Breaking-Point Space Test Expected

Some heroic human "guinea pig" may have to sacrifice his mind before we achieve space travel, a former Navy aviation medical expert recently told the American Psychological Convention in Washington. This grim warning was stated during a symposium on "man in space" by Dr. Wilse B. Webb, former staff member of the Navy school of aviation medicine, who is now a space-age expert with the University of Florida.

Dr. Webb emphasized that he did not advocate tests designed to make men go insane, and he stressed that at present he knew of no such program in American space laboratories. But he warned that a test "to the breaking point" was a vital necessity, because very little is known of the extreme tension space explorers will encounter.

Another member of the "man in space" symposium, Col. Charles Hill of the Army's research and development office, said that two big space problems – isolation and acceleration – have been largely solved, at least in the laboratory. The only big problem still to be explored, he said, is that of weightlessness, which has been duplicated by scientists for only about 90 seconds at any one time.

Col. Hill stressed that scientists still do not know much about the combination or interactions of isolation, acceleration and weightlessness; that is, how much a man is effected by isolation while weightless, etc.

In connection with UFOs, the acceleration and weightlessness factors may not be important. If, as Oberth and others have suggested, these machines have artificial gravity fields, this would eliminate both effects. But in a space flight of any length, isolation would still be a factor for any creatures aboard UFOs.

If, then, UFOs are finally proved to contain intelligent beings we may expect to encounter creatures who, in one way or another, have overcome the isolation problem. (That is, isolation within a space ship as well as its isolation in space.) In addition, they will have conquered the problem of living in close quarters with other such creatures, while on long space flights. Perhaps such beings will have acquired special attributes to make this possible.

The reports of the "man in space" symposium are a timely reminder that we are not even past the threshhold of space travel, a threshhold that others may have passed long, long ago.

TESTS PLANNED FOR FREEZING SPACEMEN ON LONG TRIPS

Experiments on the possibility of freezing space travelers for long journeys into space are underway at the University of California at Los Angeles. This idea, as startling as any linked with UFOs, was suggested about a year ago by Dr. George Gamow, famous physicist and writer. Unlike far less fantastic theories about UFOs, this announcement was received without ridicule by other scientists or the press.

Dr. John Lyman of UCLA biotechnology laboratory, in announcing experiments in which mice and rats will be frozen and then later thawed out and revived, said that the big problem in space travel is to prevent men from going insane during the unnatural conditions encountered in space flight. Large space ships equipped to simulate a natural environment would probably be too costly to produce. The answer, he suggests, is "frozen sleep."

A frozen space traveler would need no food, oxygen, or companionship in his remote-controlled ship, and would be revived automatically by a warming process as he neared his destination.

"What we want to do," Dr. Lyman said, "is to stop the life processes completely, then resume them at will."

In that way, man could travel to a distant planet over a period of several normal lifetimes, arriving no older than when he left earth. Presumably the traveler would be forced to work out all the problems of life in an unknown world with little advance knowledge.

A major problem, which Dr. Lyman did not mention, is whether a human being would ever consent to being frozen for years on the chance that he might be revived millions of light years away in unknown space, all alone and his survival in doubt. Even if return to earth were possible, the traveler would probably find an alien earth populated (if at all) by unfamiliar people in a strange culture.

Assuming that some volunteers could be found, however, then the reverse situation is equally possible. Skeptics who have scoffed at the idea that UFOs could be coming from another solar system should consider the possibility that beings on other planets may have developed this same technique, using it to cross the vast reaches of space to our solar system.

AF Planning Weapon To Destroy Satellites

Maj. Gen. B. A. Schriever, AF rocket expert, has revealed plans for a weapon system to shoot down hostile satellites and space vehicles. His statement to the Senate Space Subcommittee did not indicate any specific enemies. Though this weapon system probably is intended for use against any hostile Soviet space vehicles, there would be nothing to prevent its use against UFOs.

Congressional Interest *from page 1*

information there is, I am not in a position to make a statement about this subject."

Most of this rapidly increasing Congressional interest is due to the nationwide efforts of NICAP members. As a direct result, we have made an important advance, on Capitol Hill. Details must be withheld temporarily, to avoid jeopardizing our plans, but all members are urged to tell their Congressman their views on the UFO problem – especially official secrecy. Please write your Senators and Representatives and ask their cooperation.

Air Lines *from page 1*

were either part of the mysterious object or this was an example of darn good formation flying."

In a report to NICAP member Cerny, First Officer Lorenzen stated:

"The rate of closure with us was much greater than any I had ever experienced before. It was not until the object turned that I was able to distinguish the smaller lights associated with it."

Then he revealed that two AF majors had interviewed the crew soon after they had landed. The other airline witnesses also were quickly interviewed by AF Intelligence, and the combined reports were immediately flashed to AFHG, ATIC, the Air Defense Command and Naval Intelligence.

NICAP comment: Up to now, the AF has been noticeably silent about this case, perhaps recalling how their hasty attempt to explain away the "Killian case" backfired. (Capt. Peter Killian, American Airlines, piloted one of the six airliners involved in the mid-west sighting of three UFOs last February. After AF pressure, Capt. Killian was muzzled by the airline. The silencing has been admitted by the chief pilot.) NICAP will watch for any attempted brush-off of this July 11 case. Meantime, details have been given to interested members of Congress.

This important case brought sober comment in the press and in several newscasts. In a thoughtful editorial entitled, "The UFOs You Can't Laugh Off," the Cleveland *Plain Dealer* concluded:

"One may laugh at the fantastic stories told in connection with UFOs while keeping an open mind concerning serious investigations. Too many experienced pilots have seen strange things in the skies to uphold any contention that they just imagined things."

A new "air bottle" device to enable space travellers to move around outside their space ship under weightless conditions is being developed by the Wright Air Development Center, Dayton, Ohio. Called a "reactor gun," the device was anticipated long ago in science-fiction writings, including the famous Buck Rogers comic strip. High pressure air rushing out of a nozzle provides enough force to propel a person in the opposite direction, and he can fire the gun to start, stop or change direction.

Since our postage bill is always high, we will accept postage stamps – preferably 4-cent and 7-cent airmail stamps – in payment for extra copies of the magazine or bulletin. Prices of extra copies are: For the magazine, 50 cents; for the bulletin, 35 cents.

Reagan Star WARS

A CALL FROM THE CIA

And oddly enough, it was in 1984, I got a phone call from the Central Intelligence Agency (CIA), Ron Pandolfi, asking me about the laser-generated sound. He was a scientist, graduated from Cal Tech, had been at the CIA for a couple of years and had noted there was a huge disparity between the amount of papers published on the subject in the United States compared to the number of papers in the Soviet Union. So, it looked to him like there was a laser-zapping gap. That is, it appeared to him that the Soviets knew more about creating underwater sound with lasers than we did.

NEW ZEALAND UFO ON DECEMBER 31, 1978

However, part of my history is that at the end of December 1978 were the New Zealand sightings that I investigated as a private citizen in January 1979. And as part of my talking to a number of people throughout the U. S. about the data I collected that I was invited to give a talk to the CIA. And at that point, I met a guy by the name of Kit Green, Christopher Green, whose name has popped up over the years in Ufology. I went to the CIA once to give this long talk about the subject to see if they could help. And maybe twice more to talk with individuals to talk about radar and other aspects of that particular New Zealand sighting. That was in 1979.

Bruce Maccabee: "When Pandolfi contacted me in 1984, I didn't say anything about the fact I had been in New Zealand on the UFO investigation in 1979. But the next time he called me up, he said, 'By the way, I understand you do some other research, too.' Or words to that effect. And he brought up the subject of UFOs because he had been asking around to people to see if they had heard of me. And somebody said something.

Anyway, in March of 1983, President Ronald Reagan made his speech about an orbiting, protecting against nuclear strikes, that came to be called 'Star Wars.' The press disparaged the idea and sort of tried to make it look like Hollywood entertainment, but it wasn't. "

" Special panels got together to try to figure out how they would put together what's called an architecture or structure of weapons that could actually handle the ballistic missile threat from the Soviet Union. "

In 1984, I was on a panel, a little group of people from the Naval Surface Warfare Center. We went traveling around to various military bases to find out what other people were doing about space. What's the Navy got to do with space? It just so happened that the Navy was the biggest users of space assets. People wouldn't think of the Navy being interested in what happens up above the atmosphere, but the Navy had satellites up. In fact, the first satellites up in the 1950s were sponsored by the Navy. And one reason was geodesy, to find out exactly how the earth is. The cryptic reason for the interest in geodesy was that we had to be able to determine if a nuclear submarine was going to fire a missile, how in the world do you tell that missile where to go? It has to know exactly where it is on the earth to begin with. How much firing time and which certain direction to run its rockets? After it fires, its rockets are gone. It's just a dumb thing coasting towards a target. So, you have to get all this stuff correct and they had to find out exactly how the gravity varied around the surface of the earth, anything about actual dimensions of the earth and so on.

STAR WARS

The Navy had a lot of satellites up there and they also had to have communication with ships. They

used satellites for communication. And in 1984, we were trying to find out what other people were doing in space, should the Naval Surface Warfare Center in particular get involved. And that connected me up with the government's Star Wars architecture study, I guess you could call it. For a period of time, I was working on various aspects of Star Wars. Having been involved with that problem in 1985, that got me into another program in 1986 which was directly related to big lasers in space. That program is continuing.

