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Report RL31117

*National Oceanic and Atmospheric Administration (NOAA):
FY2002 Budget Request and Appropriations*

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Updated January 4, 2002

Abstract. NOAA is the federal agency responsible for observation and research of the Earth's oceans and atmosphere, assessments of marine resources, long- and short-term environmental predictions, and public forecast and warning about weather and climate. This report provides details on the FY2002 budget request and appropriations for NOAA.

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January 4, 2002

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Summary

The National Oceanic and Atmospheric Administration (NOAA) is funded in Commerce, Justice, and State, the Judiciary and Related Agencies (CJS) annual appropriations. NOAA does not have an Organic Act that requires the agency budget, as a whole, be authorized on an annual basis; many NOAA programs are authorized under different public laws and committees of jurisdiction. NOAA is the largest agency in the Department of Commerce (DOC) and accounts for 61% of DOC's budget request for FY2002. There were congressionally mandated changes in NOAA's budget structure for FY2002. In addition, Data Acquisition funded under NOAA's National Ocean Service, National Marine Fisheries Service, and Oceanic and Atmospheric Research lines would be funded under Program Support. NOAA continues to analyze its annual budget request in terms of seven strategic goals for results-based management, as well as for reporting financial information to DOC, in compliance with the 1993 Government Performance and Results Act.

For FY2002, President Bush requested \$3.063 billion for NOAA; however, the agency reported it had asked for \$3.152 billion; various budgetary factors may account for the difference. The FY2002 budget request was \$22.8 million more than 2001 appropriations of \$3.041 billion, an increase of 0.75%. It was also 15.7% larger than the \$2.649 billion requested by former President Clinton for FY2001. President Bush's FY2002 budget would have provided \$2.180 billion for NOAA's Operations, Research, and Facilities (ORF) account; \$765 million for the Procurement, Acquisition, and Construction account (PAC); and \$118 million for NOAA's "Other Accounts," including \$90 million for Pacific Coastal Salmon Recovery, \$1.4 million for fisheries accounts, and \$3 million for the Coastal Zone Management Fund transfer to ORF. Also, the President requested \$762 million in funding for research and development for NOAA – 25% of the total request.

On July 18, the House-passed H.R. 2500, CJS Appropriations for FY2002, and appropriated \$3.093 billion for NOAA, including \$2.2 billion for ORF, \$749 million for PAC, and \$136.6 million for Other Accounts. On July 20, 2001, the Senate Appropriations Committee reported S. 1215, and on September 13, 2001, the Senate passed it (amended). The Senate appropriated \$3.36 billion for NOAA, including \$2.28 billion for ORF, \$940.6 million for PAC, and \$139.4 million for Other Accounts. On November 9, 2001, conferees on H.R.2500 agreed to fund NOAA of \$3.26 billion, including \$2.25 billion for ORF, \$836.6 million for PAC, and \$158.8 million for NOAA's "Other Accounts." The conference agreement was adopted, and on November 28, 2001, President Bush signed H.R. 2500 into law (P.L. 107-77).

In the first session of 107th Congress, hearings were held on NOAA's FY2002 budget, including the agency's priorities for scientific research and the President's request for increases for satellite and telecommunications systems. Authorization of certain marine fishery conservation and management programs, the Coastal Zone Management Act, Hydrographic Services Act, and others all of which were due to expire at the end of FY2001, or had already expired, were also hearing topics.

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National Oceanic and Atmospheric Administration (NOAA): Review of FY2002 Budget Request and Appropriations

Agency Budget Structure and the FY2002 Budget

The National Oceanic and Atmospheric Administration (NOAA) is the federal agency responsible for observation and research of the Earth's oceans and atmosphere, assessments of marine resources, long and short-term environmental predictions, and public forecast and warning about weather and climate. NOAA states that its two overarching missions are: 1) Environmental Assessment and Prediction and 2) Environmental Stewardship. The agency was created in 1970, under President Nixon's Executive Reorganization Plan No. 4, and it is currently the largest agency in the U.S. Department of Commerce (DOC).¹ In FY2002, NOAA accounts for about 61% of President George W. Bush's budget request for DOC, and it receives the largest amount of DOC funding for federal research and development. NOAA was funded in the Commerce, Justice, and State, the Judiciary and Related Agencies (CJS) Appropriations Act for FY2002 (P.L. 107-77). DOC appropriations for FY2002, were tracked in CRS Report RL31009: Appropriations for FY2002: Commerce, Justice, and State, the Judiciary and Related Agencies.

FY2002 President's Budget Request

For FY2002, President Bush requested a total of \$3.063 billion for NOAA.² (See Table 1, p.4.) This amount was about \$22 million or 0.7% greater than FY2001 appropriations of \$3.041 billion. Of that total, \$2.180 billion was requested for Operations, Research and Facilities (ORF). Budget authority of \$68 million would be derived from the Promote and Develop Fishery Products and Research Pertaining to American Fisheries (PDAF) account, and \$3 million would be transferred to ORF from the Coastal Zone Management Fund (CZMF) from collected fees. A total of \$764.8 million was requested for the Procurement, Acquisitions and Construction (PAC) account. In addition, \$118.4 million was requested for Other Accounts to be allotted as follows: \$90 million for the Pacific Coastal Salmon Recovery (PCSR)

¹NOAA's Office of Legislative Affairs maintains a website providing organizational, budgetary, legislative, and programmatic information. [<http://www.legislative.noaa.gov/>].

²House Appropriations Committee provided numbers are used in this analysis. It should be noted that NOAA reported that the President's request for FY2002 funding was \$3.152 billion, a difference of about \$98 million. This discrepancy may be accounted as different accounting methods and changes from adjustments to base funding, *e.g.*, emergency appropriations, rescissions, authorized carry-over funding from previous fiscal years, and authorized offsets and collection of fees.

program; \$20 million for PCSR treaty obligations; and \$1.4 million for U.S. fisheries financing and liability obligations. In addition, \$3 million would be transferred to ORF from the CZMF. Another \$10.4 million pass-through was requested for the Environmental Improvement and Restoration Fund (EIRF) for NOS and NMFS (\$5.2 million each), which is already included in ORF totals. The President did not request funding for “Coastal Impact Assistance” appropriated by Congress in FY2001.³

The NOAA Budget for FY2002 was structured somewhat differently than past budgets. Traditionally, NOAA’s line components have included 1) National Ocean Service (NOS), 2) National Marine Fisheries Service (NMFS), 3) Oceanic and Atmospheric Research (OAR), 4) National Weather Service (NWS), 5) National Environmental Satellite Data and Information Service (NESDIS), and 6) Program Support (PS). For FY2002, however, the Program Support budget line was divided into three sub-lines including Marine and Aircraft Operations (OMAO), Corporate Services (CS), and Facilities (FAC). All of these lines comprise NOAA’s ORF account. Since FY1998, NOAA’s PAC account has funded Systems Acquisition, Construction, and Fleet Replacement. NOAA’s Other Accounts include PCSR, CZMF, PDAF, EIRF, and fishery financing funds. For FY2002, President Bush requested funding for NOAA’s ORF budget lines as follows: NOS - \$364.5 million; NMFS - \$598.0 million; OAR - \$330.2 million; NWS - \$658.5 million; NESDIS - \$142.4 million; and Program Support - \$182.5 million. (See Table 1, p.4).

The President’s request for Research and Development (R&D) at NOAA for FY2002, which includes funding for R&D facilities, was reported by NOAA’s Office of Financial Administration (OFA) to be \$762 million. This amount was an increase of 8.4% above FY2001 appropriations for R&D of \$703 million. R&D funding requested for FY2002 was 25% of the total funding request for NOAA.

To comport with requirements of the 1993 Government Performance and Results Act (GPRA), and results-based financial management at the Department of Commerce (DOC), NOAA also reports its annual budget according to seven strategic plan goals and, for FY2002, the agency has proposed the following amounts for each: Sustain Healthy Coasts (SHC) - \$390 million; Recover Protected Species (RPS) - \$280.7 million; Build Sustainable Fisheries (BSF) - \$533.8 million; Promote Safe Navigation (PSN) - \$137.1 million; Predict & Assess Decadal to Centennial Climate Change (PADCCC) - \$101.6 million; Implement Seasonal to Interannual Climate Forecasts (ISICF) - \$142.2 million; Advance Short-Term Warning and Forecast Service (ASTWFS) - \$1,474.4 million; and supporting funds for all Strategic Goals (PS/PAC Systems Acquisition) - \$118.7 million. These amounts total \$3.18 billion.⁴

³Congress added \$150 million to NOAA’s regular annual (CJS) appropriations for FY2001 to fund Coastal Impact Assessment. (See P.L. 106-553 §1(a)(2)) Also, In the conference report that accompanied H.R. 4577, the Omnibus Appropriations Act of FY2001 (P.L. 106-554, Title II §206-207), Congress added \$17.5 million for NMFS for Alaska Stellar sea lion litigation, research, and recovery activities. (See H.Rept. 106-1033, p. 415-6.)

⁴ For FY2002, the President’s budget request also featured several new cross-cutting initiatives within the agency. These overlap the traditional budget breakouts, and include the following: People and Infrastructure – \$73.3 million; Maintain Satellite Continuity and
(continued...)

Prior to his FY2002 budget submission, in “*A Blueprint for New Beginnings: A Responsible Budget for American Priorities*,” President Bush stated that “[W]ithin the more than \$3 billion budgeted for the [Commerce] Department’s National Oceanic and Atmospheric Administration, increased funding of \$83 million would be provided to continue procurement of the next generation of weather satellites.” For NOAA’s part in the National Polar-orbiting Operational Environmental Satellite System (NPOESS), which was developed jointly with the Department of Defense, and with NASA providing ‘in-kind’ services, “[I]ncreases would provide advanced measurements to benefit both near-term civilian weather and longer-range climatic analyses.” As for program reductions, the President stated that “[F]unding is eliminated for the Coastal Impact Assistance Fund, which overlaps with the more general Coastal Zone Management Act grant program, and for a number of unrequested programs.” Also, the Blueprint stated that funding in NOAA’s FY 2002 budget would be reallocated within the agency to ensure that the Bush Administrations’s highest priority activities, such as ensuring continuity of NOAA satellite services, would be fully funded.

Highlights of President Bush’s FY2002 budget request for NOAA included: 1) funding for Stellar Sea Lion research (\$29 million) - NMFS; 2) full funding for the National Undersea Research Program (NURP) for FY2002 (\$13.9 million) as the centerpiece for a 2002 Ocean Exploration initiative (\$14 million requested) - OAR; 3) decreases in Great Lakes coastal community protection programs (-\$30 million) - OAR; 4) restoration of base funding for Forecast & Warning Services (\$16.7 million) - NWS; 5) funding for the Cooperative Weather Observer Program (\$2.3 million) - NWS; 6) transfer of research data acquisition funding lines from NOS, OAR, and NMFS to Marine Services under Program Support (\$62.0 million) PS/OMAO; 7) funding for a Telecommunications Gateway Backup and other data communications improvements, under a Critical Infrastructure Protection initiative, that would introduce necessary redundancy and provide backup for critical weather data and information managed by the agency (\$73.3 million) - NWS; 8) funding for a Comprehensive Large-Array [data] Stewardship System (CLASS) under Climate Services to expand, coordinate and centralize data for these activities (\$3.6 million) - OAR; and 9) funding increases for Satellite Programs (NPOESS and GOES), including backup hardware in the event of a launch failure or other technical problems with these satellite systems, and funding for technological improvements for onboard instrumentation and sensors (\$712.3 million) - NESDIS. Also of note, the President proposed a 47% decrease the National Estuarine Research Reserve System (NERRS), whose funding levels nearly doubled in FY2001.

