

## Countdown to a crash beam-weapons program

by Paul Gallagher

President Reagan is considering delivery of a major address on beam-weapon anti-missile defense during the first half of October, according to sources in Washington, D.C. and the national scientific laboratories. This would be a follow-up to the President's March 23 speech, which announced the end of U.S. reliance on the doctrine of Mutually Assured Destruction (MAD) and mandated U.S. scientists to develop an effective missile defense program.

Contrary to the sceptics who have branded the President's program a "Star Wars" fantasy, its technological feasibility has been underlined by a number of recent breakthroughs in energy-beam research. The long-term beam-weapons technology reports commissioned by the President are now complete and will be formally presented to him Oct. 1. The most important of these is the report of the Defense Technologies Study Commission of the National Security Council, known as the Fletcher Commission, after its Chairman James Fletcher, a former NASA administrator. The commission's conclusions are known to be so optimistic that the National Security Council has ordered the Defense Department to prepare a "short-term" version of the report—how to develop beam weapons faster. Defense Secretary Caspar Weinberger has reiterated administration commitment to the defense idea in numerous recent statements, and declared in a speech Sept. 14 that "the administration will pursue development of these systems to the extent Congress provides the funds."

At the "Beams '83" conference in San Francisco Sept. 12-14, rapid progress was reported in all the advanced beam weapons technologies. (See accompanying article.) Much higher power levels than previously reported have been achieved for electron beams, free electron lasers, and microwave beams, and for high-frequency chemical lasers. New

physics results were publicly reported for the x-ray laser. All participants were enthusiastic about the ability of the beam weapon program to propel the laser fusion and magnetic fusion program, and to be pushed forward by them in turn. In addition, plans for a new particle accelerator with up to 40-trillion volt potential were discussed.

Given the current international crisis and the Soviet Union's domination by the kind of reckless chauvinism displayed in the downing of the Korean Air Lines' civilian jet Sept. 1, *EIR* believes that a new defense budget must prioritize a "crash program" to develop a defense system within three to five years. This would require \$10 billion for beam-weapon, power-pulse, and high-energy plasma technologies in fiscal 1984 and larger amounts thereafter.

The White House's beam weapon budget plans as of late September may be reflected in the advice of the Defense Resources Board of the Pentagon to the military services to plan for an increase of \$500 million in beam weapon development funds next year. This is roughly a doubling of current levels, but remains at least an order of magnitude below the kind of crash effort that can make beam weapons a factor in the strategic crisis.

### Conflict in the administration

The Reagan administration is deeply divided over the President's beam-weapon defense program. Washington sources report a conflict within the cabinet over the results of the Erice, Italy, conference on "The Technological Bases for Peace," held Aug. 20-23, at which physicist Edward Teller's delegation trounced the Soviet scientists in the debate on beam weapons, forcing the Soviets for the first time to agree to discuss the possibilities of mutual defensive-

weapon development. While Teller's close associates say he is pushing Reagan to personally capitalize on this victory, the Erice conference has been almost completely blacked out in the U.S. press, with the exception of *EIR* and other publications associated with Lyndon LaRouche, Jr. (See *EIR*, Sept. 6, "U.S. and Soviets sign accord for beam defense commission.") The reason for this extraordinary blockage, Washington sources report, is that the State Department and its Arms Control and Disarmament Agency have advised the media point blank not to report the Erice developments.

How surprising to American readers then, was the sudden spate of press denunciations of pro-beam participants at the Erice meeting—nearly a month after the conclusion of the unreported conference! Syndicated columnists Flora Lewis and Mary McGrory defended anti-beam IBM Corp. scientist Richard Garwin from former Washington Gov. Dixy Lee Ray, who told Garwin at Erice: "You are a traitor."