UNDER WHAT NAME?

First of all, under the Strategic Defense Initiative Office (SDIO), or Strategic Defense Initiative Organization which was the organization set up to develop the architecture of a weapons system that could handle a Soviet threat. This was no mean problem. The Soviet threat consisted of like 10,000 missiles that could all be launched at once. If they really wanted to wipe out the United States. And so this system was an attempt to shoot down all those missiles some how or other.

It still hangs in there and you can still see the discussion in the papers even in the last few days as to whether or not Clinton is going to make a decision about continuing what is known as the Ballistic Missile Defense Organization (BMDO). You can go to their web page and find out all the latest about shooting down missiles. But instead of trying to shoot down 10,000 missiles, we now have an architecture that can shoot down maybe ten missiles. A big difference. We might actually be able to DO that, assuming that Congress appropriates the money to put some satellites up there.

IN ALL OF THIS, THERE HAS ALWAYS BEEN THE PARALLEL TRACK AND SUSPICION SINCE THE BEGINNING OF THE REAGAN ADMINISTRATION AND THE DISCUSSION OF STAR WARS THAT IT NEVER HAD ANYTHING REALLY TO DO WITH THE SOVIET UNION, BUT THAT THERE WAS CONCERN ABOUT A NON-HUMAN INTELLIGENCE INTERACTING WITH OUR PLANET.

Well, I can tell you from experience, and I would take lie detector tests on it and swear on a stack of Bibles, a discussion of anything other than Soviet attack never occurred during any of the talks, lectures, discussions, whatever that I participated in. (Howe's note: In my research, it became clear that "Soviet Union" was used as a code phrase to mean any foreign technology that could also include non-human advanced technology.)

WAS EDWARD TELLER IN THOSE DISCUSSIONS?

I don't think I was ever in the same room with him. I might have been back during the hay days of Star Wars in the 1986-1988 time frame. I went to a number of meetings, so he might have been in some room. But I never heard him speak and as I said, of all the people I did hear speak, including the guy who was in charge of the SDIO, General Abrahamson. None of those people gave any indication there was anything other than a Soviet threat.

And when the details of the architecture were discussed, always the threat discussed was missiles in terms of shooting down something on the order of 10,000 missiles. SS-18s, SS-16, SS-22, whatever numbers were attached to the different types of missiles, the whole different array that the Soviet Union had. They had long range, short range, intermediate range, missiles launched from submarines. That was always the threat discussed, missiles. And all of the satellites, there were a bunch of satellites supposedly up there that would be monitoring the earth. There ARE satellites up there monitoring the earth. All their sensors are directed towards the earth. None of the sensors are directed away. Astronomers and NASA have put up satellites with telescopes directed away from the earth, but I'm not aware of any military satellites that are looking away from the earth. They are looking towards the earth to detect nuclear missile launches or nuclear explosions, testing.

SO HOW DID ALL OF THIS COME TO FOCUS ON THE UFO PHENOMENON?

As I have said to many audiences, I happened to work for the Navy. My Navy work has nothing to do with UFOs which is true. I'm not saying that the Navy does not have any UFO information. In fact, I suspect they are not Mr. Clean. But nobody has told me about anything! Navy intelligence is in a completely different part of the organization.

WELL, LET ME PUT IT IN THE CONTEXT OF YOUR NEW BOOK, THE UFO FBI CONNECTION, AND YOUR FOCUS IS GOVERNMENT KNOWLEDGE IN CERTAIN AGENCIES.

As you know, I've been interested in the subject since the late 1960s and have investigated a number of sightings and also have read a number of books, history and direct files out of Project Blue Book.

YOUR INTEREST WAS NOT PROVOKED BY YOUR PROFESSIONAL WORK? IT WAS ALWAYS A PARALLEL TRACK OUT OF YOUR OWN CURIOSITY?

Right. I became interested in 1967 or 1968 while I was at American University.

WHAT TOOK YOU TO NEW ZEALAND TO STUDY THE UFO INCIDENT THERE?

It was a fortuitous circumstance that I had done some photographic analysis for NICAP (National Investigations Committee on Aerial Phenomena). When the New Zealand movie was taken December 31, 1978 and was shown the next day on TV around the world. Even Walter Chronkite had it and he said at the end of his nightly news, 'And that's the way it is. Or is it?' That was the only time he ever added anything to his nightly news closing statement.

The point is the TV station in Australia, the TV station that the reporter was an employee of, we were told was on board the plane when they had all these sightings. And they were accused of hoaxing this whole thing up to improve their ratings. It was called Channel Zero, or "O" in Melbourne, Australia, and they were accused of trying to bring their ratings from a zero. Their ratings matched their Channel Number, we were told. Anyway, they decided to have an investigator. They contacted a guy named Paul Norman. Paul used to live in the U. S. and was a member of NICAP. He moved into Australia back in the 1960s, I think. He recommended that they take the film to the United States to NICAP headquarters where they had the best analysts and equipment. I saw that film shown on TV and J. Allen Hynek was commenting on it and I thought to myself, 'Well, somebody on the other side of the earth gets to look at that. I won't.' So I promptly forgot about it. But six days later I got a phone call from Jack Acuff who was the head of NICAP and he said, 'How would you like to see the New Zealand movie? They're bringing it here.'

So maybe two weeks later I had it in my house. But how did I get down there? Well, after I did this preliminary investigation, the news team that brought that film was here in the U. S. for a week, maybe two weeks. And I told them that by that time I had talked to the captain and cameraman by phone and I told the Australian newsman who brought the film, 'This looks really weird. It could be a UFO. But I'm not going to say anything publicly until I actually get to carry out an investigation.' So, they paid for a trip and I went down to Australia and New Zealand. I was gone for two weeks in New Zealand and a week in Australia and when I came back to the U. S., I stopped to discuss the case with scientists on the west coast. Then I stopped in Chicago to tell Hynek what I had learned and finally I discussed the case with scientists in the Washington, D. C. area. This was all done while I was on leave from work.
And there were some people who were interested after I came back. Some of the people in the Naval laser office where I worked knew I had taken this trip and asked me to tell them. In fact, I gave them a little briefing on it, but nothing ever official involved. No money changed hands. There was no program set up. It was just a question of some guys who wanted to know what it was."

For the first time, the Russians have linked their opposition to Star Wars with UFOs, saying that they are worried that UFOs could accidentally trigger a nuclear war between the United States and the Soviet Union.

In an extraordinary article titled "UFOs and Security,"published in the official Soviet Military Review, the Russians expressed concern that the Strategic Defense Initiative (SDI)computers might mistakenly order that UFOs be fired upon, thinking they were enemy missiles or launch an unprovoked counter attack against the Soviet Union.

Major Von Keviczky played a major role in laying the groundwork for the matter of UFOs and international security to be brought before the Special Political Committee of the United Nations General Assembly on November 27, 1978.

Among the documents that Major Von Keviczky has uncovered is a treaty agreement between the United States and the Soviet Union signed on September 30, 1971. The treaty provides that each party notify the other "immediately in the event of detection by missile warning systems of unidentified objects or in the event of signs of interference with these systems or with related communications facilities, if such occurrences could create a risk of outbreak of nuclear war between the two countries."

Antonio Huneeus, an international science writer and Latin American Continental Coordinator for the Mutual UFO Network(MUFON), said, "It is remarkable that while the American Academy of Sciences is still quoting their 1969 endorsement of the controversial Condon Report on UFOs, their Soviet counterpart seems to be way ahead in pursuing research of this important contemporary phenomenon."

Nor was Colman at all shy in confronting anyone about his views. Colman was a prominent member of the Hungarian-American community and was once part of a delegation that attended a briefing organized by the Reagan White House at the adjacent Old Executive House. When the president's science advisor George Keyworth was explaining the SDI research program, Colman pointed out with that roaring voice he had that 'star wars' was really aimed against the galactic forces and not the Soviets. The science advisor was not pleased. On another occasion he confronted his fellow Hungarian-American, Dr. Edward Teller, the inventor of the H bomb.

Colman's thesis took a boost a few years ago when President Reagan made a number of cryptic speeches about how the USA and USSR would unite "if we were facing an alien threat from outside this world." Colman dodged every American president from Richard Nixon to Bill Clinton with various UFO memoranda.

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF SCIENCE AND TECHNOLOGY POLICY

FROM:	DATED:
Major Ret. Colman S. VonKeviczky, MMSE Intercontinental U.F.O. Glactic Spacecraft-Research Analytic Network, Inc.	July 31, 1985

SUBJECT:

Comment letter regarding SDI and UFO's

RECEIVED:	ACTION BY:
August 7, 1985	Executive Director/lsj

ACTION COPY TO:

Diering

INFORMATION COPIES TO:

Lynch

SUSPENSE DATE:

August 27, 1985

REMARKS: FOR APPROPRIATE ACTION

Please indicate action taken below and include date of action.
If written correspondence was sent, please attach a copy.

( ) Written correspondence.

( ) Telecon.

( ) Action transferred to _____.

( ) No action necessary.

( ) Other

Filed "V" Folder

Report given to M. Havey when it was left by the Major

OSTP FORM 8

INTERCONTINENTAL U.F.O. GALACTIC SPACECRAFT -
RESEARCH AND ANALYTIC NETWORK, INC.
DIR. OF PROJECT COLMAN VONKEVICZKY, MMSE. MEMBER OF THE AMERICAN
INSTITUTE OF AERONAUTICS AND ASTRONAUTICS (A.I.A.A.)

