89th Congress }
1st Session }

COMMITTEE PRINT

Abridged Chronology of Events Related
To
FEDERAL LEGISLATION FOR OCEANOGRAPHY
1956-65

Prepared by
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JULY 15, 1965
(Revised July 21, 1965)

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Printed for the use of the Committee on Merchant Marine and Fisheries

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LETTER OF TRANSMITTAL

THE LIBRARY OF CONGRESS,
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Washington, D.C., July 15, 1965.

HON. ALTON LENNON,
*Chairman, Subcommittee on Oceanography, Committee on Merchant
Marine and Fisheries, House of Representatives, Washington, D.C.*

DEAR MR. LENNON: I am pleased to forward an "Abridged Chronology of Events Related to Federal Legislation for Oceanography, 1956-65" in response to your request.

This chronology was first prepared in January 1965 on the initiative of the Science Policy Research Division, when intensified activity in the 89th Congress in the field of ocean sciences and engineering was reflected in frequent requests for information and legislative research. The chronology has been periodically updated, and the enclosed material reflects congressional actions through July 15, 1965.

The study is in five parts. Part I is a chronology, beginning with landmark events in 1956, that highlights legislatively significant action by both the President and the Congress; Part II contains explanatory notes which elucidate contents of the earlier list; Part III is a brief summary of Federal funding in oceanography, by agency and functional area; Part IV contains a summary of congressional action by the 86th, 87th, 88th, and 89th Congresses related to oceanographic legislation, and Part V is a selected bibliography of those papers and articles bearing on elements of oceanography of legislative rather than scientific interest.

This chronology was prepared under the guidance of Dr. Edward Wenk, Jr., Chief of the Science Policy Research Division, with major assistance by Miss Florence Broussard, research assistant.

Sincerely,

HUGH L. ELSBREE, *Director.*

III

Abridged Chronology of Events Related to Federal Legislation for Oceanography 1955-65

PART I--CHRONOLOGY

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Abridged Chronology of Events Related to Federal Legislation for Oceanography 1956-65

PART I.—CHRONOLOGY

- August 9, 1956.* Rear Adm. Rawson Bennett, acting for Office of Naval Research and three other Federal agencies, requested President Detlev Bronk, National Academy of Sciences, to appoint a committee representing the scientific community to provide advice and guidance on needs and opportunities of oceanographic research (Note 1).
- November 1957.* First meeting of Committee on Oceanography, National Academy of Sciences (NASCO).
- April 29, 1958.* Agreements formulated by U.N. Conference on the Law of the Sea, Geneva, concerning sovereignty over territorial sea, contiguous zones, and Continental Shelf.
- December 27, 1958.* White House released report by the President's Science Advisory Committee on "Strengthening American Science" that recommended establishment of a Federal Council for Science and Technology to coordinate programs involving a large number of Federal agencies. This report also mentioned oceanography as an example of several fields warranting special stimulation.
- January 1, 1959.* Long-range planning for Navy oceanography embodied in report TĒNOC (Ten Years in Oceanography) endorsed by Adm. Arleigh A. Burke within budget limits considering other Navy needs (Note 2).

86th Congress

- February 15, 1959.* NASCO released its summary of 12-volume report on "Oceanography, 1960-1970," recommending that the Federal Government assume responsibility for accelerating a national program of research, surveys, education, and construction of facilities by approximately doubling the level of effort over the next 10 years. Increases in expenditures were proposed from about \$24-\$30 million for the base year 1958 to roughly \$80 million per year for the 1960-69 decade (Note 3).
- February 17, 1959.* House Merchant Marine and Fisheries Committee established Special Subcommittee on Oceanography.
- March 3 to June 2, 1959.* Hearings convened by House Merchant Marine and Fisheries Committee, under Special Subcommittee on Oceanography chaired by Congressman George P. Miller, on "Oceanography in the United States," testimony invited from 42 Government, university and industry witnesses concerning NASCO goals and proposals.

- March 13, 1959.* Federal Council for Science and Technology (FCST) established by Executive Order 10807, to advise and assist the President in Government-wide planning and coordination (Note 4).
- April 13, 1959.* H.R. 6298 introduced by Congressman Overton Brooks to amend National Science Foundation Act of 1950 so as to provide explicit financial assistance for university teaching facilities and for students in oceanography (Note 5).
- May 1959.* Subcommittee on Oceanography, later Interagency Committee on Oceanography (ICO), established under FCST to coordinate programs of some 15 Federal agencies having statutory authority to engage in some phase of oceanographic research (Note 6).
- June 22, 1959.* Senate Resolution 136, introduced by Senators Warren G. Magnuson, Clair Engle, and Henry M. Jackson, set forth national policy to strengthen the entire field of oceanography. Passed by the Senate unanimously, the resolution (1) emphasized importance of oceanography to the Nation and the existing legislative authority of many agencies to engage in oceanographic research, (2) commended the NASCO report, (3) concurred on NASCO recommendations for a well-balanced and coordinated expansion of the programs with increased Federal funds, (4) proposed interagency coordination be developed possibly through a new Oceanographic Research Board or Commission, and (5) urged increased international cooperation and data exchange subject to Presidential supervision.
- August 4, 1959.* S. 2482 to remove geographical limitations on operations of Coast and Geodetic Survey introduced by Senators Warren G. Magnuson and Clair Engle.
- August 11, 1959.* H.R. 8611, identical to S. 2482, introduced by Congressman Herbert C. Bonner.
- August 19, 1959.* S. 2482 passed by Senate.
- August 25, 1959.* Hearings convened on H.R. 6298 by House Science and Astronautics Committee, Subcommittee on Earth Sciences.
- September 5, 1959.* S. 2692, Marine Sciences and Research Act of 1960, introduced by Senator Warren G. Magnuson (with 12 other Senators), contained a specific declaration of policy to strengthen oceanography so that the United States would not be excelled by any other nation. To meet these objectives, it called for a comprehensive 10-year program of research and surveys explicitly following funding recommendations of NASCO, and coordinating Federal agencies through a new Division of Marine Sciences in the National Science Foundation (Note 7).
- January 6, 1960.* H.R. 9361, identical to S. 2692, was introduced by Congressman Thomas M. Pelly.
- February 9, 1960.* Hearings convened by special subcommittee of House Merchant Marine and Fisheries Committee on "Oceanography in the United States—Part II."
- February 15, 1960.* H.R. 10412, introduced by Congressman George P. Miller, to establish a public policy and Federal coordination of Federal oceanographic surveys, through a new coordinating Committee on Oceanographic Surveys representing seven agencies.
- April 15, 1960.* S. 2482 became Public Law 86-409.

