Vehicle Manufacturers' Association directly, from the oil and auto industries, and in some cases, from the government too. An all-in-the family pattern appears to characterize the winning and losing of pollution research contracts. For example, Smith, at Scott Laboratories, noted that after EPA declined to accept the industry's interpretation of its surveys of vehicle use to reexamine the driving cycles, Scott was able to continue the work through MVMA sponsorship anyway. Another case was that of Wilbur Smith Associates, an international transportation consulting firm, which had research and development contracts simultaneously with EPA and with CRC-APRAC. According to one of the researchers there, Wilbur Smith Associates has subcontracted a part of its work to a Bedford, Mass., aerospace firm GCA Corp., which, oddly enough has in addition held its own contract directly with CRC-APRAC. Many of the principal investigators interviewed remarked that these overlapping, interlocking contract awards were typical of the auto emission research business, and some added that it was also a characteristic of the aerospace-defense department business in which many of these investigators previously worked. In fact, several major university centers for air pollution work are conspicuously absent from the list of 40-odd CRC-APRAC contractors, whereas about 14 of the contractors are firms prominent in the aerospace field. Many of the investigators interviewed said they personally had done aerospace work: "I got tired of making bomb calculations," said one. "Working on environmental problems seemed to be a good thing to do," said another. But an EPA official who sits on some CRC-APRAC panels offered a less sanguine view: "The only thing worse than an unemployed aerospace engineer," he quipped, "is an unemployed aerospace engineer who has gone to work on the environment."

Interviewed about the soundness of policies which appear to encourage researchers to take money from both EPA and the auto and oil industries, many of the investigators retorted, "How else would you do it?" Many pointed out that just giving more money to EPA—with a proviso that EPA get out of CRC-APRAC—which is what Muskie's staff is considering doing—would not solve the problem, since EPA has as much stake in the outcome of the research as the industry does. A California air pollution expert, however, made another suggestion which others echoed: that a separate government body, serving in effect as a third party to the controversy, become the prime sponsor of auto emissions research. "I'm amazed that parts of HEW [the Department of Health, Education, and Welfare] have been overlooked in all this. Why shouldn't they build up a capability in the NIEHS [National Institute of Environmental Health Sciences]? . . . They're good. They'd be ideal. . . . But they've been ignored."

—DEBORAH SHAPLEY

America Burning: Congress Eyes a National Fire Program

Fire is something the average American doesn't give much thought to unless he wakes up one night to find flames curling up his stairway. Despite the enormous toll fires take each year (some 12,000 lives; $11 billion in damage), local fire departments are generally given low priority when budget time comes around.

Fire chiefs are sometimes chosen on the same basis the local dogcatcher is; small departments have no way of training fire fighters. Fire departments tend to be rather provincial in that each has its own way of doing things, and there is little communication or exchange of information among them. Equipment is often outdated, and hose sizes are so varied that, when a large fire occurs in one district, a neighboring department may be powerless to help because its hoses don't couple. Despite the fact that some large government agencies have made significant advances in fire-fighting technology, the people in the rest of the country don't know about it. And if they do, they can't afford to take advantage of it.

Perhaps most serious of all, the citizens of the United States have at best a dim grasp of the concept of fire prevention. Thanks to the Forest Service, everyone knows about Smokey the Bear and the need to prevent forest fires. But when it comes to fires where people live and work, fires tend to be regarded more as acts of God than as the results of human misbehavior ranging from faulty wiring to arson.

Congress took the first step toward bringing fire research and prevention into modern times with the Fire Research and Safety Act of 1968, which created a National Commission on Fire Prevention and Control. But the commission didn't get funded until 1971. Finally it came out with its report "America Burning,"* in May of this year.

The commission, chaired by Richard E. Bland, an engineering research professor at Pennsylvania State University, recommended a program that it said would cost the nation about $150 million a year and would halve the nation's casualties from fire within a generation.

First, it called for the establishment of a U.S. Fire Administration, to be situated in the Department of Housing and Urban Development (HUD). The cornerstone of the administration would be a National Fire Academy, which would train fire officials, offer extension courses, guide state and local training programs, and conduct campaigns to educate the public on fire prevention. A national data system would be developed. The most expensive part of the plan would be an $83 million-a-year matching grants program to communities for developing "master fire plans," setting up local training programs, buying new equipment, and collecting data.

Finally, the commission recommends a research program costing $26 million

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annually. More research is needed on fire control systems, architectural designs, medical treatment for smoke and burns, fire detection devices, the dynamics of how fires spread under various circumstances, and so on. The $27 million now spent each year in federal fire research goes mostly to agencies, such as the Atomic Energy Commission, in connection with their particular missions, says the report. So there is not much money left for the two major general research programs conducted by the National Science Foundation and the National Bureau of Standards (NBS) Fire Research and Safety Program.

The commission points out that many of today's fires, because of the variety of new chemicals and flammable fabrics and materials in existence, and the unique problems posed by high-rise buildings, are not like the fires of yesteryear. New fire-fighting technology has been developed, but it hasn't been disseminated. The National Aeronautics and Space Administration, for example, has developed a fire coat that can withstand temperatures up to 1500°F. But no one has figured out how to adapt the coat for firemen's use and put it into mass production.

Congress seems sensitive to the urgency of the problem, judging from the fact that 72 fire-related bills have been introduced in the House this year. The science subcommittee of the House Science and Astronautics Committee, headed by Representative John W. Davis (D–Ga.), recently held 5 days of hearings on the report and on the legislative proposals. They boil down to several basic bills, which call for a fire academy, a new research program, a grant program, and a national data system.

Fire officials are ecstatic at the prospect of such a program, which one called "a fire fighter's dream come true." At the hearings, they compared the whole package to the Law Enforcement Assistance Administration, which is supposed to supply training and technical assistance to police without meddling in their affairs. They see the academy as being parallel to the Federal Bureau of Investigation's National Police Academy.

However, a few differences of opinion will have to be ironed out before the dream becomes reality. Where, for example, should the new fire administration be located? The commission and the National Fire Protection Association (a research and information organization) want it to be in HUD because they believe this department has the greatest expertise in community-based work and planning, as well as familiarity with sociological and economic patterns in cities. They are also eager to keep decision-making locally based.

Others, including Davis, think the place for a new fire program is in the Commerce Department, where it could keep in touch with the fire research and building standards divisions of the NBS.

The extent to which the research of the fire program would be integrated with or supersede other federal research programs is totally unclear. In addition, the grant idea may require major revision in view of the fact that the Nixon Administration is phasing out direct grants to groups and individuals in favor of federal revenue-sharing. Fire funds could go to localities under revenue-sharing plans, but states and cities might choose not to allocate them, and, if they did, departments might decide to buy some more of the same old equipment instead of improving the quality.

Representative Jerry Pettis (R–Calif.), one of the commission's congressional advisers, warned that there is no time to waste on quibbling, since it has already taken 5 years to obtain the commission's report. He might have added that this is the first time Congress has seriously considered a national fire program in the 14 years since one was first recommended by the National Academy of Sciences.

One reason the going has been so slow is the nature of the fire-fighting business. Unlike police departments, it produces no revenue for local governments, and no one appreciates firemen very much between fires. Furthermore, there has been little in the way of national organization to generate political pressure. On the contrary, local fire departments have been jealous of their prerogatives and have tended to fight change rather than seek it.

This attitude, no doubt caused in large part by the strain on municipal budgets, is now markedly shifting. And in view of the fact that this country suffers more deaths and property loss from fire than does any other major industrialized country, change seems clearly in order.—CONSTANCE HOLDEN