⁴(...continued)

Severe Weather Forecasts – \$712.3 million; Coastal Conservation Activities – \$284.4 million; Climate Services – \$34.7 million; Modernization of NOAA Fisheries (NMFS) – \$143.8 million; and Modernization of Marine Transportation Systems (MTS) – \$20.1 million. Funding was also requested for “Other Key Programs,” including: Ocean Exploration 2002 – \$14.0 million; Marine Environmental Research – \$11.6 million; Estuary Restoration Act – \$2 million; the Commerce Administrative Management System (CAMS) – \$19.8 million; and Marine Services – \$63.8 million. Taken together, these initiatives would total \$1.36 billion.

Table 1. NOAA Funding
(\\$millions)

	FY2001 Actual¹	FY2002 Request²	H.R. 2500 H.Rpt. 107-139	S. 1215 S.Rpt. 107-42	H.R. 2500 Conf.³
Operations, Research, and Facilities (ORF)					
NOS	290.7	364.5	375.6	447.2	413.9
NMFS	517.9	598.0	542.1	555.8	579.2
OAR	323.2	330.2	317.5	367.6	356.1
NWS	630.8	658.5	659.4	668.6	672.4
NESDIS	125.2	142.4	149.6	150.5	139.6
PS ⁴	92.3	182.5	176.1	162.9	180.5
transfer /deoblig.	(119)	(95.8)	(20)	(85)	(88)
Total ORF⁵	1,869.1	2,180.3	2,200.3	2,276.3	2,260.7
Non-ORF					
PAC	681.4	764.9	749.0	940.6 ^a	836.6 ^b
Other	491.1 ⁶	118.4	143.4	139.4	158.8
Total Non-ORF	1,172.5	888.3	885.4	1,080.0	995.4
NOAA Total*	3,040.8	3,063.6	3,092.7	3,363.3	3,256.1

Numbers may not add due to rounding.

a,b. Senate appropriations for NMFS PAC included \$54 million for fishery fleet replacement; conferees appropriated \$5.4 million for this activity, but under Program Support PAC.

1,2. FY2001 actual and FY2002 requested amounts provided by the H. Appropriations Committee. President Clinton signed H.R. 4942, District of Columbia Appropriations for FY2001 (P.L. 106-553) into law December 21, 2000 – Title II of this Act (H.R. 4690) appropriated funding for NOAA.

3. Amounts included in the conference report on H.R. 2500 (H.Rept. 107-278); H.R. 2500 became P.L. 107-77 on November 28, 2001.

4. For FY2002, PS includes three subcategories: 1) Corporate Services (CS), 2) Office of Marine and Aviation Operation (OMAO), and 3) Facilities (FAC).

5. ORF totals include mandatory transfers from NOAA to other agencies, \$7 million in mandatory spending for agency overhead, and \$3 million for CZM Fund from Other Accounts.

6. Other funding for FY2001 includes \$420 million appropriated for NOAA under §903 of P.L. 106-553 (Coastal and Ocean Activities, pp. 117-118, H. Rept. 106-1033, December 21, 2000.), but does not include one time funding of \$17.5 million appropriated for NOAA (NMFS) by Title II, of the Omnibus Appropriations Act for FY2001 (P.L. 106-534). The President requested \$284 million in “Conservation Spending” for FY2002, as authorized in Title VIII of P.L. 106-552, Department of Interior Appropriations for FY2001. The House approved \$440 million; the Senate approved \$251 million; and Conferees approved \$223.3 million for this activity.

FY2002 Appropriations

H.R. 2500 (House Appropriations Committee). On July 10, 2001 the House Appropriations Committee reported out H.R. 2500, Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Bill, FY2002 (H.Rept. 107-139). Title II of this Act, recommended funding for NOAA. The House passed H.R. 2500 on July 18, 2001, approving the committee's recommended funding levels for NOAA. A total of \$3.093 billion was appropriated by the House. (See Table 1, p.4.) This amount was 1.7% greater than FY2001 appropriations of \$3.041 billion, and 0.95% greater than President Bush's FY2002 request of \$3.064 billion. Of this total, \$2.2 billion was appropriated for Operations, Research and Facilities (ORF), about \$20 million more than the request. In addition, \$749 million was appropriated for Procurement, Acquisitions, and Construction (PAC), which was 2% less than that requested by President Bush, but 10% more than FY2001 Appropriations. Another \$143 million was appropriated for NOAA's Other Accounts for PCSR, CZMF, and fishery-related obligations.

For FY2002, the House and Senate Appropriations Committees worked closely with NOAA to realign the agency's budget structure. This resulted in what each appropriation committee has reported to be a more coherent and transparent method for accounting the agency's budget request for FY2002. The House approved a total of \$440 million for a new funding category, "Conservation Spending", which had been proposed in the President's budget. This funding would be for "Ocean, Coastal, and Waterway" conservation programs and would be allotted to NOAA's major accounts as follows: ORF - \$304 million, PAC - \$26 million, and Other Accounts - \$110 million (PCSR). House appropriations for conservation were 55% greater than President Bush's request of \$284 million for FY2002. The House concurred with the President's request and did not recommend \$150 million for a Coastal Impact Assessment funded in FY2001 CJS Appropriations.

Moreover, the House approved increases of \$12 million for the National Weather Service and \$25 million for Pacific Coastal Salmon Recovery above the President's request. The House also approved a decrease of \$20 million for Oceans, Coastal, and Great Lakes programs, that would have resulted in less funding for NURP and the Ocean Exploration initiative than that requested by the President. The House supported transfer of data acquisitions funding (for ship time) from NOS, NMFS, and OAR research to Marine Services under Program Support; and, in addition, reprogrammed \$10.8 million of the President's request for NESDIS PAC to NESDIS ORF funding.

House appropriations for NOAA budget lines were as follows: NOS - \$375.6 million; NMFS - \$542.4 million; OAR - \$317.5 million; NWS - \$659.3 million; NESDIS - \$149.6 million; and PS - \$176.1 million. The PAC account was funded a total of \$749.0 million; and Other Accounts would total \$143.4 million including \$135 million for PCSR, a transfer of \$3 million to ORF, and \$1.43 million for fishery funding, financing, and liability accounts.

In its report (H.Rept. 107-139), the House Appropriations Committee directed NOAA, along with other DOC agencies, to prepare a detailed quarterly report of its FY2002 obligations, and to consult with the committee on proposed expenditures.

Also, the committee included a table listing NOAA's expired and expiring authorizing statutes, and included appropriations for these activities as proposed in H.R. 2500. It also reported the last appropriations these programs had received before authorization expired. In addition, "Minority Views" were presented, in which some Members of Congress noted that "[W]hile not every request from Members or from the Administration could be accommodated in this recommendation, we feel that, considering the competing requirements in the bill, NOAA is funded at a level that reflects the importance of the agency's overall mission."

S. 1215 (Senate Appropriations Committee). On July 19, 2001, the Senate Appropriations Committee reported out S.1215, Departments of Commerce, Justice, and State, the Judiciary and Related Agencies Appropriation Bill, 2002 (S.Rept. 107-42). The committee recommended a total of \$3.35 billion for NOAA for FY2002, which is 8.4% greater than the House recommendation of \$3.09 billion, 9.5% greater than the President's request of \$3.06 billion, and 10.2% greater than FY2001 appropriations of \$3.04 billion. Of this amount, \$2.27 billion in funding was recommended for ORF, \$939.6 million for PAC, and \$142.3 million for NOAA's Other Accounts, with most of the latter proposed for Pacific Coastal Salmon Recovery (\$133.9 million). Funding for NOAA fishery-related accounts would be \$11.4 million, and \$3 million would be transferred from CZMF to ORF. Funding for ORF lines was recommended as follows: NOS - \$447.2 million; NMFS - \$558.8 million; OAR (NOAA Research) - \$367.6 million; NWS - \$668.6 million; NESDIS - \$150.5 million; and Program Support - \$162.9. The committee also assessed NOAA \$95.8 million in reduced budget authority to account for mandatory transfers, excess deobligations, and revenue generated by NOAA that was greater than that authorized by Congress for FY2002.

The Senate Appropriations Committee recommended a total of \$251 million for "Conservation Spending," including \$33.7 million for ORF; \$83.4 million for PAC; and \$133.9 million for Other Accounts (PCSR). This amount was 43% less than the House's recommendations of \$440 million, and 11.6% less than the President's request of \$284 million. In general, however, the committee recommended funding levels for NOAA programs higher than those appropriated by the House or requested by the President.

Notable differences in ORF funding recommended by the Senate Appropriations Committee and that approved by the House include increases of \$71.6 million for NOS, \$50 million for OAR, \$16.4 million for NMFS, and \$9.3 million for NWS; however, the committee's recommendation for Program Support was \$13.2 million less than the House. The committee also recommended \$939.6 million for PAC, which was 20% (\$190.6 million) greater than House-passed levels of \$749.0 million, and 22.8% greater than the President's request of \$764.9 million. The committee's recommendations for NOAA's Other Accounts were slightly less than House-passed levels, almost \$1 million less was proposed for Pacific Coastal Salmon Recovery. Like the President and the House, the committee did not recommend \$150 million funding for Coastal Impact Assessment, provided in FY2001 appropriations.

In the committee's report on S. 1215 (S.Rept. 107-42, p.112), under the "Department Management" section for the Department of Commerce, the committee

noted direction in the bill stipulating that NOAA should not obligate more than \$15 million to funding the DOC Central Administrative Management Systems (CAMS).

S. 1215, as passed by the Senate. On September 13, 2001, the Senate passed S. 1215 (amended) and appropriated a total of \$3.363 billion for NOAA. Amendments resulted in an increase of \$13 million above Senate Appropriation Committee recommendations. Senate totals included \$2.276 billion appropriated for ORF, \$940.6 million for PAC, and \$146.4 million for Other Accounts (fishery funding and financing), including \$137.9 million for the PCSR fund and \$10 million for EIRF. Highlights of Senate amendments included \$33.7 million appropriated instead of \$30 million for conservation activities defined in §250(c)(4)(E) of the Balanced Budget and Emergency Deficit Control Act of 1985. The SAC managers' amendment approved \$23.9 million, rather than \$54.3 million, for NOAA Executive Direction and Administration, the same as the President's request. The Senate authorized \$22.0 million in budget authority from FY2001 deobligations, from which \$5.0 million was intended for establishment of a NOAA Business Management Fund for operating expenses. The Senate also directed that no NOAA funding be provided for DOC's Commerce Administrative Management System (CAMS). In addition, directions were given to obligate \$0.5 million dollars of NWS PAC funding to the International Trade Administration processing center in OK. Of PCSR funding, \$3 million was earmarked for disaster assistance, "for ground fish fishermen suffering economic hardship." Another \$1.5 million in budget authority would be provided to NOAA to occupy a coastal and fishery research facility in Lafayette, LA (at the discretion of the Secretary of Commerce). In addition, \$29 million was appropriated for Alaskan Stellar seal lion research, the same amount as the President's request.

