

Carter Uses Hoax To Ask Space Technology Ban

Right on cue from James Schlesinger and Z. Brzezinski, President Carter stated in his press conference of Jan. 30 that current U.S. policy is to sabotage the next stage in space technology — the development of high density, miniature nuclear reactors for satellites.

The pathetic irony of this modern day Luddite action is not only that such a move would prevent this country from taking advantage of the tremendous potential of this new technology, but that, in fact, the Soviet Union has already developed such miniature nuclear power sources for its satellites, and is deploying them for both peaceful and military missions!

The present stage of space technology, in both earth orbit and for satellites on interplanetary missions, is limited only by the lack of sufficient quantities of electrical energy for scientific instruments and new technological devices on board the satellites. By far the most efficient and compact method for supplying quantities of energy in excess of 10 kilowatts (about 100 light bulbs worth) is a nuclear power plant. Below this amount of energy, solar cells, placed on large surfaces like wings on a satellite, have been used, but they have the serious disadvantages of every *diffuse* source of energy — they require high capital investment, are difficult to maintain, and are impossible to use farther away from the sun than the earth's orbit. The energy density of space-borne fission reactors, on the other hand, is of the same high quality which makes their use so necessary on earth.

Until 1965, the U.S. had a research and development program to develop a nuclear reactor whose high density of energy and compact size could solve the requirements for powering a more advanced generation of satellites. However, that was the last year that the U.S. has had such a nuclear-powered satellite in operation, and its research program has been continued on only a piddling level. The Soviets, however, have continued their program on a high level, and can now deploy a satellite powered by a 100 kilowatt nuclear power plant! The Cosmos 954, whose malfunction and crash into the earth's atmosphere has been the pretext for Schlesinger's manufactured hysteria over nuclear-powered satellites, was a military surveillance satellite which used its nuclear energy to power a strong radar beam capable of detecting and monitoring *all* U.S. sea going surface ships through clouds and in any weather!

The uses of this satellite technology are not only military, however. Both the United States and the Soviet Union have benefited tremendously from the civilian uses of satellites to an extent limited primarily by the energy which the satellites can deploy. Satellites have started a detailed survey of every part of the globe, most especially those areas previously inaccessible to engineers (like the poles and dense jungle areas). More sophisticated cameras and sensing devices have made prospecting for oil and minerals from space a widely used technology. For the first time, studies of *global* climate, wind, and precipitation, and global biospheric studies are possible using the data from these satellites. The detailed picture which is accessible from satellite

information is almost unbelievable: for example, a study is now being conducted to predict earthquakes in southern California using satellites which have been able to measure movements of the ground of less than one inch per year! Communications satellites have made intercontinental television and computer links a reality.

These immediately available technologies are limited because of energy limitations in present satellites. Exactly as on earth, the *density* of energy available is the central limiting feature of any technology — a higher energy density makes qualitative new possibilities available.

The Soviet Union has seized this opportunity and made a number of important breakthroughs in the nuclear technology required to increase energy for the satellites. The U.S. is estimated by experts to be at least five years behind the Soviets in the development of the next generation of space satellite power-source technology.

Confronted with this promise and threat, Carter piously intoned: "We would be glad to forego the development of any such satellite all together and will pursue that option with the Soviet Union....I would favor at this moment an agreement with the Soviets to prohibit earth orbiting satellites with radioactive material in them."

Carter and Schlesinger's attempt to further sabotage the U.S. program has already sparked opposition even within Schlesinger's Department of Energy. Last fall, a comprehensive report on the necessity and importance of satellite-born nuclear power was released by the Los Alamos Scientific Laboratory. At a press briefing almost simultaneous with Carter's, Department of Energy officials expressed their hope that the U.S. program of nuclear-powered satellite development would resume soon. The bizarre implications of Carter's policy statement were summarized by one leading U.S. strategic analyst: "The only thing more stupid than voluntarily giving up a tremendous new technology like these satellites is the hope that you can convince your declared adversary to do the same. This is the surest way either to start a war or to lose it without ever fighting."

— Dr. Steven Bardwell

Pravda:

Cosmos Incident Handled 'In A Businesslike Manner'

The following is part of a commentary in Pravda, Jan. 28, by Vladimir Gubarev, entitled "In a Businesslike Manner," on the Cosmos-954 accident.

