOS) inaugural meeting 1989            |
| Box 39, Folder 5  | Tomography review meeting, Washington, D.C. 1989                 |
| Box 39, Folder 7  | Symposium on Tactical Oceanography. Naval Postgraduate School, Monterey, CA 1990 |
| Box 39, Folder 8  | NOAA-Navy Global Ocean Observations Workshop 1990                |
| Box 39, Folder 9  | Bermuda Shadow talk, Florida State University; ASA meeting and lecture, Penn State; Robert W. Stewart Symposium, Victoria, B.C.; Europe travel 1990 May-June |
| Box 39, Folder 10 | NATO Conference on Ocean Variability and Acoustic Propagation, La Spezia, Italy 1990 June |
| Box 39, Folder 11 | ONR/U.S. and Indian Academy of Science - Sponsored visit to India 1990 |
| Box 39, Folder 12 | Fondazione San Paolo di Torino. "Oceans, Climate and Man" international workshop, Italy 1991 |
| Box 39, Folder 14 | IUGG meeting - IAPSO Symposium 6 on Global Warming, Vienna, Austria 1991 |
| Box 39, Folder 15 | IUGG meeting - SCOR Working Group 96 (WG96) informal meeting, Vienna, Austria 1991 |
Box 39, Folder 16  IUGG meeting - Brunner and Steger (personal/family) correspondence, Austria 1991
Box 39, Folder 17  "The Bay Today" Monterey Bay Research Symposium, Ricketts Lecture 1991
Box 39, Folder 18  Strategies for Future Climate Research Symposium, in honor of K. Hasselmann's 60th birthday, Hamburg 1991
Box 40, Folder 1  ASA meeting, Houston, TX 1991
Box 40, Folder 2  ISCBR, AJ Jeff Holter Memorial Lecture, San Diego, CA 1992
Box 40, Folder 3  Royal Meteorological Society, Symons Lecture, London 1992
Box 40, Folder 4  PACON, Hawaii 1992
Box 40, Folder 5  IOC Blue Ribbon Panel for GOOS meeting, La Jolla, CA 1992
Box 40, Folder 6  Dec-Cen Workshop on Climate Variability on Decade-to-Century Time Scales, Irvine, CA 1992
Box 40, Folder 7  Roger Revelle Memorial Symposium, Harvard University, Cambridge, MA 1992
Box 40, Folder 8  GOOS workshop, Woods Hole, RI 1992
Box 40, Folder 9-10  Environmental Task Force meetings, McLean, VA 1992-1993
Box 40, Folder 11  5th International Congress on the History of Oceanography (ICHO V) 1993

General note
Includes abstract of Munk's remarks on Sverdrup.

Box 41, Folder 1  The Changing Climate, lecture appearance by Munk. Leif J. Sverdrup Visiting Scientist Program, Augsburg College 1994
Box 41, Folder 2  Sea Surface Sound conference, Lake Arrowhead, CA 1994
Box 41, Folder 3  SCOR Working Group 96 (WG96) meeting on Global Acoustic Monitoring, Kona, HI 1994
Box 41, Folder 4  European Acoustical Society meeting, Denmark 1994
Box 41, Folder 5  SOSUS Working Group meeting, Washington, D.C. 1994
Box 41, Folder 6  Summary report, "Acoustic techniques for measuring ocean variables: A review" - Joint Workshop on Acoustical Oceanography, La Jolla, CA 1994
Box 41, Folder 7  U.S. Navy/NOAA. Acoustic techniques meeting with Captain Bob Smart 1994
Box 41, Folder 8  R/V Roger Revelle launch 1995
Box 41, Folder 9  ERIM/ONR Deep Ocean Convection Workshop, La Jolla, CA 1995
Box 41, Folder 10  Joint U.S.-Russian Ecological/Environmental Seminar, Washington, D.C. 1995
Box 41, Folder 11  GLOBE USA Oceans Conference, with Chief of Naval Operations (CNO) luncheon with Admiral Boorda 1995