H.R. 2500 Conference Agreement (H.Rept. 107-278). On November 9, 2001, Conferees on H.R. 2500, CJS Appropriations for FY2002, approved a total of \$3.26 billion for NOAA. The conference report (H.Rept. 107-278) was adopted by the House on November 14, and by the Senate on November 15, 2001, and H.R. 2500 was signed into law by President Bush as P.L. 107-77, on November 28, 2001. Total appropriations for NOAA were 6.5% greater than the President's request of \$3.06 billion, 5.5% greater than the House-passed total of \$3.09 billion, and 10% less than the Senate approved levels of \$3.36 billion. Of total appropriations, \$2.25 billion was provided for ORF; \$836.6 million for the PAC account; \$157.4 million for Pacific Coastal Salmon Recovery (PCSR); and \$8.3 million for NOAA's Other Accounts, including a pass through of \$10 million to NOS for EIRF, and a \$3.0 million transfer to NOS from the Coastal Zone Management Fund. The balance of \$1.43 million was appropriated for administrative fishery-related funds. Of the NOAA total, \$439.2 million was provided for conservation activities, including \$223.3 million under ORF for Coastal Assistance programs; \$58.5 million under PAC for a new Coastal and Estuarine Lands Conservation Program (CELCP); and \$157.4 million under Other accounts for PCSR obligations.

NOAA line offices were funded as follows: NOS - \$413.9 million; NMFS - \$579.2 million; OAR - \$366.1 million; NWS - \$672.4 million; NESDIS - \$139.6 million; and Program Support - \$180.5 million, including \$71.8 million for Corporate Services, \$89.6 million for OMAO, and \$19.1 million for Facilities. Within NOAA's PAC account, \$87.8 million was appropriated for NOS, \$37.2 million for NMFS, \$19.7 million for OAR, \$70.7 million for NWS, \$561.9 million for NESDIS, and

\$62.4 million for Program Support. Mandatory funding of \$7 million is also included in the ORF total for agency overhead and operating expenses.

Highlights of the committee's agreement included \$15.8 million provided to establish a Coastal and Estuarine Land Conservation Program (CELCP), "[F]or the purpose of protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses," and to fund the promulgation of regulations for this program in accordance with the Coastal Zone Management Act. The conference agreement adopted Senate report language about NOAA's FY2003 budget structure, and House report language requiring the agency to report quarterly on the status of obligations *vis a vis* the new budget structure. In addition, House report language was adopted that required NOAA's budget lines totals be reported under the section on ORF appropriations.

The conference committee did not approve the "Business Management Fund" proposed by the Senate Appropriations Committee, and approved by the Senate, but did direct NOAA to report what management services might be improved at the agency if they were to be centralized. The conference agreement also funded NOAA's portion of expenses for the Commerce Administrative Management System (CAMS) at \$17.1 million. The committee directed NOAA to design and implement performance measures for the Coastal Zone Management program, and it required the Office of Marine and Aviation Operations (OMAO) to provide detailed quarterly reports on its operations. Some \$14 million was earmarked for a nuclear magnetic resonance (NMR) spectroscopy instrument, to include funding for construction of necessary housing for this equipment and other associated costs. This project would be managed jointly with the University of South Carolina. Funding was not included for the proposed GOES-R series of satellites, which the committee reported had experienced scheduling delays. In addition, Conferees approved \$15 million for Minority Serving Institutions.

Brief Review of FY2001 Appropriations. The final conference agreement on CJS appropriations was enacted as P.L. 106-553 on December 21, 2000. NOAA was funded under Title II of H.R. 4942, Appropriations for the District of Columbia for FY2001 (H.Rept. 106-1005). P.L. 106-553 provided NOAA total funding of \$3.041 billion for FY2001. (See Table 1, p.4.)

Congress appropriated \$1.869 for ORF for FY2001, \$68 million of which was derived from the PDAF, and \$3.2 million from CZMF under Other Accounts. The PAC account received \$681.4 million in funding, of which \$7.5 million was new budget authority approved from FY2000 deobligations; and NOAA's Other Accounts were funded \$74 million for Pacific Coastal Salmon Recovery; \$1.43 million for other U.S. fishery funding, financing, and liability programs; and \$3.2 million for the CZMF transfer to ORF.

There were also other sources of funding for NOAA for FY2001. The Interior Appropriations Act of FY2001 (P.L. 106-291) enacted October 11, 2000, which amended the Balanced Budget and Emergency Deficit Control Act of 1985, allowed spending caps on discretionary programs for FY2001 to be raised. Title VIII, of P.L. 106-291, the Land Conservation, Preservation, and Infrastructure Improvement Act

of 2001, in part, authorized federal agency activities which supported coastal and Great Lakes conservation programs, many of which were tied directly to President Clinton's Land Legacy Initiative for FY2001. P.L. 106-291 authorized \$400 million for these activities.

Conferees on H.R. 4942, CJS appropriations for FY2001, appropriated \$420 million in additional funding for NOAA for "Coastal Impact Assessment and Coastal and Ocean Activities" for FY2001 in §903 of P.L. 106-553.⁵ Of this amount, \$150 million was for Coastal Impact Assessment (See 106th Cong., H.R.701); and another \$135 million was approved for ocean, coastal and conservation programs proposed under President Clinton's Land Legacy Initiative for 2001. The remaining \$135 million was appropriated for specific NOAA programs that were listed in the CJS conference agreement, H.Rept. 106-1005. This funding was divided among various activities including Coastal Management, Pollution Runoff Grants, National Marine Sanctuaries, the National Estuarine Research Reserves System, Coral Restoration, and Pacific Coastal Salmon Recovery. Many of these increases were been previously recommended by the Senate Appropriations Committee. As a result, final CJS appropriations for NOAA budget lines were as follows: NOS - \$290.7 million; NMFS - \$517.9 million; OAR - \$323.2 million; NWS - \$630.8 million; NESDIS - \$125.2 million; PS - \$81.3 million; FP&M - \$11 million; and FAC - \$11.2 million. (See Table 1, p. 4, and H.Rept. 106-1005.)

In addition to CJS appropriations for FY2001, NOAA also received funding in the Omnibus Appropriations Act of FY2001, P.L. 106-554. Sections 206 - 209 of this Act provided another \$17.5 million in appropriations for NMFS activities, including \$10 million for litigation concerning the Alaska Stellar sea lion and Bering Sea/Aleutian Islands and Gulf of Alaska groundfish fisheries (§206), and \$7.5 million for disaster assistance to communities affected by the 2000 western Alaska salmon disaster (§207).⁶

FY2002 Budget Details By NOAA Account

Operations, Research, and Facilities (ORF)

ORF activities are comprised of a number of operational and research programs that primarily support NOAA's mission, and are carried out under NOAA's budget line offices which include NOS, NMFS, OAR, NWS, NESDIS and Program Support. Many of these programs also contribute to federal crosscutting research activities coordinated by the White House National Council on Science and Technology (NCST) and its Committee on Environment and Natural Resources (CENR),

⁵For more information see CRS report RS20471, *The Clinton Administration's Land Legacy Initiative – Funding in FY2000 and FY2001*, April 16, 2001.

⁶See Making Omnibus Consolidated and Emergency Supplemental Appropriations for Fiscal Year 2001; Conference Report to accompany H.R. 4577 (House Report 106-1033), December 15, 2000. Division A - Chapter 2, Department of Commerce, National Oceanic and Atmospheric Administration. "Joint Explanatory Statement." P 415-416.

including the U.S. Global Change Research Program (USGCRP), High Performance Computing (HPC), and the Department of Commerce's Minority Serving Institutions initiative, among others. The functions of NOAA's ORF budget line offices and funding of each for FY2002 are discussed in detail below. In addition, total PAC funding for each line is also included below; however, specific details about FY2002 funding for PAC and NOAA's Other Accounts follow the ORF section.

National Ocean Service (NOS). NOS is primarily responsible for NOAA's Marine Mapping, Charting, and Geodetic Services. Its major functions are to ensure safe navigation of commercial and recreational marine vessels. Also, NOS is instrumental in ensuring recovery and health of marine ecosystems, and protecting and managing the coastal zone environment. For FY2002, President Bush requested ORF funding of \$364.5 million for NOS, and \$27.9 million for NOS PAC. The President did not request funding for Coastal Impact Assessment, for which \$150 million had been approved for NOS by Congress in FY2001 CJS appropriations. The assessment was intended to enable existing oil and gas producing states to address the impacts of coastal development and resource use (as detailed in H.R. 701, 106th Cong.). Total ORF funding requested by President Bush for NOS for FY2002 is 7% (\$25.6 million) less than FY2001 appropriations of \$390.1 million, and more than 10% less than President Clinton's request of \$405.9 million for NOS for FY2001. The FY2002 request proposed terminating \$47.7 million in funding for a number of NOS programs, including Great Lakes Community Restoration Grants which were funded at \$30.0 million in FY2001. Transfers of \$8.2 million for NOS would be derived from non-ORF accounts, including the Coastal Zone Management Fund (CZMF) and the Environmental Improvement and Restoration Fund (EIRF). NOS also asked for restoration of \$0.8 million of base funding rescinded in FY2001, which they claim has impacted on Navigation Services and NOS research.

For FY2002, the President requested increases of \$10.5 million for Navigation Services, which are linked closely with the agency's FY2002 Modernization of Marine Transportation (MMT) initiative. NOAA has perennially urged Congress to provide increased funding to help NOS to reduce a backlog of nautical chart updating responsibilities; Congress has provided an increase of \$3 million above the request for FY2002. The President also requested \$3 million, as part of the Marine Transportation System Modernization Initiative, to launch a Coastal Storms programs that would improve measurements of national water levels (NWLON), assist local emergency managers with hazards mitigation such as coastal flooding, and also provide education and outreach to coastal communities about coastal storms.

NOAA has contracted out a large portion (50%) of hydrological and coastal assessment data collection to the private sector as a result of both agency initiative and congressional directive; and Congress is always encouraging NOAA to increase that share. Other NOS data collection efforts are carried out aboard U.S. Navy and National Science Foundation research vessels. Time sharing for research data collection also occurs aboard university research vessels. For FY2002, NOAA asked that data acquisition funding for NOS, NMFS, and OAR be transferred to Marine Services under PS/OMAO.

NOS Geodetic Services has been responsible for developing a telemetric National Spatial Reference System (NSRS), which uses Global Positioning Satellites

(GPS) as well as traditional surveying methods to provide public users with accurate geodetic measurement of both horizontal and vertical components. Provision of real-time port information (weather, channel depth soundings, and tide level monitoring) is another functions of NOS. Aeronautical charting, formerly a responsibility of NOS, was transferred to the FAA in FY2001, and NOS no longer receives funding for it. Other Geodetic Services activities have included development of a digital bathymetric map for previously unmapped sections of the ocean floor, and digital conversion of many nautical charts which serve the commercial shipping and recreational boating communities. Also, NOS has developed marine cartographic data collection, products, and display technologies, for use by private enterprise, including electronic navigation charts.

The NOS Coastal Ocean Science (COS) program was established in 1992 to examine coastal estuarine environments, to help protect coastal communities from marine or nonpoint source pollution,⁷ and to assist in the recovery and restoration of marine ecosystems. In addition to ORF funding for these activities, \$3.0 million would be transferred from the CZMF from collection of fees in FY2002.

NOAA established a system of regional National Estuarine Research Reserves (NERRS) which are managed by NOS. A substantial funding cut of 47% for NOS PAC from the FY2001 level was requested by President Bush for FY2002. Funding for acquiring additional lands to expand NERRS was increased almost 100% in FY2001, because of President Clinton's Land Legacy funding. The cut would return NERRS PAC funding to historical levels of \$9.9 million. ORF funding requested for NERRS would be \$16.4 million. The President requested an increase of \$13 million for the public National Marine Sanctuaries program, funds which would be derived from PS/Facilities. This amount is 81% more than FY2001 appropriations, and would be used to upgrade existing marine research and education centers on site. The President also requested \$3.0 million for Marine Protected Areas.

