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## THE LEARNING CENTER

### LESSON 5: Making History at the White House

#### Page 5. The White House and Space Exploration

##### Jumpstarting the Space Race

*one month later*

On November 7, 1957, **President** Dwight D. Eisenhower (1953-1961) spoke on television from the Oval Office. He tried to explain to the American people why the United States had failed to become the first country to launch a satellite into outer space. The questions began soon after October 4, 1957, when the Soviet Union had caused a panic in the United States by putting a small satellite called Sputnik into orbit around the earth. Now the communist nation had sent up a second satellite. **Many** Americans feared that the Soviets might use their new technology to make it easier for their nuclear missiles to hit the United States. **President** Eisenhower had once served as America's top general during World War II. When he spoke, Americans were relieved to hear that "the overall military strength of the free world is distinctly greater than that of the communist countries." Eisenhower then moved quickly. He appointed a **White House science advisor** and supported the creation of the **National Aeronautics and Space Administration (NASA)**. He also signed the **National Defense Education Act** that encouraged the study of science. Some thought Eisenhower should spend even more money on the space program. On January 31, 1958 the United States launched its first satellite into earth's orbit. It was called Explorer. At a White House dinner on December 18, 1958, Eisenhower announced that the United States had launched the largest object ever -- an entire missile -- into space. People all over the world were astonished the next day when they heard the **president's** voice coming to them from space. The missile had launched a satellite that was able to broadcast a recording of Eisenhower wishing the world "peace on earth and good will toward men."



The Soviet Union's



**President Kennedy** and

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## UFO Updates Mailing List

### Update: Re: Mars; Can You Dig It? - Balaskas

From: Nick Balaskas <nikolaos@yorku.ca>  
 Date: Wed, 28 Jun 2000 19:42:08 -0400 (Eastern Daylight Time)  
 Fwd Date: Wed, 28 Jun 2000 21:03:32 -0400  
 Subject: Update: Re: Mars; Can You Dig It? - Balaskas

>Date: Tue, 27 Jun 2000 21:31:17 -0500  
 >From: Roger Evans <raka@swbell.net>  
 >Subject: Mars; Can You Dig It?  
 >To: [updates@sympatico.ca](mailto:updates@sympatico.ca)

>Hello, all...

>I have a question that I've thought about for a long time  
 >regarding Mars. On our planet, paleontologists have to dig down  
 >as much as a hundred feet or more to unearth various artifacts  
 >from the past due to layered and collected sediment over  
 >millions of years. Does anyone have any idea if this would also  
 >be true on Mars?

<snip>

Hi Roger and everyone.

Like on Earth, erosion by wind, water, etc. also occurs on Mars. Before digging up the entire planet, paleontologists would first check out promising areas where artifacts such as bones, if any, would be on the surface or partially exposed close to the surface. Most dinosaurs bones have been discovered this way on Earth. Some of the meteorites thought to have come from the Moon and Mars were found very easily since they stood out on the white Antarctica ice sheet.

For this reason, I suggest that NASA consider buying Canada's Radarsat 2 spacecraft which can take extremely high resolution photos of the surface of Mars in both day and night conditions and even through planetwide dust storms. Using radar rather than visible light has the additional advantage of being able to see beneath layers of dust or sand to enable us to find evidence for ancient roads and monuments, buried petrified trees, etc. (if there are any of course). The Cydonia Face on Mars controversy would also be resolved to the satisfaction of everyone since Radarsat 2's high resolution images of 1 meter or less (much better than the MSSS images obtained with the Mars Global

surveyor satellite still orbiting Mars) would not need sunlight.

Since the U.S. would prefer that Canada does not place Radarsat 2 in Earth orbit and make its high resolution photos available to anyone for national security reasons, I think we can get them to send it to Mars instead for free (provided they don't hire the same people who lost three of the recent spacecrafts NASA sent to Mars).