General note
Includes a talking points paper prepared for the Navy luncheon briefing.
| Box 42, Folder 2 | Office of Naval Research (ONR) 50th Anniversary Symposium 1996 May |
| Box 42, Folder 3 | U.S.-Korea Conference on Ocean Science and Technology 1996 June |
| Box 42, Folder 4 | 3rd European Conference on Underwater Acoustics, Crete, Greece - Munk awarded Honorary Doctorate from University of Crete 1996 June |
| Box 42, Folder 5 | Pacific Ocean Remote Sensing Conference (PORSEC), Victoria, British Columbia 1996 August |
| Box 42, Folder 6 | Fram Strait Workshop, Boulder, CO 1996 September |
| Box 42, Folder 7 | ASA-ATJ 3rd joint meeting - Papers on ATOC 1996 |
| Box 42, Folder 8-9 | Tidal Science conference, London (includes research-related correspondence on tidal mixing) 1996-1997 |
| Box 42, Folder 10 | Oceanology International 97 Pacific Rim conference, Singapore 1997 |
| Box 42, Folder 11 | Cuernavaca, Mexico trip planning (visit with Evelyn Lambert and University of Mexico) 1997 |
| Box 42, Folder 12 | Offshore Technology Conference (OTC) Award Luncheon for Ed Horton 1997 |
| Box 43, Folder 13 | SCOR meeting on Acoustic Monitoring of the World Ocean, Goa, India 1997 |
| Box 43, Folder 1 | Oceanography Society's Scientific Meeting, Reno 1999 |
| Box 43, Folder 2 | ASA-European Acoustical Association (EAA) joint meeting - Session in honor of Leonid Brekhovskikh 1999 |
| Box 43, Folder 3 | 36th European Marine Biology Symposium (EMB), Vienna 1999 |
| Box 43, Folder 4 | DEOS Global Working Group meeting, Dallas 1999 |
| Box 43, Folder 5 | North Pacific Acoustic Laboratory (NPAL) Experiment workshops 1999-2001 |
| Box 43, Folder 6 | IAPSO-IABO Joint Assembly 2001, Argentina 1999-2002 |

**General note**

Includes material in Munk's award of the inaugural Prince Albert I Medal.

| Box 43, Folder 7 | AGU meeting 2000 |
| Box 43, Folder 8 | Geophysical & Environmental Fluid Dynamics (GEFD) seminar series 2000 |
| Box 43, Folder 9 | Venice, Italy and Monaco trip planning 2000 |
| Box 43, Folder 10 | 12th 'Aha Hulik'o Hawaiian winter workshop 2001 |
| Box 43, Folder 11 | AGU meeting - Ocean observations: A session in celebration of Russ Davis' 60th birthday 2001 |
| Box 43, Folder 12 | Oceanology International Americas, Miami 2001 |
| Box 43, Folder 13 | Warren College Honors Banquet, with outline of remarks 2001 |

**NATIONAL RESEARCH COUNCIL**

**Scope and Content of Series**

Series 6) NATIONAL RESEARCH COUNCIL: For many years, Walter Munk served on one or more of the National Research Council's major commissions or boards, including the Commission on Physical Sciences, Mathematics, and Resources (CPSMR) and the Ocean Studies Board (OSB). In the early 1980s, the CPSMR sought to consolidate efforts related to ocean science and policy, and voted to merge the Ocean Science Board with the Ocean Policy Committee to form the OSB. In 1985, Munk became the OSB chair. In this capacity, he guided and influenced the national research agenda for the fields of oceanography and climate science, and served on joint review panels for NOAA, NASA, and the U.S. Navy. This series contains Munk's files from his years of service on boards, panels, and commissions for the NRC, and it includes correspondence, agendas, reports, and notes. Arranged in approximate chronological order.

| Box 44, Folder 1-3 | CPHMR (Commission on Physical Sciences, Mathematics, and Resources) - Correspondence, Biennial Program Plan, and meeting agendas 1982-1985 |

**General note**

Includes correspondence on the formation/merging of the Ocean Science Board and the Ocean Policy Committee, which was discussed at a June 1982 meeting.

| Box 44, Folder 4 | Committee on Global Change 1987 |
| Box 44, Folder 5 | Naval Studies Board - Classification of NOAA survey data in the U.S. Exclusive Economic Zone (EEZ) 1984-1989 |
Ocean Studies Board (OSB), aka Ocean Science Board, or Board on Ocean Science Policy (BOSP)

- Box 44, Folder 6: OSB - NASA study on satellites and oceanography 1979-1982
- Box 44, Folder 7-8: OSB - International Ocean Studies Policy (IOSP) 1984-1988
- Box 45, Folder 1: OSB - Notes ca. 1985
- Box 45, Folder 2-4: OSB - Correspondence and agendas 1985
- Box 45, Folder 5: OSB/Board on Atmospheric Sciences and Climate joint meeting agenda 1985 November
- Box 45, Folder 6-7: OSB - NOAA review/NOAA Panel 1985-1986
- Box 46, Folder 1-2: OSB - NOAA review/NOAA Panel 1987-1990
- Box 46, Folder 3: OSB - Ocean Climate Research Committee 1985-1986
- Box 46, Folder 4-7: OSB - Navy Panel 1985-1988
- Box 46, Folder 8: OSB - NASA briefing 1986
- Box 47, Folder 1-6: OSB - Correspondence and agendas 1986
- Box 47, Folder 7: OSB - Ocean research "Priorities Report" by Jim Baker, reviewed by Ocean Principals Group 1986-1987
- Box 47, Folder 8: OSB - CO₂ Panel with Roger Revelle 1987
- Box 47, Folder 9: OSB - Dinner meeting with remarks by Chairman Munk; 1987 annual report 1987-1988
- Box 48, Folder 1-8: OSB - Correspondence and agendas 1987-1988
- Box 49, Folder 1: OSB - Sponsored meeting on Heard Island at NAS; Navy Review Panel 1989
- Box 49, Folder 2-6: OSB - Correspondence and agendas 1989-1991

General note
1991 June file includes reports on "New opportunities in Ocean Acoustics" and "Directions for Physical Oceanography."