In its FY2002 budget, NOAA dropped prior proposals to transfer the Great Lakes Environmental Research Lab (GLERL) to NOS, where the agency believed it would best support NOS operational programs; instead GLERL will remain in OAR. Opposition to this transfer was expressed by the House Appropriations Committee's FY2001 budget deliberations, mainly because the request was not accompanied by a comprehensive plan by the agency that would explain how this and other proposals for transfer of marine science labs would be undertaken.

On July 18, 2001, the House passed H.R. 2500 (CJS Appropriations for FY2002), approving \$375.6 million in ORF funding for NOS, and \$9.9 million for PAC. The ORF portion is 3% (\$11.1 million) greater than the President's request of \$364.5 million, and 29% greater than FY2001 appropriations of \$290.7 million. Highlights of House appropriations for NOS included \$25 million for addressing a hydrographic survey backlog for coastal mapping and charting, which was \$4.5 million more than the President's request. The House also directed NOS to enter into a long-term lease or charter for a state-of-the art hydrographic survey vessel. The

⁷For more information, see CRS Report RS20232: *Coastal Nonpoint Pollution Program: Status and Legislative Issues*, by Claudia Copeland.

House approved funding for NOAA's Physical Oceanographic Real Time Service (PORTS), and its National Water Level Observation Network (NWLON). A total of \$104.7 million was approved for coastal management, including to fund CZM grants to States for implementing clean water programs. This amount was identical to the President's request. Also, the House directed NOS not to use FY2002 (PAC) funds to propose, evaluate, or designate any new marine protected areas.

On July 20, 2001, the Senate Appropriations Committee reported S. 1215, recommending a total of \$447.2 million for NOS in ORF, which was 19% more than House recommendations of \$375.6 million, 23% more than the President's request of \$364.5 million, and 54% more than FY2001 appropriations of \$290.7 million. (For details see, S.Rept. 107-42). The committee recommended \$111.9 million for NOS PAC. Highlights of the Senate Appropriations Committee's recommendations for NOS included a total of \$30 million to address survey backlogs for mapping and charting; \$12 million to establish a national Coastal Observation Technology System; \$18 million to establish a Coastal Services Center; \$31 million for a Coastal Protection and Restoration Project; \$20 million for Coral Reef Programs; \$22.6 million for the Coastal Ocean Program (COP); and \$16.4 million for NERRS. The Committee did not recommend funding for the Sustainable Seas Expedition, instead it noted that NOAA might choose instead to fund these activities under OAR as part of the 2002 Ocean Exploration Initiative. The Senate passed S. 1215 (amended) on September 13, 2001.

Conferees approved a total of \$413.9 million for NOS in ORF, which is 13.6% above the request of \$364.5 million, 10.2% greater than House appropriations of \$375.6 million, 7.5% less than Senate appropriations of \$447.2 million, and 42.4% greater than FY2001 appropriations of \$290.7 million. Highlights of the conference agreement on H.R. 2500 include \$75.4 million for Coastal Zone Management activities, \$68 million of that for grants to states. The committee directed NOS to promulgate performance measures for measuring the success of CZM program, and to report quarterly on progress toward this end.

National Marine Fisheries Service (NMFS). For FY2002, the President requested \$598 million in ORF funding for NMFS, and \$14.7 million for PAC/NMFS. The ORF funding request would be 5.7% (\$36 million) less than the FY2001 appropriation of \$634 million, and 31% (\$142.6 million) more than President Clinton's FY2001 request of \$455.4 million.

NMFS is responsible for conservation, management, and enforcement of fishery activities authorized primarily under the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Mammal Protection Act, and the Endangered Species Act (ESA). (See NOAA Authorizations, below, and Appendix 1.) NMFS research programs and fishery information and assessment activities are examples of how R&D funding is tied to NOAA's mission, operational responsibilities, and is directly linked with American commerce (the U.S. fishery industry).

Programs under this budget line include research programs to restore and rebuild American fish habitat where fish stocks have declined. Heightened public attention to this problem has drawn large funding increase for NMFS since FY1994; the

FY2002 request is almost a 5-fold increase in funding from FY1994, and NMFS has continued to receive modest funding from congressional appropriators.

NMFS, has divested most of its oceanography and ocean science research to OAR, and its former coastal ocean science responsibilities to the Coastal Oceans Program (COP) in NOS. NOAA directed NMFS to focus on fishery management, endangered species protection, and fishery enforcement, and to perform scientific research only where it supports these functions. (For more detailed information on NMFS see CRS Issue Brief IB10074, Fishery, Aquaculture, and Marine Mammal Legislation in the 107th Congress; CRS Report RL30120, The Marine Mammal Protection Act: Reauthorization Issues for the 107th Congress; CRS Issue Brief IB10072, Endangered Species: Different Choices; CRS Report RS20810, Marine Protected Areas: an Overview; and RL30215, The Magnuson-Stevens Fishery Conservation and Management Act: Reauthorization Issues for the 107th Congress.

About 50% of the President's request for NMFS, was for conservation and management operations. The President requested an increase of \$18.5 million (7.2%) for information collection and analysis of living marine resources, resulting in a total of \$273.8 million for marine research and fish stock inventories. For FY2002, data acquisition for NMFS (for ship time), would be funded under Marine Services (OMAO) in Program Support. Funding of \$200.8 million was requested for Resource Information to expand the number of annual fish stock assessments, conduct fisheries oceanography, restore species to the Everglades, study Pacific migratory species, and provide scientific advice to fishery managers.

An 11% increase was requested for Protected Species Management for a total of \$105.0 million to be spent on recovery efforts for Atlantic salmon, California sea lions, Atlantic right whales, native marine mammals (with \$29.3 million targeted to Stellar sea lion recovery), Pacific Coastal Salmon conservation, and to fund the marine mammals stranding information network. An additional \$0.9 million under Fisheries Program Management would be provided to compensate fishermen that suffer losses from sea lions conservation efforts. Also, \$6.3 million was requested for protection of sea turtles; \$4.5 million for marine mammals; \$6.3 million for Atlantic salmon; and \$7.0 million for the Northern Right Whale. No funding was requested to acquire additional Fishery Research Vessels (FRVs) authorized in FY2001 appropriations. The NMFS PAC account would provide \$14.7 million for construction of fishery research facilities in Juneau, AK and Honolulu, HI.

In the House-passed H.R. 2500, \$542.4 million was appropriated for NMFS in ORF, and \$16.9 million in NMFS PAC for FY2002. The ORF amount was 10% less than the request of \$598 million, and 15.5% greater than FY2001 appropriations of \$517.9 million. The House noted that it did not include funding of \$29 million for Alaska Stellar sea lions research as requested by the President. In making its funding recommendations, the House Appropriations Committee reported that it had placed high priority on, and had provided increases for, programs and activities which enhance NMFS, and ensure that its resources management partners have access to the necessary information to make informed fishery decisions. The committee also noted that because there are several ways resource managers currently collect fishery data, including in some forms which may not be readily useable or available for all fishery managers, it has directed NMFS to ensure that all fishery resources data that is

collected is input in a standardized manner into the proposed NMFS National Fishery Information System. The committee also directed NOAA to consider as priority grant proposals under the Saltonstall-Kennedy grant program that emphasize research and education projects for protecting consumers of raw shellfish and its natural occurring bacteria – especially *Vibrio vulnificus*.

On July 19, 2001, the Senate Appropriations Committee reported S. 1215 (S.Rept. 107-72), and recommended ORF funding of \$555.8 million for NMFS, which is 2.5% more than House-passed levels of \$542.4, 7% less than the President's request of \$598.0, and 7% more than FY2001 appropriations of \$517.9 million. The recommendation for NMFS PAC funding was \$86.6 million, including \$54 million for NOAA fisheries fleet replacement. The committee directed NMFS to obligate \$6 million of its base funding to NOAA's Office of General Council in order to help offset costs for sustaining the office of the Undersecretary of Commerce for Oceans and Atmosphere [and Administrator of NOAA]. The committee also noted that it was concerned that NMFS had become overburdened by lawsuits related to fisheries damages suits and protected species prosecutions, and it advised NOAA to develop and apply standard practices for NMFS regulatory decisions.

Moreover, the committee recommended \$7 million for North Atlantic Right Whale research and related management activities, stipulating that none of these funds could be obligated until a 5-year management plan, ordered in the FY2001 conference report (H.Rept. 106-1033), was received and approved by Congress. The committee also noted support for NOAA sea turtle conservation efforts. It also included \$5 million to establish a National Fisheries Information System, and \$3.7 million for RecFin, the recreational fishing information network. In addition, \$1 million was recommended for an Alaska Harbor Seal research program; \$3 million for Chesapeake Bay Studies on Habitat Conservation; and \$250,000 to acquire a marine vessel for fisheries enforcement for the New Hampshire Department of Fish and Game. The Senate passed S. 1215 on September 13, 2001.

Conferees on H.R. 2500 appropriated \$579.2 million for NMFS in ORF, and \$37.2 million in NMFS PAC for construction (H.Rept. 107-278). The amount appropriated for ORF is 3.1% less than the President's request of \$598.0 million, 6.8% greater than the House appropriations of \$542.4 million, 4.2% greater than Senate appropriations of \$555.8 million, and 11.8% greater than FY2001 appropriations of \$517.9 million.

Oceanic and Atmospheric Research (OAR). OAR's research programs are tied directly to NOAA's operational responsibilities; and about 14% of OAR funding is for grants to individuals, universities, and research centers participating in the National Sea Grant College and National Underwater Research Programs. These grants are extended only to perform research that is deemed to benefit the NOAA mission, and research is usually undertaken at NOAA facilities.

For FY2002, President Bush requested \$330.2 million in ORF funding for OAR, and \$10.6 million for OAR/PAC. This is almost 1% (\$7 million) greater than FY2001 ORF appropriations of \$327.5 million, and 9% greater than President Clinton's request of \$302.5 for FY2001. In the FY2002 budget request, funding for NOAA's so-called "dry and wet" research programs would be divided about 64%-36%

between 1) Atmospheric Research (dry) and 2) Oceans and Great Lakes Program accounts (wet).

An increase of 10% was requested for Climate and Air Quality Research which is NOAA's largest "dry" research component. Much of this increase would be applied for Climate Observation and Services, that was a new start in FY2001, and would entail building an ocean observing system to address scientific research questions such as, what are climate-weather connections. The increase would also aid in establishing an operational program to monitor and potentially forecasting climatic change information of importance to various U.S. economic sectors. These funds would be jointly managed by OAR, NESDIS, and NWS line offices.

Under Atmospheric Programs, the President requested increased funding for the U.S. Weather Research Program (USWRP), to improve prediction of hurricane landfall and to improve quantitative precipitation forecasts. NOAA claims the USWRP has helped NWS improve its knowledge about severe storms, and its skills at forecasting severe weather events. USWRP also does scientific research on weather modification. The agency also has stated that all of these functions have been important for the U.S. economy in transportation, agriculture, and insurance sectors, among others, and for saving property and lives of the public at large.