Now that we know there is plenty of liquid water on or just below the surface of Mars (and possibly an amount three times greater than previously suspected according to a recent announcement), if life existed on Mars in the past before its oceans disappeared, life could still be present underground. We may not be talking about single cell organisms such as bacteria either but possibly even underground cities.

What is the evidence for this you say? Well, you may recall that on March 1, 1989 Soviet scientists obtained infrared images of underground structures on Mars with their Phobos 2 spacecraft. A composite image taken in visible and infrared light showed an amazing grid pattern which suggested the presence of a buried artificial structure about 290 kilometers in diameter in the Hydrates Chaos region near the Martian equator (about 1 degrees North and about 34 degrees West). (1) Interestingly, no other photos were released for the next 24 days and just days later Phobos 2 was "lost" for good.

Another Phobos 2 infrared photo released (the same one as above?) revealed an underground grid pattern heat source which could not be explained as a natural feature. According to Dr. John Becklake of the London Science Museum, "The city-like pattern is 60 kilometers wide and could easily be mistaken for an aerial view of Los Angeles.". (2) Maybe a UFO UpDates subscriber can provide us with this Phobos 2 image. NASA's own infrared spacecraft to Mars has been placed on hold for now.

Nick Balaskas

- (1) 'Are We Alone?' video (June 1994) based on the book 'Genesis Revisited' by Zecharia Sitchin.
- (2) See chapter on 'Infrared Photos of an Underground City'.  
<http://www.skiesare.demon.co.uk/phob-3.htm>

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It may be more than just a coincidence that this underground "city" is located at a low elevation where water is more abundant and close to the Martian equator where is the warmest.

Nick Balaskas

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race would be more occupied with survival than we are on Earth.

On Mars, there exists an excessively slow loss of atmosphere, oxygen and water, against which intelligent beings, if they do exist there, may have protected themselves by scientific control of physical conditions. This might have been done, scientists speculate, by the construction of homes and cities underground where the atmospheric pressure would be greater and thus temperature extremes reduced. The other possibilities exist, of course, that evolution may have developed a being who can withstand the rigors of the Martian climate, or that the race—if it ever did exist—has perished.

Before this, gags and cartoons picturing weird-looking Martians had already become popular, and the AF statement somehow gave them an extra boost. Even now, the idea of possible life on Mars makes many people laugh. But some might be surprised if they knew the sober opinions of certain respected scientists, including planners at NASA.

In 1963, a high NASA official startled members of the Institute of Aerospace Sciences with a statement about the Mars moon Phobos. The official was Raymond H. Wilson, Jr., Chief of Applied Mathematics.

The moon Phobos, Wilson told the scientists, might actually be a colossal space base orbiting Mars. Disclosing that NASA was seriously considering this possibility, Wilson also revealed that the Space Administration had plans for special probes which eventually would bring the answer. Phobos, he said, had long been an enigma because of its peculiar orbit, which appeared to violate natural laws.

In 1959, a Soviet scientist, Dr. I. S. Shklovsky, announced that Phobos was an artificial satellite, basing his conclusion on calculations by the U. S. Naval Observatory. Phobos, he said, was being slowed by electromagnetic drag and tidal friction more than was possible with an actual solid moon. The explanation: Phobos was a hollow sphere, an enormous

round spaceship built to shelter a colony which had to escape from Mars when the planet started to lose its atmosphere.

Since Phobos is ten miles in diameter, the Russian's analysis shocked many scientists and set off a fierce controversy. But the recorded observations, which later caused the NASA decision, convinced other scientists and space experts, among them Dr. Fred Singer, chief space adviser to President Eisenhower, Prof. James A. Harder of the University of California, and Wells Alan Webb, both respected Mars authorities.

The Space Administration's decision to investigate Phobos was based on its strange orbit, Raymond Wilson told the aerospace scientists. Phobos, he said, goes around Mars faster than the planet turns on its axis, which could not happen naturally. Phobos, he added, is the only satellite in the solar system to rotate faster than its main body. Its period is about one third of Mars' twenty-five-hour rotation.