ACOUSTIC TOMOGRAPHY

Scope and Content of Series
Series 7) ACOUSTIC TOMOGRAPHY: Ocean acoustic tomography is an area of study focused on measuring ocean temperature through acoustics. Munk studied underwater acoustics for many years, engaging in several major research and experimental programs, including the Heard Island Feasibility Test (HIFT) and the Acoustic Tomography of the Ocean (ATOC) project. Munk consistently referred to these experiments as the most exciting of his career. His earliest files on ocean acoustics were simply labelled "OAT" for Ocean Acoustic Tomography; later files were organized by major project or experiment name. Munk originally organized the OAT files chronologically within binders; they include correspondence, meeting agendas, proposals, funding correspondence, and plans for further research. When the collection was processed, any additional OAT material discovered elsewhere in the papers was interfiled into the existing arrangement.

Arranged in four subseries, in approximate chronological order: A) OAT, B) Greenland Sea, C) Heard Island, and D) ATOC.

OAT

Box 49, Folder 7-10: OAT research - Correspondence, proposals and notes 1977-1979 March
Box 50, Folder 1-7: OAT research - Correspondence, proposals and notes 1979 April-1982
Box 51, Folder 1-5: OAT research - Correspondence, proposals and notes 1983-1988
Box 51, Folder 8: Proposal reviews 1980
Box 51, Folder 9: Charles Stark Draper Laboratory (CSDL). Ocean acoustic tomography engineering technical proposal 1980

General note
Proposal number 0-350.
Box 51, Folder 10  Spindel/WHOI. Ocean Acoustic Tomography - Proposal for NSF 1980
Box 51, Folder 11  Wunsch/MIT. Research on acoustic tomography - Proposal for NSF and ONR 1981
Box 52, Folder 1-6  OAT: A gyre-scale experiment and related research - Proposal, reviews, research plans and summaries ca. 1982-1984

General note
Joint project of the "Ocean Tomography Group," comprised of SIO, MIT, University of Michigan, and WHOI.

Box 52, Folder 7  Research on imploding devices for sourcing acoustic energy 1982
Box 52, Folder 8  Office of Naval Research (ONR) - Background and notes for discussion 1982-1983
Box 52, Folder 9  Proposals and bids for hydroacoustic sources 1983-1985
Box 52, Folder 10  Wunsch and Rizzoli/MIT. Studies of ocean variability by acoustic methods - Proposal for NSF and ONR 1983
Box 52, Folder 11  Riser/U. of Washington. RAFOS floats and acoustic tomography in the North Pacific - Proposal for NSF 1985
Box 52, Folder 12  Spiesberger/WHOI. Basin-scale acoustic tomography in the North Pacific - Proposal for NSF 1985
Box 52, Folder 13  Gyre-scale reciprocal transmission experiment 1985-1988

General note
Contains summaries, correspondence, and shipboard activity information.

Box 52, Folder 14  Spiesberger/WHOI. Tomographic studies of the Northeast Pacific 1987

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Greenland Sea Project

Box 53, Folder 1  Early correspondence 1980
Box 53, Folder 2-6  Project files 1984-1989
Box 53, Folder 7  Summaries and Greenland Sea diary 1988-1989

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Heard Island Feasibility Test (HIFT)

Box 54, Folder 1  Map of Heard Island 1949
Box 54, Folder 2-7  General documents - Correspondence, notes, presentation information and supporting materials 1988-1994
Box 54, Folder 8-9  Acoustic sources - Research material and product information 1987-1993
Box 54, Folder 10  Electromagnetic source development - Proposal by Hydroacoustics Incorporated 1988
Box 54, Folder 11  Technical capabilities of Actran Systems - Low frequency projector systems 1988
Box 54, Folder 12  Effects of noise impacts on marine mammals, whales - Notes, correspondence, data and reports 1988-1991
Box 55, Folder 1  Lister generators 1989
Box 55, Folder 2  Sonar equation 1989
Box 55, Folder 3  Washington, D.C. meetings 1989
Box 55, Folder 4  Munk, Spindel, and Birdsall (co-principal investigators). Acoustic Global Warming Feasibility Experiment - Proposal to NOAA 1989
Box 55, Folder 5  Considerations and planning for use of the ship MV Cory Chouest 1989-1991

General note
Includes correspondence, notes, schedules, and plans.