Global climate change research in OAR is divided between short-term, inter-annual climate fluctuations, and long-term climate research. For example, the former studies the *El Nino* and *La Nina* phenomena, while the latter includes research on phenomena such as the North Atlantic and Pacific Ocean Decadal Oscillations and other climate changes that may occur over decades to centuries. NOAA participates in the interagency U.S. Global Climate Change Research Program (USGCRP) through its Office of Global Programs (OGP), and also takes part in the interagency High Performance Computing (HPC) initiative, which for NOAA is to improve its computer model prognostications for climate change by improving computer power and processing speed. For FY2002, a \$7 million increase was requested under PAC/OAR to upgrade supercomputer performance at NOAA's Geophysical Fluid Dynamics Lab in Princeton, NJ. Funding was also requested for construction of a Comprehensive Large-Array [data] Stewardship System (CLASS), which NOAA claims would more efficiently manage oceanic, atmospheric and environmental data across the agency. Further information can be found in CRS's Electronic Briefing Book on Climate Change. [<http://www.congress.gov/brbk/html/ebgcc1.html>].

Solar weather research in OAR has been important for the U.S. Space Program and for the telecommunications and electric power industries in determining how solar activity affects commerce and the U.S. economy. The Solar Research Lab is one of 12 NOAA Environmental Research Labs (ERLs) operated by OAR. (NOS and NMFS also operate research labs.)

Oceans and Great Lakes Programs (OGLP) are the "wet" research components of OAR. These programs investigate ways to protect marine, coastal, and estuarine environments from pollution, hypoxia, harmful algae blooms, and non-indigenous species intrusion, such as the zebra mussel. For FY2002, the President requested a total of \$119.8 million for OGLP. Also, a \$10.0 million increase was requested for

OAR's part in an interagency initiative for deep-ocean exploration which was a new start for FY2001.

NOAA claims it has promoted and supported state and local research efforts on marine environments and has helped to stimulate coastal communities' economies through its National Sea Grant College Program, for which the President requested \$62.4 million for FY2002. The National Underwater Research Program (NURP), which funds sea floor observatories and deep ocean research, accounts for \$13.8 million of the President's request; and funding of \$14 million was requested for Ocean Exploration for FY2002. In contrast to past years, NOAA did not request a transfer of the Great Lakes Environmental Research Laboratory (GLERL) from OAR to NOS; instead the President requested \$7 million to fund it under OAR.

The House appropriated \$317.5 million in ORF funding for OAR and \$12.6 million in funding for OAR PAC when it passed H.R. 2500 on July 19, 2001. ORF totals for OAR were 4% less than the President's request of \$330.2 million, and 2% less than FY2001 appropriations of \$323.2 million. New for, FY2002, the House Appropriations Committee, under its revised budget structure for NOAA, recommended funding levels for each of OAR's Environmental Research Laboratories (ERLs), which are accounted for on individual lines under a new Laboratories & Joint Institutes category for both Climate Research and Oceans, Coastal and Great Lakes programs. The House noted that most climate-related research activities were funded at or slightly lower than FY2001 appropriations levels. However, it approved 11.5% less than the President for Ocean Observation and Systems. Also, the House approved \$1.5 million less than the President for the National Undersea Research Program (NURP), and \$8 million less for the Ocean Exploration Initiative. The House approved \$62.4 million for the National Sea Grant program, slightly more than the President's request.

On July 19, 2001, the Senate Appropriations Committee reported S. 1215 (S.Rept. 107-42), and recommended a total of \$367.6 million in ORF funding for OAR, which is 16% more than House approved levels of \$317.5 million, 11% more than the President's request of \$330.2 million, and 14% more than FY2001 appropriations of \$323.2 million. The Committee also recommended \$26.1 million in PAC spending for OAR. Under Climate Research, the committee recommended \$7.95 million in funding for deployment of 275 Argo floats, and another \$4.4 million for Ocean Observation Systems under the Climate Observations and Services funding category, which would be provided \$25 million total. Another \$14.2 million would be for the GFDL climate modeling center at Princeton, NJ; and \$8.3 million would be for the Pacific Marine Environmental Lab (PMEL). Under Weather and Air Quality Research some \$43.7 million was recommended for laboratory research, and \$13.7 million was recommended for the U.S. Weather Research Program (USWRP). A total of \$19.8 million would be provided for intramural Ocean, Coastal, and Great Lakes laboratory research. Another \$65.4 million was recommended for the National Sea Grant Program; and a total of \$18.9 million was recommended for NURP, including funding for the establishment of a National Institute for Undersea Science and Technology. Also, \$14 million was recommended for the President's Ocean Exploration Initiative. The committee would provide OAR partnership programs for miscellaneous marine research \$24.7 million; and \$12.8 million was recommended for NOAA's part in the Interagency High Performance Computing Initiative (HPC).

Conferees on H.R. 2500 appropriated \$356.1 million for OAR in ORF, and \$19.7 million for OAR in PAC. Conference levels are 7.8% greater than the President's request of \$330.2 million, 12.2% greater than House-passed levels of \$317.5 million, 3.2% less than Senate-passed levels of \$367.6, and 10.2% greater than FY2001 appropriations for OAR of \$323.2 million. Highlights of the conference agreement include \$7.95 million to deploy 245 Argo floats as approved by the Senate; an increase of \$3 million for the fisheries extension program under Sea Grant; \$3 million for aquatic nuisance species research, including \$2 million for Chesapeake Bay and Great Lakes ballast water demonstrations.

National Weather Service (NWS). For FY2002, President Bush requested \$658.5 million in ORF funding for NWS, and \$69.2 million for PAC, to sustain what NOAA has coined as America's "no surprise" weather service. The ORF request was \$29.1 million (5%) above FY2001 appropriations of \$629.4 million, and was a 4% increase above President Clinton's request for NWS of \$634.9 million for FY2001. For FY2002, NWS funding is 22% of NOAA's total request.

Funding increases requested for FY2002 would be used to maintain current weather services and abate declining base resources due to mandatory pay increases and inflation costs. NWS' base funding would also be adjusted to reflect the transfer of the Office of Federal Coordinator for Meteorology from NWS to Program Support (Corporate Services).

NWS funding increases continue to be driven by efforts to improve, modernize, and automate weather observations; public forecasts and warnings of severe weather events; and upgrade NOAA's meteorological computing capabilities. NWS modernization technologies are in full-scale operation at most Weather Forecast Offices (WFOs), although some sites are still under special study to determine whether there has been any degradation of weather services. Corrective measures are also being undertaken at problematic sites at the behest of Congress.

Increasing public attention has been drawn to NOAA Weather Radio (NWR) and the critical role it plays in alerting the public to weather emergencies; some localities have asked Congress to assist them in expanding NWR transmission to reach more people. NWS is also dedicating funding to improve the latest generation of weather observation and prediction technologies by means of software upgrades and engineering research and development. Base funding increases are requested to maintain weather and to abate declining base resources resulting from mandatory pay increases and inflation costs. NWS' base funding would also be adjusted to reflect the transfer of the Office of Federal Coordinator for Meteorology from NWS to Program Support (Corporate Services).

President Bush also requested funding for the Cooperative [weather] Observer Network which provides NWS with highly detailed weather observations by individuals in the community. More than \$4.7 million in new funds was requested for environmental modeling and data assimilation efforts within the National Centers for Environmental Prediction (NCEP). Funding was requested under Systems Acquisition (PAC) for instrument upgrades for the Automated Surface Observing System (ASOS) network. For FY2002, the President requested \$16.3 million for upgraded software for the Advanced Weather Interactive Processing System

(AWIPS) that may improve telecommunications capability for relaying weather forecasts and warnings among WFOs. NOAA claims these upgrades can be fully implemented in three years. R&D would be provided for engineering next generation NEXRAD (doppler weather radar) technology. The NOAA Central Computer Facility, where advanced weather and climate supercomputing capability is housed, would be upgraded. Under the President's Critical Infrastructure Protection initiative for FY2002, a NWS Telecommunications Gateway backup and back up of NOAA satellite products and services would be a priority. Funding was also requested to continue replacement of the radiosonde balloon network, which monitors meteorological conditions in the Earth's lower atmosphere. PAC funding would be provided for construction of a new Alaska Tsunami Warning Center in Palmer, AK. Terminations of about \$8.8 million were anticipated from completion of NWS modernization, NOAA Weather Radio (NWR) transmission expansion and other upgrades of weather services.

In H.R. 2500, the House approved \$659.3 million in ORF funding for NWS, and \$69.6 million for PAC. The House increase was less than 1% greater than the President's request of \$658.5 million, but 4.5% greater than FY2001 appropriations of \$630.8 million. Additional amounts of almost \$3 million above the request were approved for the NWS systems operation and maintenance, and another \$3 million was earmarked for siting a new NEXRAD radar system in Huntsville, Alabama. Additional amounts were approved for NWS under PAC for systems modernization and facilities, and for funding new construction of weather forecast offices (See PAC below). The House approved \$1.3 million for the Susquehanna River flood system, same as FY2001 appropriations; no funding had been requested by the President.

The Senate Appropriations Committee recommended ORF funding of \$668.6 million for NWS in S. 1215. This is 1.4% more than House-passed levels of \$659.3, 1.5% more than the President's request of \$658.5, and 6% more than FY2001 appropriations of \$630.8 million. It also recommended \$68.7 million for NWS PAC. The committee specifically directed that \$35.6 million be made available for Aviation Forecasts; another \$2.3 million was recommended to "Sustain [the] Cooperative Observer Network". Another \$89.2 million was recommended for NWS Systems Operation and Maintenance of NEXRAD, ASOS, and AWIPS weather modernization technologies. The committee directed \$4.8 million be provided to fulfil NWS obligations to continue existing operations at sites that are still under study for potential loss of coverage and degradation of weather services as a result of NWS modernization. In addition, \$1.5 million was recommended for the Advanced Hydrological Prediction System (AHPS); and \$12.7 million would be for ASOS instrument upgrade and deployment.

Conferees on H.R. 2500 appropriated \$672.4 million for NWS in ORF and \$70.7 million for NWS in PAC. NWS ORF totals are 2.1% greater than the President's request of \$658.5, 2.0% greater than House-passed levels of \$659.4, and 0.6% greater than Senate-passed levels of \$668.6, and 6.6% greater than FY2001 appropriations of \$630.8. Conference funding levels did not differ significantly from House- or Senate-passed level, but the committee adopted House language which would provide \$3.1 million for NEXRAD weather radar in Brandon, MS.

National Environmental Satellite Data and Information Service (NESDIS). President Bush requested \$142.4 million in ORF funding for NESDIS for FY2002, and \$606.4 million for NESDIS PAC. The ORF request is 5.4% (\$6.7 million) more than the \$125 million appropriated by Congress for FY2001, and 22% greater than President Clinton's request of \$108.2 million for FY2001. NESDIS figures highly among the Bush Administration's priorities for FY2002, where emphasis has been placed on efforts to maintain satellite continuity and provide severe weather forecasts and warnings. (NESDIS satellites are the space-borne "eyes" of the NWS.) Like other NOAA budget line offices, NESDIS has asked for increases to its base funding to compensate for reduced discretionary spending authority; it has also asked for authority to reprogram ORF funding to cover mandatory pay increases and inflationary costs.

NESDIS funds launches and deployment of polar orbiting environmental satellites (POES) and geostationary orbiting environmental satellites (GOES). POES circle the Earth from pole-to-pole providing a continuous and regularly repeated regime of environmental data; GOES, which can be "parked" in geostationary orbit and can observe any location in the northern mid-latitudes for extended periods of time, are predominantly used for tracking and characterizing major storms such as hurricanes, typhoons, and other large weather systems including thunderstorm complexes. New sensors onboard GOES satellites are also enabling meteorologists to measure total moisture content of these storms, which is important for determining flooding potential.

