

## Antisatellite weapons

# First US test of airborne system

Washington

MORE than a year of lobbying by prominent scientists failed to prevent the US Air Force from conducting its first test-firing last Saturday of a new antisatellite weapon (ASAT) that can be launched from underneath the wing of an ordinary F15 fighter aircraft. The test, in which the missile was fired into space but not at a target, was immediately denounced as the prelude to a dangerous new phase in the arms race with the Soviet Union.

Development of the new weapon has been justified by the Department of Defense on the grounds that the Soviet Union is already believed to possess an operational antisatellite system. But critics complain that the American air-launched system is far more sophisticated than the Soviet system and, because of its small size, will make verification of a treaty banning such weapons virtually impossible.

The Soviet Union is believed to have conducted some 20 tests of its own main ASAT system, in which an explosive interceptor is launched from the ground by a variant of the SS-9 Scarp rocket. Last March, the Pentagon claimed that the Soviet Union would be able to launch the prototype of a space-based laser weapon some time after the mid-1980s and that an operational system capable of destroying satellites within a few thousand kilometres could be completed by the end of the century.

Unlike the existing Soviet system, the American weapon tested last week is launched in flight by an F15 aircraft and consists of a miniature non-explosive homing vehicle carried into space by a two-stage rocket. The vehicle would locate its target with infrared sensors and destroy it by collision. Congress has told the Air Force not to test the new weapon against target satellites until President Reagan provides a report on the administration's efforts to curb an arms race in space.

The administration is not expected to face any substantial difficulty in persuading Congress that the tests should go ahead, however. In recent months the Pentagon has been stressing the rapid strides the Soviet Union is believed to be making in space weapons, and a report last week in *Aviation Week and Space Technology* says the Central Intelligence Agency (CIA) believes the Soviet Union is developing a space-based defence system that could destroy American ballistic missiles launched against the Soviet Union.

At present there are no international treaties forbidding the deployment of ASAT weapons. The 1963 Limited Test Ban Treaty and the 1967 Outer Space Treaty prohibit the placing of nuclear weapons or other weapons of mass destruction in space, and the provisions of the 1982 Salt I treaty prohibit interference with reconnaissance satellites. Negotiations on a treat-

ty to ban ASATs were, however, broken off by the Carter Administration in 1979 after the despatch of Soviet troops to Afghanistan.

Many prominent American scientists have urged the Reagan Administration to take up recent Soviet offers to resume the stalled negotiations. Condemning last

## Human rights

# Philippines under scrutiny

Washington

ALLEGATIONS of gross violations of human rights in the Philippines have been made public by a delegation sent there by the American Association for the Advancement of Science (AAAS), the Institute of Medicine and four other scientific societies and human rights groups. Among the delegation's complaints are allegations of torture, "disappearances" of political detainees on the recent Argentinian model and the intimidation of health workers in rural areas.

The delegation was led by Dr Jonathan Vine, a private physician from Boston, and included Dr Robert Lawrence, director of primary care at the Harvard Medical School, and Eric Stover, staff officer of the AAAS committee on scientific freedom and responsibility. During their three-week stay in the Philippines, members of the delegation met government officials, Catholic clergy, health workers, US embassy officials, some of those in detention and also former detainees. The group visited seven detention centres and a variety of rural health facilities.

The rural health workers especially at risk are predominantly those employed on projects set up by the Catholic church to bring health care to remote areas not served by government facilities. According to the delegation, these workers are under constant scrutiny by the military, chiefly because of the suspicion that they are providing assistance for the guerilla force called the New People's Army. Many lay workers for these rural health projects have allegedly been detained and several private physicians have been arrested and held under "Presidential Commitment Orders" authorized by a decree suspending habeas corpus.

One of the incidents described in the delegation's report is that of the assassination in 1982 of a private physician, Dr Bobby de la Paz, who had operated a clinic on the remote Sumar Island. The local army command at first accused the guerillas but, in response to demands for a more thorough investigation, charged an enlisted man with the crime. The family of Dr de la Paz now claims, however, that the man thus identified does not match witnesses' descriptions of the assassin.

week's ASAT tests, the group argues that the deployment of small and sophisticated ASATs would make the negotiation of a verifiable treaty almost impossible. Signatories of a statement criticizing the test include Jerome Wiesner, a former presidential science adviser; Hans Bethe, a physicist from Cornell University; Franklin Long, former associate director of the Arms Control and Disarmament Agency; and Herbert Scoville, former deputy director of CIA. **Peter David**

The delegation seems also to have been able to document several apparent cases of the torture of prisoners held for subversive activities. Its report includes a gruesome X-ray of the skull of a 37-year-old farmer who had a 4-inch nail driven into his skull while in detention. The police are said to have told the hospital to which the man was eventually taken that he had attempted suicide.

Clergy and others interviewed are reported to have said that there had been no substantial improvement of human rights in the Philippines since the lifting of martial law in 1981. The delegation notes, however, as an encouraging sign, the recent release of three scientists who had been in detention. **Stephen Budiansky**

## NIH curbs drive out researcher

Washington

A FEDERAL rule that forbids researchers at the National Institutes of Health (NIH) from conducting experiments on *in vitro* fertilization with human beings has driven out the chief of pregnancy research there. Dr Gary Hodgen, a leading researcher on human reproduction who has been at NIH for 15 years, announced last week that he will be leaving at the end of June to join a research group at the Institute for Reproductive Medicine at Norfolk, Virginia. The institute was among the pioneers of *in vitro* fertilization in the United States.

Under an administrative rule adopted during President Gerald Ford's administration, federal researchers are not allowed to use the procedures of *in vitro* fertilization or to carry out experiments in which human embryos are used. NIH regulations also forbid research with human fetuses except when the objectives include assuring the survival of the fetus or the avoidance of congenital defects.

The Institute for Reproductive Medicine at Norfolk is run by Drs Howard and Georgeanna Jones, a husband and wife team who have carried out some 50 successful *in vitro* fertilizations since 1982. Hodgen is to become the institute's scientific director. **Stephen Budiansky**