Box 55, Folder 6-9  SIO meetings 1989-1991
Box 55, Folder 10  Funding and budget planning 1989-1991
Box 55, Folder 11  Cables 1990
Box 55, Folder 12  Fisher, Fred. Large vertical array deployment to receive signals from Heard Island - Proposal to DOE 1990
Box 55, Folder 13  Equipment shipment to Goa, India 1990

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Walter Munk Papers
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<tr>
<th>Box 55, Folder 14</th>
<th><strong>Greenpeace 1990-1991</strong></th>
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<td><strong>[Post-HIFT] location report files, by location ca. 1990-1991</strong></td>
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<td>General note</td>
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<td></td>
<td>Includes: Nova Scotia, Bermuda, India, Cape Town, Mawson Station, and Tasman Sea (New Zealand).</td>
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<tr>
<td>Box 57, Folder 1-7</td>
<td><strong>[Post-HIFT] location report files, by location ca. 1990-1991</strong></td>
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<td>Includes: N. Atlantic (USSR), Christmas Island, Kergulen, Maatsuyker Island (Tasmania), Monterey, DREP, and Hawaii.</td>
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<td>Box 57, Folder 8</td>
<td><strong>Heard Island: An Experiment in Sound - Film script and production correspondence 1990-1991</strong></td>
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<td>Box 57, Folder 9</td>
<td><strong>Press release materials and interview correspondence 1990-1991</strong></td>
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<td>Includes two photographs of Jacques Cousteau.</td>
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<td>Box 57, Folder 10</td>
<td><strong>Transmission loss (TL) data and calculations 1990-1991</strong></td>
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<td><strong>SCOR Working Group 96 (WG96), Acoustic Monitoring of Global Ocean Warming (AGLOW) - Correspondence and proposals 1990-1991</strong></td>
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<td>Box 57, Folder 12</td>
<td><strong>Cohen, John 1991</strong></td>
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<td>General note</td>
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<td>Includes correspondence and Roger Revelle's response to Cohen's <em>Science</em> article, claiming that sound transmissions could damage marine mammals.</td>
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<td>Box 57, Folder 13</td>
<td><strong>Dworski, George and Munk. A ship note on Heard Island intensities 1991</strong></td>
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<td>Box 57, Folder 14-15</td>
<td><strong>Incoming shipboard correspondence 1991</strong></td>
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<td><strong>Miscellaneous figures - Transparencies and photocopies</strong></td>
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<td>Box 58, Folder 8-11</td>
<td><strong>Photographs - Heard Island, F. Snodgrass, ships and equipment</strong></td>
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<td>General note</td>
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<td>Includes figure transparencies, and photographs of Frank Snodgrass, ships, and equipment.</td>
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<td>Box 58, Folder 12</td>
<td><strong>Negatives</strong></td>
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<td>General note</td>
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<td>Includes purpose statement, outline of tasks, and statements of work.</td>
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<td>Box 59, Folder 2-8</td>
<td><strong>ATOC - Correspondence, hearings, and agendas 1991-1999</strong></td>
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<tr>
<td></td>
<td>General note</td>
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<td></td>
<td>General chronological files of ATOC-related documents including correspondence, memoranda, hearing information, meeting agendas and press releases.</td>
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</table>
Box 59, Folder 9  DARPA - Project file with correspondence, notes, and planning documentation 1991-1992
Box 59, Folder 10 DARPA - "Acoustic Thermometry of Ocean Climate" proposal 1992
Box 60, Folder 1  Effects of low frequency sound on marine mammals, ATOC/GAMOT - OSB meeting, National Research Council 1993
Box 60, Folder 2  Kauai source deployment and installation 1994
    General note
        Includes cruise plan, correspondence, cruise reports, and diary entries (typed).
Box 60, Folder 3  "Ocean Acoustic Observatories" proposal to ONR 1994 November
Box 60, Folder 4  Scripps, NRCD, SCLDF joint meeting on California and Hawaii MMRP and ATOC Projects 1995
Box 60, Folder 5  California Coastal Commission - Public hearing, San Mateo County/Carmel 1995
Box 60, Folder 6  Hawaii Dept. of Land and Natural Resources (DLNR) Board hearing, Kauai 1995
Box 60, Folder 7  ATOC Engineering Test (AET) meeting 1995
Box 60, Folder 8  Joint Ocean Climate Initiative, with outline and statement on ONR's role 1997-1998

SUBJECT/RESEARCH FILES
Scope and Content of Series
Series 8) SUBJECT/RESEARCH FILES: A modest assortment of unrelated subject and research files, arranged alphabetically by folder title. The series includes both committees and topical subjects. Highlights include Munk's notes from the Operation Crossroads nuclear tests conducted at Bikini Atoll, and subsequent Capricorn Expedition research; and Munk's extensive documentation of his visits to China and the Soviet Union.