NESDIS also collects a substantial amount of environmental data from satellites and ground monitoring stations, operates a Climate Reference Network and a National Coastal Ocean Data Development Center, and is engaged in climate database modernization and utilization. To manage and make NESDIS data usable and available to the public, NOAA has developed environmental data archives and products distribution operations at its National Climatic (NCDC), Oceans (NODC), and Geophysical Data Centers (NGDC). Moreover, NOAA is statutorily required to collect and distribute civilian weather data, in compliance with the Land Remote Sensing and Commercialization Act of 1984 (P.L. 98-365, July 17, 1984, 15 U.S.C. 4201 *et seq*).

Highlights of President Bush's request for FY2002 include \$75.9 million in ORF funding for Satellite Observing Systems (SOS), which would include funding for operating the current generation of POES and GOES and to operate NOAA ground-based environmental monitoring systems that use NESDIS satellites to relay data back to primary investigators in NOAA and other federal agencies. Of this amount, the President requested \$68.9 million for Environmental Observing Systems (EOS), which is an increase of \$15.7 million above FY2001 appropriations. NESDIS currently provides GOES and POES satellite data as visual images or as digital data sets at the cost of reproduction for scientific researchers and at competitive rates for commercial uses. EOS also searches for ways to develop new environmental information products and new environmental applications for NOAA satellites. Command and control services for NESDIS satellite operations, which function around the clock, are also funded under this category.

The President requested \$0.8 million for Coral Reef Monitoring, and the same amount was requested for the establishment of a Joint Center for Satellite Data Assimilation, which would help to expedite the use of satellite data in weather and climate forecast models. NOAA asked for \$1.2 million of NESDIS funding to improve the efficiency of its Commercial Remote Sensing License application process.

President Bush requested \$55.8 million for NESDIS's other main mission, Operation of Environmental and Data Management Systems. This amount is \$9 million less than FY2001 appropriations. This line funds operations of NOAA data centers. Funding would be provided to collect environmental data, produce information products, and develop data services for those requiring atmospheric, marine, solid earth, and solar-terrestrial sciences data. This funding is also used to preserve and make available historical environmental data through a NESDIS environmental information clearinghouse, which facilitates public access to environmental satellite data products. Some Members of Congress in both the House and Senate have stressed the importance of preserving and using historical satellite data. In addition, the President requested \$0.5 million for NESDIS for ocean remote sensing for NMFS' Fisheries Oceanography and Habitat Characterization studies.

As part of a presidential initiative to Maintain Satellite and Severe Weather Forecasts, and to upgrade its critical telecommunications infrastructure, \$606.4 million was requested for NESDIS PAC. Most of this amount would be used for procuring Satellite Observing Systems hardware which is off the shelf or being developed. NOAA says that this funding is critical for ensuring continuity and seamless functioning of NESDIS satellite observing systems. The highest priority at NOAA for FY2002 is completion of the National Polar Orbiting Environmental Satellite System (NPOESS), which is jointly funded by NOAA and the Department of Defense. NPOESS will play a future role in supporting NOAA's statutory responsibility to operate U.S. civilian weather satellites, and collect and disseminate those data for the welfare of the public, and serve as backup for the current POES should there be a need.

The President also requested \$146.3 million to fund deployment of POES satellites (series K,L,M,N) and maintain their operation for the remainder of the program. Another \$293.3 million was requested to deploy GOES (series N,O,P,Q) satellites and part of this funding would be used to develop new instrumentation, and provide emergency backup launch services, or leasing time on other GOES satellite systems, such as EUROMETSAT, if needed. In addition, the President requested \$4.6 million in PAC Construction funding for Continuity of Critical Facilities for Satellite Operations. These funds would be used to modernize and renovate the infrastructure at NOAA's chief command and control centers for satellite operations. These centers which collect and relay environmental satellite data are located in Wallop Island, VA, and Fairbanks, AK.

The House approved \$149.6 million in ORF funding for NESDIS, and \$593.6 million for PAC in H.R. 2500. The ORF total is 5% greater than the President's request of \$142.4 million (adjusted), and 19.5% greater than FY2001 appropriations of \$125.2 million. Under the House Appropriations Committee's revised budget structure for NOAA for FY2002, \$10.5 million was transferred from the NESDIS PAC account to ORF. In addition the House approved \$3 million to fund Regional

Climate Centers. Noting the importance of historical climate data, the committee also recommended that the Administration request adequate funding in future years to maintain operations at NOAA's climate data centers. Funding of \$67.3 million was approved for Environmental Data Management Centers and Information Services, and increase of 20% above the President's request. In addition, commercial remote sensing licensing and enforcement would be funded \$250,000, which is 80% below the request.

The Senate Appropriations Committee recommended a total of \$150.5 million in ORF funding for NESDIS in S. 1215, which is 0.6% more than the \$149.6 million approved by the House, 5.8% more than the \$142.2 million requested by the President, and 20% more than FY2001 appropriations of \$125.2 million. PAC funding recommended by the committee was \$590.6 million. Out of ORF funding, \$89.7 million was recommended for NESDIS Satellite Observation Systems, including \$32.8 million for Satellite Command and Control, and \$58.9 million for NOAA's Data Centers and Information Services. In addition, the committee recommended \$3.6 million for Regional Climate Centers.

Conferees on H.R. 2500 appropriated a total of \$139.6 million in NESDIS ORF and \$561.9 million in NESDIS PAC. NESDIS ORF totals are 2.0% less than the President's request of \$142.4 million, 7.0% less than House-passed levels of \$149.6 million, 7.2% less than Senate report levels of \$150.5 million, and 11.5% greater than FY2001 appropriations of \$125.2 million. Conferees approved House instructions for a transfer of \$10.5 million of the President's request for NESDIS PAC to NESDIS ORF.

Program Support (PS). President Bush requested \$182.5 million in ORF funding for NOAA Program Support, and \$39.3 million for PS PAC. The ORF request is a net increase of \$78.2 million (75.4%) over the \$104.1 million appropriated by Congress in FY2001, and 78% greater than President Clinton's request of \$102.6 million for FY2001. For FY2002, PS includes new funding subcategories which include Corporate Services (CS) (formerly Administration & Services), Office of Marine and Aviation Operations (OMAO), and Facilities (FAC).

The President requested \$75.3 million for Corporate Services (CS) which funds NOAA personnel in Administrative Headquarters in Washington, DC, NOAA's Systems Acquisition Office in DOC, and Central Administrative Support functions such as Policy Formulation and Direction. Funding was also requested for NOAA's role in an Educational Partnership Program with Minority Serving Institutions (a DOC initiative). The President requested a n increase to base funding of \$6.4 million for PS to compensate for mandatory pay and inflationary costs under CS. Another \$19.8 million from PS PAC was requested to fund NOAA's obligations for the Commerce Administrative Management System (CAMS), which is DOC's financial management and accounting system. CAMS was previously funded, in part, from assessments levied on all NOAA line offices. Funding for NOAA's federal record storage responsibilities under NARA, are also included in total PS funding.

The Office of Marine and Aviation Operations (OMAO), which includes Marine and Aviation Services, is the largest funding component of PS. The President requested \$89.1 million in ORF funding for OMAO for FY2002. Of this amount,

\$74.9 million is requested for Marine Services which operates a fleet of 15 NOAA vessels. NOAA has contracted out a large portion of its marine data collection duties. Remaining data collection has been done by NOAA's own marine fleet or by chartering ship time on other marine research vessels. For FY2002, the President requested that budget authority for marine data collection for NOS, NMFS, and OAR be transferred to Marine Services under OMAO, which accounts for a \$63 million increase to PS base funding. Congress has directed NOAA to continue to bid for marine research ship time using vessels of the University National Oceanographic Laboratory System (UNOLS), and partnering with the Office of Naval Research (ONR) and the National Science Foundation (NSF), which also own marine research vessels. It has also encouraged NOAA to seek more data collection services from private contractors.

OMAO also funds Aircraft Services and, for FY2002, \$14.2 million in ORF funding was requested to operate a fleet of 13 NOAA aircraft. NOAA claims these aircraft are essential for 24-hour hurricane observation and severe winter storm predictions. They are also used for research and collect geographic, atmospheric and environmental data. In the FY2002 NOAA budget, Fleet Replacement is funded under PS PAC. The President requested \$19.5 million in PAC for this activity which was funded at nearly the same level in FY2001. Funding for OMAO Fleet Planning and Maintenance is \$19 million, 73% more than the House-passed levels of \$11 million. Other, Mandatory funding of \$15.4 million would be transferred to the U.S. Coast Guard and provided for retired NOAA "CORPS" officers pay.

For FY2002, the Facilities account (FAC) would be funded as part of PS. The President requested \$18 million in ORF funding for FAC to improve the physical infrastructure in which NOAA researchers and other employees work. This account funds repairs and rehabilitation of facilities, NOAA's employee health and safety responsibilities, physical plant, and remote observatories. FAC also funds NOAA's environmental compliance and clean up efforts on Pribilof Island. Funding was requested by the President for administrative costs and rent at the Skaggs Research Center in Boulder, CO, which is being leased from General Services Administration.

The House approved \$176.1 in ORF funding for Program Support (PS), and \$10.5 million in PAC in H.R. 2500. ORF funding was 3.6% less than the President's request of \$182.5 million and 91% greater than FY2001 appropriations of \$92.3 million. The House approved a total decrease of \$6.5 million for PS. Funding of \$5.5 million would be provided for Pribilof Island Cleanup, \$1.5 million more than the President's request. The House Appropriations Committee also directed NOAA (CS) to submit an operating plan that would include proposed expenditures based on final appropriations for FY2002. Also, it directed NOAA to prepare quarterly reports on how appropriations for FY2002 were obligated.

On July 19, 2001, the Senate Appropriations Committee recommended a total of \$162.9 million in ORF funding for Program Support, which is 7.5% less than the House-passed level of \$176.1 million, 10.7% less than the President's request of \$182.5 million, and 76.5% more than FY2001 appropriations of \$92.3 million. The committee recommended ORF funding be allotted as follows: CS - \$54.3 million; OMAO - \$98 million, including \$15.2 million for Aviation Operations and \$63.8 million for Marine Services; and FAC - \$10.6 million. Of the \$19 million

recommended for Fleet Maintenance and Planning under Marine Services, \$7.2 million of that would be used to procure electronic equipment for NOAA's ongoing mapping and charting missions (NOS). The committee also recommended \$62 million for PS PAC, \$15 million of which would be provided for CAMS; and \$47 million for NOAA (marine) Fleet Replacement.

The committee did not recommend \$15 million, that was requested by the President for funding for historically black colleges and universities and would be used primarily to train minorities to be scientists. They noted that it should be funded by either the Department of Education, the National Science Foundation, or the National Academy of Sciences. The committee also recommended transferring \$62 million in budget authority for data acquisitions from NOS, NMFS, and OAR to Marine Services (OMAO).

The conference agreement on H.R. 2500 appropriated a total of \$180.5 million for Program Support, which is 1.1% less than the President's request of \$182.5 million, 2.5% greater than House appropriated levels of \$176.1 million, 10.8% greater than Senate report levels of \$162.9 million, and 95.6% greater than FY2001 appropriations of \$92.3 million. The conference total for PS ORF includes \$71.8 million for Corporate Services (CS), \$89.6 million for Office of Marine and Aviation Operations (OMAO), and \$19.1 million for Facilities (FAC). Conferees funded Minority Serving Institutions (MSI) at \$15 million as proposed by the House.