If Phobos is found to be hollow, astronauts from Earth are expected to board and enter it as soon as this becomes possible. If it was built to shelter a colony from Mars, it would be sealed to prevent leaking of the artificial atmosphere, and it presumably would be a small world, equipped with everything needed for the colonists' survival. Such a gigantic space station would of course have to be built with sections carried from Mars by shuttle craft.

Phobos was first observed by an astronomer in 1877, almost a hundred years ago. According to Dr. Shklovsky, it may have been built long before this, so the chance of finding life aboard would be small. But the colony members could have made shuttle trips to Mars, building permanent shelters in which they could live safely. These could be underground cities, such as the AF suggested in its 1949 quotation of Project Sign scientists. Or they could be large domed bases on the surface of the planet.

In 1962, evidence supporting the second possibility was made public by Dr. Ernst J. Opik, a top-rank astrophysicist. A huge, unnatural bulge at the Mars equator had been dis-

Keyhole 73

**SINGER, S (iegfried) Fred**, educator, physicist; b. Vienna, Austria, Sept. 27, 1924; s. Joseph B. and Anne (Kelman) S.; B.E.E., Ohio State U., 1943; A.M., Princeton, 1944, Ph.D. in Physics, 1948. Came to U.S., 1940, naturalized, 1944. Instr. physics dept. Princeton, 1943-44; physicist, applied physics lab. Johns Hopkins, 1946-50; sci. liaison officer Office Naval Research, Am. Embassy, London, 1950-53; asso. prof. physics U. Md., 1953—; research origin of cosmic radiations, aurorae and magnetic storms, meteorites, design research rockets and satellites. Mem. commn. on ionosphere and upper atmosphere U.S. Nat. Com. of Internat. Sci. Radio Union; tech. panel rockets and cosmic rays U.S. Nat. Com. for Internat. Geophys. Year; head sci. evaluation group Astronautics and Space Exploration Com.; Ho. of Reps., 1958—. Served with USNR, 1944-46, capt. USAFR, 1950-55. Fellow Am. Phys. Soc., Am. Rocket Soc., Am. Astronautical Soc., Brit. Interplanetary Soc., Royal Astron. Soc.; mem. Am. Geophys. Union, Am. Assn. U. Profs., Washington Philos. Soc., Washington Acad. Scis. Author: Geophysical Research with Artificial Earth Satellites, 1956. Editor: Progress in the Astronautical Sciences. Contr. articles profl. publs. Home: 1500 Massachusetts Av., N.W., Washington. Office: U. of Md., College Park, Md.

**SINGER, S(IEGFRIED) FRED** Sept. 27, 1924- University professor; physicist  
 Address: University of Maryland, College Park, Md.

An announcement of far-reaching significance was made at the White House on July 29, 1955: "Within three and one half years the United States will launch an earth satellite." This event will herald "not a bloody conflict but peaceful and constructive collaboration on an international scale in the exploration of extraterrestrial space" (*Jet Propulsion*, August 1955).

The proposed unmanned satellite is similar to the plans designed by Dr. S. Fred Singer of the University of Maryland's physics department. In a paper read before a symposium on space travel at the Hayden Planetarium in New York in 1954, Dr. Singer revealed the plans for his satellite, MOUSE (Minimum Orbital Unmanned Satellite of Earth), which is expected to travel in outer space at a rate of 18,000 miles per hour.

