

vey was also less than instant. It took two and one-half years. Gallup estimates, however, that future surveys can be done in 12 to 16 weeks. □

Environment report: A long way to go

The quality of human surroundings is continuing to improve, according to the seventh annual report of the Council on Environmental Quality (CEQ), but the United States has a long way to go before its air, water and natural resources are adequately protected. Some highlights:

- Of 247 Air Quality Control Regions, several failed to meet statutory standards for one or more pollutants. CEQ concludes, however, that "the nation is making significant progress in improving its air quality," and that most of the regions will succeed in meeting the standards by the early 1980s.

- Water quality "has not improved as rapidly as we had hoped." Administrative delays have in turn held up the issuance of guidelines and permits to industry. Also, a follow-up study showed that polluters were not adhering to the conditions of their effluent permits.

- Ocean dumping decreased 23 percent from 1974 to 1975, reducing pollution in coastal waters.

- Hazardous substances are still not being dealt with adequately. There is a lack of "coordinated and comprehensive legal tools" to handle the problem, and in some cases, a "flagrant neglect of good occupational and environmental practices."

- Since the Occupational Safety and Health Act was passed in 1970, only three sets of complete (Section 6b) health standards for industrial exposure to hazardous substances have been issued. The council recommends at least labeling the materials so that workers can take their own precautions.

- Solid waste recovery is proceeding slowly, with 25 communities having facilities in operation, under construction or out for bid. Direct recycling is down sharply.

- During the next decade, the total cost of environmental cleanup will be roughly \$258.8 billion. By the end of the decade the gross national product is projected to be only 2.2 percent lower than it would have been without environmental legislation. Effect on employment is favorable: A net number of 400,000 people are employed now who would not be if environmental laws didn't exist.

- Though total energy consumption dropped by more than 2 percent for the second straight year, petroleum imports rose to about 40 percent of total consumption. More energy conservation would not necessarily lower the gross national product. □

Foxbat: Demythologizing a superplane

Whenever it has wanted money in the last few years, the Pentagon has told Congress about a spectacular new sophistication of Soviet military technology. Just three years ago, for example, the Mig-25 "Foxbat" was heralded as a sort of superplane that could serve as fighter, interceptor or reconnaissance aircraft. Then Air Force Secretary Robert C. Seamans Jr. called it the "best interceptor in production in the world," and praised its "highly capable avionics and missile system." However, when a young Russian Air Force officer defected recently by flying his Foxbat to Japan, Western experts soon found that the plane did not live up to its reputation.

One account of what they found is summarized by Rep. Robert Carr (D-Mich.), a pilot and member of the House Armed Service Committee, in the Oct. 3 Washington Post. He concludes that as a fighter, the Foxbat is "barely equal to our 15-year-old McDonnell F-4 Phantom." As a reconnaissance craft, "It is very good, but we have had better for a decade." As an interceptor, "It is obsolete and inadequate."

Flying as a fighter the Foxbat has a top speed of about Mach 2.8, somewhat faster than American fighters. But Carr says any speed above Mach 2.5 is wasted in a dogfight because of decreased maneuverability. Either of the two newer U.S. Air Force fighters, he says, can "out-climb, out-accelerate, out-turn, out-see, out-hide and out-shoot the Foxbat by margins so wide that our expected kill-ratio advantage is almost incalculable." □

Equipped as a reconnaissance aircraft, the Foxbat can reach a speed of Mach 3.2 and an altitude of 80,000 feet—but can sustain these extremes only for about 10 minutes. For more than 10 years the United States has had a craft that can do better than that: The SR-71 can fly at a faster top speed and a higher peak altitude, and can sustain these for 3,000 miles.

The problem with the Foxbat as an interceptor has not so much to do with its own characteristics as those of modern warfare. It was apparently designed to attack high-flying bombers, while according to Carr, all U.S. strategic bomber missions now call for low-level attack, at altitudes below 500 feet. Neither the Foxbat nor any other Soviet craft, he says, has the sophisticated "look-down" radar needed to track such bombers.

Perhaps the most illuminating discovery from the new examination is that even the successes of the Foxbat were achieved through considerable cutting of corners. The highly touted avionics, for example, turned out to be vacuum-tube systems that Carr says "would have been considered obsolete 10 years ago and unimpressive 15 years ago." And the structure of the plane is of steel, not titanium, as previously thought. Since steel is much heavier, Soviet designers had to achieve lightness by sacrificing several vital items, such as an ejection seat.

Altogether, Carr concludes, the new revelations call into question both the overall Soviet military sophistication and the credibility of the U.S. Defense Department. □

Clean air bill dies; industry in limbo

A bill to amend the 1970 Clean Air Act was smothered to death in hot air last week as Congress rushed toward adjournment and the campaign trail. The bill was successfully filibustered by opponents of its ambient air quality standards, but failure to pass it left automakers with what they call an impossible deadline for meeting emission control standards.

Originally, the Clean Air Act set standards for exhaust gases containing unburned hydrocarbons, carbon monoxide and oxides of nitrogen, which were to be met in 1975. When problems arose in the development of catalysts to remove these noxious components of exhaust (SN: 3/15/75, p. 168), Environmental Protection Agency Administrator Russell E. Train granted automakers a three-year extension and recommended that Congress enact legislation providing extension of some standards until 1980.

The present bill would have given the auto industry only a one-year extension, but failure to pass it automatically makes them liable to meet the standards in 1978 cars. These cars have already had to begin their

lengthy certification procedure, and all four major manufacturers say there is no chance that they can meet the statutory requirements on time.

The bill was defeated because of what opponents said would be its effect in keeping industries from entering areas now relatively undeveloped. A good case in point would be coal-bearing regions of the West, where amendments preventing any degradation of the pristine air would effectively stop construction of power generation facilities near the coal. Not surprisingly, the successful filibuster was led by the two senators from Utah, Jake Garn (R) and Frank Moss (D).

When the 95th Congress convenes on Jan. 4, 1977, one of the first items on its agenda will have to be another attempt to amend the Clean Air Act. The result is likely to be a long-delayed compromise. In the meantime, the legislators will have a chance to explain to the voters why there has been another delay in legislating an extension to a previous delay of an original grace period. □