- April 20-22, 1960.* "Marine Science" hearings on S. 2692 convened by Senate Commerce Committee.
- April 28-29, 1960.* General hearings on "Frontiers in Oceanic Research" convened by House Science and Astronautics Committee.
- May 2, 1960.* H.R. 12018, introduced by Congressman George P. Miller, to establish within Coast and Geodetic Survey a new National Oceanographic Data Center and National Instrumentation Test and Calibration Center (Note 8).
- May 17-25, 1960.* Hearings on H.R. 9361 convened by Special Committee on Oceanography, House Merchant Marine and Fisheries Committee.
- June 7, 1960.* Senate Commerce Committee reported out favorably Marine Sciences and Research Act, S. 2692, as amended; Senate Report 1525 (Note 9).
- June 17, 1960.* H.R. 12700, introduced by Congressman Overton Brooks to amend the NSF Act of 1950 by creating, in the National Science Board, a Special Committee on Marine Sciences composed of Government officials and university scientists to develop and encourage a national program in marine sciences, to encourage cooperation, and to evaluate Government-wide programs in this field.
- June 25, 1960.* Senate passed S. 2692 unanimously.
- July 1, 1960.* House Science and Astronautics Committee released Report 2078 detailing the importance of oceanography to the Nation, and resources necessary to achieve these goals, and concluding that a federally sponsored program was probably needed amounting to \$160 million per year for the next 10 years (Note 10).

87th Congress

- February 9, 1961.* S. 901, Marine Sciences and Research Act of 1961, similar to S. 2692 of 86th Congress, introduced by Senator Warren G. Magnuson.
- February 13, 1961.* H.R. 4276, Oceanographic Act of 1961, introduced by Congressman George P. Miller, to expand and develop aquatic resources of the United States by creating a new National Oceanographic Council with representation of six agencies at Cabinet level, (1) to develop long-range plans, (2) coordinate interagency programs, (3) to establish a new data center and instrumentation center, (4) to strengthen Smithsonian Institution activity in the programs, and (5) to report annually to Congress. The proposed National Oceanographic Council, patterned after the National Aeronautics and Space Council, was established under Public Law 85-568 when NASA was established.
- February 15, 1961.* H.R. 4340, introduced by Congressman George P. Miller, to expand functions of Coast Guard to include oceanographic research.
- February 15, 1961.* House Merchant Marine and Fisheries Committee established Standing Subcommittee on Oceanography.
- February 23, 1961.* Special message on Natural Resources transmitted to Congress by President John F. Kennedy, emphasizing, among other areas, need for oceanographic research.

- March 2, 1961.* S. 1189, introduced by Senator Warren G. Magnuson, to expand functions of Coast Guard to include oceanographic research.
- March 15, 16, 17, and May 2, 1961.* "Marine Sciences" hearings on S. 901 and S. 1189 convened by Senate Commerce Committee.
- March 29, 1961.* Executive Communication 734, transmitted to the Congress by President John F. Kennedy, supporting a sharply accelerated program of oceanography through supplemental appropriations for fiscal year 1962 (Note 11). (\$97.5 million requested; \$104.8 million appropriated.)
- April 27, 1961.* Hearings convened on H.R. 4340 by Subcommittee on Oceanography, House Merchant Marine and Fisheries Committee, "Oceanography, 1961—Phase 1."
- May 4, 1961.* H.R. 6845, introduced by Congressman George P. Miller, similar to S. 1189.
- May 22, 1961.* Hearings convened on "Project Mohole" by Subcommittee on Oceanography, House Merchant Marine and Fisheries Committee, "Oceanography 1961—Phase 2."
- June 19-23 and July 14, 1961.* Hearings convened on H.R. 4276 by Subcommittee on Oceanography, House Merchant Marine and Fisheries Committee, "Oceanography 1961—Phase 3."
- June 20, 1961.* Senate Commerce Committee favorably reported out S. 901; Senate Report 426 (Note 12).
- July 28, 1961.* S. 901 passed unanimously by Senate.
- October 5, 1961.* H.R. 6845 approved (Public Law 87-396).
- February 29 to March 2, 1962.* Hearings convened by Subcommittee on Oceanography, House Merchant Marine and Fisheries Committee, chaired by Congressman John Dingell, on effectiveness of FCST Intragency Committee on Oceanography.
- June 9, 1962.* Office of Science and Technology established in Executive Office of President under Reorganization Plan No. 2 (Note 13).
- July 18, 1962.* H.R. 12601 introduced by Congressman John Dingell, Oceanographic Act of 1962, to establish a national policy to develop and maintain a coordinated, comprehensive and long-range national program in oceanography. The bill gave the Office of Science and Technology (OST) responsibility to establish a national program in oceanography, through a newly established Assistant Director, provide an annual report on programs and Government-wide budgets to the Congress, and authorized a statutory advisory committee to serve OST composed of university and industry scientists.
- August 14, 1962.* "National Oceanographic Program for fiscal year 1963," developed by Federal Council's Interagency Committee on Oceanography, was released by Office of Science and Technology. (\$126 million requested; \$124 million appropriated.)
- August 14, 1962.* H.R. 12601, as a clean bill superseding H.R. 4276 reported out favorably by House Committee on Merchant Marine and Fisheries; House Report 2221 (Note 14).
- August 20, 1962.* H.R. 12601 laid on table; S. 901 amended to conform to language of H.R. 12601 and passed by House.

September 27, 1962. House and Senate conference committee on S. 901 reported out a bill similar to H.R. 12601 and urged passage by both Houses; House Report 2493. This bill was passed by both Houses prior to adjournment of 87th Congress, but then pocket vetoed by President Kennedy (Note 15).

88th Congress

January 9, 1963. H.R. 13, identical to amended version S. 901, passed by the 87th Congress and vetoed, introduced by Congressman Herbert C. Bonner. (H.R. 880, H.R. 895, H.R. 1001, H.R. 3119, and H.R. 4428 identical.)

January 31, 1963. S. 627, introduced by Senator E. L. Bartlett (and 30 others), would foster research and development to promote commercial fisheries through a program of Federal-State cooperative research.

June 12, 1963. H.R. 6997, introduced by Congressman Alton Lennon as "Oceanographic Act of 1963," similar to H.R. 12601 of 87th Congress, but revised to meet White House objections that brought pocket veto. The bill sets forth the national policy to develop and maintain a comprehensive, coordinated long-range program in oceanography; provides for President, with OST assistance, to develop goals, coordinate programs, and fix agency responsibilities and report annually to the Congress, and authorized seven-man advisory committee. (H.R. 7015, H.R. 7029, H.R. 7036, H.R. 7040, H.R. 7047, and H.R. 7922 identical.)