Box 60, Folder 9  Acoustical monitoring of tidal vorticity 1982
    General note
        Includes correspondence with Andrew Bennett, David Cartwright, Carl Wunsch and Bernie Zetler
Box 60, Folder 10-12 Bermuda - Integrated Undersea Surveillance System (IUSS) / Sound Surveillance System (SOSUS) 1994-1996
Box 61, Folder 1  Bermuda Biological Station for Research 1974-1976
Box 61, Folder 2  Bikini - Notes on diffusion of radioactive material for Operation Crossroads 1946
Box 61, Folder 3  Bikini - Reef diffusion 1946
Box 61, Folder 4  Bikini - Coral reef breakwater photographs 1946
Box 61, Folder 5  Bikini - Tentative program proposal by Munk and Traylor, with notecards for prepared remarks 1946-1947
Box 61, Folder 6  Bikini - Reports, summaries, and data on wind and currents 1946
Box 61, Folder 7-9  Capricorn Expedition - Correspondence and miscellaneous 1951-1956
Box 61, Folder 10-11  Capricorn Expedition - Research notebooks 1952
Box 61, Folder 12  Cavitation and ferrofluids 1978-1982
Box 62, Folder 1  China - Scientific exchanges 1974-1977
Box 62, Folder 2-4 China - Scientific Delegation (1977 trip) sponsored by Committee on Scholarly Communication with the People's Republic of China (CSCPRC) 1977
    General note
        Includes handwritten travel notebook. See WRITINGS series for additional material.
Box 62, Folder 5  China - Scientific Delegation (1977 trip) sponsored by CSCPRC - Original color slides 1977
Box 62, Folder 6  China - Report to Canadian Dept. of External Affairs as Scientific Exchange Visitor, by Anthony Bidwell 1977
Box 62, Folder 7-12

General note
Includes photograph album.

Box 62, Folder 13

China - Oceanographic Research Vessels Delegation from Chinese Academy of Sciences (visit to SIO) 1978 March-April

Box 62, Folder 14

China - Marine Sciences Delegation from PRC (visit to SIO) 1978 May

Box 62, Folder 15

China - Visiting scholars 1978-1982

Box 63, Folder 1

China - Briefing notes from World Bank on fisheries; Inman letter re: NAS report on China 1980

Box 63, Folder 2

China - Trip to tour oceanography institutes in Guangzhou, Shanghai, Qingdao and Beijing 1986

Box 63, Folder 3-4

CSIRO Marine Laboratory 4-month sabbatical, Hobart, Tasmania 1989
General note
Includes a folder of correspondence re: visits by Admiral Wilson ("Smoke" Wilson) and Commander Higgins.

Box 63, Folder 5

Deep Sea Drilling Steering Committee

Box 63, Folder 6

Exponential horn undated

Box 63, Folder 7

Flextensional transducers 1982

Box 63, Folder 8

Frontier Challenger Expedition 1981

Box 63, Folder 9


Box 63, Folder 10

Hydroacoustics, Inc.
General note
Correspondence and water gun research proposal by John Bouyoucos.

Box 63, Folder 11

Institute for Naval Oceanography 1986-1987

Box 63, Folder 12

Intergovernmental Oceanographic Commission (IOC) budget 1985-1986

Box 63, Folder 13

Judith bottom capsule - History by Jim Cairns 1976

Box 63, Folder 14

Massachusetts Institute of Technology (MIT) Corporation Visiting Committee for Earth Sciences 1977-1982

Box 63, Folder 15

Max Planck Institute of Meteorology - Scientific Advisory Committee (SAC) 1987-1990

Box 64, Folder 1-6

Monterey Bay Aquarium Research Institute (MBARI). Program Planning Committee and Board of Directors 1986-2001

Box 64, Folder 7

MBARI - Ocean Acoustic Observatory proposal 1996

Box 64, Folder 8

General note
Includes material from NAC's Ad Hoc Informal Advisory Subcommittee on Weather, Climate, and Oceans, and Space and Terrestrial Applications Advisory Committee (STAAC).

Box 64, Folder 9

National Oceanic and Atmospheric Administration (NOAA) 1990-1991

Box 65, Folder 1

National Science Foundation. Advisory Committee for Ocean Sciences 1985

Box 65, Folder 2

Ocean Color Imager (OCI) 1985-1987

Box 65, Folder 3


Box 65, Folder 4

Pulse engines 1982

Box 65, Folder 5

Russia - Soviet scientists from R/V Vityaz visit Scripps 1958

Box 65, Folder 6

Russia - Academies of Sciences of USSR and USA, 1962 trip planning

Box 65, Folder 7

Russia - Academies of Sciences of USSR and USA, 1968 trip planning
General note
Includes extensive travel journal by Judith Munk describing time in Moscow.

