

Scientists campaign for beam weapons

by Robert Gallagher

After five years of silence imposed by a ridiculously stringent classification system, U.S. science and intelligence experts have brought the fight to develop defensive beam weapons out of the laboratories and into the political arena.

Interviewed in the January 1983 issue of *Defense Science and Electronics*, Dr. Lowell Wood of Lawrence Livermore National Laboratory, a protégé of Dr. Edward Teller, stated in no uncertain terms that directed-energy beam weapons are not only feasible but could be rapidly perfected and deployed for an effective defense against nuclear-tipped missiles. Such a weapons system would give the United States the capability to knock out a hostile nuclear missile in the first five minutes of its launch, thus ending the 30-year threat of nuclear holocaust.

In the same issue of *Defense Science* magazine, another defense expert, Dr. John D. G. Rather, discusses in detail the immediate and long-term potential of beam weapons and calls for a "presidential-level policy decision" for an all-out program. "Procrastinating about this need for a well-coordinated national laser program," Rather writes, "has already cost the United States several years of potential leadership advantage."

A Soviet 'Manhattan Project'

Along with this new offensive for beam weapons has come a series of warnings from the military that while the United States twiddles its thumbs, the Soviets are gaining in beam-weapon capability. This was the message delivered to the House Appropriations Committee in mid-February by Air Force Secretary Verne Orr. It was also the point emphasized recently by General George F. Keegan (ret.), the former chief of Air Force Intelligence, who told the *Baltimore Sun* on Feb. 20 that the Soviet Union is developing high-energy laser and particle beam weapons under a program "much larger than the Manhattan Project."

Keegan, who resigned from the Air Force in 1979 because his warnings on Soviet beam weapon development were pooh-poohed by U.S. intelligence and the Air Force, told the *Baltimore Sun* that over the 33 years of his active service, U.S. intelligence "has been wrong in every single scientific prediction."

In 1977, Keegan, like Democratic Party leader Lyndon H. LaRouche and the Fusion Energy Foundation (FEF), made the scientific case that beam weapons were possible, and warned that the Soviets were marshaling their resources to develop such a weapon by the 1980s. The FEF published a pamphlet at the time called "Sputnik of the Seventies" that described in detail the science and technology required and stated how far behind the United States was in such research work.

It is the aggressive campaign for beam technology development led by the FEF, and the LaRouche organization that has driven the beam weapon fight out of the national laboratories and into the public purview. Such advocacy by those involved in beam-weapons research should squash the various anti-technology experts who have persistently argued that defensive beam weapons might be a nice idea but are scientifically unfeasible.

One such expert, Kosta Tsipis of the Massachusetts Institute of Technology, was thoroughly discredited by Lowell Wood, who took apart Tsipis's arguments one by one, as they had appeared in a December 1981 *Scientific American* article that has become the bible of the anti-beam weapon crowd.

Wood, who was awarded the Lawrence Prize in 1982 and is considered by many to be the leading defense scientist in the United States today, wrote that Tsipis's article "like a number of others that have appeared in *Scientific American* by the same group of people, was premised on political and not technical grounds. It was riddled with fundamental technical faults. . . ." The Large Space Telescope that will be used in the next Shuttle already exceeds the optical aperture that Tsipis "declared to be the limit that human technology could create," Wood says.

Furthermore, Wood added, "there are efforts underway elsewhere on our little planet in military laser R&D which are nearly an order of magnitude larger than the efforts that the United States has been making; these have been under way for a long time under the direction of extremely capable people, Nobel laureates. These efforts are not led by fools, they are not funded by fools, and they are not serving the military objectives of fools."

As for the go-slow faction, typified by presidential science adviser Dr. George Keyworth—who says that the United States will not even know until the 1990s whether beam weapon technologies are feasible—Wood notes that it will take us about 10 years to develop an effective ballistic missile defense system, "but not because it is physically impossible or even very technically challenging. It's just that this country presently can't do anything in three to five years, literally nothing of real significance. We certainly have been able to do so in the recent past, and I have every reason to believe that we could do so in the future if we got serious. . . . The United States is a rich country, but spends little on meeting crucial technological challenges. . . ."