June 24, 1963. H.R. 6997 supported by Director, Office of Science and Technology, in letter to Chairman Bonner, House Merchant Marine and Fisheries Committee.

July 26, 1963. FCST long-range plan, "Oceanography: The Ten Years Ahead," and the "National Oceanographic Program for Fiscal Year 1964," prepared by the Interagency Committee on Oceanography and transmitted by Director, OST, to Congress (Note 16). (\$156 million requested; \$124 million appropriated.)

July 31, 1963. H.R. 6997 reported out favorably by House Merchant Marine and Fisheries Committee. (House Report 621; Reference 17.)

August 5, 1963. H.R. 6997 passed by House of Representatives.

February 26, 1964. S. 2552, introduced by Senator Warren G. Magnuson, to exempt oceanographic research vessels from the application of certain inspection laws and for other purposes.

March 19, 1964. "National Oceanographic Program for Fiscal Year 1965" transmitted to Congress by President Lyndon B. Johnson. (\$138 million requested; \$135 million appropriated.)

April 15, 1964. H.R. 10904, introduced by Congressman Bob Wilson, to establish a National Oceanographic Agency headed by Administrator appointed by President with Senate consent, with transfer of functions related to oceanography now vested in other agencies (Note 17).

May 13, 1964. H.R. 11232 introduced by Congressman Richard Hanna authorizes National Science Foundation to study legal problems arising out of management, use and control of natural resources of oceans and ocean beds.

May 20, 1964. S. 627 became Public Law 88-309; Senate Report 338.

May 27, 1964. H.R. 11419, introduced by Congressman Alton Lennon, similar to H.R. 11232 but authorizes study by Coast Guard.

June 10, 1964. Effective date for the Continental Shelf provision of treaty concerning Law of the Sea, from agreements formulated at Geneva April 29, 1958 (ratified by U.S. Senate May 26, 1960; Note 18).

June 23-30, 1964. Hearings on "National Oceanographic Program, fiscal year 1965," convened by Subcommittee on Oceanography, House Merchant Marine and Fisheries Committee.

July 9, 1964. S. 2990, introduced by Senator Warren G. Magnuson, to establish National Oceanographic Council, patterned after National Aeronautics and Space Council in the Executive Office of the President, to advise and assist in (1) surveying all significant oceanographic and marine science activities, (2) developing a comprehensive Federal program of oceanographic and marine science activities, (3) designating and fixing responsibility for the direction of major oceanographic and marine science activities, (4) providing for effective cooperation among all Federal agencies engaged in oceanographic and marine science activities, (5) resolving differences arising among agencies with respect to oceanographic and marine science activities, and (6) reviewing annually the oceanographic and marine science activities conducted.

Requires the Council to submit to Congress within 1 year after enactment a comprehensive program of proposed legislation in furtherance of oceanography and the marine sciences.

Provides for an annual report containing the activities and accomplishments in the field of oceanography and marine sciences during the preceding year and an evaluation of such activities and accomplishments.

August 1, 1964. S. 2552 passed Senate.

September 19, 1964. H.R. 5159 became Public Law 88-307 (introduced by Congressman Wayne N. Aspinall March 28, 1963), establishing a temporary Public Land Review Commission with instructions to submit a final report to the President and Congress not later than December 31, 1968, concerning the disposition or retention of public lands, included among which are the mineral resources defined "as being under the control of the United States in the Outer Continental Shelf."

December, 1964. NASCO issues report on "Economic Benefits From Oceanographic Research," recommending annual Federal support of \$280 million for the next 10 years (Reference 24).

89th Congress

January 4, 1965. H.R. 153, introduced by Congressman Peter W. Rodino, would provide for the establishment, under the National Science Foundation, of a National Science Academy. Section 13(a) would provide for establishment of specialized institutions including one in oceanography, as a means of advancing science and research activities of the Academy.

January 4, 1965. H.R. 921, identical to H.R. 10904 of 88th Congress, introduced by Congressman Bob Wilson, to establish the National Oceanographic Agency.

- January 11, 1965.* H.R. 2218, identical to H.R. 6997 of 88th Congress, introduced by Congressman Alton Lennon, to provide for a comprehensive, long-range and coordinated national program in oceanography. (H.R. 3310, introduced by Congressman Thomas M. Pelly on January 21, and H.R. 3352, introduced by Congressman Herbert C. Bonner on January 24, are identical.)
- January 19, 1965.* S. 627, introduced by Senator Warren G. Magnuson, to exempt oceanographic research vessels from the application of certain vessel-inspection laws, and for other purposes. (Identical to S. 2552, 88th Congress.)
- January 22, 1965.* Hearings convened by Subcommittee on Oceanography, House Committee on Merchant Marine and Fisheries ("Oceanography—Ships of Opportunity," Serial No. 89-1).
- January 24, 1965.* President's budget submitted, requesting \$141.6 million for oceanography.
- January 25, 1965.* H.R. 3419, introduced by Congressman Richard Hanna, to exempt oceanographic research vessels from the application of certain vessel inspection laws.
- February 1, 1965.* S. 909, introduced by Senator Warren G. Magnuson, to authorize the Secretary of the Interior to initiate a program for the conservation, development, and enhancement of the Nation's anadromous fish in cooperation with the several States.
- February 1, 1965.* S. 944, introduced by Senator Warren G. Magnuson, to provide for expanded research in the oceans and Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Similar to S. 2990 of 88th Congress, but with expanded scope.)
- February 1, 1965.* H.R. 3954, introduced by Congressman Thomas M. Pelly, to prohibit fishing in the territorial waters of the United States by vessels other than vessels of the United States in order to expand the definition of the term "fisheries."
- February 10, 1965.* S. 1091, introduced by Senator E. L. Bartlett, to provide a program of marine exploration and development of the resources of the Continental Shelf to be planned and conducted by a new operating commission-type agency (Note 19).
- February 18, 1965.* H.R. 5175, introduced by Congressman Alton Lennon, authorizes the Coast Guard to conduct a study of the legal problems of management, use, and control of the natural resources of the oceans and ocean beds.
- February 19, 1965.* Hearings on S. 944 convened by Senate Commerce Committee.
- March 2, 1965.* "National Oceanographic Program, fiscal year 1966," transmitted to Congress by President Lyndon B. Johnson.
- March 2, 1965.* H.R. 5654, introduced by Congressman Dante B. Fascell, to provide for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Identical to S. 944, 89th Congress.)
- March 5, 1965.* H.R. 5884, introduced by Congressman Ralph Rivers, to provide a program of marine exploration and development of the resources of the Continental Shelf. (Identical to S. 1091, 89th Congress.)
- March 9, 1965.* H.R. 6009, introduced by Congressman Hastings Keith, to provide a program of marine exploration and development of the resources of the Continental Shelf. (Similar to S. 1091, 89th Congress.)