Box 65, Folder 8

SAIC-MHI collaboration on a Pacific Ocean tomography network 1998
SUBJECT/RESEARCH FILES

Walter Munk Papers

Box 65, Folder 9

SEASAT project (ship wakes from space) 1983-1985

General note
Includes correspondence and research with Roger Dashen.

Box 66, Folder 1-3

Sverdrup, Harald - Freedom of Information Act (FOIA) security clearance files

Box 65, Folder 10

Tasman Sea experiments 1984-1986

Box 65, Folder 11

Thames Barrier, London 1983

Box 65, Folder 12

University of Delaware, Physical Ocean Sciences and Engineering - Planning Committee 1997

Box 67, Folder 1-4

Venice, Italy 1972-1976

Box 67, Folder 5

Whales and air guns/seismic blasts 1982

Box 67, Folder 6

Woods Hole Oceanographic Institution (WHOI) - Educational Committee 1965-1966

General note
Includes report by Norris W. Rakestraw.

UC SAN DIEGO AND SIO

Scope and Content of Series

Series 9) UC SAN DIEGO: Walter Munk was affiliated with the Scripps Institution of Oceanography, IGPP, and UC San Diego for the entire duration of his career. He kept a small, but important, series of files relating to his administrative role at the University, documenting his position in the development of the campus. Munk chaired the Academic Senate in the tempestuous year of 1969, and his Senate files contain notes, memoranda, and correspondence received during this time relating to various campus controversies. He kept files for only a small selection of the campus committees and task forces on which he served; these folders form a record of campus climate over time. Highlights include a file on the Central Library with letters from Roger Revelle, and other materials relating to new program development or architecture on campus. Materials are arranged alphabetically by folder title, with a small assortment of Munk's UC San Diego teaching materials consolidated at the end of the series.

Box 67, Folder 7

Academic Senate - Herbert Marcuse file 1968

Box 67, Folder 8-9

Academic Senate 1969-1970

General note
Include Munk's files and notes from his time as chair of the UC San Diego Division; includes topics such as Herbert Marcuse, Angela Davis, student protests and strikes, and military (classified) funding on campus.

Box 67, Folder 10-11

Academic Senate - Committee on Community Environment (Campus/Community Planning Committee) 1975-1977

Box 67, Folder 12

Academic Senate - Committee on Campus and Community Environment (Campus/Community Planning Committee) 1978-1980

General note
1980 folder includes detailed timeline of documents pertaining to acquisition of La Jolla Farms and Stables property.

Box 68, Folder 5

Academic Senate - Committee on Academic Freedom 1984-1985

Box 68, Folder 6

Academic Senate - Committee on Campus and Community Environment 1987-1988

Box 68, Folder 7

California Space Institute - Ad Hoc Committee 1979

Box 68, Folder 8

Center for Art/Science Studies - Advisory Committee 1976-1978

Box 68, Folder 9

Central Library - Correspondence with Mary Galbraith, Roger Revelle and others re: naming and expansion 1987

Box 68, Folder 10

Dynes, Robert C. Remarks, Council on Competitiveness Symposium on National Security 2002 October 8

Box 68, Folder 11

Energy Center - Ad hoc Committee for 5-Year Review 1985

Box 68, Folder 12

Engineering Research Center proposal 1984

Box 69, Folder 1

Graduate Program Review Visiting Committee for Scripps - Report 1993 May
Box 69, Folder 2  | Ida and Cecil Green Faculty Club 1987
Box 69, Folder 3  | Joint Institute for Marine Observations - MOU between NOAA, UC Regents and SIO undated
Box 69, Folder 4  | Joint NOAA/SIO Institute for Ocean and Atmosphere Observations proposal 1990
Box 69, Folder 5  | La Jolla Institute - UCSD
Box 69, Folder 6  | La Jolla Town Council - UCSD Committee 1967-1968
Box 69, Folder 7-8 | Museum of Oceanographic Instruments / Scripps Historical Oceanographical Instruments Collection 1986-1989
Box 69, Folder 9  | Oceanids Pavilion - Dedication to Ellen Revelle 1986
Box 69, Folder 10-11 | Old Scripps Building 1977-1982
Box 69, Folder 12 | Old Scripps Building Advisory Committee 1988-1989
Box 69, Folder 13 | Organized Research Unit (ORU) for Study of Global Change Processes proposal ca. 1987
Box 69, Folder 14 | Physical oceanography - Outline of major Scripps contributions undated
Box 69, Folder 15-17 | SIO business - Committees, correspondence and memoranda 1971-1979
Box 70, Folder 1-3 | SIO business - Committees, correspondence and memoranda 1980-2007
Box 70, Folder 4 | SIO Directorate - Short- and Long-range Planning Committees 1986-1987
Box 70, Folder 5 | SIO Policy Council 1987-1991
Box 70, Folder 6 | Secretary of the Navy Research Chair in Oceanography at SIO - Grant proposals 1985-1996
Box 70, Folder 7-8 | Secretary of the Navy Research Chair in Oceanography at SIO - Correspondence 1984-1996
Box 70, Folder 9 | Revelle College Dedication Committee 1965
Box 70, Folder 10 | Robert Paine Scripps Conference Center 2003-2005
Box 70, Folder 11 | UCSD School of Architecture Planning Committee 1985-1987

