Air Force rocket. In a move that sharply angered managers of the space shuttle, the Pentagon requested $10 million for preliminary development of a series of new expendable rocket boosters capable of ferrying key military satellites into outer space (*Science*, 29 June, p. 1407). The purpose was to reduce the Pentagon's reliance on the shuttle, which has recently been beset by technical difficulties. Congress halved the Pentagon's request.

On many other controversial topics, Congress lacked the resolve to deny the Administration's request for funds and decided merely to seek additional information. As a result, the Pentagon has been told to supply a long list of studies by specified deadlines, including the following:*

19 January. A report on the implications of scrapping short-range nuclear weapons, weapons capable of both conventional and nuclear attack, and weapons capable of hitting the Soviet Union from Western Europe.

1 March. A report on the MX and Midgetman missiles, their basing modes, and their strategic implications. A report on the security of essential military and civilian communications. A detailed assessment of "nuclear winter" and its implications for U.S. strategic doctrine.

15 March. A report on the cost of mechanisms to verify a ban on biological and chemical weapons. A report on an "arms control method" by which sea-launched cruise missiles armed with nuclear and conventional warheads can be distinguished and counted.

1 April. An assessment of the survivability of strategic submarines and their associated communications systems. A report on the need for binary chemical weapons by a newly formed bipartisan Chemical Warfare Review Commission.

15 April. A report that specifically defines the number and type of U.S. weapons that would constitute a so-called "first-strike" capability against the Soviet Union.

1 May. An assessment of the Energy Department's inertial confinement fusion program. A comprehensive report on the design, development, testing, production, and retirement of nuclear warheads by a blue ribbon panel.

1 June. A report on the implications of deploying a new nuclear submarine, the U.S.S. *Alaska*, in apparent violation of SALT II limits on nuclear launchers.

—**R. Jeffrey Smith**

*Dates are approximate. (In some instances, Congress specified that the reports be produced no earlier than the date indicated; in others, no later.)

Saving Chimps for Research

Faced with a dwindling and perhaps endangered supply of chimpanzees for medical research, a national task force has drafted a plan to establish a stable pool of the animals for laboratory studies. The plan, which involves the formation of a permanent breeding colony, is likely to be controversial because it would require a temporary reduction in the number of chimps used in research and result in the destruction of some older animals.

Although relatively few chimpanzees are used by U.S. researchers, they are considered essential for studies of diseases such as hepatitis and AIDS (acquired immune deficiency syndrome) because they are so closely related to man. Several factors have reduced the research pool of the animals, however. International agreements signed a decade ago to protect the animals in their native but threatened habitats have prevented importation of chimpanzees from the wild. The animals already in this country, particularly the ones maintained for use by researchers, have not been adept at breeding. Moreover, because many of these animals have been used for studying hepatitis, they are suspected of being carriers for the non-A non-B form of this disease. Because so little is known about how this disease is transmitted, animals that may have been exposed must be excluded from breeding programs for fear of their contaminating other animals, including their own offspring.

To cope with these problems, an interagency task force was established in 1978 to look into chimpanzee production for biomedical use in the United States. Thomas L. Wolfle, an NIH veterinarian who served as executive director of the task force, says that the problem has grown so acute that the task force plan represents the only realistic chance to save the U.S. chimpanzee population.

The task force plan, a draft of which has just been submitted to the directors of individual NIH institutes, calls for selecting several facilities that would share in establishing components of a permanent chimpanzee colony for breeding. Altogether, the colony would need to produce about 300 animals a year, with only about 10 percent going into research use at the age of 18 months and the rest staying within the colony as prospective breeders. The facilities must be properly designed to encourage the balky animals to be adequate parents. Each potential facility also must demonstrate that its animals have a successfully established track record as parents.

The plan, which seems simple in its bare outlines, is likely to be viewed as controversial for several reasons. First, it will require new funds because it is a new federal program. It also will require—at least, early on—adjustments on the part of the researchers now using chimpanzees, who will be forced to cut back from the current use level of 50 to 60 animals per year to about 30 until the breeding colony is firmly established. And, finally, the plan calls for destroying some of the older animals that either cannot breed or that have been exposed to non-A non-B hepatitis.

The continued support of such animals is one of the costliest items in the current scheme of chimpanzee use, a reflection of the animals' longevity and the fact that it requires about $10 to $15 per day just to feed and house them. However, because the animals exposed to hepatitis can serve as a valuable "buffer" population that can be used in studying unexpected public health emergencies such as AIDS, they would not all have to be destroyed. Thus, a small group of such animals could be held in reserve for such contingencies, according to the task force plan, and they could be used instead of the offspring from the dedicated breeding colony.

According to Wolfle, it now costs about $4 million per year to maintain the nearly 1200 chimps within the biomedical community. The estimated annual costs for the new program, once established, is $1 million. "I'd dearly love not to use chimps in research. But if there were no value for chimps in research, then there would be no federal program," he says. "The only way to save them" is with a program funded through biomedical research channels. If the plan is successful, "in the long run, the costs will decrease to the investigators."—**Jeffrey L. Fox**