OFFICE OF THE
DIRECTOR OF PROJECT

35-40 75TH STREET, SUITE: 4G
JACKSON HEIGHTS, N. Y. 11372
TEL (212) 672-7948 U.S.A.

31 July, 1985

Mr. George Keyworth,
Science and Technological Adviser to the President
Old Executive Office Building
The White House
Washington DC.,20500

Dear Mr. Keyworth:

On June 5th, 1985 at 12:30 p.m. - when our Special White House Briefing was ended - I visited your office and presented a copy of our HEED MEMORANDUM FOR ACTION TO THE 99th CONGRESS, regarding our President's "Star War" correctly Strategic Defense Initiative, and the UFO problem.

On behalf of our world wide organized UFO research bodies I requested you to refer our Memorandum to President Ronald Reagan and ask for His assistance of the "UDI"- UFO Defense Initiative instead of the "SDI" facing against them.

Two months past and we never heared about your mediation and its result. As far we established a new governmental cover up policy on the UFOs created "potential threat",- may we hope that you were not silenced on your confirmation and response, as usual?!

In the expectation of your information, we remain

Yours sincerely,.

Major Ret. Colman S. VonKeviczky, MMSE

ng, would to some degree be strate-
deploying missiles just outside a
m which an attack could be launched
rt warning.
rn about being ringed by U.S. bases,
ion to take action aimed at advanc-
ached crisis proportions in October,
iets attempted to establish short-
range ballistic missiles (IRBM's) in
abandon this adventure, the Soviets
st chance at extended strategic de-
ployment on the ground, with ocean and space systems being the only recourses left.

By that time, it is clear now, Soviet development work was well underway not only on missile-carrying ships and submarines, but on orbital bombardment capability as well. As early as January, 1960, Premier Nikita Khrushchev had stated in a speech to the Supreme Soviet that he had ". . . in the hatching stage . . . a fantastic weapon."

After successful development of the Sputnik satellites, two major technical problems remained before an orbital bomb could be a possibility: first, the satellite must be made to deorbit and reenter the earth's atmosphere, and second, a large warhead must be developed and tested, since by nature an orbital weapon is less accurate than a ballistic missile and requires a more powerful warhead to assure destruction of its target.

The problem of reentry was solved with the successful recovery of Sputnik 5, a Vostok-class deorbital satellite in August, 1960. This technology was utilized in the historic first manned flights by Yuri Gagarin and German Titov in Vostoks 1 and 2, in April and August of 1961. That the Soviets considered these flights more important than

just manned space exploration was indicated in articles by experts which appeared in the Soviet newspapers *Tass* and *Krasnaya Zvezda*, which directly linked the Vostoks with bomb delivery capability. At a reception for Titov in Moscow, Khrushchev stated with his characteristic bluntness, "We placed Gagarin and Titov in space, and we can replace them with bombs which can be diverted to any place on earth."

The solution of the second problem, that of developing a large warhead, was hinted at by Khrushchev at the same reception, when he stated that the Soviets ". . . can build a rocket with an explosive warhead equivalent to 100 million tons of TNT." This was shown not to be an idle boast when, about three weeks later on September 1, 1961, the Soviets broke the voluntary nuclear test moratorium with a high-altitude nuclear test series which included a 58-megaton bomb in the upper atmosphere, on the fringes of near-orbit space.

These two technical milestones having been passed successfully, Khrushchev was finally able to make the following announcement in a major policy address in Moscow on March 15, 1962:

> We can launch missiles not only over the North Pole, but in the opposite direction, too. As the people say, you expect it to come by the front door, and it gets in the window.
>
> Global rockets can fly from the oceans or other directions where warning facilities cannot be installed. Given global rockets, the warning system in general has lost its importance.
>
> Global missiles cannot be spotted in due time to prepare any measures against them. In general, the money spent in the United States to create antimissile systems is simply wasted, as correctly pointed out by

going, and the Cold War was over long before the American foreign policy establishment knew it.

To study this period is to reflect upon the extent to which our national discourse about foreign and defense policy is not about reality—or the best intelligence estimates about it—but instead a matter of domestic politics, history and mythology.

CHAPTER ONE

The American Everyman

On March 23, 1983, President Reagan announced that after consultations with the Joint Chiefs of Staff he had decided to embark on a long-range research-and-development effort to counter the threat of Soviet ballistic missiles and to make these nuclear weapons "impotent and obsolete." The announcement, made in an insert into a routine defense speech, came as a surprise to everyone in Washington except for a handful of White House aides. The insert had not been cleared with the Pentagon, and although Reagan was proposing to overturn the doctrine which had ruled U.S. nuclear strategy for more than three decades, the secretary of defense and the secretary of state were informed only a day or so before the speech was broadcast.

In background briefings White House aides explained that the research effort would be directed towards producing space-borne laser and particle-beam weapons with the potential to provide a reliable defense for the entire United States. Most of the scientists and defense experts invited to the White House for dinner that evening expressed incredulity: the technologies were so futuristic they would not be ready for decades, if then, and the cost of an all-out development effort would be staggering. Some further objected that any effort to develop an anti-ballistic missile capability would lead to a new and more dangerous form of arms race with the Soviet Union.

Reagan's proposal was so vague and so speculative that it was not taken altogether seriously at the time. Press attention soon shifted away from it and did not fully return until March 1985, when the administration launched the Strategic Defense Initiative with fanfare and asked the Congress to appropriate twenty-six billion dollars for it over the next five years.

At this point the debate over anti-missile defenses began in earnest, and journalists for the first time inquired about the origins of the proposal that Reagan had made so abruptly two years before. The President

Martin Anderson, an economist at the Hoover Institution and a former Reagan aide for domestic policy, told journalists that the idea had first come to Reagan during a visit to the North American Aerospace Defense Command (NORAD) that he had made at the beginning of his presidential campaign in July 1979. In his book *Revolution*, published in 1988, Anderson described that visit at some length. His account subsequently became embedded in the history of the Strategic Defense Initiative. Journalists, academics and official SDI historians have all quoted it in more or less detail—and small wonder, for it is a marvelous story. To paraphrase Anderson's text, it is this:

On July 31, 1979, Anderson accompanied Reagan from Los Angeles to the NORAD base in Cheyenne Mountain, Colorado. The visit had been arranged by a Hollywood screenwriter and producer, Douglas Morrow, whom Reagan had known for some years, and Morrow came along on the trip. NORAD, Anderson explains, "is the nerve center of a far-flung, worldwide network of radar detectors that alerts us to any surprise attack." Its computers, he writes, would track a Soviet missile from its launch pad and give the President the facts he would have to rely on in deciding whether to launch a retaliatory strike. As for the command post, it is "a vast underground city, a multi-level maze of rooms and corridors carved deep into the solid granite core of Cheyenne Mountain," with "a massive steel door several feet thick." Once inside these portals, the visitors spent most of the day in a series of windowless conference rooms listening to briefings on the nuclear capabilities of the U.S. and the Soviet Union and on the means for detecting a nuclear attack. Towards the end of the day they were ushered into the command center, "a very large room several stories high," which looked "just like such command centers do in the movies." A huge display screen with an outline map of the United States covered one end of the room, and in front of it, facing video display screens with dozens of switches and lights, were "the young men and women who constantly monitor these displays for the first sign of a nuclear attack." Later the visitors talked with the base commander, General James Hill, and the discussion turned to the issue of what could be done if the Soviets fired just one missile at an American city. Hill replied that they could track the missile but that nothing could be done to stop it.

On the flight home to Los Angeles, Reagan, according to Anderson, seemed deeply concerned about what he had heard. "He couldn't believe the United States had no defense against Soviet missiles. He slowly shook his head and said, 'We have spent all that money and have all that equipment, and there is nothing we can do to prevent a nuclear missile from hitting us.'" Towards the end of the flight he reflected on the terrible dilemma that would face a U.S. president if, for whatever reason, nuclear missiles were fired at the United States and concluded, "We should have some way of defending ourselves against nuclear missiles."

Anderson then reminded Reagan of "the ABM debate that occurred

early in President Nixon's first term of office, of how we pursued the idea of missile defense and then, inexplicably, abandoned it." He suggested that they look at "what technological advances had developed" and reexamine the idea. Reagan agreed, and a few days later Anderson, with the permission of the campaign manager, John Sears, wrote a memo on the broad issues of defense and foreign policy. In it he included a section proposing the development of a "protective missile system," arguing that "the idea is probably fundamentally far more appealing to the American people than the questionable satisfaction of knowing that those who initiated an attack against us were also blown away," and that "there have apparently been striking advances in missile technology during the past decade or so that would make such a system technically possible."

According to Anderson, Reagan embraced the idea wholeheartedly, and so did a number of his key campaign advisers. However, Reagan's political advisers vetoed the proposal on the grounds that "there was no way Reagan could discuss radical changes in traditional nuclear weapons policy without leaving himself wide open to demagogic attacks from his Democratic opponent." The idea was then shelved, but, as Anderson tells us, only temporarily.[1]

This story of Reagan's epiphany on Cheyenne Mountain is perfectly good history: General James Hill has confirmed the basic facts, and Reagan himself referred to his NORAD visit in an interview six months later when talking about the need for a defense against nuclear missiles. At the same time it must be regarded as something more than history. There is, after all, a high narrative gloss to the story, and in confirming it General Hill suggested that it had been somewhat dramatized.[2] Though life may well have been imitating art, the story sounds very much like the allegorical stories Reagan habitually told to illustrate the meaning and moral of an action. Because it first appeared in public long after Reagan's 1983 speech, it has always been understood in light of that speech, and as a reflection upon his exhortation to the scientific community to make "nuclear weapons impotent and obsolete." In a sense it is a myth of origins.

