likely to leak and be used against you."

Top Navy officials deny that debate on policy issues has been squashed. "We're not a university, or a 'let a 1000 flowers bloom' type of organization," said deputy under secretary Cropsey. "But I think that there's a healthy debate" within the Navy. "I don't think that there's ever been as much unanimity of purpose and consensus on goals as in the last several years regarding the strategy and what it requires," said Cropsey.

According to several sources, Lehman's treatment of internal criticism diverges sharply from past practice. Edward Hildalgo and Graham Claytor, Lehman's predecessors during the Carter Administration, frequently included dissenting footnotes from Chief of Naval Operations Admiral Thomas Hayward in their submissions to then Secretary of Defense Harold Brown, said former under secretary of the Navy James Woolsey. Woolsey said that the "strong tradition of open and free debate within the service" surprised and impressed him at the time.

Even with Lehman's departure, the Navy is unlikely to respond to budget austerity by exploring innovative ways of accomplishing its tasks with less money, said naval experts. If history is any guide, the service will attempt to protect big-ticket items-new submarines, carriers, and the escort ships required to protect carriers-from the impact of budget cuts. Hardest hit by the squeeze, said Robert Pirie, a former assistant secretary of defense and CNA division chief, will be items that can be built up again at relatively short notice should the budget picture brighten: personnel, ammunition, and maintenance. "The decks are the things they need to get," said Ullman. "They can worry about the rest later."

If these often overlooked but critical components of naval power take a back seat for too long, the Navy will become hollow, a paper tiger incapable of sustained operations. Yet a variety of naval experts said that the Navy consciously decided to run this risk when it pushed ahead with its fleet buildup.

Faced with budgetary threats to highpriority programs, the Navy may adopt a "Teddy Roosevelt strategy," said Barry Posen, a military scholar at the Smithsonian Institution's Woodrow Wilson Center. Roosevelt, upset because Congress refused to give him enough money in 1907 to send the "Great White Fleet" around the world, threatened to use all the Navy's available money to send the fleet halfway around the world. Roosevelt reputedly said that if Congress wanted its fleet back, it would have to pay for the return voyage.

After 7 years of plenty that produced the 600-ship fleet, the Navy, like Roosevelt, may try to embarrass Congess into provid-

ing the money necessary to outfit and operate the fleet in the lean years, said Lind of the Military Reform Institute in an interview. This tactic has a greater chance of success for the Navy, according to Posen, because U.S. presidents so often decide to send the fleet off to distant trouble spots, and they cannot afford to let maritime forces deteriorate too far.

According to Pirie, the Navy is not well structured bureaucratically to consider innovative changes. The service is divided vertically into branches responsible for ships, submarines, and aircraft. Each branch, as well as various subbranches, guards its mission and share of the budget jealously, and devotes most of its analysis to microlevel problems of making better cruisers or attack submarines. Broad questions of battle management and force structure, said a former high-ranking officer, are given short shrift.

"Nobody's optimizing between branches," said Pirie. "The only guy who can do that is the CNO [Chief of Naval Operations, the Navy's highest ranking post]." The current CNO, Admiral Carlisle Trost, who gained his post last summer over the opposition of Lehman, is for many experts the brightest spot in the otherwise gloomy Navy prospects. Sources depict him as "the consummate Washington flag officer," intelligent and politically surefooted. Before becoming CNO, Trost directed the Navy's Program Planning Office, and analysts familiar with his work there regard him as open to critical analysis of cherished Navy programs.

So far, however, Trost has not catalyzed any apparent debate within the Navy about the future shape and direction of U.S. maritime forces. Lehman's departure, however, combined with the budget crisis, may reignite consideration of major changes within the Navy.

Webb, 41, who will leave his current post of assistant secretary of defense for reserve affairs to replace Lehman, has earned a reputation of his own for outspokenness. A Vietnam veteran, he spearheaded a successful campaign to change the Vietnam Memorial in Washington, with its two black walls on which the names of those killed in Vietnam are inscribed, by adding more traditional statues of soldiers at the site. He has also condemned the antiwar movement of the 1960s and criticized plans to give women combat assignments. Although he is a staunch supporter of a vigorous and large Navy, few expect Webb to continue Lehman's dominance of Navy policy and strategy.

Daniel Charles

Daniel Charles is a free-lance writer based in Washington, D.C.

Back to the Future

Willis H. Shapley has returned to the job in the top management tier of the National Aeronautics and Space Administration (NASA) from which he retired in 1975. During the 11-year interim, Shapley, 70, was a consultant to AAAS and helped to put together the association's annual analysis of the federal budget. Shapley was asked by NASA administrator James C. Fletcher to return to his old job to participate in the agency's post-Challenger reconstruction effort. Fletcher was NASA chief at the time of Shapley's retirement and has also orbited back into the agency. Shapley, then and now a deputy associate administrator, has responsibilities for policy matters.

J.W.

Soviet Bread

Grigori Zolotukhin, the U.S.S.R. Minister of Grain Products, said on Soviet television recently that, at the insistence of scientists, both the salt and moisture content of bread had been "brought into line with scientifically based standards." These changes have not gone down well with consumers, however. A recent correspondent in *Izvestia* writes that, despite government promises, "the quality of bread in terms of taste, standard of baking, and shape has deteriorated . . . we now get huge pancakes of half-raw, unpalatable bread of unpleasant appearance."

D.D.

Conserving Energy

Conservation efforts have increased the efficiency by which energy is used in the Western industrialized nations by about 20% since the early 1970s, according to the International Energy Agency (IEA) in Paris.

According to a survey* of the 21 IEA member states, their joint gross domestic product increased by almost 32% between 1973 and 1985, but their use of energy grew by only 5%. The result was a saving of the energy equivalent of 880 million tons of oil a year—more than their total oil production.

The IEA report, its first overall survey of the effects of energy-saving measures introduced in the period since the first Arab oil shock in the early 1970s, says that decline in energy prices since 1982 has slowed, but not reversed, the main trends. **D.D.**

^{*}Energy Conservation in IEA Countries, OECD Publications, 2 rue Andre Pascal, 75775 Paris. \$39.