his address that the State Department is "thinking about population problems and talking about them." This may seem a modest claim, but it is a marked departure from the situation that prevailed in the previous Administration and that for a short time was carried on by the current Administration. Eisenhower's attitude was summed up when he said in relation to population control assistance: "I cannot imagine anything more emphatically a subject that is not a proper political or governmental activity or function or responsibility." Taking their cue from the Chief Executive, Eisenhower Administration officials rarely referred to the subject. In the early days of the current Administration, the taboo remained in force until President Kennedy publicly referred on several occasions to his concern about the problem. It then became safe to talk about it publicly, and the existence of a population problem has been stressed with increasing frequency in the speeches of Kennedy's officials.

Nunley seemed for a moment to be announcing that the United States will directly assist other governments that seek our aid in population control: "Finally, we are prepared to consider on their merits certain types of requests for assistance to other governments. In fact, we have already begun to advise and assist a few governments in their efforts to acquire additional knowledge about their own population problems, specifically in the conduct of censuses."

Policy having been brought to this point, it was promptly enveloped in an obfuscating swarm of words, and on the basis of the text as a whole it would be impossible to say just what the United States is prepared to do about the population problems of lesser-developed nations.

The seeming decision to offer assistance would appear to have been set aside by the following: "I do not know whether or not the United States government will ever consciously provide specific assistance in controlling population growth, and I am even less certain whether we will ever offer assistance in support of birth control programs. At the present moment, incredible as it may seem to some Americans, birth control is not a major issue in most parts of the world. It certainly is not a policy objective of the United States Government."

The speech undoubtedly deserves a place in the archives of confusion, but since its subject is one on which official evasiveness has generally been the keynote, it commands attention. Most notably, it did not shut the door to U.S. assistance in population control efforts, and, on balance, it seemed to be saying such assistance may be forthcoming.

In response to inquiries on the provocative statement that "we are prepared to consider on their merits certain types of requests. . . . " the State Department said: "We are not closing the door to anything. We will consider any request for help and decide whether it is suitable."

Privately, however, it was stated that the Administration is determined to move in this area and is cautiously testing the political terrain. In that context, this ingeniously confusing speech makes considerably more sense.—D.S.G.

Civil Defense: Like It or Not, Believe in It or Not, the Program Will Soon Be a Reality

While debate continues on what type, if any, civil defense program the United States should adopt, the program selected by the Administration is rapidly becoming a part of the American landscape. The confusion that has attended the effort—especially on the question of private versus community shelters—has obscured the managerial achievements involved in putting together a program and bringing it into being.

Civil defense has been a policy objective of the United States for over a decade, but after having labeled it as such, both the Truman and Eisenhower administrations left it to languish with small appropriations, inadequate leadership, and poorly defined goals. As a result, it took on an aura of unreality, and few citizens came to feel that it had a bearing on their lives.

In the past 4 months, however, the Administration has set clear goals—they are relatively modest—and put the program in the hands of effective managers backed by ample funds. Whatever the program's merits and implications may be, civil defense for the first time will soon be a functioning, visible undertaking that will make its presence felt in the lives of virtually every American.

Amid the debate over what should be done, it is therefore meaningful to survey the considerable amount that has already been done and determine how it was done.

The most significant administrative step involved the movement of the civil defense effort from the Executive Office staff of the President to the Department of Defense. The resources of the department, which is the best-financed, biggest, and most geographically widespread in the government, gave the civil defense program a powerful operating base which it previously lacked.

At the same time, Kennedy spoke out openly and repeatedly in behalf of civil defense, far in excess of anything done by his two immediate predecessors. The program was developed and put into operation against a background of an international crisis created by the Soviet resumption of nuclear testing, the walling off of East Berlin, and communist incursions in the Far East.

The civil defense program that Kennedy presented to Congress was clearly limited to attainable goals. In this respect it differed from earlier efforts which were enmeshed in a variety of concepts, many of them fuzzy and conflicting. The program, he stressed, was to be regarded as insurance against "an irrational attack, a miscalculation, an accidental war which cannot be either foreseen or deterred." He acknowledged that "it cannot give an assurance of blast protection that will be proof against surprise attack or guaranteed against obsolescence or destruction. And," he added, "it cannot deter a nuclear attack."

The program, as it was broadly outlined before Congress, was to be built around existing structures which would offer protection against fallout. In addition, steps would be taken to stockpile supplies and expand warning and training measures. The raging controversy over private and community efforts, incidentally, was touched off by Kennedy's observation that "financial participation will also be required from state and local governments and from private citizens . . . every American citizen and his community must decide for themselves whether this form of survival insurance justifies the expenditure of effort, time, and money." Subsequent references to individual efforts, coupled with the rapid growth of the fallout-shelter business and do-it-yourself articles in popular publications, tended to obscure the fact that the community shelter program was primary in the Administration's planning.