- March 16, 1965.* Hearings on S. 944 convened by Senate Commerce Committee.
- March 17, 1965.* House Committee on Interior and Insular Affairs discharged from further consideration of H.R. 5884 and bill referred to House Committee on Merchant Marine and Fisheries.
- March 18, 1965.* H.R. 6457, introduced by Congressman Thomas L. Ashley, provides for a comprehensive, long-range, and coordinated national program in oceanography to be developed by a National Oceanographic Council established in the Office of Science and Technology. Functions of the Council are similar to those in S. 944; membership of the Council is at sub-Cabinet level, with the Chairman to be designated by the President from the Council members.
- March 18, 1965.* H.R. 6512, introduced by Congressman James G. Fulton, provides for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Identical to S. 944, 89th Congress.)
- April 6, 1965.* Senator Warren G. Magnuson received resolution adopted by State of Alaska urging congressional enactment of S. 944.
- April 8, 1965.* H.R. 7301, introduced by Congressman Richard Hanna, to provide for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Identical to S. 944.)
- April 8, 1965.* H.R. 7320, introduced by Congressman Hastings Keith, to exempt oceanographic research vessels from the application of certain vessel-inspection laws, and for other purposes.
- April 12, 1965.* Hearings on S. 944 convened by Senate Commerce Committee.
- April 13, 1965.* S. 1778, introduced by Senator Warren G. Magnuson, to establish the Bureau of Commercial Fisheries and the Bureau of Sport Fisheries and Wildlife as separate services in the Department of the Interior and to abolish the U.S. Fish and Wildlife Service.
- April 18, 1965.* White House releases Presidential announcement to develop small nuclear-propelled oceanographic submarine with responsibility assigned to Navy Special Projects Office (that concurrently is supporting a deep submergence search and research project in aftermath of *Thresher* loss).
- April 29, 1965.* S. 627 passed Senate without amendment; Senate Report 168.
- May 3, 1965.* H.R. 7798, introduced by Congressman J. Oliva Huot, to provide for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Identical to S. 944, 89th Congress.)
- May 3, 1965.* S. 627 referred to House Merchant Marine and Fisheries Committee.
- May 4-6, 1965.* Hearings on H.R. 3419 and H.R. 5175 convened by House Merchant Marine and Fisheries Committee.
- May 4, 1965.* H.R. 7849, introduced by Congressman Olin E. Teague, to provide for the development of ocean resources in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Generally combines provisions of S. 944 and S. 1091.)

- May 12, 1965.* S. 1954, introduced by Senator E. L. Bartlett, to protect coastal fishery and other resources by implementing the Convention on the Territorial Sea and the Contiguous Zone.
- May 13, 1965.* Reorganization Plan No. 2 of 1965, transmitted by the President to the Congress, intending to consolidate the Weather Bureau, Coast and Geodetic Survey, and later the Central Radio Propagation Laboratory of the National Bureau of Standards, all in Department of Commerce, to form a new Environmental Science Services Administration.
- June 9, 1965.* Hearings by House Committee on Government Operations on Reorganization Plan No. 2.
- June 15, 1965.* H.R. 9064, introduced by Congressman Paul G. Rogers, to establish a National Commission on Oceanography, composed of 15 members appointed by the President, to make a comprehensive investigation of oceanography and to recommend an overall plan for an adequate national oceanographic program. The bill calls for an interim report to be submitted within 1 year from enactment and a final report in no later than 2 years with the Commission terminated 30 days after the final report.
- June 28, 1965.* H.R. 9483, introduced by Congressman Ed Reinecke to establish a National Commission on Oceanography. (Identical to H.R. 9064, 89th Congress.)
- June 30, 1965.* S. 627 amended by House Merchant Marine and Fisheries Committee and reported favorably to the House; House Report 599 (Note 20).
- July 2, 1965.* H.R. 9617, introduced by Congressman Richard Hanna, to establish a National Commission on Oceanography. (Identical to H.R. 9064, 89th Congress.)
- July 7, 1965.* S. 2251, introduced by Senator Edmund S. Muskie, to coordinate and consolidate the major civilian marine and atmospheric functions of the Federal Government through the establishment of a Department of Marine and Atmospheric Affairs, to enunciate national policies pertinent to the marine and atmospheric interests of the United States, to further the expanded exploration of marine environs and the use of marine resources, to encourage research and development in the marine and atmospheric sciences and technologies, and for other purposes.
- July 7, 1965.* H.R. 9667, introduced by Congressman Thomas N. Downing, to establish a National Commission on Oceanography. (Identical to H.R. 9064, 89th Congress.)
- July 14, 1965.* S. 627 passed by the House, as amended, and referred back to Senate for concurrence.
- July 15, 1965.* S. 944, for expanded research in the oceans and the Great Lakes, and to establish a National Oceanographic Council, was unanimously voted out favorably by Senate Committee on Commerce, with amendments (Note 21).

PART II—EXPLANATORY NOTES

NOTE 1. Matters on which the proposed Academy committee was encouraged to provide advice include (1) problems arising from the international character of the oceans; (2) disposal of atomic waste; (3) long-range planning for development of oceanic food and mineral resources; (4) planning, coordination, and direction of purely scientific investigations, including requirements for added funding for conduct of research and new facilities (Reference 13, p. 23).

NOTE 2. The TENOC report projected growth in Navy research and development funding for oceanography from a \$7.6 million base for fiscal year 1959 to \$27.8 million in fiscal year 1969. Additionally, expenditures were projected over a 10-year interval of approximately \$63 million for buildings, piers, and 18 new ships. An analysis of these proposals is given on page 128 of Reference 7.

NOTE 3. Scope of the NASCO study is reflected in titles of the reports amplifying proposals (Reference 3).

- Basic research in oceanography during the next 10 years

- Ocean resources

- Oceanographic research for defense applications

- Artificial radioactivity in the marine environment

- New research ships

- Engineering needs for ocean exploration

- Education and manpower

- Oceanwide surveys

- International cooperation

- History of oceanography

- Marine sciences in the United States

The Committee's recommendations were intended to strengthen the marine sciences to a level consistent with both national needs and inherent limitations such as the rates at which ships and laboratories can be built and new oceanographers can be trained:

"1. The U.S. Government should expand its support of the marine sciences at a rate which will result in at least a doubling of basic research activity during the next 10 years.