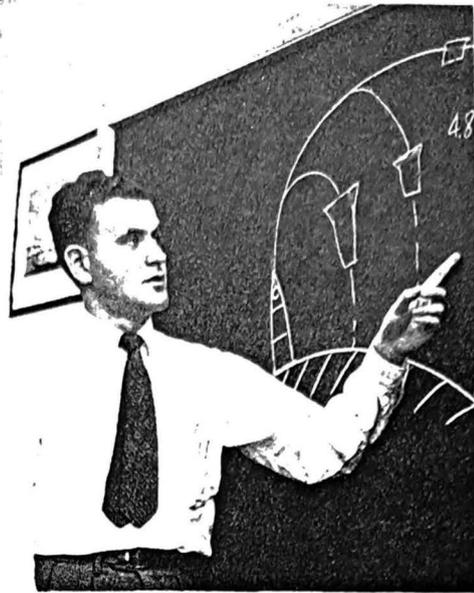
He estimates that his satellite could be launched at a cost of \$1,000,000 (one bomber costs \$15,000,000). Dr. Singer has also experimented on such problems as cosmic rays, meteorites and the exploration of the upper atmosphere with small rockets.

The project to launch the satellite has been called the beginning of the "space age," and a leading U.S. Navy rocket researcher, Dr. Homer E. Newell, Jr. (see *C.B.*, 1954), has proclaimed it "one of the greatest . . . philosophical and scientific achievements of mankind."

Dr. Siegfried Fred Singer, born on September 27, 1924 in Vienna, Austria, was reared and educated in the United States. After receiving the B.E.E. degree in 1943 from Ohio State University in Columbus, he continued his post-graduate studies at Princeton University in New Jersey. While working on his M.A. degree, which he was awarded in 1944, he was an instructor in the physics department at Princeton.

During World War II Singer served with the U.S. Navy and did research in the fields of mine warfare and mine design. At the Naval Ordnance Laboratory, he developed the arithmetic element for an electronic digital computer. These computers or calculators (also known as "electronic brains") are of value in performing mathematical problems (see John Von Neumann, *C.B.*, 1955). Singer also devised a coding system for a floating decimal point and circuits to control its operations.

Upon his discharge from the Navy in 1946, Singer joined the staff of the applied physics laboratory of Johns Hopkins University, Silver Spring. He received his Ph.D. degree in physics from Princeton University in 1948; his thesis was entitled "Extensive Airshowers of Cosmic Rays." At Johns Hopkins University he was engaged in research on primary cosmic rays, sea level cosmic radiation, the ionosphere, and cosmic ray balloon measurements. He joined in a Naval operation to the Arctic and shipboard rocket launchings at the equator.



S. FRED SINGER

In 1950 Dr. Singer served in the Office of Naval Research as a scientific liaison officer, attached to the U.S. Embassy in London. His functions were to study European research programs in cosmic radiation and elementary particle physics, upper atmosphere physics, radioastronomy and astrophysics. Upon his return to the United States in 1953, Singer was appointed associate professor of physics at the University of Maryland in College Park.

In 1953 Professor Singer suggested a new method of launching a rocket into space. Instead of using a balloon to raise the rocket above the air's resistance, he proposed that it be fired by a high-flying plane, either piloted or pilotless. He found that this device simplifies the range-safety problem because balloons are subject to wind conditions, and this method is cheaper. Singer stated: "It would, in fact, put rocket research on much the same basis as weather balloon soundings or ionosphere radio soundings" (*Nature*, June 20, 1953).

On August 17, 1955 when the Navy launched its first Rockairs it was carrying out this idea proposed by Dr. Singer. The venture consists of launching rockets vertically upward from high-flying aircraft in order to overcome the drag effects of the lower atmosphere and achieve great altitudes for purposes of upper atmosphere research. Into the nose of the rocket were placed a Geiger counter to measure cosmic rays, a power supply and a radio transmitter to broadcast the data back to ground. The rocket is inexpensive, costing about \$50, and thus makes more frequent measurements feasible. This project is being supervised by Singer, who is also engaged on a project to take instrumental samples of the very high atmosphere from aircraft-launched rockets.

The possibility of shooting artificial satellites into space has been a foregone conclusion among astrophysicists since World War II. However, the problems inherent in such an ambitious

## SINGER, S. FRED—Continued

undertaking were manifold. Dr. Singer's plans were the first to concern themselves with concrete problems, such as the structure and composition of the satellite, and the collection of scientific data by instruments housed inside the mechanism.