Box 70, Folder 12-13 | Teaching
Box 70, Folder 14 | TSIО 225 - Tides and rotation of the Earth 1970-1972
Box 70, Folder 15 | SIO 219 - Oceanic microprocesses 1971
Box 70, Folder 1 | SIO 211A - Ocean waves (Munk, Davis and Hendershott) 1973
Box 71, Folder 1 | SIO 90 - Freshman seminar 1974
Box 71, Folder 2-8 | SIO 219 - Case histories and methods in physical oceanography (Cox, Munk and Davis) 1973-1983
Box 71, Folder 9 | SIO 219 - Acoustic oceanography 1982
Box 71, Folder 10 | Physical Oceanography Student Ad Hoc Committee evaluations 1981-1986

IGPP
Scope and Content of Series
Series 10) IGPP: This small, two-box series contains the only archived copies of early correspondence, memoranda, and proposals relating to the founding of the Institute of Geophysics and Planetary Physics (IGPP) at UC San Diego. This material is found at the beginning of the series, followed by a folder of historical summaries and an IGPP timeline compiled by Orson Anderson. Other materials document the Munks’ generous funding and planning for the expansion of IGPP and the Scripps Crossing bridge in the 1980s and early 1990s. Files are arranged in approximate chronological order.

Box 71, Folder 11 | Photographs of original IGPP site, prior to construction
Box 71, Folder 12-17 | Founding documents and early correspondence 1959-1969
Box 72, Folder 1 | Proposals 1960-1961
Box 72, Folder 2 | First annual report ca. 1961
Box 72, Folder 3 | Building personnel and equipment summary for FY 1962-1963 ca. 1961
Box 72, Folder 4 | Summer Noon Series talk on "History of IGPP" 1975
Box 72, Folder 5 | Planning retreat at Meling Ranch 1981
Box 72, Folder 6-7 | Miscellaneous correspondence 1982-1996
Box 72, Folder 8 | "Significant dates" timeline and IGPP history documentation compiled by Orson Anderson 1982-1990
Box 72, Folder 9 | Physical Oceanography Building 1981-1983
Building extension and Scripps Crossing bridge - Outline and model photographs
undated

Building extension and Scripps Crossing bridge 1981-1990 August

Building extension and Scripps Crossing bridge 1990 September

Building extension and Scripps Crossing bridge - Dedication and awards 1993-1995

Brief history of the Institute of Geophysics and Planetary Physics (IGPP) 1989

Corrections to Director's Report 1990

IGPP Annual Meeting and institutional review, UC San Diego 2000

Orcutt, John. Statement on Program to Enhance the Strength of Cecil H. and Ida M.
Green Foundation for Earth Sciences 2001

Division of Geosciences proposal 2001

Shugart, Erika. Sounding out the ocean's secrets 1998

Spofford, C. W. (for SAI). Ray and mode characteristics for ocean acoustic
tomography 1981

Stommel, Henry. Works on tidal estuaries and estuary dynamics, with cover letter
1950

Stommel, Henry. Various articles, drafts, and reprints, lightly annotated/addressed
to W. Munk

Titus, Harold A. Conditional sampling for unusual events. Unpublished paper, Naval
Postgraduate School, Monterey, California 1970 August

Titus, Harold A. Conditional sampling - Graphs and plots (oversize)

Waltner, Alan. The regulation of marine scientific research: The experience of the
SIO's Acoustic Thermometry of Ocean Climates (ATOC) experiment 1997

Scope and Content of Series

Series 12) PHOTOGRAPHS: A very small selection of photographs, including only a few
portraits of Munk and his wife Judith. There are several good black and white digital
(scanned) images of Munk teaching, probably taken by a University photographer in the
mid-1960s. Photographs of people and Munk are at the beginning of the series, while the
latter half includes miscellaneous images, including a large assortment of slides.
Photographs from WWII-era wave forecasting research are in series 3, and slides and a
photograph album from the Munks' 1977 and 1978 trips to China are in series 8 with other
materials documenting those travels.