"2. The increase in support of basic research should be accompanied during the next 10 years by a new program of oceanwide surveys. This will require a twofold expansion of the present surveying effort.

"3. The United States should expand considerably its support of the applied marine sciences, particularly in the areas of military defense, marine resources and marine radioactivity.

"4. The Navy and the National Science Foundation should each finance about 50 percent of the new basic research activity except ship construction. The Navy should finance 50 percent of the new research ship construction with the Maritime Administration and the National Science Foundation sharing the remainder. The Navy, through the Hydrographic Office, should finance 50 percent of the deep ocean surveys, while the Coast and Geodetic Survey should finance the balance. The Navy should sponsor completely all military research and development operations.

The Bureau of Commercial Fisheries should finance the greater part of the recommended ocean resources program. The Atomic Energy Commission should finance the major part of the research dealing with problems of radioactive contamination of the oceans. The National Science Foundation and the Office of Education should sponsor jointly the proposed program for increasing scientific and technical manpower in the marine sciences. Efforts aimed at fostering international cooperation in the marine sciences should be sponsored by the Department of State; the International Cooperation Administration, and the National Science Foundation. Other agencies should take responsibility for certain aspects of the proposed program, particularly the Public Health Service, the Geological Survey, and the Bureau of Mines.

"5. Private foundations and universities, industry, and State governments should all take an active part in the recommended program of expansion."

NASCO recommended funding in categories of basic research, biological and mineral resources, radioactivity in oceans, hydrographic surveys, ship operations, education and training, new laboratories, and research ships. Only funds over the 1958 base were recorded, and these have been added to Federal estimates for the base year of 1958 in Table 17 of Reference 7. The 10-year total amounts to \$867 million, of which \$347 million represents investments in new ships and facilities. After an interval of new ship construction, annual budgets would level off at about \$80 to \$85 million. In a more recent analysis of oceanography in terms of economic benefits (Reference 23) NASCO recommended annual Federal funding of \$280 million for the 1965-74 decade.

NOTE 4. The Federal Council for Science and Technology considers problems which affect more than one Federal agency or concern the overall advancement of the Nation's science and technology. More specifically, serving in an advisory capacity to the President and to heads of member agencies concerned, the Council is directed to recommend policies and other measures—

1. To provide more effective planning and administration of Federal scientific and technological programs;

2. To identify research needs, including areas of research requiring additional emphasis;

3. To achieve more effective utilization of the scientific and technological resources and facilities of Federal agencies, including the elimination of unnecessary duplication;

4. To further international cooperation in science and technology.

(See Reference 18.)

The Council is composed of the Special Assistant to the President for Science and Technology, who serves as Chairman, and officials with scientific or professional background of policy rank from eight departments and agencies most heavily engaged in scientific research and development. Observers are also appointed from Bureau of the Budget, Department of State, and Federal Aviation Agency.

Current membership of the Federal Council is listed below:

Dr. Donald F. Hornig (Chairman), Special Assistant to the President for Science and Technology

Dr. Nyle C. Brady, Department of Agriculture

Dr. Harold Brown, Department of Defense

Dr. Thomas F. Bates, Department of Interior

Dr. Edward W. Dempsey, Department of Health, Education, and Welfare

Dr. Leland J. Haworth, National Science Foundation

Dr. J. Herbert Hollomon, Department of Commerce

Dr. Glenn T. Seaborg, Atomic Energy Commission

Mr. James E. Webb, National Aeronautics and Space Administration

OFFICIAL OBSERVERS

Gen. William F. McKee, Federal Aviation Agency

Dr. Herman Pollock (Acting), Department of State

Dr. Herbert Scoville, Jr., Arms Control and Disarmament Agency

Mr. Edwin S. Mills, Council of Economic Advisers

Mr. Elmer B. Staats, Bureau of the Budget

EXECUTIVE SECRETARY

Dr. Charles Kidd, Office of Science and Technology

NOTE 5. The National Science Foundation is responsible for promoting education in the sciences but has carried out these functions by endeavoring to balance support in all fields without explicitly supporting any single one.

NOTE 6. Federal agencies currently participating in one or more aspects of oceanographic research and represented on the ICO include—

Navy Department: Office of the Oceanographer; Bureau of Ships; Bureau of Naval Weapons; Bureau of Yards and Docks; and Office of Naval Research

Army: Corps of Engineers

Commerce: Coast and Geodetic Survey; Weather Bureau;
Maritime Administration

Interior: Bureau of Commercial Fisheries; Geological Survey;
Bureau of Sports Fisheries and Wildlife; Bureau of Mines

National Science Foundation

Atomic Energy Commission

Health, Education, and Welfare: Public Health Service

Treasury: Coast Guard

Smithsonian Institution

State Department

Soon after its formation, the Interagency Committee on Oceanography undertook to tabulate oceanographic activities and budgets of these Federal agencies and denoted the aggregate set of activities as the "National Oceanographic Program." Subsequently, the ICO initiated Government-wide planning in oceanography such that the program of each agency reflected plans of others. Programs are now published annually by the ICO, the most recent presented as Reference 27. Government-wide budgets are listed by agency and by functions of research, surveys, ships, instrumentation, and shore facilities. No division is made between basic and applied research or engineering. Analysis of ICO operations are contained in References 7, 13, 22, and 25.

NOTE 7. This bill took explicit note of NASCO recommendations and TENOC, and provided for the construction of new ships, new facilities, and instruments, the development of manpower, the establishment of a national oceanographic records center and of international cooperation and emphasized application of oceanographic research to improve economic and general welfare related to living, marine resources.

The proposed Planning and Coordinating Division in the National Science Foundation was authorized and directed to develop a continuing national policy and program that included Navy's TENOC; to recommend contracts and grants for education and research; to encourage cooperation of participating Federal agencies, the NAS, and universities; to foster information exchange; and to evaluate scientific aspects of programs sponsored by the Federal Government. Highly detailed authorization was included in the bill in terms of funds, sizes, and numbers of ships, etc.

NOTE 8. The National Oceanographic Data Center would acquire, process, and disseminate a wide variety of scientific, technological, and related environmental information. It would be guided by an advisory board representing four other Federal agencies and reporting to the Secretary of Commerce. The National Instrumentation Center would provide test and calibration services for all Federal agencies and private institutions on a cost-reimbursable basis.

NOTE 9. In reporting out S. 2692 (Reference 6), the Senate Interstate and Foreign Commerce Committee noted that oceanography is

vital to national interests, that research in this field has been neglected and that it was the purpose of this bill to strengthen U.S. capabilities through a national policy of coordinated and balanced studies, the education and training of additional scientists, construction and operation of new ships and laboratories, the coordination of various Federal agency programs and improved international and inter-departmental exchange of data. The bill emphasized the importance of oceanography for military security and reflected a view that the U.S.S.R. program surpassed that of the entire free world.