The space ship and the atomic reactor have become symbols of scientific and technological progress. Without the use of space technology and nuclear energy for peaceful purposes, it is hard to imagine the future, especially the foundation of each country's economy — the power industry. Dozens of atomic power stations are working today while satellites and manned stations orbit

the Earth. Naturally, atomic energy has gone into space, too. Isotope sources of energy are installed on the Soviet lunar mobile unit and the American interplanetary station "Pioneer," as well as on both USSR and USA satellites. Scientists dream of nuclear motors, which will power interplanetary stations into distant space. Such is the tendency of development of science, and it is obvious.

The satellite "Cosmos-954" carried a small nuclear apparatus, which produced energy to fuel the equipment on board. On Jan. 6, the satellite ceased to "obey" commands from Earth. On Jan. 24, "Cosmos-954" descended into dense layers of the atmosphere over northern Canada.

One of the basic rules for nuclear installation builders is to ensure their complete security, even in the event of an accident. This is how atomic power stations and other installations, including those working in space, are planned. In 1964, the radioisotope installation of the American satellite "Transit" disintegrated upon entering the atmosphere; during the emergency return of "Apollo 13," the lunar module containing radioisotopes burned up — no trace of them was found in the atmosphere (and certainly no danger for the population). American and Soviet designers develop such technology so that no catastrophe will occur under any circumstances.

U.S. government representatives met journalists in Washington and told them, in detail, how during January contacts were maintained between government agencies of the USSR and USA regarding the fate of the satellite "Cosmos-954." On American request, the Soviet embassy in the USA relayed the necessary information.

There was a realistic approach to the incident in Washington, Ottawa and a number of other capitals. Undoubtedly the climate of international detente had an influence here.

Not everybody is happy about that. There are press organs and people in the West, who are trying to present things differently, with an anti-Soviet slant. All sorts of occasions, including the incident with "Cosmos-954" are used by them to light the fire of distrust, fear, and mutual recriminations. But theirs is a barren policy.

Kraft: The 'Bungle Factor' Discredits SALT Opponents

Although the U.S. friends of certain City of London interests used Soviet "killer satellite" and Cosmos 954 "radiation poisoning" hoaxes as propaganda against U.S.-USSR SALT talks, at least one journalist, columnist Joseph Kraft, drew the very opposite conclusions from the Soviet satellite incident. Below are excerpts from Kraft's column this week:

The case for a second arms control treaty with Russia

finds powerful support in the accident which downed a nuclear-powered Soviet satellite over Canada last week. By emphasizing the importance of accidents — the so-called bungle factor — the episode works to discredit those opponents of arms control who demand an absolutely 100 percent perfect treaty. In addition, the episode underlines the importance of continuing Soviet-American co-operation in monitoring nuclear devices and satellites.

Critics of the arms control negotiations have centered their fire on the vulnerability of this country's force of roughly 1,000 land-based missiles. According to their view, Russia is acquiring enough missiles with enough destructive power and enough accuracy to wipe out that whole force in a single strike...

The glaring weakness in such catastrophic scenarios is that they bury the bungle factor beneath a skyscraper of assumptions...

Most important of all, it is assumed that Russian leaders would...run the truly horrendous risk entailed in a first strike with weapons that had (by definition) never been used before.

The accident in Canada injects a little realism into that preposterous scenario. The mishap to a well-tested satellite system long in use shows that there is likely to be a bungle at every step in the chain of perfect assumptions. It reminds us that Russian leaders — familiar with countless such difficulties — are apt to be far more wary of bungles than Americans. It shows us that the notion of a Soviet first strike comes out of the realm of science fiction...

The more so, because of the value of cooperation. The United States and Russia were jointly aware of the falling observer satellite for almost a month before it finally came down in Canada. The exchange of information made a potentially alarming event a good deal less worrisome.

Far more detailed cooperation than that is part and parcel of the arms control agreement negotiated in 1972, and the one now being completed in Geneva talks. Those agreements stipulate levels of weapons for both Russia and the United States.

They provide for monitoring by each country, and forbid the other to interfere with the monitoring. They establish a kind of court — a joint commission — whereby each side can take complaints and demand explanations from the other Arms control agreement, in short, institutionalizes Soviet-American cooperation in the area of monitoring strategic weapons.

What all this says to me is that an arms control treaty does not have to afford total security in order to pass muster. Significant gains are made if only the present monitoring system is maintained, and the way is opened to cut off projected weapons developments. Failure to reach an accord would yield an unconstrained arms race and the end of joint monitoring. In other words, any agreement apt to come from the present Geneva talks is far better than no agreement.