His satellite, MOUSE, is similar in size to a basketball. The satellite will travel 200 to 300 miles above the earth's surface, circling the earth every ninety minutes. Dr. Singer suggested that the satellite would be most useful if it circled the earth over the North and South Poles along a plane perpendicular to a line connecting the earth and the sun. Thus the satellite could always point directly to the sun. The earth would turn under the satellite orbit (see Andrew G. Haley, *C.B.*, 1955). Because of air friction the satellite will disintegrate in a few days, but the information collected by this earth-circling device will be invaluable.

Packed within the body of the satellite will be instruments to record scientific data, which will be transmitted to earth at forty-five minute intervals, as the satellite passes each Pole. The broadcast would be made by solar-powered transistor devices, triggered by a radar beam from an airplane circling below. (See *Life*, January 24, 1955.) Meteorologists will undoubtedly gain from information collected on solar radiation, which affects the atmosphere and weather conditions; communications specialists will gain from data collected on the electrified layers of the ionosphere, which make possible wireless transmissions; geodetics will be advanced by information on the size and shape of the earth, and the fluctuations in the earth's gravitational field. (See *Jet Propulsion*, February 1955.)

The satellite will be launched during the International Geophysical Year, 1957-1958, which is being sponsored by the National Science Foundation and the National Academy of Sciences. The U.S. Department of Defense will provide the launching rockets, the firing and observations sites and will handle all aspects of the launchings. About seven satellites will be launched and 600 rockets will blast off. Scientific representatives to the Conference of the International Geophysical Year, 1957-1958, were promised that the U.S. Government intended to cooperate with other countries participating in satellite experiments (*New York Times*, September 10, 1955).

At a meeting before the American Rocket Society in April 1955, Singer reported that a larger satellite carrying television cameras, telescopes, and spectrographs would be much more valuable, but "the larger satellite vehicle seems far removed from the standpoint of feasibility" (*New York Times*, July 30, 1955). Nevertheless, he did say that the launching of an artificial satellite "would pave the way for flights into interplanetary space" (*New York Times*, January 9, 1955).

Addressing a meeting of the International Astronautical Federation in August 1955, Singer said that in explorations of the moon, radioactivity from cosmic ray bombardment would be too small in amount to cause any damage to humans. He also noted that primary cosmic

rays themselves might have serious effects on man, but "shields" containing kerosene, paraffin or water might give protection against them (*Christian Science Monitor*, August 5, 1955).

Dr. Singer is a naturalized U.S. citizen. He is affiliated with several professional organizations: the American Physical Society, American Rocket Society, American Geophysical Union, Washington Philosophical Society, Washington Academy of Sciences, and American Association of University Professors. He is a member also of the British Interplanetary Society and Royal Astronomical Society. He is a member of the technical panel on rockets and the technical panel on cosmic rays of the U.S. National Committee for the International Geophysical Year.

Fred Singer's accomplishments belie his youth. Only thirty-one years old, he is the picture of an earnest and serious young man working towards new and limitless goals. He has dark curly hair and dark eyes.

## Reference

American Men of Science (1955)

SLEZAK, WALTER May 3, 1902- Actor; singer

Address: b. Majestic Theatre, 245 W. 44th St., New York 36

Co-starred with Ezio Pinza in the musical play *Fanny* during the 1954-1955 Broadway theatrical season is the Austrian-born actor and singer, Walter Slezak, whose career on the American stage and screen dates back to 1930. Prior to his New York debut in the musical show *Meet My Sister*, Slezak had been prominent in the Berlin theatre and in German motion pictures.

His subsequent Broadway successes included the musical comedies *Music in the Air* (1934) and *I Married an Angel* (1938). From 1942 through 1952, Slezak was occupied with film work in Hollywood, most frequently in sinister roles such as that of the Nazi submarine commander in *Lifeboat* (1944). An outstanding personal triumph in the stage comedy *My 3 Angels* (1953-1954) preceded his engagement in *Fanny*.