That President Reagan can expect backing for a "second March 23 speech" is indicated by two recent developments. One is the discrediting of the "nuclear freeze" movement in Congress since the Soviet downing of the Korean plane. The defeat in the Senate Foreign Relations Committee Sept. 20 of both the "nuclear freeze" resolution and a substitute resolution by Senator Percy defending Kissinger's Scowcroft Commission and the MAD doctrine, is evidence for this. Congressional sources predict that throughout October the defense debate will turn from the MX and Pershing missiles, to the far more crucial question of anti-ballistic missile defense policy.

Another indication of popular support for such a dramatic move by Reagan now is the election victories by candidates of Lyndon LaRouche's National Democratic Policy Committee (NDPC—see article, page 51). The NDPC-backed candidates all made beam-weapon defense the number-one issue of their campaigns, and LaRouche is known nationally for his advocacy of such a program. On the other side, Democratic National Committee Chairman Charles Manatt and his sidekick Averell Harriman came out officially on Sept. 20 in support of the "nuclear freeze" pastoral letter of the U.S. Roman Catholic Bishops and the KGB's "defense" program for the United States. The battle lines are drawn more clearly now than ever within the Democratic Party, and in the country as a whole.

## Press responds to the beam-systems push

Washington Post columnist Mary McGrory, who attended the Aug. 20-23 conference on "The Technological Bases for Peace" at Erice, Italy, published her account of the conference Sept. 18. The following is a paraphrase.

McGrory called President Reagan's adviser Dr. Edward Teller the "Kissinger of science," who was surrounded at the conference by "worshippers" and protégés from Lawrence Livermore Laboratory. McGrory wrote that the conference pivoted around Teller, the "godfather of President Reagan's much-mauled 'Star Wars' concept of a nuclear shield," who derided the press for their "misinterpreted and distorted" coverage of his program.

McGrory reported former Nuclear Regulatory Commission chairman and former Washington State Gov. Dixy Lee Ray's attack on Richard Garwin, the pro-freeze physicist-activist of MIT. Garwin had organized throughout the conference for a conventional defense buildup in Europe, and "then said that if a secret poll of defense system researchers were taken at Livermore, the deepest questions about its feasibility would be uncovered." After a party, "Dixy Lee Ray told Garwin, in front of his wife and two friends, 'I think you are a traitor.' Garwin . . . replied, 'That word has a specific, technical meaning. Shouldn't it be reserved for wartime?' Dixy Lee Ray did not retreat, then or the next day, as word of her charge swept through the seminar. 'I think it applies,' she said tersely. Garwin should not have aired differences about the defense of Europe, or 'doubts that do not exist' about Teller's nuclear shield."

The *Financial Times of London* published a lengthy feature Sept. 19, "Thunderbolts of the Future," which is one of the most detailed assessments of U.S. capabilities to develop beam weapon anti-missile defenses to have appeared in the European press. Written by Science Editor David Fishlock on the basis of direct investigative work in Washington, D.C., the report is an in-depth survey of the seriousness of the Reagan commitment. Excerpts follow.

For the past three months about 40 of America's top defence scientists have been meeting secretly in Washington, trying to hatch a considered response to what is popularly known as President Reagan's "Star Wars" speech. . . .

To come up with some answers the Pentagon picked people from its own laboratories and from those of the Department of Energy, which designs its nuclear weapons, and from the research-based defence companies. Academics are conspicuously absent from the study. . . .

The central question before [the Defense Technology Interdiction Committee] is whether a national programme to build a new defence umbrella makes sense technically at this time. President Reagan himself acknowledged that it was "a formidable technical task, one that may not be accomplished before the end of this century." Unquestionably it is one that will make the \$24bn Apollo moon-landing programme of the 1960s seem modest. . . .

Dr. Robert Cooper, director of the Defense Advanced Research Projects Agency (DARPA), the Pentagon's own

R&D arm, has been involved with beam weapons since the 1960s. Locked in a file in his Arlington office is a copy of a report written in 1959 on ABM defence which, he says, outlines the problem they still face today. In a nutshell, this is how to destroy with a high degree of certainty droves of intercontinental ballistic missiles (ICBMs) that need a scant 1,800 seconds to reach their target. . . .