The Senate report contains comments from the executive agencies, all opposing enactment of S. 2692. While supporting goals, the agencies and the Bureau of the Budget asserted that growing Federal budgets in oceanography were already responsive to the NASCO proposals, that extension of NSF authority to coordinate programs of other agencies was inappropriate, and that such coordination was being initiated under the Federal Council. There was also strong objection to the specificity of authorization.

NOTE 10. This 180-page analysis by the Legislative Reference Service (Reference 7) summarized arguments in support of oceanography by leaders of Congress and the executive branch, scientists, and others; inventoried existing U.S. capabilities in oceanography in terms of level of research, ships, laboratories, and manpower; made direct comparisons with Soviet oceanography; compared three different 10-year plans and identified issues in oceanography before the Congress concerning the degree of urgency, national goals and problems in organization to achieve these goals. The House Committee on Science and Astronautics endorsed the body of the report and added a set of 20 of its own conclusions that oceanography had been neglected, that expansion in the program was warranted by a factor of 4 over then-current levels and that such expansion could be achieved without waste through proper long-range and coordinated planning. The Committee was also sympathetic to the view that future expansion of oceanography should be concentrated more heavily in the civilian agencies than in the military, that although authority already existed for individual agencies to conduct parts of the program, coordination needed to be improved to meet criteria stated in the body of the report. The Committee also concluded that a major study of Federal organization for oceanography was necessary, particularly to explore whether objectives in program planning and coordination would best be accomplished through a new agency to plan and coordinate a national program, although major sectors would continue to be undertaken by existing agencies. Three advisory and coordinating committees were visualized; one similar to the ICO, one similar to NASCO, and a third reflecting interests of American industry and commerce.

NOTE 11. While Federal funding for oceanography was growing in fiscal years 1960 and 1961, questions were raised by congressional committees as to whether this represented increased support or whether the scope of definition of Federal activities encompassed by the National Oceanographic Program had been expanded without

actual increase in level of effort. The supplemental appropriations by President Kennedy explicitly increased funding to expand and replace the fleet that was made up almost exclusively of over-age converted ships, new shore facilities and new education and training programs. Survey and research programs were also somewhat increased (Reference 9, page 1). For funding trends, see Part III following these notes.

NOTE 12. In supporting the Marine Science and Research Act of 1961 (Reference 12), the Committee listed 15 benefits from an expanded program of oceanographic research in both the seas and the Great Lakes. The bill included a statement of national policy that a sustained program of scientific studies, surveys, education, and training were vital to defense, to rehabilitation of commercial fisheries, and increased utilization of marine resources, living, chemical, and mineral; development of a better scientific knowledge of the world around us and to expand the Nation's commerce and navigation. The bill also legislated a coordinating mechanism.

The report includes statements by executive agencies opposing the bill on the grounds that the administration was already accelerating oceanographic research budgets, that coordination was the responsibility of the newly founded FCST, so that all of the objectives of the bill would be accomplished without the need for new legislation.

NOTE 13. According to the President's letter of transmittal dated March 29, 1962, the Director, OST, is expected to advise and assist the President as the President may request with respect to—

"1. Major policies, plans, and programs of science and technology of the various agencies of the Federal Government, giving appropriate emphasis to the relationship of science and technology to national security and foreign policy, and measure for furthering science and technology in the Nation.

"2. Assessment of selected scientific and technical developments and programs in relation to their impact on national policies.

"3. Review, integration, and coordination of major Federal activities in science and technology, giving due consideration to the effects of such activities on non-Federal resources and institutions.

"4. Assuring that good and close relations exist with the Nation's scientific and engineering communities so as to further in every appropriate way their participation in strengthening science and technology in the United States and the free world.

"5. Such other matters consonant with law as may be assigned by the President to the Office."

Responsibilities for Government-wide planning and coordination in basic research and education had been the responsibility of the National Science Foundation. But since such policies transcend agency lines and since the Foundation is at the same organizational level as other agencies, new arrangements were instituted that permitted the President to utilize his Executive Office for advice and assistance on Government-wide issues in science and technology.

With this legislative base, the Congress would have access to scientific advice at the level of the President that had previously been denied the Congress when such advisory apparatus operating both as the FCST and the President's Science Advisory Committee was chaired by the President's Science Adviser and thus protected by Executive privilege.

NOTE 14. H.R. 12601 took note of the need for a strengthened program of oceanographic research, the interagency character of Federal programs, the objections raised by the executive branch to other proposed legislation and the recent establishment of the Office of Science and Technology for the explicit purpose of developing and coordinating programs that cross agency lines—and the need for a legislative base for an annual congressional review of Government-wide program and budgets previously lacking because the FCST had no legislative base.

The Committee report includes objections of the executive branch concerning H.R. 4276, and noting these objections, considered H.R. 12601 as a clean bill to supersede H.R. 4276. Detailed analysis of needs for a national policy and for coordination in oceanography are set forth in Reference 14.

NOTE 15. No explanation for the pocket veto of H.R. 12601 was released by the White House. From subsequent reports, hearings, etc., two major objections have been identified: First, that to give OST operating responsibility over other agencies violated the principles that it should only advise the President and not be interposed in lines of authority between the heads of other departments and the President. Second, the bill would also provide for a special staff in one field of science that could lead to a proliferation of such positions in OST for special fields of science. (See also House Report 621 accompanying H.R. 6997.)

NOTE 16. The report "Oceanography: The Ten Years Ahead" embodies for the first time a statement by the executive branch of a national goal in oceanography: "To comprehend the world ocean, its boundaries, its properties, and its processes, and to exploit this comprehension in the public interest, in enhancement of our security, our culture, our international posture, and our economic growth." The report also lists the coordinated plans for the decade 1963-72 of the 20 Federal agencies which conduct and sponsor oceanographic research. Included are a statement of research objectives and projections of the funds, facilities, and manpower needed for their accomplishment, categorized by agency, by function, and by subordinate goals of "strengthening basic science, improving national defense, managing resources in the world ocean, managing resources in domestic waters, protecting life and property, insuring the safety of operations at sea."

According to the forwarding memorandum, "This 10-year plan represents the best judgment of the Federal Council as to size and priorities of programs consistent with national requirements. It also takes into account the compatibility between funds, manpower, and facilities. It has been carefully reviewed by a number of outside consultants serving the Office of Science and Technology. But rather than an unalterable blueprint, this plan is more an outline—a statement of requirements in which context annual plans can be prepared. It will be supplemented by additional reports on special topics, such as manpower and instrumentation needs."