ORF Budget Totals. ORF base funding is tallied after adding authorized funding carried over from previous fiscal years (deobligations) and reimbursements from various programs. However, because budget savings are viewed as extended budget authority, its appropriation for new obligations is subject to congressional approval pursuant to Sec. 605 of General Provisions under Title II of annual CJS Appropriations. Other additions to the ORF base may include authorized transfers from other NOAA accounts, such as the Coastal Zone Management Fund, and from other federal agencies (*e.g.*, PDAF transfers from USDA). ORF base reductions include mandatory transfers to other NOAA accounts or to other federal agencies, and surplus budget authority derived from payoff of long-term financing. In addition, NOAA is authorized to collect certain user fees and gifts; however, any amounts collected exceeding that authorized by Congress are deducted from base funding and are deposited in the U.S. Treasury as general revenue.

Non-ORF Funding

NOAA established the Procurement, Acquisitions, and Construction (PAC) account in FY1998, as a means to fund long-term, capital intensive expenditures, which include development, launch and deployment of environmental satellites, development and procurement of new technological systems (such as NWS modernization technologies), planning for and construction of new NOAA facilities, and procurement of new air and marine research or fishery vessels. In the NOAA budget, PAC funding is allotted to all five NOAA budget lines, including Program Support. NOAA's Other Accounts include funding for Pacific Coastal Salmon Recovery (PCSR) fund, the Coastal Zone Management Fund (CZMF) transfer to ORF; the Promote and Develop American Fisheries Products Fund (PDAF) and

Environmental Improvement and Restoration Fund (EIRF) budget authority pass-through to ORF.

Procurement, Acquisitions, and Construction (PAC). For FY2002, President Bush requested a total of \$764.8 million for PAC, which is 12% greater than the \$682.9 million Congress approved for FY2001, and 18% greater than the \$635.2 million requested by President Clinton for FY2001. PAC funding was subdivided into three categories for FY2002: Systems Acquisition (\$683.7 million), Construction (\$64.9 million), and NOAA Fleet Replacement (\$19.5 million). In previous years, the House Appropriations Committee scored out year estimates of expenditures for PAC as advanced appropriations in its annual budget recommendation for NOAA. For example, in FY2001, the House Appropriations Committee reported the President's request for PAC to be \$6.42 billion, including advance appropriations for NOAA for FY2002-2019. However, no such accounting was included for FY2002.

The largest portion of PAC funding requested by the President would be for Systems Acquisition, and includes procurement and launch of NESDIS' satellite hardware, improvements for weather forecast and warning technologies, upgrade of NOAA's communications infrastructure, and the acquisition of advanced computer technology for weather and climate forecast modeling. Taken together, \$663.9 million was requested for these activities. The President also requested \$19.8 million for CAMS. Total Construction funding requested for PAC was \$149.5 million, 57% less than FY2001 appropriations. Funding requested for NOAA (marine) Fleet Replacement request was \$19.5 million, 37% below FY2001 appropriations.

The House appropriated a total of \$749 million for NOAA PAC for FY2002. This is 2.1% less than the \$764.8 requested by the President, and 10% greater than FY2001 appropriations of \$681.4 million. The House approved \$16.3 million of NWS PAC be used to complete the third year of a 3-year effort to develop and deploy advanced communications software for NWS's Advanced Weather Interactive Processing System (AWIPS); also, \$3 million would be used to establish a NWS weather forecast office at the National Space Science and Technology Center at the University of Alabama at Huntsville, funding which would be derived from the NEXRAD radar line under NWS PAC. The House appropriations for NESDIS in PAC were nearly the same as the request, except it approved \$2 million less than President's request for funding for infrastructure for critical facilities. The House reprogrammed \$10.5 million of the President's request for NESDIS PAC to ORF.

The Senate Appropriations Committee recommended \$939.6 million for PAC, which is 25.4% more than House-passed levels of \$749 million, 23% more than the President's request of \$764.8, and 38% more than PAC funding of \$681.4 million appropriated for FY2001. Of this amount, the committee recommended \$60 million for a coastal and estuarine land conservation program accounted for under a new Conservation Spending category. These funds would be used expressly to acquire lands or interests in lands that include significant conservation, recreation, ecological, historical, or aesthetic values to further the goals of a federally-approved Coastal Zone Management Program or the National Estuarine Research Reserve System. The committee recommended \$14 million in PAC funding for Program Support (OMAO) to acquire a vessel to be home ported in New Castle, NH; and to convert a T-AGS

vessel for marine research, which would be home ported in Charleston, SC. The committee, like the House, approved reprogramming \$10.5 million requested by the President from NESDIS PAC to NESDIS ORF.

Senate Appropriations Committee funding recommendations which exceeded House-passed levels included \$17 million more for Marine Sanctuaries construction; \$5 million for a Coastal Service Center (no funding requested by the House); \$60 million for a new Coastal and Estuarine Land Conservation Program under NOS PAC, and included a list of specific projects; \$12.7 million more for NMFS Construction; \$54 million more for OMAO fleet replacement; \$15 million for Norman, OK, Storms Lab Construction (not requested in House bill); \$2.5 million more for NWS Weather Forecast Office (WFO) construction; and \$2 million more in Construction funding for the Continuity of Critical Facilities initiative.

Recommendations for reduced PAC funding, as compared with House approved levels, included \$1.5 million less for OAR Systems Acquisition; \$3 million less for NEXRAD radar acquisition; and \$0.5 million less for the NWS Telecommunications Gateway backup. The committee did not recommend funding for construction of a Suitland, MD facility; a maximum of \$15 million was recommended for CAMS; and \$3.6 million recommended for CLASS (Systems Acquisition).

The Conference agreement on H.R. 2500 approved a total of \$839.8 for PAC, which is 9.8% greater than the President's request of \$764.9 million, 12.1% greater than House-appropriated levels of \$749.0 million, 10.7% less than Senate-reported levels of \$940.6 million, and 23.2% greater than FY2001 appropriations of \$681.4million. The PAC total was divided as follows: NOS - \$87.8 million (Coastal and Estuarine Land Conservation Program Construction and Acquisition - \$15.8 million); NMFS - \$37.2 million; OAR - \$19.7 million (\$3.6 million CLASS); NWS - \$70.7 million (Telecommunications Gateway Backup - \$7.5 million); NESDIS - \$561.9 million (3.6 million for Continuity of Critical Facilities); and Program Support - \$62.4 million, including \$17.1 million to fund NOAA's share of DOC's Commerce Administrative Management Service (CAMS), and \$45.3 million for OMAO for Fleet Replacement.

Other Accounts. For FY2002, the President requested \$118.4 million in funding for NOAA's Other Accounts. This total includes almost \$73 million requested to be transferred to NMFS from the U.S. Department of Agriculture to fund "Promote and Develop American Fisheries" (PDAF) account in ORF. The President requested a total of \$110 million for Pacific Coastal Salmon conservation, including \$90 million for recovery (PCSR), and \$20 million for obligations under the U.S.-Canada Pacific Salmon Treaty. Another \$3 million would be transferred from the Coastal Zone Management Fund (CZMF) to ORF for implementing the 1972 Coastal Zone Management Act. The FY2002 request for the Environmental Improvement and Restoration Fund (EIRF), which is collected to facilitate oil and hazardous material release response, damage, assessment and natural resource restoration activities of NOAA totaled \$10.4 million, of which \$5.2 million was provided to NOS and NMFS. This amount however, is revenue neutral and does not effect ORF or Other Accounts totals.

The President did not request monies for the Coastal Impact Assistance Fund established in FY2001 CJS appropriations, noting that adequate funding for FY2002 would be provided to the Coastal Zone Management Fund for such activities. In addition, the President requested \$1.4 million for a number of other Fisheries Accounts that help finance different aspects of the U.S. fishing industry, including international treaty obligations, industry insurance, and NOAA liabilities, such as damage to non-NOAA marine vessels.

In the House-passed H.R. 2500, a total of \$135 million was appropriated for the PCSR Fund, with \$25 million of that relegated for treaty obligations. The Senate Appropriations Committee had recommended a total of \$133.9 million in S. 1215 for Pacific Coastal Salmon conservation, \$70 million of which would be for PCSR Fund, and the remainder for specific conservation projects identified by the committee in S.Rept. 107-42. The Senate Appropriations Committee's total recommendation for PCS conservation was less than 1% below House appropriations, 33% more than the President's request of \$90 million, and 86% more than FY2001 appropriations of \$72 million. Funding approved for Fishery Accounts by the House, and recommended by the Senate Appropriations Committee, was the same as the President's request of \$1.4 million.

The conference agreement on H.R. 2500 appropriated total of \$157.4 million for PCSR, including \$40 million for the Pacific Coastal Salmon Treaty. The conference committee reversed a House proposal that required express authorization in order to obligate these funds. Conferees also stipulated that none of the \$110 million appropriated for PCSR for conservation activities could be used for commercial fishing licences or fishing vessel buy backs. The PCSR total is 43% greater than the President's request of \$110.0 million (\$90 million of which is conservation spending), 16.6% greater than the House-appropriated levels of \$135.0 million, 14.1% greater than Senate-report levels of \$137.9 million, 113.3% greater than FY2001 CJS appropriations of \$73.8 million. All of PCSR funding for FY2002 is considered to be in NOAA's Conservation Spending Category. For the remainder of NOAA's Other Accounts, The \$3 million transfer to the CZMF in ORF was approved by conferees, and all other categories were funded at a total of \$1.4 million, the same as the President's request, as passed by the House, as recommended by the Senate Appropriations Committee, and as passed by the Senate for FY2002.

NOAA Authorization

NOAA does not have an "Organic Act" which statutorily mandates that funding for the agency as a whole be authorized on a regular basis. In fact, the closest thing to an agency authorizing in which all NOAA "dry" programs were authorized was in 1992, under Title VI of P.L. 102-567, the NASA Authorization Act of 1992, when the specifics of an implementation plan for the NWS Weather Modernization Initiative were laid out. Budget authority for NOAA programs falls under the jurisdiction of the House Science and Resources Committees and the Senate Committee on Commerce, Science, and Transportation. NOAA's "wet" and "dry" programs have traditionally been authorized under separate legislation, and there are many public laws that authorize specific NOAA programs.

Table 2, below, lists public laws authorizing NOAA programs that were due to expire at the end of FY2001, or had already expired. This list appeared in NOAA's Budget in Brief for FY2002. Another listing which identified many of these same programs appeared in H.Rept. 107-139 on H.R. 2500 (p. 141), in a section entitled "Appropriations Not Authorized by Law." No major agency-wide legislation to authorize either NOAA's "wet" or "dry" programs have been introduced thus far during the 107th Congress. However, legislation was introduced to reauthorize some more well known NOAA programs related to ocean and coastal environmental conservation issues and U.S. fishery regulations.