The son of the late Leo Slezak and Else (Wertheim) Slezak, Walter Slezak was born in Vienna, Austria on May 3, 1902. His paternal forebears were millers in Moravia (now a part of Czechoslovakia), where the elder Slezak had worked as a blacksmith before becoming a celebrated operatic tenor at the Vienna Opera House. Walter was early taught to accompany his father on the piano. He paid his first brief visit to New York at the age of seven, the occasion being Leo Slezak's first appearance (November 17, 1909) at the Metropolitan Opera House in the title role of Verdi's opera *Otello*.

Educated somewhat irregularly in various European schools, young Slezak was more interested in tennis, boxing and other sports than in scholarly attainments. He eventually enrolled at the University of Vienna for the study of chemistry and medicine but after a



WALTER S

year and a half he left in a bank in his native city would lead to the intern- he later told Murray Sch for the *New York Times* job was to sweep up the fl

Walter Slezak had alr languages, and had made pianist, when he was of beer garden by the Cos Michael Kertzeze (know goes as Michael Curtiz) blond, smilingly boisterou a role in *Sodom and Gom a contract. Being under t to get his father's signat father's objections and v finishing of *Sodom and Go**

During the Berlin n operetta *Dorine und der i Paulson, was forced by the cast. Young Slezak, successor, learned the j and dances) in a single months in Berlin and we Netherlands and Austria. year contract with the UFA, and to several rob*

By 1929 Walter Slez Berlin in Oscar Straus's *Hollywood*; in a revival o *The Student Prince*; in i of Vicki Baum's *Grand court Babberly in Bra Charley's Aunt*; and in b bach's *La Vie Parisienne* 1928 operetta *Frederika*.

An outstanding novelty Austrian stage in the sea chorusless musical comed Benatzky, later known t as *Meet My Sister*. Tl Lee Shubert saw this piec

## GENERAL SCIENCE

# Secrecy Hampers Research

A scientist has charged that Federal Governmental secrecy policies are seriously affecting space research and scientific fields, sometimes making communications impossible.

SPACE research and all other fields of scientific study are hampered by the Government's secrecy policies, a University of Maryland physics professor has charged.

Dr. Fred Singer told the House Space Committee of his unsuccessful attempts to obtain information on the Russian moon shot, *Mechta*, which was launched into an orbit around the sun January, 1958. He said he tried several times in various ways to learn what U. S. Government agencies had learned from the Russian moon shot.

When these efforts proved fruitless, Dr. Singer reported, he obtained the desired information from translated Russian sources. He blamed a tendency on the part of personnel in both military and civilian Government agencies "to sit on data," since the requested information was not under secrecy wraps.

However, Dr. Singer said, the problems of obtaining information are "much broader than space research," and affect all scientists connected with the Federal Government's research programs. Even though he has clearances from more than one agency, in-

cluding the Atomic Energy Commission, Dr. Singer said he had to establish his "need to know" before the information could be given him.

Dr. Singer charged the "need to know" was a device used to keep persons from finding out the information was available at all. It is difficult, Dr. Singer pointed out, to establish a need to know when you do not know that another person has the desired information.

A recent example of this in Dr. Singer's field of rocket and space research was the *Argus* experiment in which atomic bombs were exploded high above the Atlantic Ocean late last summer and the resulting radiation trapped in space was measured. Dr. N. C. Christofilos of the University of California, who suggested the explosions, and Dr. Singer could not discuss the theory of such trapped radiation for several months, even though Dr. Singer had suggested the existence of trapped radiation high above the earth's surface some three years ago, because the experiments were not disclosed until March.

Science News Letter, May 23, 1959

is drug-sensitive, Dr. M. L. Morse of the University of Colorado Medical Center, Denver, said.