Of course, looked at in a certain way, the story is pure comedy. To read it literally, Reagan did not understand that the U.S. relied on deterrence until eighteen months before becoming President of the United States. Taken to NORAD by a Hollywood screenwriter, he discovered to his amazement that ballistic missiles could not be stopped in mid-flight. While in the grip of this revelation, he was told by an economist from the Hoover Institution—and one of the architects of Reaganomics—that there might be a way to stop them. Then the economist, who apparently did not know why Nixon and his successors failed to pursue the idea of missile defenses, went off and wrote a memo proposing that the candidate call for a change in the entire strategic posture of the United States. Reagan was thrilled, and had it not been for his political advisers, he might have gone along with the idea—and possibly lost the election.

Though the story would seem to show that a supply-side economist was the brains behind SDI, there is another possible author of SDI in the story: the Hollywood screenwriter, whom Anderson inexplicably abandons as a character early on in the narrative. Could the screenwriter have orchestrated the whole drama of Reagan's conversion and suggested the solution without Anderson's actually knowing it? Doubtless not. All the same, his presence in the narrative, and Anderson's observation that the NORAD command center looked like a movie set, seemed to lend credence to the theory held by a number of journalists and academics that Reagan took his missile-defense idea from a science-fiction film.

When Reagan announced his initiative in March 1983, the project was immediately dubbed "Star Wars" in the press. The title was a reflection not merely on the improbability of making nuclear missiles "impotent and obsolete," but on the fact that Reagan in a speech just two weeks before had spoken of the Soviet Union as "the evil empire," and commentators were still joking about "the Darth Vader speech." Yet those who later maintained that Reagan took his inspiration for SDI from the movies were not joking at all.

In the mid-eighties Dr. Michael Rogin, a political scientist at the University of California at Berkeley, published a series of scholarly papers making a case that Reagan's thinking was profoundly influenced by the movies he had starred in. The thesis seemed plausible to journalists covering Reagan, for by then many of them had noticed that Reagan took some of his best material from the screen. For one thing, he had a habit of quoting lines from the movies without attribution. For example, his famous retort to George Bush during the primary debate in Nashua, New Hampshire, "I'm paying for this microphone," came from a film called *State of the Union.* For another thing, he sometimes described movie scenes as if they had happened in real life. Speaking to the Congressional Medal of Honor Society in December 1983, he told a World War II story of a B-17 captain whose plane had been hit and who was unable to drag his wounded young ball-turret gunner out of the turret; instead of parachuting to safety with the rest of the crew, the captain took the frightened boy's hand and said, "Never mind, son, we'll ride it down together." Reagan concluded by telling the society that the captain had been posthumously awarded the Medal of Honor. But no such person existed: the story came from the 1946 movie *A Wing and a Prayer.*[3] Within a month of this event Reagan told the Israeli Prime Minister Yitzhak Shamir that the roots of his concern for Israel could be traced back to World War II, when he, as a Signal Corps photographer, had filmed the horrors of the Nazi death camps. Reagan, however, did not leave California during World War II; he had apparently seen a documentary about the camps.[4]

While screening some of Reagan's own films one day, Dr. Rogin came across a 1940 Warner Brothers spy movie called *Murder in the Air* in which Reagan had played an American secret agent charged with protecting a

electrical currents and destroying all enemy planes in the air. In the film a Navy admiral claims that the weapon "not only makes the United States invincible in war, but, in doing so, promises to become the greatest force for world peace ever discovered."[5] Rogin thought it obvious that this film had influenced Reagan's thinking about missile defenses. But there was another candidate: Alfred Hitchcock's *Torn Curtain,* a 1966 film which revolves around an attempt to develop an anti-missile missile. In it an American agent played by Paul Newman declares, "We will produce a defensive weapon that will make all nuclear weapons obsolete, and thereby abolish the terror of nuclear warfare." Reagan's own aides were struck by the similarity of the language to that of Reagan's speech.[6]

Historians of SDI have referred to these films as possible sources of Reagan's inspiration. Yet in retelling the Anderson story they pass over the movie references in it, and they pay small attention to the role of Anderson himself. The story as they tell it focuses on Reagan's epiphany about ballistic missiles and his resolve to end the existential tragedy of the balance of terror. This is, of course, the dramatic centerpiece of Anderson's narrative, and, read with or without irony, it is a great story in itself. It is in fact the perfect complement to the SDI speech, and to read it without irony, as most SDI historians have, is to see that it has a very rich symbolic content. But, then, the same is certainly true of the speech.

A year or so after Dr. Rogin discovered "the Inertia Projector," Professor G. Simon Harak of Fairfield University in Connecticut examined the SDI speech from a theological point of view. In an article published in the *Journal of the American Academy of Religion,* he asked why it was that Americans had become so enthralled with Reagan's vision of SDI in spite of all the evidence that a perfect defensive shield was currently beyond the reach of science. The answer, he maintained, lay in the way in which Reagan had laid claim to the soteriology, or the salvation doctrine, of the American civil religion.

In his speech Reagan had said, "I call upon the scientific community in our country, those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace, to give us the means of rendering these nuclear weapons impotent and obsolete." With this sentence, Harak writes, Reagan assumed the role of a prophet: he implicitly reproved the scientists for creating the Bomb in the first place and called upon them to redo their work. In reproving them thus he seemed to be identifying them—as they sometimes did themselves—with the "smiths" of mythology. Not only in the Norse myths but in other mythological traditions the "smiths" were at once feared and venerated because of their mastery over fire and metal; further, they were often portrayed as having their own agenda—as opposed to the master plan of the gods—and in a very human fashion creating mischief, or loosing disorder upon the world. Thus, in calling upon the "smiths" to redo their work, Reagan was asking for an act of re-

d innocence before they had interfered with the God-given order of the orld.

In the American context, Harak continues, the "smiths" are not just ·ing asked to make up for their mischief in creating the Bomb; they are ·ing asked to restore America to the time before it became vulnerable to uclear annihilation: the time before the Bomb. In the American civil reli- ion, he writes, America is seen as "the virgin land," protected by two oceans nd innocent of the corruptions of the Old World; it is also seen as a nation uided by divine Providence with the mission of bringing light to the world. 'hat foreigners had the ability to attack America from the skies was in itself pollution of this Eden. By calling for a defense that would make nuclear veapons "impotent and obsolete," Reagan was, Harak writes, holding out the romise that America might once again become an invulnerable sanctuary, ts sacred soil inviolate, as it was in the mythic past; then the nation, unsul- ied, could once again undertake its divinely ordained mission to the world. 'My fellow Americans," Reagan said in peroration, "tonight we are launch- ing an effort which holds the promise of changing the course of human his- tory."[7]

Harak's analysis may seem a bit farfetched, drawn as it is from two sentences in the SDI speech. Yet Reagan later spoke quite often of his desire to create a "space shield" or a "roof" over the United States, and his speeches were often filled with the rhetoric of American exceptionalism. As President he repeatedly affirmed that a "divine plan" put the American continent between two oceans, where people who "had a special love of freedom" could come and create "something new in the history of mankind." Americans were God's chosen people, and, according to Reagan, they had a purpose. Celebrating the anniversary of the Constitution in 1987, Reagan said: "The guiding hand of providence did not create this new nation of America for ourselves alone, but for a higher cause: the preservation and extension of the sacred fire of human liberty. This is America's solemn duty."

The nation, Reagan insisted, had to be a model to mankind, "a beacon of hope, a shining city," with "a creed, a cause, a vision." On dozens of occasions Reagan concluded speeches with John Winthrop's image of the country as a "city on a hill" (or a "shining city," as Reagan preferred it) and with Tom Paine's words, "We have it within our power to begin the world all over again." But Reagan, unlike Paine, was not calling for something new under the sun; rather, he was asking for a "spiritual revival" or a "moral renewal" or a "rebuilding" of America, "the land of our dreams and mankind's great hope." Our need, he declared in his 1981 inaugural address, was "to renew ourselves here in our own land" so that we would again "be the exemplar of freedom and a beacon of hope for those who do not now have freedom."

The same message Harak drew from the SDI speech: at once

not actually hear them, so perfectly liturgical were they. American exceptionalism had Puritan roots—in the conception of the country as a covenanted New Israel—but it was in its complete form a secularized, or, rather, a deicized version of nineteenth-century Protestant beliefs about spiritual rebirth, reform and evangelism. Since the mid-nineteenth century these pieties had been a staple of American civic rhetoric, not only in the political arena but in every setting where patriotism might be invoked. The admiral in *Murder in the Air* and the American agent played by Paul Newman in *Torn Curtain* delivered the message of American exceptionalism as well as any Rotary Club chairman in speaking of the purpose of their superweapons. Yet in the 1960s and '70s there had been some faltering in the incantation of this national mythology. American exceptionalism was challenged from the left, and, in the wake of the Vietnam debacle, domestic unrest and Watergate, Presidents Nixon and Ford found it difficult to use the rhetoric in any convincing fashion. Henry Kissinger did not believe in it, and Jimmy Carter, possibly because he was a devout Southern Baptist, tended to speak of what required redemption and renewal rather than of renewal, period. By the late 1970s many Americans seemed actively to crave such rhetoric—a surge in the membership of conservative evangelical churches was one evidence of this—and Reagan, who had never stopped speaking of American goodness, gave it to them like a diligent pastor. For the country Reagan's rhetoric was a ceremony that recalled the golden age of economic prosperity and military success before Vietnam, Watergate, civil disturbances, the oil shock, the hostage crisis and other disorders.