NOTE 17. This bill is patterned after proposals of the National Security Industrial Association that also urges a sharp increase in Federal funding to approximately \$900 million annually (Reference 21).

NOTE 18. Four conventions formulated at the UN Conference on the Law of the Sea: "Territorial Sea—Executive J," 86th Congress, 1st Session. A convention on the sovereignty over territorial sea and contiguous zones; ratified May 26, 1960 (became effective September 10, 1964).

"High Seas—Executive K," 86th Congress, 1st Session. A convention on international use of the high seas, ship registry and control, and the protection of the oceanic waters from pollution; ratified May 26, 1960 (became effective September 30, 1962).

"Fishing and Conservation—Executive L," 86th Congress, 1st Session. A convention on fishing and conserving the living resources of the high seas; ratified May 26, 1960. (Ratification by 22 nations required before the convention becomes effective; June 1, 1964, only 14 deposits of ratification had been received. As of October 1964, no additional ratifications had been received.)

"Continental Shelf—Executive M," 86th Congress, 1st Session. A convention on the sovereignty over the waters adjacent to the territorial sea to a depth of 200 meters or (beyond that depth to wherever exploitation of natural resources is practicable) and the exploring and exploiting of the Continental Shelf; ratified May 26, 1960 (became effective June 10, 1964).

NOTE 19. This bill would establish policy to accelerate exploration and development of physical, chemical, geological, and biological resources of the Continental Shelf, to encourage private investment in utilization of its resources, to determine benefits and to disseminate information on resources and to develop an engineering capability to operate on and above the Continental Shelf.

NOTE 20. Amendments removed the limitation on exemptions so as to treat all vessels engaged in oceanographic research on the same basis (Reference 30).

NOTE 21. The amendments to S. 944 (a) changed the title to "Marine Resources and Development Act of 1965"; (b) expand the definition of "marine sciences" to include engineering and technology; (c) expand the definition of "the marine environment" to include the oceans, Continental Shelf, Great Lakes, seabed and subsoil of the Continental Shelf provided for in the convention (Note 18); (d) a major amendment would authorize the President at his discretion to establish an ad hoc study commission which would serve under the Council, similar to that proposed under H.R. 9064, H.R. 9483, and H.R. 9617.

PART III

Federal support of oceanography, by agency and functional area, fiscal years 1960-66

[In millions of dollars] ¹

	1960	1961	1962	1963	1964	1965	1966
Agency:²							
Defense.....	32.0	31.6	42.1	55.2	54.6	65.1	68.0
Commerce.....	6.2	11.4	23.6	24.0	23.3	19.9	13.3
Interior.....	6.7	8.7	14.3	16.1	16.5	20.0	16.9
National Science Foundation.....	7.8	7.9	17.3	18.2	19.6	19.3	30.0
Atomic Energy Commission.....	1.7	1.7	4.1	5.4	3.8	4.0	4.6
Health, Education, and Welfare.....	.3	.7	3.1	4.1	2.9	3.5	4.4
Treasury.....	.1	.1	.1	.5	1.2	1.8	2.1
Smithsonian.....	(3)	(3)	.2	.4	.6	.9	1.7
State.....	(3)	(3)	(3)	(3)	.6	.6	.6
Functional area:							
Research ⁴	26.6	31.6	41.0	51.0	62.0	72.5	85.0
Surveys.....	13.4	14.9	17.4	18.5	24.1	27.1	30.6
Instrumentation.....		.9	3.0	6.6	6.4	8.8	8.2
Ship construction.....	13.5	14.0	34.0	38.1	25.5	20.7	13.4
New shore facilities.....	1.4	.4	8.9	9.2	5.1	6.0	4.4
Data center.....	.1	.3	.5	.6	.9	(3)	(3)
Total.....	55.0	62.1	⁵ 104.8	124.0	123.1	135.1	141.6

¹ Excludes classified applied oceanography programs of Navy, and Navy ocean engineering research on deep submergence search and rescue systems initiated after loss of the *Thresher* in April 1963; also some programs such as Mohole, categorized under earth science. Years 1960-64, obligations; 1965, estimated obligations; 1966, obligational authority requested in President's budget. Detail may not add to totals because of rounding.

² *Defense*: Navy and Army Coastal Engineering; *Commerce*: Coast and Geodetic Survey, Weather Bureau; *Interior*: Bureaus of Mines, of Commercial Fisheries, and of Sports Fisheries and Wildlife, and Geological Survey; *Health, Education, and Welfare*: Public Health Service; *Treasury*: U.S. Coast Guard.

³ Not explicitly identified.

⁴ Includes International Indian Ocean Expedition and ship operation costs.

⁵ Jump in funding from fiscal year 1961 largely due to supplemental budget request of President Kennedy in special message of Mar. 29, 1961.

Sources: 1960-63, "Oceanography—The Ten Years Ahead," Federal Council for Science and Technology, 1963; 1964-66, "The Budget of the United States Government," fiscal year ending June 30, 1966.

PART IV

Summary of congressional actions related to oceanographic bills, 86th, 87th, 88th, and 89th Congresses

Bill	Purpose	Action ¹
	<i>86th Congress</i>	
H. R. 6298----- S. Res. 136-----	Provide NSF support for oceanographic facilities and students----- Establish national policy in support of oceanography at funding levels recommended by National Academy of Sciences, with new Federal co- ordinating mechanism.	Hearings, HSA. Passed by Senate.
S. 2482 and H. R. 8611--	Remove geographical limitations on Coast and Geodetic Survey-----	Public Law 86-409, Apr. 15, 1960.
S. 2692 and H. R. 9361--	Establish national policy and 10-year authorization for program in oceanog- raphy at funding levels recommended by NASCO.	Passed Senate. Hearings, HMF.
H. R. 10412-----	Establish public policy and Coordinating Committee on Oceanographic Surveys.	
H. R. 12018----- H. R. 12700-----	Establish Data and Instrumentation Centers in Coast and Geodetic Survey-- Create program planning and coordinating body under NSF Science Board--	
	<i>87th Congress</i>	
S. 901----- H. R. 4276-----	Similar to S. 2692----- Establish Cabinet-level National Oceanographic Council to develop and coordinate national program in oceanography.	Passed Senate July 28, 1961. Hearings, HMF.
H. R. 4340, S. 1189 and H. R. 6845----- H. R. 12601-----	Expand functions of Coast Guard to include oceanography----- Assigns responsibility for developing and coordinating program in ocean- ography to Office of Science and Technology.	Public Law 87-396. Passed House and Senate as S. 901, but pocket vetoed.
	<i>88th Congress</i>	
H. R. 13----- H. R. 6997----- H. R. 10904-----	Similar to H. R. 12601----- Establishes national policy in oceanography with coordination by President with OST assistance. Establish National Oceanographic Agency to develop and sponsor Govern- ment-wide program.	Passed House Aug. 5, 1963.
H. R. 11232----- H. R. 11419-----	Authorizes NSF study of legal problems on ocean resources----- Authorizes Coast Guard study of legal problems-----	