The political liability inherent in a shelter program that can be interpreted as offering protection for the rich and fallout for the poor has since caused Kennedy to limit his public statements to an emphasis on community facilities. Meanwhile, civil defense officials have no desire to dampen whatever individual efforts may be underway, and from time to time, they publicly state that private shelters have a place, too.

The private effort, despite the noise that accompanies it, has shown no signs to date of providing any significant amount of shelter space. The program for community facilities, however, is moving along at an extremely rapid pace, and it is the one that is going to bring civil defense into American life.

The Pentagon has announced that on the basis of pilot surveys, it expects to have located by next June shelter space in existing structures for some 50 million persons. Not long after that, it plans to have these spaces marked and stocked with rations for 2 weeks. In addition, it is in the process of arranging training for persons who will be assigned to supervise the shelters.

With these shelters providing space for something over 25 percent of the population, the Administration plans to ask Congress next year for funds to help communities build additional shelter space on a matching-fund basis. A program that will further bring civil defense into everyday life calls for providing a 16-hour medical self-help course for at least one member in every family. The course, developed by the Public Health Service in consultation with the American Medical Association, will be offered by committees which the Defense Department says have already been set up in most states.

The current federal budget for civil defense is slightly over $300 million. In the forthcoming Congress, the Defense Department is expected to receive at least double this amount, and it is reported that present plans call for spending a total of $5 billion over the next 5 years.

Confusion and controversy will inevitably accompany the development of the program, but it must be noted that in a remarkably short time civil defense has adopted a workable program, and whatever protection it may offer and whatever effect it may have on the American public, it will soon be here.—D.S.G.

Air Pollution: Auto Industry Bows to Ultimatum

The automobile industry, under pressure from Congress and the Department of Health, Education, and Welfare, last week announced plans to make so-called blow-by devices standard equipment, starting with the 1963 models.

The industry, which has become increasingly sensitive to the attention it is receiving from social critics and public health and safety authorities, came to the decision reluctantly. It had earlier made it clear that it felt it was the victim of some erroneous conclusions about the industry's contribution to air pollution.

The blow-by device is basically a tube which carries unburned hydrocarbons from the crankcase breather back to the intake manifold, where they are reintroduced into the engine and burned. The industry announced 2 years ago that it had found that some 30 percent of automotive pollutants—in the form of unburned gasoline—are emitted into the atmosphere through the crankcase breather. It immediately found itself beset by demands from public health authorities for factory installation of the device. The industry responded that the device would prove useful in California, because of atmospheric conditions there, but rejected demands for standard installation.

Last fall, the Department of Health, Education, and Welfare handed the industry an ultimatum calling for factory installation on all models by 1963. At the same time, warnings were received from Congress that legislation would be introduced making the device mandatory if the industry did not respond voluntarily.

Announcements

Coastal research workers are invited to submit material for inclusion in the recently established **Coastal Research Notes**, an interdisciplinary newsletter covering plans and projects in the field. The series will include items on future research, work in progress, field trips, new instrumentation, and cooperation between scientists in various fields. Deadline for inclusion in the first issue: *1 January 1962*. (William F. Tanner, Geology Department, Florida State University, Tallahassee)

Researchers concerned with **cognition and creativity in children** are invited to submit inquiries to the Galton Institute. The organization is planning research programs to devise suitable instruments for measuring, at the preschool level, those traits most frequently associated with creativity in adults. (Frieda B. Libaw, Galton Institute, 10400 Wilshire Blvd., Los Angeles 24)

A catalog of **alkaloid-bearing plants** has been published by the U.S. Department of Agriculture. The 287-page book (technical bulletin No. 1234) lists the family, genus, and species of all known alkaloid plants; the specific plant part in which the alkaloid exists; and the name of the alkaloids with their chemical formula. (Government Printing Office, Washington 25, D.C. $1)

Grants, Fellowships, and Awards

Grants-in-aid of **scientific research** —including the mathematical, physical, biological, and social sciences—are available from the American Academy of Arts and Sciences. The awards range from $500 to $1500. Deadline: *1 February 1962*. (Chairman, Committees on Research Funds, American Academy of Arts and Sciences, 280 Newton St., Boston 46, Mass.)

Guggenheim fellowships are currently available for graduate study in **rockets, jet propulsion, space flight**, and **flight structures**. Candidates must be residents of the United States or Canada and must plan to follow astronautics, rockets, or flight structures as a career. Recipients will study at the Guggenheim Jet Propulsion Center at the California Institute of Technology, the Guggenheim Laboratories for the Aerospace Propulsion Sciences at Princeton, or the Institute of Flight Structures at Columbia University. Fellowships provide full tuition and stipends up to $2000. Deadline: *1 March 1962*. (Guggenheim Foundation, 120 Broadway, New York 5)

Fellowships, scholarships, and assistantships in **forestry** are available for the 1962–63 academic year at Yale. Fellowships carry stipends up to $2900, scholarships cover tuition costs, and assistantships pay from $840 to $1800. Deadline: *1 February 1962*. (Yale School of Forestry, 205 Prospect St., New Haven 11, Conn.)