Though some associated him only with Hollywood, Reagan was in fact supremely well equipped to preach this national revival. His mother, Nelle, became a convert to born-again Christianity at the turn of the century, and until he left college he was thoroughly immersed in his mother's evangelical church. In later life he was far from a consistent churchgoer, but that in a sense was an advantage: the civil religion cannot be confused with any particular religion or it ceases to be national, and, as Jimmy Carter discovered to his dismay, it does not include all aspects of the Christian message in secular form. Yet it includes more than one, and Reagan had a range of expression quite exceptional among politicians of the 1980s.

In all the levity about Star Wars that followed a speech he gave on March 8, 1983, when he called the Soviet Union the "evil empire," it was generally forgotten that Reagan was talking to the National Association of Evangelicals, and that, as the clergymen understood him, he was speaking about *evil.* This was not the first time he had applied the word to the Soviet Union. In a speech at West Point in May 1981, for example, he had referred to the assembled cadets as a "chain holding back an evil force."[9] Yet the phrase "evil empire" had a much more precise theological significance. To conservative evangelicals, such as those in his audience, the phrase would

Then, too, the Iran initiative went on as before. After Poindexter's resignation, the President formally handed control of the negotiations with the Iranians over to Shultz, who insisted there would be no more discussion of arms for hostages. But then, under pressure from Casey, the President reneged on the agreement. In mid-December, Casey was hospitalized with a brain tumor; it was still several weeks before Shultz could gain control over the negotiations.[66]

In the meantime, Weinberger and his allies continued their intrigues against Shultz.

On Thursday, November 27, Thanksgiving, Weinberger noted: "Bill Clark fm San Luis Obisbo [sic]—Bill Casey, Bill Smith, Hume, etc. all calling President + Nancy to urge changes at State—Told Bill my name should not be used— + that I wanted him [Bill] to come east as NSC, etc."[67]

On Sunday the 30th, Weinberger had a conference call with William Clark, William French Smith and Pete Wilson about their hopes for a "change at State," during which Smith said that he had spoken for forty minutes with Nancy Reagan and Wilson promised to call the President. "Bill Casey," Weinberger noted, "says fate of Western world depends on what we do in 72 hours."

On December 18 Weinberger wrote, "Bill Clark in office—says Shultz is losing all credibility."[68]

In fact the reverse was the case, and the campaign to oust Shultz died away. George Bush recorded its passage on December 21: "Given Shultz's public differing with the President, coming down 'on the right side.' You can't make a change there."[69]

By mid-December, Wirthlin's polls were showing that even the Republican Party faithful thought the President should answer questions, take charge and make a clean sweep. In particular they thought he should fire his chief of staff. But Regan, who seemed surprised that anyone would consider him responsible for the actions of the NSC staff, dug his heels in. Now concerned that her husband might be impeached, Mrs. Reagan enlisted the help of Michael Deaver and Stu Spencer, who in turn orchestrated a public and private campaign to persuade the President that Regan must go. However, the President seemed incapable of grasping what had happened and the dangers he faced. The political problem, he insisted, was exaggerated and would be over in a week. "He couldn't confront anything. He was living in a dream world," one senior aide later said.[70] Regan, whose job now depended on Ronald Reagan alone, joined him in this state of denial.

On December 22 Bush noted: "Morning meeting with the President. A certain unreality now—Don and the President, it seems to me. I mention to the President my concern that we did look like arms for hostages, and he reiterated his view that he was convinced he didn't."[71]

Ronald Reagan never really admitted that he ordered the sale of arms for hostages—although, as the independent counsel years later discovered,

his own diary for 1985 and 1986 contained numerous entries describing the transactions as they went on.[72] Why he was so determined on the operation therefore remained something of a mystery. Most assumed that he was concerned with the fate of the hostages but did not want to bargain for them publicly, given what had happened to Carter in 1980 and his tough anti-terrorist stand. But the explanation that he gave his principal advisers at a meeting on December 7, 1985, was somewhat different.

At that meeting both Weinberger and Shultz argued vehemently against the arms-for-hostages transfers. They came out with different views about how effective their arguments had been, but both noted that, when Weinberger pointed out that the initiative violated the embargo on Iran and the Arms Export Control Act, the President made light of the legal problems involved and jokingly indicated that he was willing to take the heat for the decision. According to Weinberger's notes, Reagan said that he could answer the charges of illegality but couldn't answer the charge that "big, strong President Reagan passed up a chance to free the hostages."[73]

What was at stake for Reagan, in other words, was not the hostages, but his own public image as a tough guy. His bravado about breaking the law was merely a part of the tough-guy act—but McFarlane and Poindexter might well have assumed that he was giving them permission to break laws if necessary and would take responsibility for the consequences.

By March 1987, the Reagan White House had taken on a new complexion. Frank Carlucci, Weinberger's first deputy secretary of defense, had taken over Poindexter's job in December. Bringing in General Colin Powell, Weinberger's former executive assistant, as his deputy, he had completed a housecleaning of the NSC staff. Donald Regan had resigned. The new chief of staff, former senator Howard Baker, was a moderate Republican and an experienced politician who had retired a year earlier as Senate majority leader. In addition, William Casey, fatally ill with brain cancer, had resigned, and William Webster, another moderate Republican who had headed the FBI, had taken over as DCI. By then, too, it was clear that Reagan was not going to be able to put the Iran-contra affair behind him for a very long time.

In the months of December, January and February, there was an interregum, a period of uncertainty, in which some in the administration harbored the illusion that Reagan would magically shed the scandal and others slowly absorbed the full implications of what had occurred. In this period the White House drifted as it were in a Sargasso Sea, with no wind behind it and no one at the helm. The President, though still unrepentant, was depressed by his polls. In early January he had a minor prostate operation, and Mrs. Reagan, citing the authority of an astrologer, refused to allow him to

travel or to make speeches other than the State of the Union address. Donald Regan, preoccupied with his own struggle for survival, no longer gave media interviews or insisted that he was in charge. Frank Carlucci, the first thoroughly competent NSC adviser of Reagan's presidency, was in the process of reorganizing the battered NSC staff, attempting to find a way to cope with the rival baronies at Defense and State and trying to understand Ronald Reagan.[74] In this period Weinberger made his move to deploy SDI weapons and to end the ABM Treaty regime.

On December 17, at a time when the NSC staff was more than usually disorganized, Weinberger, accompanied by General Abrahamson and Richard Perle, met with the President and gave him a glowing report on the progress of SDI. Unveiling charts and vu-graphs, the group informed Reagan that the Pentagon was now ready to take the first step towards making his dream of a nuclear-free world a reality: they were ready to begin building the first phase of a defensive system for deployment in the early 1990s.[75]

Nothing was said publicly about the meeting at the time, or for the next few weeks, and Shultz was not informed of it. But in early January, Weinberger began to air the idea of an early deployment both to congressional committees and to the public at large. "I think a firm commitment can be made in the next couple of years to deploy," he told television correspondents on January 7.[76] Testifying before the Senate Armed Services Committee on the 12th, he said that, rather than wait for the perfection of population defenses, the administration might deploy "Phase One" of a defensive system as soon as it could be built.[77] In a speech in Colorado Springs on the 22nd he said, "Today we may be nearing the day when decisions about the deployment of the first phase can be made. We are now seeing opportunities for earlier deployment of the first phase of strategic defenses than we previously thought. . . . Our bags are packed." He added that the first phase was not designed to protect military assets but rather to be "one piece of an entire system that provides a thoroughly reliable defense for the free world."[78]

Star Wars advocates in the Congress cheered the promise of early deployment, but others on the Hill wondered what Weinberger was up to. The SDIO had been aiming for a development decision in the early 1990s, but now Weinberger was saying that a decision to deploy a "Phase One" system would be made while Reagan was in office and that deployment would begin shortly afterwards. Further, he was claiming that the technical problems had been solved. "Some elements of our research have proved successful beyond the expectations of the most optimistic scientists and engineers," he told his audience in Colorado Springs. "In fact our research has progressed so well that we now have an unprecedented degree of confidence in the feasibility of defense against Soviet missiles—for ourselves and our allies." According to officials, the President was impressed with the results.[79]

he was talking about, but two proposals had recently been made by conservatives close to the SDIO. In December the newly formed George C. Marshall Institute had issued a report, written in part by Robert Jastrow, the Star Wars enthusiast, calling for two thousand satellites, each carrying five interceptor rockets; ten thousand ERIS missiles and three thousand HEDI missiles; and at the end of the month, Lieutenant Colonel Simon P. Worden, who had served as Abrahamson's assistant and was now stationed in the White House science office, published an article in *The National Review* maintaining that by 1995 the U.S. could have a system of several thousand space-based rockets plus a few thousand ground-based missiles with the capacity to disrupt a Soviet first strike at a cost of less than a hundred billion dollars. According to officials, Weinberger had a system of this type in mind.[80]