Portraits of Munk

Portraits of Munk - Digital scans of family photos

General note

15 tif images, scanned from family photos, of Munk throughout his life, including as a
toddler and young man.

Munk teaching - Digital scans of UCSD photos ca. 1965

General note

13 tif images, probably taken by a UC San Diego photographer, of Munk teaching a
lecture.

Samoan party at the Munks' home (photographs by Hugh Bradner) 1964

Maurice Ewing ca. 1948

Edward Teller ca. 1958

General note

Includes print of Teller with Roger Revelle on television, during what was probably
testimony at a hearing on science and the environment. Original source unknown;
image was used as Figure 1 in "Ivy-MIKE," by Munk and Deborah Day, 2003.
PHOTOGRAPHS

Box 74, Folder 12  Unidentified people

Box 77, Folder 5  Other

Box 74, Folder 13  "Punahawi S7 at Kamehameha [Ave.]" - People fleeing tidal wave in Hilo, Hawaii, by Cecilio Licas 1946 April 1

Box 74, Folder 14  Tsunami/tidal wave damage in Hilo, Hawaii 1946

Box 77, Folder 6  Scientific instruments and equipment

Box 74, Folder 15  Munk and Tucker - Figure 1. Aerial shot of sun refraction at sea 1951

Box 74, Folder 16  Wave refraction over and near Scripps Canyon

Box 74, Folder 17  Operation Glitter

Box 74, Folder 18  William von Arx - Rotating trough

Box 74, Folder 19  "Waves on Lake Chelan," Chelan series no. 437 by L. D. Lindsley 1908

Box 74, Folder 20  Ships and storms at sea, compiled by Charles C. Dixon

Box 74, Folder 21  Sea floor

Box 77, Folder 6  General note

Box 74, Folder 22  Sea spiders and brittle starfish, image taken by David M. Owen with Ewing undersea camera; images of Sylvania seamount.

Box 74, Folder 23  R/V E.W. Scripps off Guadalupe Island 1946

Box 74, Folder 24  Avalon Bay with large breaking waves, Catalina Island 1939

Box 74, Folder 7  Ripples and internal waves

Box 74, Folder 25  Ripples (oversize)

Box 74, Folder 26  "Spring Stirring" Hord sculpture installation, with Cecil and Ida Green 1963

Box 74, Folder 27  Walter Munk slide collection - ca. 625 slides, primarily images of published figures, and slides assembled for lecture presentations

Box 74, Folder 28  General note

Box 75, Folder 1  Slides have been digitized; see PDF inventory for description.

AUDIOVISUAL RECORDINGS

Box 75, Folder 1  "The mysteries of weather beneath the ocean surface." Walter Munk, SIO 75th Anniversary Lecture Series - 2 reels 1978 March 20

Box 75, Folder 2  New York Academy of Sciences, presentation of A. Cressy Morrison Presidential Award to Walter Munk - VHS and digital sound recording 1993 May 24

Box 75, Folder 3  Walter Munk interviewed by Laurence Armi - VHS and audiocassette 1994 September 28

Box 75, Folder 4  General note

Box 74, Folder 29  Interview by Armi sponsored by NCAR and the American Meteorological Society.

Box 75, Folder 4  Waves Across the Pacific (McGraw Hill Films) - Betacam video copy of original 16mm film print 1967

Box 76, Folder 1  General note

Box 75, Folder 5  Educational film documents an oceanographic experiment conducted by Walter Munk in 1963. Munk describes the use of wave stations to track waves from the southern storm belt. Includes footage of SIO, IGPP, and Frank Snodgrass.

Box 76, Folder 1  "Wave of the future." Walter Munk, Scripps Aquarium Associates evening lecture - Audiocassette 1986 July 11

Box 75, Folder 6  General

Box 76, Folder 2  The sound quality is poor and sometimes difficult to understand. Opening remarks were presented by Donald W. Wilkie, followed by Edward A. Frieman and UCSD Chancellor Richard C. Atkinson. Dr. Atkinson is followed by William A. Nierenberg, who introduces Dr. Munk.

Box 76, Folder 2  Walter Munk on IGPP and SIO history - Audiocassette 1986 October 31
<table>
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<tr>
<th>Box 76, Folder 3</th>
<th>&quot;Oceanography: a technology driven science.&quot; Walter Munk lecture - Audiocassette 1987 November 19</th>
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<td>Box 76, Folder 4</td>
<td>&quot;Heard Island.&quot; Walter Munk lecture, Sumner Hall - Audiocassette 1991 March 1 Walter and Judith Munk on &quot;The Lounge&quot; (KPBS radio show), interviewed on the occasion of SIO 100th anniversary 2003 September 9</td>
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