In studies reported to the Society of American Bacteriologists meeting in St. Louis, Mo., Dr. Morse explained that a bacterial virus transferred resistance to the antibiotics streptomycin and novobiocin from one staph cell to another. First the viruses were grown on resistant staph cells. Then they were allowed to invade drug-sensitive cells. Approximately one cell in 10,000,000 of the cells that survived the virus infection became resistant to the antibiotics.

Previously, Dr. Morse reported, other cases of virus infection alone had failed to produce any resistant cells. Therefore, it must have been the transfer of hereditary drug resistance from one staph cell to another that accounted for the new antibiotic resistance, he concluded.

It will be necessary to evaluate the transferring process to discover if it contributed to the occurrence of multiple drug-resistant strains in hospitals, Dr. Morse said. The transfer can produce strains resistant to more than one drug by combining the resistance properties of two different strains.

Staphylococci are currently a source of many hospital-acquired infections.

Science News Letter, May 23, 1959

## BACTERIOLOGY

## Bacteria Are "Refined" For Radiation-Resistance

BACTERIA which are resistant to radia-

1-9

## UFO Formations seen in New Hampshire

On two consecutive nights in February, formations of UFOs were sighted as they maneuvered over New Hampshire.

The first sighting, on Feb. 3, was reported to NICAP by William M. Kendrick, Intervale, N. H., a former P. T. boat commander in the Air Force. At 8:53 p.m., Kendrick, his wife and son saw three strange flying objects traveling north, in line formation. Two of the UFOs had a yellow-orange glow. The third, brighter than the others, pulsed from red to orange. After a moment, this pulsating object appeared to launch a fourth object which joined the formation. Then a fifth UFO, Kendrick reported, came down swiftly from a higher altitude and joined the four cruising objects. The five UFOs, moving faster than jet aircraft, quickly disappeared behind Mt. Washington and Mt. Adams. The unknown objects, said Kendrick, were larger and brighter than stars or planes. (Interview by member David C. Baker; Kendrick's signed report at NICAP.)

On the following night, three luminous UFOs in exact line formation were sighted near East Madison, N. H. About 7 p.m., the three glowing objects, reported by Mr. and Mrs. Nicholas Bartho, of Snowville, were seen flying a south-to north course. As in the report by Mr. Kendrick, the third object was seen to pulsate regularly, alternating from yellow to bright red. Comparison with the flashing lights of a conventional aircraft, which flew overhead two minutes later, showed no similarity to the pulsating UFO.

Federal Aviation Agency From page 2

As proof of the need for a Congressional investigation, photo-copies of the FAA and Air Force documents have been sent to interested Congressman, and to the Space and Armed Services Committees of the Senate and the House of Representatives. In summing up this evidence, NICAP made four points:

1. The FAA description of the UFO, its strange tongues of flame, its alternate hovering and rapid maneuvers, and its swift escape from the AF jets all make it impossible that the object was a balloon.

2. The official FAA statements prove that the UFO was tracked for over 90 minutes by GCI radarmen—the most expert radar operators in the Air Force.

3. The AF was fully aware that its own and the FAA evidence proved this was a true UFO—some unknown machine under intelligent control.

4. The AF, through its official spokesman, deliberately gave NICAP a false answer, fully aware that it was untrue.

To NICAP Members: We urge that you ask your Congressman to insist on a full Air Force explanation of this case. Please let us see the answers you receive; letters will be returned if requested.

## Mars May Have Orbiting Space Base, Says White House Adviser

The Martian moon Phobos, generally accepted as a celestial body, actually may be an artificial satellite launched long ago by an advanced Martian race, according to Dr. S. Fred Singer, special advisor to President Eisenhower on space developments. No mention was made of the other Mars moon, Deimos.

In his published opinion, Dr. Singer backed a claim first made by the Soviet astrophysicist Shklovsky. The Russian scientist's announcement that Phobos was a hollow, artificial satellite, proving the existence of a Martian civilization, set off heated arguments among astronomers. Shklovsky based his decision on a long study of Phobos' peculiar orbit, which other astronomers also have noted. The Russian claims has calculations and those of earlier astronomers prove Phobos cannot possibly be an ordinary moon.