To Proxmire, Johnston and those others in the Congress who had been following SDI closely, the idea sounded familiar. It sounded in fact like the ballistic-missile boost intercept (BAMBI) concept developed by the Pentagon in the 1950s, and very much like General Daniel O. Graham's High Frontier proposal, which Weinberger had rejected in 1982, and which General Abrahamson had repeatedly dismissed when queries about it came up in the Armed Services Committees. That Weinberger and Abrahamson were now proposing to start building such a system for deployment in the early nineties seemed to suggest a venture more political than technological in nature. And indeed, a week after Weinberger made the announcement, Edwin Meese urged that the administration deploy the first stage of SDI quickly, "so it will be in place and not tampered with by future administrations."[81] A few days later Allen Mense, the chief scientist for the SDIO, gave a similar explanation for early deployment. "Like it or not," he said, "we see a political reality staring us in the face. If we don't come up with something specific, people are not going to let us play in the sandbox for ten years."[82] Asked his opinion of Weinberger's call for deployment, former Defense Secretary Harold Brown said, "It's aimed either at locking in the program or retaining the support of the right wing in Congress."[83]

Congressional Democrats lit into the deployment scheme, as did outside experts, such as Ashton Carter and Richard Garwin.[84] More surprisingly, the plan was only weakly defended by SDIO officials. In December, Abrahamson had admitted that a first partial capability "probably wouldn't even act as a deterrent all by itself." In January, after Weinberger's announcements, Dr. Louis Marquet, now Abrahamson's chief deputy for technology, said it would cost a hundred billion dollars merely to reach the starting point for the production of the necessary equipment for Phase One. As for the Joint Chiefs of Staff, they rejected the whole idea of a near-term deployment. Testifying before the Senate Armed Services Committee in early January, Admiral William Crowe said, "SDI is a research project. . . . We still have to determine whether it is technically feasible and then

luncheon-reception at the State Department, and a meeting with a group of American publishers. Acting, reporters wrote, "like an American politician," Gorbachev asked about the Iowa caucuses, discussed recent books on the Soviet Union with their authors and joked about the dubious virtues of moonshine whiskey with Howard Baker and Sam Nunn. Never defensive, and only once nettled by aggressive questioning, he charmed audiences with his vigor, his candor and his good will. The cameras followed him everywhere, and the networks preempted soap operas to show footage of him shaking hands, schmoozing and responding to letters from American children. As he traveled around town in his black Zil limousine, huge crowds lined his route. There were demonstrators for the rights of national minorities in the Soviet Union and demonstrators for peace, but these were far outnumbered by people who just wanted to catch a glimpse of this interesting new Soviet leader who was changing so much at home and abroad. Ripples of applause swept through the crowds as he went by. "In my two decades in Washington, I had never seen anything like it," Robert Gates later wrote.[55]

On the third day of the summit Vice-President Bush, who was traveling with Gorbachev from the Soviet Embassy to the White House, looked out at the crowd at Connecticut and L Streets and said, "It's too bad you can't stop and go into some of these stores because I think you'd find warm greetings from the American people." At this invitation Gorbachev halted the motorcade, bounded out of the Zil and plunged into the crowd, shaking hands. Bush got out of the car belatedly and stood next to it, looking slightly dazed. Few people noticed him. They were in front of Duke Zeibart's restaurant, one of the power lunch spots in Washington, and Zeibart was on the balcony yelling an invitation to Gorbachev to come in for borscht. Gorbachev was mobbed. "Do you do this a lot?" Bush asked him when they got back into the Zil. "Oh," Gorbachev said, "I do it a lot in Moscow, and I do it every time I go to the provinces."[56]

In public Reagan gave a skilled performance, and one that perfectly complemented Gorbachev's. If he minded the adulation of the Soviet leader, he did not show it. A few days before the general secretary's arrival, he said charmingly, "I don't resent his popularity. Good Lord, I co-starred with Errol Flynn once."[57] Apparently happy to watch the star at work, he gave the television audiences to know that he was the host and he had a personal relationship with Gorbachev that went way back. Welcoming the general secretary to the White House on the morning of December 8, he suggested that the two address each other by first names. "I'm Ron," he said, to which his guest responded, "I'm Mikhail."[58] At the ceremonial signing of the INF treaty—which both Reagan and Gorbachev described as a historic event—the two leaders displayed an easy familiarity with each other, their friendliness setting off the grand drama of an accord between the nuclear superpowers.

In his opening remarks Reagan said, "We have listened to the wisdom of an old Russian maxim. The maxim is *doverai, no proverai*—trust but verify."

"You repeat that at every meeting," Gorbachev interjected, chuckling.

"I like it," Reagan answered, and the room erupted in laughter.[59]

At the closing ceremonies Ron and Nancy, smiling and shaking hands with the Gorbachevs, looked, Shales reported, like the neighbors or a benign pair of in-laws. "It could have been any parting of hosts and houseguests," Shales wrote, "except that the two men had spent a part of the week tossing around the future of the world. . . ."[60]

Shales, like most people, imagined the President in closed sessions with Gorbachev speaking solemnly about SS-18s and submarine-launched cruise missiles, and laying out considered new approaches to the problems of global security. But according to the memoirs of George Shultz, Colin Powell and the White House press secretary, Marlin Fitzwater, this is not what occurred. By these accounts, Reagan, after his polished public performances, seemed to slip out of gear, or out of touch, and in the closed sessions behaved in a fashion that was, well, surreal.

The first official meeting between the President and the general secretary took place the morning of December 8. The meeting was brief, because Mrs. Reagan had insisted that the INF treaty be signed at precisely 1:45 P.M. Her astrologer had told her that that was the most propitious time, and she insisted it be done then even though it made lunch early and disrupted the morning's schedule.[61]

Reagan began by presenting Gorbachev with a pair of gold cuff links, the match of his own, on which figures were beating swords into plowshares. He had thought a lot about this gift. A California friend had given him two pairs of these links, and at a pre-summit briefing a few days before, he had interrupted Powell's disquisitions on economics and arms control to talk about them. Powell tried to tell him gently that the Russians did not wear French cuffs, but the President was not deterred: he talked about the cuff links every time Powell came to brief him.

Gorbachev, however, seemed to be thinking about something else, for, with hardly a look at the links, he said "thank you" and put them in his pocket.[62]

Reagan then launched into a stern lecture about human-rights abuses in the Soviet Union. In the past year the Soviets had talked quite freely about human-rights issues with Shultz, but Reagan's aggressive manner caused Gorbachev to reply that he did not like to be lectured to, that he was not the accused standing at the dock and Reagan was not the prosecutor, and, besides, the domestic affairs of the Soviet Union were no business of the United States. Reagan gave a sharp reply, and the two argued from a script of summits past until the end of the meeting.[63]

The afternoon meeting was scheduled for the Oval Office, but because Shultz wanted to invite a number of people from both delegations, it was changed to the Cabinet Room. By 2:30 P.M. there were people sitting all along the walls as well as at the Cabinet table. The two principals, just come

months before that he "didn't give a damn what was on the other side of the moon."

On November 4, Senator Henry Jackson, Dr. Dornberger and on November 8, Representative James Patterson of the Joint Congressional Committee on Atomic Energy, all voiced their apprehensions about the military and orbital bombardment capabilities which Sputnik 1 implied.

The Democratic Advisory Council issued a policy statement on November 11, which read in part:

> Let us not fail to understand that control of outer space would be a military fact of the highest importance.
>
> The air war of yesterday becomes the space war of tomorrow. We have fallen behind in these weapons of tomorrow. We must do more than merely catch up. We must become and stay so strong that the Communists will not start an atomic war or allow one to start.
>
> The all-out effort of the Soviets to establish themselves as the masters of the space around us must be met by all-out efforts of our own.

This statement was signed by seventeen Democratic leaders, including former President Harry S Truman, Governor of New York W. Averell Harriman, Adlai Stevenson, Senator Hubert Humphrey, and Senator Herbert Lehman.

Dr. Von Braun noted the bombardment implications of satellites before the Senate Preparedness Subcommittee on December 14, and stated that the United States would be in "mortal danger" if the Russians first gained control of outer space.

Senate Majority Leader Lyndon B. Johnson issued

one of the strongest and most dramatic warnings on space in an important political speech on January 7, 1958:

> First, it is obvious that the Soviet valuation on the significance of control of outer space has exceeded that of our officials.
>
> The sputniks now orbiting around the earth are not military weapons, but have a military potential.
>
> Control of space means control of the world, far more certainly, far more totally than any control that has ever or could ever be achieved by weapons, or by troops of occupation.
>
> The race we are in—or which we must enter—is not the race to perfect long-range ballistic missiles. There is something more important than any ultimate weapon. That is the ultimate position—the position of total control over earth lies somewhere out in space.
>
> This is the future, the distant future, though not so distant as we may have thought. Whoever gains that ultimate position gains control, total control, over the earth for purposes of tyranny or for the service of freedom.

