At long last, Graham becomes Reagan's science adviser

By taking three months to send the formal papers to the Senate after announcing the nomination of William R. Graham to be the President's science adviser and director of the Office of Science and Technology Policy, the White House sent a message that science is not at the top or even near the top of its agenda. The papers reached the Senate just prior to the Labor Day recess. So it was 11 September before Graham appeared before the Senate Committee on Commerce, Science and Transportation for a polite, somewhat perfunctory, hearing. The committee got around to voting on the nomination on 24 September, approving Graham by a 10-to-3 vote-the first nays cast against a nominee for the White House science position since it became subject to Senate confirmation 25 years ago.

The three nay-sayers were two Democratic senators, Albert Gore Jr of Tennessee and Ernest F. Hollings of South Carolina, and a Republican, Ted Stevens of Alaska. Gore's vote turned on his opposition to the Strategic Defense Initiative, which Graham defends with the unabashed loyalty of his White House predecessor, George A. Keyworth II, who left at the end of last year to enter commercial consulting. What's more, argued Gore, Graham lacked the scientific background for the

Objectives. Hollings's objections go back to Graham's prior confirmation hearings to become deputy to NASA's administrator, then James M. Beggs. As someone who had Hollings's ear, Beggs voiced heavy opposition to Graham as inexperienced in systems management and dedicated to militarizing space. Hollings cast his vote against Graham on those grounds. This time Hollings claimed Graham had given "misleading" testimony before the Senate Commerce Committee last 18 February on events leading up to the decision to launch the Challenger space shuttle. At the time of the ill-fated launch, Graham was NASA's acting administrator, Beggs having resigned to face criminal charges connected with an Army contract while he was an executive at General Dynamics. Asked

at the hearing whether any opposition had been voiced to launching the Challenger, Graham replied, "No, sir, the evidence is in the other direction." When the prelaunch arguments between Morton Thiokol engineers and NASA managers were revealed during the investigation by the Presidential commission led by William Rogers, Hollings said Graham was either inexcusably uninformed or lying. Observing that the Kremlin had fired the managers of the Chernobyl nuclear plant that exploded last April, Hollings proclaimed that Graham merited dismissal rather than promotion to the White House.

As for Stevens, who is chairman of Congress's Office of Technology Assessment, his opposition rested on arguments by eminent scientists against Graham's appointment because he had little or no academic or research experience (Physics today, July, page 45). Stevens had no objection to Graham's support of SDI. In fact, as chairman of the Senate appropriations subcommittee on defense, Stevens tried valiantly to maintain President Reagan's full \$5.3 billion budget request for "Star Wars" in fiscal 1987 but failed to get more than \$3.5 billion.

At the confirmation hearing Graham was introduced by Senator Slade Gorton, Republican of Washington, who heads the committee's science, technology and space subcommittee. After heaping credit on Graham for running NASA during the Challenger catastrophe, Gorton resorted to black humor in wishing that Graham's "tenure at OSTP is more peaceful than at NASA."

Gore was relatively gentle in questioning Graham, concerning himself mainly with Graham's views on acid rain and the "greenhouse effect." The hearing, attended only by Gorton and Gore, produced no surprises other than Graham's exceptional ability to avoid discussing the directions of his eventual advice to the President on scientific and technical issues.

Gore said Graham "has an opportunity to make a tremendous difference in the science advice the President receives." He noted that "many observers of the US scientific effort have concluded that it is likely to be dominated by SDI for the next few years.... The program is considered wildly unrealistic because it is not scientifically feasible.... Do you believe SDI is feasible at a cost of achieving countermeasures capable of overcoming the defense?" As expected, Graham's response was yes. Gore shook his head.

Challenges. In his opening statement, Graham spoke of "the challenges we face" in setting priorities for science in the present era of large government

APS sends directed-energy-weapons study to Pentagon

The eagerly awaited report of The American Physical Society's 18-month study of directed-energy weapons was delivered to the Pentagon on 25 September for security-classification review. The report has taken on increased significance since the meeting between President Reagan and General Secretary Gorbachev in Iceland became stuck on the issue of SDI research and development. Now running to more than 800 pages, the report was reviewed by an independent panel headed by George Pake of Xerox before the study committee's cochairmen, Nicolaas Bloembergen of Harvard and C. Kumar N. Patel of AT&T Bell Labs, handed it to the Strategic Defense Initiative Organization.

Although the committee was privy to classified data and visited several labora-

tories where SDI work is performed, it has prepared a document it considers unclassified. APS wants to issue a document that can be useful in coalescing scientific thought and informing public opinion about "Star Wars" research (PHYSICS TODAY, June 1984, page 53). From the outset of the study in February 1984, DOD officials, including SDI's director, Lieutenant General James A. Abrahamson, agreed to provide the APS panel with classified information and access to laboratories to gain complete understanding of the research and technology. When Bloembergen and Patel turned over the report to Louis Marquet, deputy for technology at SDI, they were assured that the classification review procedure would be expedited to ensure its prompt release.