What has changed in the past quarter-century is the power of beams. The laser had not even been invented in 1959. Bolts of directed energy from beam amplifiers such as lasers and electron accelerators can travel at up to 100,000 times the speed of an ICBM. . . .

But another important pressure for a major national research and development programme comes from a widespread belief that it will help re-establish a technological leadership the U.S. is thought to have lost to Japan and Europe, even to the U.S.S.R. in some areas such as the space station.

A top-level study of U.S. national laboratories has strongly urged that the three nuclear weapon laboratories, diverted into alternative energies during the 1970s, should refocus on their primary task. Increasingly, that task may emerge as the "defensive nuclear weapon." . . .

Dr. Edward Teller . . . believes that all the talk of Star Wars is designed to discredit beam ABM weapons. "Space is all nonsense." The President himself made no reference to space, he points out. Dr. Teller believes that the complex technology of beam ABM weapons with its panoply of associated technologies will have to be installed on the earth's surface, not on space platforms, leaving only the mirrors needed to steer the beams to their targets out in space.

Dr. Teller also believes firmly that the U.S. should not try to do it alone, and so isolate itself from its allies behind a beam umbrella. It should be a NATO project. For such a technologically demanding venture "we are limited more by manpower—by ideas—than we are limited by anything else."

*The editorial excerpted below, titled "Disarmageddon," appeared in the Sept. 18 Indianapolis Star.*

A defensive weapon system that could make nuclear war impossible is a bright prospect that has survived a summer whose closing weeks have been darkened by the Soviet destruction of the Korean superjet. . . .

At a scientific conference in Erice, Sicily, on nuclear war, conferees signed a communiqué calling for the formation of a commission of about 100 persons to study the feasibility of a directed energy beam weapon system and the effects of nuclear war on the biosphere.

In a message sent to the conference, President Reagan reasserted his commitment, first made in his March 23 address, to ending the era of Mutually Assured Destruction by developing new defensive strategies that would make nuclear missiles "impotent and obsolete." . . .

[Dr. Edward Teller] announced that he was working with

Reagan to develop a new defensive system. . . . A delegation of Soviet scientists headed by E. P. Velikov, vice-president of the Soviet Academy of Scientists, at first proposed to ban all weapons in space as "dangerous" [but] American scientists replied that the Soviets already unilaterally had deployed such weapons and that beam weapons . . . would be deployed only on attack by enemy missiles.

Finally, Velikov signed an agreement to set up a joint U.S.-Soviet commission that would study the possibility of creating a new kind of defense against nuclear destruction. The obvious criticism of such an arrangement is that the Soviets cannot be trusted and might well be expected to use information gained from U.S. scientists to design weapons aimed at destroying the U.S. defense. However, in data-sharing, the U.S. would *know* the extent of Soviet knowledge and could act accordingly.

## Laser breakthroughs highlight conference

by Steven Bardwell

Major new breakthroughs in x-ray lasers, announced at a conference in San Francisco Sept. 12-14, move the timetable for deployment of a space-based defense system against nuclear attack forward to three years.

With rumors high in Washington that President Reagan will announce a major new effort in the U.S. anti-missile beam weapon development in early October, scientists from throughout the world gathered at the Fifth International Conference on High Energy Beams to hear announcements of the most recently declassified research in x-ray lasers, free electron lasers, microwave beams, and particle beams.

Conspicuously missing, however, was the invited delegation from the Soviet Union; top scientist L. Rudakov, only days before the opening, wired conference organizers a cryptic message cancelling out.

The optimism that pervaded the 300 scientists in San Francisco is a small reflection of the tremendous progress of these classified programs, only a small part of which could be reported at the meeting.

On the first two days of the conference, x-ray lasers and particle beams were the primary topics of discussion, and major progress was reported in both. One of the few unclassified x-ray laser experiments in the United States, at Physics International (a private laboratory in San Leandro, California), resulted in achievement of a milestone in the production of a Z-pinch x-ray laser. This device uses a very dense, very hot, electronically produced plasma column to create a lasing