Five days later, it became apparent that some of these warnings had begun to create apprehensions in President Eisenhower's mind, when he sent his historic letter of January 12 to Soviet Premier Bulganin:

> I propose that we agree that outer space should be used only for peaceful purposes. We face a decisive moment in history in relation to this matter. Both the Soviet Union and the United States are now using outer space for the testing of missiles designed for military purposes. The time to stop is now.

authority from the military was strongly hinted at by Dr. Edward C. Welsh, executive secretary of the National Space Council, at a meeting of the Air Force Association in Philadelphia on September 22, 1961. He remarked on the Eisenhower administration's proposed language for the act to create the space agency.

> It was phrased so as not to give clear responsibility to the Department of Defense for space activities primarily associated with military missions. It is possible that this omission was a result of careless drafting or evidence of disinterest in military applications of space or just optimism regarding our military position relative to that of the Communists. In any event, Congress saw the error and changed the language.

(Eisenhower's lack of enthusiasm regarding space in general is indicated in his parting budget message of January 16, 1961: "Further testing and experimentation will be necessary to establish whether there are any valid scientific reasons for extending manned space flight beyond the Mercury program.")

At the same Air Force Association meeting, Representative Emilio Daddario, Trevor Gardner, Dr. Dornberger and General Schriever all emphasized the potential military implications of space weapons. Gardner said, "On August 19, 1960, the USSR placed a 10,120-pound spacecraft in orbit and caused it to land at a time and place of their own choosing. A payload of this size could have been a major nuclear weapon."

Since April, 1959, General Schriever had been responsible for virtually all research and systems development in the Air Force, as head of the Air Force Systems Command. In that position, he was the military leader most

closely involved in the civilian-military space controversy. Since 1958, he had publicly voiced criticism of administration policy and management of the space program on a number of occasions, and had called for an expanded Air Force role in space. This struggle reached a turning point in September and October of 1961, immediately after the Soviets broke the test moratorium and exploded their large bombs on the fringes of space. At the Air Force Association meeting in Philadelphia, Schriever stressed the danger that intercontinental missiles could be followed by more destructive space weapons, sooner than most people thought. What was to be his last official comment on the subject was made about three weeks later, on October 12, 1961 at an American Rocket Society meeting in New York City. *The New York Times* reported the next day:

> General Schriever agreed with the Soviet contention that it was possible to put a 100-megaton nuclear weapon (equal to 100,000,000 tons of TNT) into orbit with the rocket that launched the Russian astronauts.
>
> The Air Force research chief insisted that it was 'artificial' to separate peaceful and military research in space.

Apparently this was too much for the administration. The next day, before the same American Rocket Society gathering, Vice President Johnson retorted:

> It is true, of course, that many of the scientific techniques used in civilian research can also be applied to military purposes. But there should be no confusion anywhere about the abiding principles of American policy.

> We are developing the peaceful uses of outer space from choice, but we are working on the military uses of outer space from necessity.
>
> That difference is basic, not superficial. It is genuine, not artificial. And it is permanent and not temporary.

After that, no further public discussion was heard on the subject from General Schriever or any other official except for periodic presidential reaffirmations that the United States did not expect nuclear weapons to be placed in space. For the most part, the subject of orbital bombardment ceased to exist on the official American scene, until Secretary of Defense McNamara finally announced the development of FOBS in 1967.

In this manner the curtain rang down on the second period of the American reaction, with the military silenced and a peaceful expression stamped on the face of the national space program. Actually, this development might have been sensed five months earlier, when President Kennedy made his first major pronouncement on space since he had taken office. On May 25, 1961, about six weeks after Yuri Gagarin's first manned spaceflight in Vostok 1, Kennedy told the Congress:

> Now it is time to take longer strides—time for a great new American enterprise—time for this nation to take a clearly leading role in space achievement which, in many ways, may hold the key to our future on earth.
>
> First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to earth.
>
> It is a most important decision that we make as

> a nation. But all of you have lived through the last four years and have seen the significance of space and the adventures in space. And no one can predict with certainty what the ultimate meaning will be of the mastery of space.

That Kennedy was uncertain and perhaps disturbed about the strategic implications of space is strongly indicated by this last remark, but that he had a more visionary grasp of the potential of space than Eisenhower had, is evident from the ringing idealism in his historic proposal. That in his space crusade he intended to continue under the peaceful banner that Eisenhower had raised, became finally clear five months later when in an address to the United Nations Assembly, he proposed the seeking of agreements banning nuclear weapons in space. Kennedy's United Nations proposal came only three days after Schriever's and Gardner's warning about space weapons in Philadelphia, and was already history by the time of Schriever's statement on orbital weapons in New York seventeen days later. In view of this timing, the explanation of Vice President Johnson's immediate rebuff to General Schriever is clear.

Six months later, on April 9, 1962, about three weeks after Khrushchev's boast of a global missile, Air Force General Thomas Power, then Commander of the Strategic Air Command, made a last plea for the extension of SAC's mission to space, and for development of the manned space vehicles which would be required. One day later, a Department of Defense security directive was announced which placed rigid restrictions on what information could be released about the department's satellite launchings, and with that the whole subject of reconnaissance satellites, the names SAMOS, MIDAS and SAINT, and official mention of military activities in space as such,

ceased abruptly, as had discussion of orbital bombardment five months earlier.

The third period of American reaction to Soviet space initiatives, which has extended from 1961 to the present, still carries the imprint of the Kennedy policy, which is to maintain a primarily nonmilitary interpretation of the national space program, while developing basic space capabilities using the Apollo lunar landing project as a spearhead and focus. Shortly after Sokolovskii's remarks on space were published in Moscow, Kennedy reaffirmed this policy in clear terms in a speech at Rice University on September 12, 1962, at which time he again saw fit to express reassurance on the orbital bomb issue.

> We choose to go to the moon in this decade—because that goal will serve to organize and measure the best of our energies and skills; because that challenge is one we're willing to accept; one we are unwilling to postpone, and one that we intend to win.
>
> We have vowed that we shall not see space filled with weapons of mass destruction but with instruments of knowledge and understanding. Yet the vows of this nation can only be fulfilled if we in this nation are first and therefore we intend to be first.

Despite these and earlier efforts of the Eisenhower and Kennedy administrations to play down the potential value of strategic space systems and to divert attention toward non-military activities, it is evident that thoughtful individuals outside the government were beginning to ponder the other side of the matter. For example, in the book *Outer Space in World Politics*, published early in 1963, some penetrating comments on the subject were recorded by two eminent strategic analysts, Professor Thomas Schelling of Harvard and Professor Klaus Knorr,

Director of the Center of International Studies at Princeton. Schelling stated:

> It is widely taken for granted that nuclear weapons in orbit would be a bad thing, bad for both us and the Russians if we both had them, and that their prohibition is obviously desirable if we can negotiate it and monitor it in a reliable way. The unquestioning acceptance of that view is undoubtedly based partly on intellectual laziness, on a failure to analyse the bombardment satellite on its own merits.

Schelling noted further that adding the space dimension to the strategic picture might not only "ease the problem of protecting a retaliatory force," but also "add significant worries to the political leader who has to take responsibility for initiating an attack." He continued:

> Some of the above remarks suggest that the military use of outer space, or at least the use of outer space for actual launching platforms, might favor stability rather than instability. In that case, according to certain important criteria of arms control, one would not want to ban this use of space.

Professor Knorr commented:

> If the safety of the earth's systems leaves something to be desired, bomb satellites will augment deterrent safety either by being less vulnerable than terrestrial components or, if equally or somewhat more vulnerable, by providing deterrent diversity, thereby complicating any potential attack and thus upgrading the overall capability to deter.
>
> The most probable contingencies are that bomb satellites either will have little military significance

The UFO Investigator II #6
Oct/Nov 1962

BRITISH ASTRONOMER FAVORS SPACE LIFE PROBE

Sir Bernard Lovell, Jodrell Bank, England, radio astronomer, in recently printed testimony before the House Science and Astronautics Committee, has stressed the importance of attempting to communicate with beings on other planets.

Questioned about the possibility of receiving signals from other worlds and the type of program that would be needed, Dr. Lovell replied:

"I think that now one has to be sympathetic about an idea which only a few years ago would have seemed rather farfetched.... If biological explorations of Venus and Mars produce favorable evidence, then it would be conceivable to run a sensible program to establish communication with extraterrestrial beings."

LEFT FROM RIGHT

The Scientific American, May 1962, poses an interesting problem of communicating with other intelligent beings in our galaxy. A previous issue asked readers to devise a method whereby the meaning of our word "clockwise" could be communicated by radio waves to humanoids on Planet X somewhere in our galaxy but covered by dense clouds which prevent its inhabitants from seeing the stars. It is assumed that scientists on earth and Planet X have learned to talk fluently with each other. In order to explain the meaning of "clockwise," the distinction between "left" and "right" must be conveyed.

Surprisingly, there is no assurance that physical processes resulting in distinct left or right "handedness" will have counterparts on Planet X. "Organic compounds found in living forms may possess one type of handedness only, but this is an accident of earth's evolution," the article states. "There is no more reason for such compounds on another planet having the same handedness as those on earth as there would be reason to expect the humanoids on Planet X to have hearts on their left sides." Other possibly universal physical processes, such as electrical and magnetic experiments, also are ruled out.

The problem points up the fact that most human reasoning about possible extraterrestrials is based — somewhat uncritically — on human analogies. Also that intelligent communication could be complicated by the fact that the inhabitants of another planet may have evolved along entirely different lines and might have no pool of fundamental knowledge in common with us.

Correction

The October 1961 Investigator, labeled "Vol. II, No. 1," should have read "Vol. II, No. 2". We regret the error.