H.R. 642/S. 1045. H.R. 642 was introduced on February 14, 2001 by Representative Wayne T. Gilchrest, and would have reauthorized funding for the Chesapeake Bay Office established under Section 307 of the National Oceanic and Atmospheric Administration Authorization Act of 1992 (15 U.S.C. §1511d), and appoint an executive council, whose responsibilities would include assessing the processes which shape the Chesapeake Bay and affect its living resources; identifying technical and management alternatives for the restoration and protection of living resources and habitats they depend upon; and monitoring the implementation and effectiveness of management plans. This bill would charge the Office with coordinating programs of NOAA, Chesapeake Bay regional Sea Grant programs, and the Chesapeake Bay units of the National Estuarine Research Reserves System (NERRS), and establish a grants program for Chesapeake Bay fishery and habitats restoration for small watersheds. It would have authorized \$6 million annually for each of fiscal years 2002 through 2006 for these activities, and called for a 5-year study coordinated by the above entities to develop a multiple species management strategy with recommendations for how to optimize the return of a healthy and balanced ecosystem for the Chesapeake Bay. H.R 642 was marked up on March 28, 2001 by the House Subcommittee on Fisheries Conservation, Wildlife and Oceans; reported (H.Rept. 107-33) and passed by the House Resources Committee on April 4, 2001, and sent to the Senate Commerce Science, and Transportation Committee. No further legislative action occurred on H.R. 642 in the first session of the 107th Congress. S. 1045, a similar bill, was introduced on June 14, 2001, and referred to the Senate Committee on Commerce, Science, and Transportation. No further legislative action occurred on S. 1045 in the first session of 107th Congress.

H.R. 1989, introduced on May 24, 2001, by Representative Gilchrest, would have reauthorized various fishery conservation management programs authorized by P.L. 104-297, including the Interjurisdictional Fisheries Act of 1986 (16 U.S.C. 4107§308); the Anadromous Fish Conservation Act (16 U.S.C. 757d§4); Atlantic Striped Bass Conservation Act (16 U.S.C.1851 note§7(a)); and the Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 5108§811(a)). Also the NOAA Marine Fish Program (16 U.S.C. 742a *et seq.*) would be reauthorized to establish a Fisheries Information Collection and Analysis program; improve Fisheries Conservation Management; and grant fund for Fisheries State and Industry Cooperative Programs. These monies would be in addition to those already authorized under the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (16 U.S.C. 1801 *et seq.*). H.R. 1989 would also reauthorize funding for the Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971h§10) and the Northwest Atlantic Fisheries Convention Act of 1996 (16 U.S.C. 5610§211). In each case these programs would be authorized through FY2006.

H.R. 1989 was referred to the House Resources Committee on June 1, 2001; and to its Subcommittee on Fisheries, Conservation, Wildlife, and Oceans on June 7, 2001. The bill was marked-up by the subcommittee and forwarded to the full committee (amended) by voice vote on August 2, 2001. During mark up, the bill was modified to encourage the use of ecosystem-based management techniques in fisheries management, in effect changing the current practice of a single species focus to one of multiple species focus, and including their shared habitats. In addition, the bill would encourage fishery agencies to consider potential impacts of fishery management directives on other marine resources. On October 3, 2001 the House Resources Committee reported H.R. 1989, the Fisheries Conservation Act of 2001 (H.Rept. 107-227), and set funding levels for authorization of the various acts contained in the bill for FY2002 through 2006. The amended bill was referred to the Senate Committee on Commerce, Science, and Transportation on December 12, 2001, with Title VI added to extend the deadline for submission of the “Ocean Policy Report,” required by P.L. 106-256; authorization levels were increased to complete that report. No further legislative action occurred on this bill during the first session of the 107th Congress. For further information, see CRS Issue Brief IB10074: *Fishery, Aquaculture, and Marine Mammal Legislation in the 107th Congress*.

H.R. 3577, the Coastal Resources Conservation Act of 2001, was introduced December 20, 2001, by Representative Wayne T. Gilchrest, and would have reauthorized various NOAA programs originally authorized under the Coastal Zone Management Act of 1972. The legislation addressed the Coastal Zone Management Fund (CZMF), and establishment and administration of the “National Estuarine Research Reserve Systems (NERRS).” It called for development of research, education, and coastal resources stewardship guidelines. It would extend grants to States for coastal resources improvement, and establish a policy for private donations to NERRS. It required a “State of the Coast Report” every 24 months after enactment. Section 16 of this bill would have authorized appropriations for various programs administered under the Coastal Zone Management Act of 1972 (16 U.S.C. §1464), including funding for the Coastal Nonpoint Pollution Control programs. In general, most programs would have been authorized for FY2003 through FY2007. The bill also directed the Secretary of Commerce to develop a set of measurable outcome indicators to evaluate the effectiveness of State coastal management programs in the achievement of the national policy (Section 303 of the Coastal Zone Management Act of 1972). This bill was referred to the House Resources Committee on December 20, 2001. No further legislative action occurred during the first session of the 107th Congress.

Table 2. NOAA Programs Subject to Possible Reauthorization

NOAA Budget Authority Expired as of 9/30/2001		
Appropriations (\$thousands)	FY2001 Enacted	FY2002 Request
National Marine Fisheries Service Endangered Species Act P.L. 100-478 (expired 9/92)	102,476	108,314
National Marine Fisheries Service Marine Mammal Protection Act P.L. 97-58 as amended by P.L. 103-238 (expired 9/99)	28,251	30,339
National Marine Fisheries Service Magnuson-Stevens Fisheries Conservation and Management Act P.L. 104-297 (expired 9/99)	232,844	241,155
National Marine Fisheries Service NOAA Marine Fisheries Program Authorization Act, P.L. 104-297	223,148	207,688
National Marine Fisheries Service Interjurisdictional Fisheries Act, P.L. 104-297	18,150	8,190
National Marine Fisheries Service Anadromous Fishery Conservation and Management Act, P.L. 104-297	2,345	2,350
National Ocean Service Coastal Zone Management Act, P.L. 104-150	107,813	97,745
National Ocean Service Coastal Nonpoint Source Program, P.L. 101-506	9,978	10,000
National Oceans Service Hydrographic Services Improvement Act, P.L. 105-383	96,148	106,650
National Environmental Satellite Data and Information Service Land Remote Sensing Policy Act, 15 U.S.C. 313	0	1,200
Total Appropriations	\$821,153	\$813,63

Research and Development (R&D) Funding

The annual request for research and development (R&D) funding for NOAA does not appear as a line item in either the President's annual budget submission, NOAA budget justification documents, or congressional appropriations documents in any given fiscal year. The annual "R&D crosscut analysis" is prepared separately by NOAA's Office of Financial Administration (OFA), and is an internal document that is submitted to OMB prior to the President's annual budget submission. The first R&D crosscut NOAA submits to OMB in an annual budget cycle is referred to as "Congressionals," because it is submitted when final congressional appropriations for the current fiscal year are known (around December). The R&D request figures for the upcoming fiscal year in the "Congressionals" tables are usually only estimates however. These figures will be updated to reflect the actual R&D request, based on OMB analysis of the President's final budget request for NOAA, which is reported in NOAA's budget justification for the upcoming fiscal year.

For FY2002, President Bush requested \$762 million⁸ for NOAA R&D (see Table 3, below), which was 25% of the total budget for the agency requested by the President (\$3.063 billion). This amount included funding for R&D facilities, for which planning and construction of new facilities would be funded from the PAC Construction account. Maintenance of existing R&D facilities and infrastructure is funded under Program Support (FAC) in ORF. R&D equipment/instrumentation is procured through either Systems Acquisitions under PAC, or through individual research program funding in ORF. New aircraft and marine vessels for research are procured through the Office of Marine and Aviation Operations (OMAO) under Program Support (PS), and is from PS PAC funding.

The FY2002 R&D request for NOAA was 8.4% greater than FY2001 appropriations which totaled \$703 million, and was 23% greater than FY2000 appropriations which totaled \$620 million. NOAA's Office of Financial Administration (OFA) identifies and accounts for proposed R&D spending at the agency, funding which has been appropriated to budget line offices under ORF, PAC, and Other Accounts, and reports these amounts to OMB. The President requested some 37% of NOAA's R&D funding for FY2002 to go toward Oceanic and Atmospheric Research (OAR) programs, and its 12 environmental research labs that support NOAA operational programs in weather, climate, atmosphere, and oceanic, coastal and Great Lakes research. OAR also funds intramural research and provides extramural grants to states and individuals through the National Sea Grant College and National Underwater Research Programs (NURP). NMFS would receive almost 40% of total R&D funding for fisheries research and for research on endangered species. Together the request for OAR and NMFS accounted for about 77% of all NOAA R&D funding for FY2002.

⁸NOAA-OFA estimated totals were provided 5/8/2001; however, OMB initially had reported \$617 million for R&D and \$42 million for R&D facilities for a total of \$649 million for FY2002. Revised OMB estimates are now much closer to NOAA estimates \$772 vs. 762 million.

The balance of R&D funding would be distributed to other ORF budget lines including NOS, NWS and NESDIS, and would also fund maintenance of research facilities (including non-OAR laboratories) under FAC in ORF. NOAA's Office of Marine and Aviation Operations (OMAO) under PS would provide R&D funding for Aircraft Services, Marine Services, Data Acquisition and Fleet Maintenance and Planning. For FY2002, funding requested for data acquisition for NOS, NMFS, and OAR was included under Marine Services (PS/OMAO), and would be counted as R&D spending. Systems acquisition and new construction of R&D facilities would be funded under PAC. Remaining R&D funding requested was for Promote and Development American Fisheries Products (PDAF), and would be spent on commercial development of fisheries and marine resources, and funded under NOAA's Other Accounts.

Highlights of the FY2002 R&D request included \$21 million for NMFS fishery resource information, collection and analysis; and small increases were requested for research grants to states for research on endangered species conservation and management. The President specifically requested \$29 million for Stellar sea lion research. Other notable R&D funding increases were requested for Climate and Observation Services; NWS Operations and Research for Central Forecast Guidance; the U.S. Weather Research Program; the 2002 Ocean Exploration Initiative; and PS/Aircraft Services. A decrease was requested for R&D for Satellite Observation Systems under NESDIS PAC; however, that amount would be redirected to operational programs under SOS in NESDIS ORF. (More general information on federal R&D funding for FY2002, may be found in CRS Issue Brief IB10083, *Research and Development Funding: Fiscal Year 2002.*)

On November 20, 2001, AAAS issued an estimate for total R&D for NOAA for FY2002, based on its analysis of the conference agreement on H.R. 2500, CJS Appropriations for FY2002 (H.Rept. 107-278), which was approved, respectively, by the House and Senate on November 14 and 15, 2001. Its estimate was \$836 million, an amount which was \$64 million more, or 8.3% greater, than the President's request of \$772 million for R&D for FY2002, and \$111 million more, or 15.3%, greater, than the \$726 million appropriated by Congress for FY2001. The total was 37% of ORF appropriations of \$2,254 million, and 26% of NOAA appropriations of \$3,256 million for FY2002. In a recent accounting by NOAA's OFA, total R&D appropriations for FY2002 were reported to be \$792 million.

**Table 3. R&D Funding Requested and Appropriated for NOAA
for FY2002**

(\$millions)

Fiscal Year (appr.)	FY2000 (act.)	FY2001 (est.)	FY2002 (req.)	FY2002
Operations, Research, and Facilities (ORF)				
*R&D Facilities	13	0	0	0
NOS	56	64	61	61
NMFS	254	298	302	302
OAR	257	269	279	314
NWS	20	23	28	28
NESDIS	9	13	11	12
PS	8	9	54	66
OMAO (FM&P)	6	8	8	9
Total R&D NOAA	610	684	744	792
Non-ORF R&D allotments included in above totals:				
PAC	9	16	16	11
Other	1	2	2	0
Total Non-ORF	10	19	18	11

Source: NOAA Office of Financial Administration (OFA), FY2002 Congressional Preparation, R&D, January 11, 2002.

*After FY2000, R&D facilities funding was not broken out from other facilities funding included in ORF and PAC totals for the agency.