Though Dr. Singer said the figures still had to be proved, his Phobos statement, in the February *Astronautics*, rejected other astronomers' objections.

"I would be very disappointed if it turns out to be solid," said the White House advisor. If the figures were correct, he stated, then Phobos undoubtedly is a hollow, artificial satellite. If it is, he said, its purpose probably would be to sweep up radiation in Mars' atmosphere, so that Martians could safely operate around their planet. Dr. Singer also pointed out that Phobos would make an ideal space base, both for Martians and earthlings.

AF GENERAL WARNS From page 1

The third point, said the Inspector General, is the question of explaining to the American people. He predicted that sightings will increase, with the AF still chiefly concerned over defense and technical aspects.

Officers with scientific or technical backgrounds, said the Inspector General, should be selected as UFO investigators. They should be equipped with binoculars, a camera, a Geiger counter and a magnifying glass, and they should have containers for any "samples" recovered. (Presumably, this refers to the "actual or suspected UFO material" cited in AF Reg. 200-2, including samples of soil where UFOs have touched down.)

One point which drew NICAP Board members' fire was the Inspector General's directions that explanations to the public should be "realistic and knowledgeable."

"There has been no change in AF censorship," stated Rev. Baller. "If the UFOs are believed a threat, it would seem incumbent on the armed forces to waste no time in alerting the people. Any sudden, hostile act against a nation left in relative ignorance could have serious consequences."

Col. Robert B. Emerson: "Higher directives may not permit the AF to give honest conclusions. But certainly

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## Austrian UFO Photo Genuine, say Experts

A close-range picture of a "flying saucer," taken by an Austrian press photographer, has been labeled "the most sensational photograph of our century" by the Vienna newspaper *Wiener Montag*.

Taken on March 2 by Edgar Schedelbauer, a photographer for the newspaper, the picture shows a round, glowing device. Schedelbauer said the UFO hovered about 45 feet from the ground for ten seconds. During this time, he said, he felt heat pouring from the strange machine. As it began to move he heard a sound like that of a jet. Then the UFO, with rapid acceleration, swiftly disappeared.

In printing an enlarged front-page picture of the UFO, the *Wiener Montag* said it did so only after careful investigation, and after experts had declared it could not be a trick photograph.

NICAP is attempting to secure a certified copy, for publication in an early issue.

they can improve on the asinine statements given to news media. The fact that the AF is spending enormous amounts of money — in these days of military austerity — for investigation of UFOs, is even more indicative of the seriousness with which they regard the problem. The public should not be misled by insulting their intelligence."

Mr. J. B. Hartranft, Jr.: "The AF has a responsibility for giving the public straight answers. In spite of public AF disclaimers, I note that airline, commercial and private pilots are told to make UFO reports promptly, as vital information. Also, the AF has stated that each major UFO investigation costs \$10,000 — added proof that the UFOs are, as the Inspector General admits — serious business."

Vice Admiral R. H. Hillenkoetter: "Behind the scenes, high-ranking AF officers are soberly concerned about the UFOs. But through official secrecy and ridicule, many citizens are led to believe the unknown flying objects are nonsense. Hundreds of authentic reports by veteran pilots and other technically trained observers have been ridiculed, or explained away as mistakes, delusions or hoaxes. The AF has assumed the right to decide what the American people should or should not know. It is time for the truth to be brought out in open Congressional hearings."

Prof. Charles A. Maney: "AF policies have prevented a complete scientific study of UFOs. It behooves the scientific world to rise to its responsibilities."

A photo-copy of the Inspector General's briefing instructions has been sent to Senator Lyndon Johnson, Chairman of the Senate Science and Astronautics Committee, with a renewed request for open hearings. Other copies, with the same request, are being sent to other committees in the Senate and the House of Representatives, as part of the "Case for Congress" summing up NICAP proof of UFO reality and AF secrecy.