Please show this issue to interested friends and prospective members.

MOONWATER THEORY GAINS PROMINENT SUPPORTER

Dr. Zdenek Kopal, British astrophysicist, endorsed by the Associated press as "an internationally known lunar expert," told the American Rocket Society in July that the moon may have an abundant supply of water. Dr. Kopal's theory supports the view presented by V. A. Firsoff in his book "Strange World or the Moon," reviewed in a previous issue of the UFO Investigator (Vol. 1, No. 11).

Addressing space scientists at an American Rocket Society meeting, Dr. Kopal said there may be geysers and subsurface glaciers on the moon. Under its apparently dusty surface, Dr. Kopal said, the moon may have a layer of permafrost several hundred feet deep — glaciers covered by dust and debris. According to Dr. Kopal, such glaciers "could take the form of domes or minor bulges numerous astronomers have observed in certain regions of the moon."

AIR FORCE HIDING CRITICS' REPORTS?

The report of the 1953 scientific panel set up by the Central Intelligence Agency (CIA) to evaluate UFO phenomena has been withheld from the public by the Air Force because it contained derogatory remarks about the AF investigation, according to Dr. Donald H. Menzel, Director of Harvard Observatory and noted UFO skeptic. The statement was made in a letter to Prof. Charles A. Maney, Board member The scientific panel report was first made public by Capt. Edward J. Ruppelt, former Chief of Project Bluebook, in his semi-official book "The Report on Unidentified Flying Objects," (Doubleday, 1956). According to Ruppelt, the scientists recommended an improved UFO investigation with better instrumentation and a more straightforward public information policy.

When pressed for more information about the 1953 study, the AF released a brief summary purporting to be the main conclusions of the panel. The summary contradicted what Ruppelt had reported. Later the AF refused to release the full report for clarification on the grounds that it contained classified information not related to UFOs. According to Dr. Menzel, the report was withheld "in my opinion because it contains some derogatory comments about Air Force mishandling of the flying saucer case."

A new scientific journal published by the American Meteorological Society may be of interest to scientists members of NICAP. The "Journal of the Atmospheric Sciences," covering research efforts in all sciences related to atmospheric phenomena, is edited by Dr. Norman A. Phillips. Bi-monthly, $15.00 per year (single copy price $4.00). Address: American Meteorological Scoiety, 45 Beacon Street, Boston 8, Massachussets.

MacARTHUR REPEATS SPACE LIFE VIEWS

In an address to graduating West Point cadets, General Douglas MacArthur recently repeated a belief concerning eventual wars with extraterrestrial beings, which had been attributed to him in 1955. Warning the cadets that they faced a world of change, particularly resulting from the "thrust into outer space," he stated:

"We deal now, not with things of this world alone, but with the illimitable distances and as yet unfathomed mysteries of the universe. We are reaching out for a new and boundless frontier. We speak in strange terms of harnessing the cosmic energy... of ultimate conflict between a united human race and the sinister forces of some other planetary galaxy; of such dreams and fantasies as to make life the most exciting of all times."

On Oct. 9, 1955, the New York Times published an interview with Mayor Achille Lauro of Naples, Italy, who had just completed a visit at General MacArthur's Waldorf-Astoria suite. Mayor Lauro told newsmen that MacArthur had said the nations of the earth would some day have to "make a common front against attack by people from other planets."

RAF-UFO SPACE LINK

The Royal Air Force has assigned a former UFO project officer, in the department of assistant chief of air staff, to "report to his chief on all aspects of space," according to Aviation Week & Space Technology. Group Captain A.H. Hewitt, deputy director for operations requirements, was assigned to the study of space operations because he had been the British UFO project officer.

In a policy letter dated August 15, 1960, from the office of the Secretary, the U.S. Air Force also related its UFO investigation to space surveillance. (See October 1960 NICAP Special Bulletin.) The official U.S. and British linking of space operations with UFO studies suggests that the two countries may jointly have worked out a plan to link the UFO subject with broader space activities.

NOTE OF THANKS

The NICAP staff wishes to thank the Indiana Unit #2 Subcommittee, LaPorte, Indiana; Chairman: Orvil K. Hartle, for an intensive survey of the area for UFO reports. The search turned up dozens of reports, some recent, some dating back to the first decade of the 20th century. In addition to written reports and taped interviews with the witnesses, the Subcommittee has submitted color paintings by a member artist based on the witnesses' descriptions. Some of these are now on display at the NICAP office. The NICAP Subcommittees increasingly are furnishing very valuable data to headquarters, and the volunteer efforts of the members are greatly appreciated.

IS THERE ANY LIFE ON EARTH?

The above question was used by the magazine Missiles and Rockets in commenting on a photograph taken by TIROS IV, the weather satellite launched by the National Aeronautics and Space Administration.

As transmitted to earth by TIROS, the photo (below) shows the entire Great Lakes area -- but not a single indication of a highly advanced civilization on this planet. Located in the area shown are Chicago, Milwaukee, Detroit, Toronto, Buffalo, Cleveland and many other large cities, but not a trace of them can be found in this photograph.

Only one of the thousands of TIROS photographs has given any sign that our planet is inhabited. In that solitary picture, a number of white criss-crossed lines were observed; they were later identified as snow-clogged logging roads cutting through a Canadian forest.

Even photos from aircraft, taken at a much lower altitude, sometimes fail to show any sign of civilization because of haze or other conditions.

Without highly superior telescopes or other advanced equipment, dwellers on other planets probably would feel justified in deciding that Earth is devoid of life. Lacking equipment superior to what we now possess, they could however determine the existence of our civilization by: 1. Close-range observations by probes or manned spacecraft operating near the Earth. 2. Evaluating our radio transmissions and realizing they were intelligent signals or messages.

The same probably will hold true regarding the question of life on Mars or other solar system planets. Balloon-borne telescopes such as the one used for an infra-red examination of Mars' atmosphere may indicate evidence for or against life as we know it. But until close-range observations are made, we probably will not have absolute proof either way -- unless a reactivated Ozma, or a similar listening project, meantime receives intelligent signals from Mars or another planet.

Optical Devices For NICAP Investigators

Mr. Jose A. Cecin, of the Castillian Company (import-export), Jamaica, N.Y., has offered to supply binoculars and telescopes to NICAP-affiliated groups at a cost-and-handling basis (a Discount of approximately 45%.) For authentication purposes, Affiliates and Subcommittees should send their inquiries to NICAP. We will certify the letters and forward them to Mr. Cecin.

VENEZUELA UFO FILM EXAMINED BY USAF

A moving picture showing two or more UFOs, recently filmed from an airplane near Auyantepuy, Venezuela, has been reported to NICAP by Dr. Askold Ladonko, our adviser in Caracas. A detailed report was secured by a U.S. Air Force attache.

The film was taken in December, 1962, by Mr. Ali Rafael Diaz, who was flying over Angel Falls with his family and guests. Mr. Diaz was photographing the falls, using an 8 mm camera and color film, when a luminous object rose from the base of a mountain and ascended vertically at high speed. When the UFO cleared the mountain top it passed in front of cumulus clouds, indicating its proximity to the observers and also that it was not an astronomical object.

When first viewed by the staff of the newspaper El Universal, the luminous shape appeared as an oval-shaped object. But according to a later report to NICAP, enlargements showed two shapes, and a more complete analysis was then made by Dr. Herman Kabe, Director of the Venezuelan Institute for Scientific Investigation. The report to NICAP states that filtered green light resolved the glowing area into four disc-shaped objects, one in the center, the others around it.

A USAF attache at the U.S. Embassy is said to have viewed the film and to have asked for either the original or a copy. Mr. Diaz is reported to have filled out the U.S. UFO questionnaire which is used for reporting sightings in foreign countries.

NICAP was invited to send a representative to examine the film, but costs of the trip prevented this. Efforts are being made to obtain a copy, also the detailed analysis by Dr. Kabe.

SPACE WARS LIKELY, AF GENERAL SAYS...

Some space races are undoubtedly far superior to us, according to Brig. Gen. John A. McDavid, USAF, Director of Communications-Electronic for the Joint Chiefs of Staff. The statement was made in an AF-approved speech at Milliken University, Decatur, Ill.

General McDavid said we must be prepared for the future. "Our relation to other life in the universe is a part of this future, for as the British interplanetary scientist and author, Dr. Arthur C. Clarke, believes, 'there can be little doubt we will ultimately come into contact out in space with races more intelligent than our own.'

General McDavid added, "Before long, people may be forced to realize and accept as a fact that this earth is only an infinitesimal grain of sand in an infinite universe, that the human is one of many forms of life with which God is concerned and that others are far superior to us."

"And if this is true," he warned, "Our meeting with other types of existence in other places in the universe quite likely will increase the potential element of conflict rather than reduce it.... This imposes an even greater burden of leadership on your generation," he told the Milliken University students.

Interim membership cards and special reports to members appear in the March-April section.

Queries have been received about the color film of a maneuvering UFO sighted on Sept. 24 by a dozen Hawthorne, N.J. police officers and the chief reporter for the N.J. State Press, Mr. George Della Penta. The film was mentioned in Vol. II, No. 6. Since then, it has been learned that the film is owned by an assistant of Mr. Della Penta, and he has refused to release it, possibly because it might be sold for magazine use. If this is done, or the film is released, it will be reported by NICAP.