S. 2552-----	Exempts oceanographic research vessels from application of certain vessel inspection laws.	Passed Senate Aug. 1, 1964.
S. 2990-----	Establish Cabinet-level National Oceanographic Council to develop and coordinate interagency program.	
<i>89th Congress</i>		
H.R. 153-----	Provides for establishment, under the National Science Foundation, of a National Science Academy; Section 13(a) would provide for establishment of specialized institutions, including one in oceanography, as a means of advancing science and research activities of the Academy.	Referred to HSA.
H.R. 921-----	Identical to H.R. 10904 (88th Congress)-----	Referred to HMF.
H.R. 2218-----	Identical to H.R. 6997 (88th Congress)-----	Do.
H.R. 3310-----	Identical to H.R. 2218 (89th Congress)-----	Do.
H.R. 3352-----	Identical to H.R. 2218 (89th Congress)-----	Do.
H.R. 3419-----	Exempts oceanographic research vessels from the application of certain vessel inspection laws.	
S. 627-----	Identical to S. 2552 (88th Congress); passed Senate April 29, 1965. Reported out of HMF June 30, with amendments.	Passed House with amendments July 14; passed Senate July 20 with House amendments. Referred to SC.
S. 909-----	Authorizes Secretary of Interior to initiate program for conservation, development and enhancement of Nation's anadromous fish in cooperation with several States.	
S. 944-----	Establishes a National Oceanographic Council and provides for expanded research in the oceans and Great Lakes (similar to S. 2990 of 88th Congress, but with expanded scope). Reported out of SC July 15, with amendments.	Reported with amendments from Senate Commerce Committee.
H.R. 3954-----	Prohibits fishing in the territorial waters of the United States by vessels other than vessels of the term "fisheries."	Referred to HMF.
S. 1091-----	Provides for a program of marine exploration and development of the resources of the Continental Shelf to be planned and conducted by a new operating commission-type agency.	Referred to SC.
H.R. 5175-----	Provides for a study of the legal problems of management, use, and control of the natural resources of the oceans and ocean beds.	Referred to HMF.
H.R. 5654-----	Provides for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council. (Identical to S. 944, 89th Congress.)	Referred to HMF.

See footnotes at end of table, p. 23.

Summary of congressional actions related to oceanographic bills, 86th, 87th, 88th, and 89th Congresses—Continued

Bill	Purpose	Action ¹
<i>89th Congress—Continued</i>		
H. R. 5884-----	Provides for a program of marine exploration and development of the resources of the Continental Shelf. (Identical to S. 1091, 89th Congress.)	Referred to HIIA; re-referred to HMF.
H. R. 6009-----	Provides for a program of marine exploration and development of the resources of the Continental Shelf. (Identical to S. 1091, 89th Congress.)	Referred to HIIA; re-referred to HMF.
H. R. 6457-----	Provides for comprehensive, long-range, and coordinated national program in oceanography.	Referred to HMF.
H. R. 6512-----	Provides for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council. (Identical to S. 944, 89th Congress.)	Do.
H. R. 7301-----	Provides for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council. (Identical to S. 944.)	Do.
H. R. 7320-----	Provides for exemption of oceanographic research vessels from application of certain vessel inspection laws.	Do.
S. 1778-----	Provides for establishment of Bureau of Commercial Fisheries and Bureau of Sport Fisheries and Wildlife Service.	Referred to SC.
H. R. 7798-----	Provides for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes. (Identical to S. 944, 89th Congress.)	Referred to HMF.
H. R. 7849-----	Provides for development of ocean resources, to provide for economic development of the Continental Shelf, to provide for expanded research in the oceans and the Great Lakes, to establish a National Oceanographic Council, and for other purposes.	Do.
S. 1954-----	Provides for implementing the Convention on the Territorial Sea and the Contiguous Zone.	Referred to SC.
Reorganization Plan 2 of 1965.	Consolidates Weather Bureau with Coast and Geodetic Survey into a new Environmental Science Services Administration in Department of Commerce.	Referred to SGO IIGO.

H.R. 9064-----	Provides for establishment of a National Commission on Oceanography-----	Referred to HMF.
H.R. 9483-----	Provides for establishment of a National Commission on Oceanography. (Identical to H.R. 9064, 89th Congress.)	Do.
H.R. 9617-----	Provides for establishment of a National Commission on Oceanography. (Identical to H.R. 9064, 89th Congress.)	Do.
S. 2251-----	Provides for a major Department of Marine and Atmospheric Affairs-----	Referred to SGO.
H.R. 9667-----	Provides for establishment of a National Commission on Oceanography. (Identical to H.R. 9064, 89th Congress.)	Referred to HMF.

¹ Key:

HSA: House Science and Astronautics Committee.

HMF: House Merchant Marine and Fisheries Committee.

SC: Senate Commerce Committee.

SGO: Senate Government Operations Committee.

HGO: House Government Operations Committee.

HIIA: House Interior and Insular Affairs Committee.

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2. "Education in the Field of Oceanography," hearing before the Subcommittee on Earth Sciences, House Committee on Science and Astronautics, 86th Congress, 1st session (on H.R. 6298), August 25, 1959.
3. "Oceanography, 1960-1970," National Academy of Sciences; 1958-59, 12 volumes.
4. "Oceanography in the United States," hearing before the Special Subcommittee on Oceanography, House Merchant Marine and Fisheries Committee, 86th Congress, 2d session, Part II, February 9, 1960.
5. "Marine Science," hearings before the Senate Committee on Interstate and Foreign Commerce, 86th Congress, 2d session (on S. 2692), April 20, 21, and 22, 1960.
6. "Marine Sciences and Research Act," Senate Report 1525, June 7, 1960 (to accompany S. 2692).
7. "Ocean Sciences and National Security," report of the House Committee on Science and Astronautics, 86th Congress, 2d session; House Report 2078, July 1, 1960.
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13. "Study of the Effectiveness of the Committee on Oceanography of the Federal Council for Science and Technology," hearings before the Subcommittee on Oceanography, House Committee on Merchant Marine and Fisheries, 87th Congress, 2d session, February 28, March 1 and 2, 1962.
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