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ROBERTSON PANEL

During the summer of 1952 so many UFO sightings were reported to the U.S. Air Force that, according to the *New York Times* (August 1), "regular intelligence work had been affected." Air Force Chief of Staff Gen. Hoyt S. Vandenberg fretted that though UFOs did not exist, nonetheless the subject had sparked "mass hysteria" (*Baltimore Sun*, July 31). Meanwhile the Battelle Memorial Institute, with which the Air Force had contracted for a scientific study of the reports the official projects had collected, was not ready to release its conclusions. It was concerned that before any judgments about UFO data be made, the data had to be upgraded; in other words, an effort had to be made to get a full amount of information

lacking in the great majority of reports. But the Central Intelligence Agency, which was concerned about the uses to which unfriendly powers such as the Soviet Union could put UFO reports (for instance, to cause confusion in the public mind or suspicion of official pronouncements), remained determined to assemble a panel of scientists to deal with the problem. In December 1952 Battelle representatives urged the CIA to postpone its proposed meeting of the next month, but to no avail (Jacobs, 1975).

On Wednesday, January 14, 1953, four prominent American scientists, joined two days later by a fifth, physicist Lloyd Berkner, met in Washington along with two associate panel members, missile specialist Frederick C. Durant and astronomer and **Project Blue Book** consultant J. Allen Hynek, and other CIA and Air Force representatives. The scientists were panel head H. P. Robertson, a CIA employee, physicist, and head of the Defense Department's Weapons System Evaluation Group; Samuel A. Goudsmit, a physicist at the Brookhaven National Laboratories; Luis Alvarez, high-energy physicist (and, in 1968, a winner of the Nobel Prize for physics); and Thornton Page, an astrophysicist and deputy director of the Johns Hopkins' Operations Research Office. All had extensive backgrounds in government service, having performed highly classified work during World War II and beyond. All were skeptical of UFO reports, and at least two, Page and Goudsmit, were openly hostile to the subject (*ibid.*). From the outset it was clear that the panel was not going to conclude that UFOs were extraterrestrial spacecraft.

The first day was spent viewing the **Montana film** and the **Utah film**. After that Lt. R. S. Neasham and Harry Woo of the U.S. Navy Photo Interpretation Laboratory reported on their analyses, which led them to believe the objects in the films were unidentified. Capt. **Edward J. Ruppelt** of Blue Book recounted the Air Force's efforts in UFO investigation. The following day Ruppelt completed his presentation, and Hynek discussed the Battelle work. Other Air Force representatives talked of the difficulties of setting up instrument watches to monitor sightings. The next morning, a Friday, Hynek spoke, and Dewey J. Fournet, who had handled UFO matters for the Pentagon for 15 months, lectured in favor of the extraterrestrial hypothesis, and various UFO sightings provided by

Blue Book were reviewed. In the afternoon panel members talked about what conclusions they had reached, and Robertson agreed to draft a report to be reviewed the following morning. Saturday was spent revising and putting it into final form. The Robertson panel had spent a total of 12 hours reviewing six years' worth of data.

The scientists agreed that since most sightings could be explained, it was evident that the rest could be accounted for with further investigation, which would be a "great waste of effort ... unless such action would benefit a training and educational program." Because the "mass receipt of low-grade reports [tends] to overload channels of communication with material quite irrelevant to hostile objects that might some day appear," the Air Force should deemphasize the subject of UFOs and embark on a "debunking" campaign which "would result in reduction in public interest in 'flying saucers'.... This education could be accomplished by mass media such as television, motion pictures, and popular articles," and scientists, psychologists, amateur astronomers, and celebrities should be brought into the effort to show that even puzzling sightings were potentially explainable. The Air Force UFO project should be expanded slightly and temporarily so that it could educate and debunk effectively. Within a year and a half to two years "public gullibility" would be significantly "lessened" and the "dangers related to 'flying saucers' ... greatly reduced if not eliminated." Moreover, "such groups as the 'Civilian Flying Saucer Investigators' (Los Angeles) [*sic*: **Civilian Saucer Investigation**] and the 'Aerial Phenomena Research Organization' (Wisconsin) ... should be watched because of their potentially great influence on mass thinking if widespread sightings should occur. The apparent irresponsibility and the possible use of such groups for subversive purposes should be kept in mind."

The panel formally recommended that "national security agencies take immediate steps to strip the Unidentified Flying Objects of the special status they have been given and the aura of mystery they have unfortunately required" (Durant, 1953).

The panel in history. The panel's statements set government UFO policy for years to come, though the panel's very existence was formally classified Secret

for at least five years. In 1956, however, Ruppelt produced the first public account of its proceedings. In his version a panel of scientific "experts" met to "sit in judgment of the UFO.... Because of military regulations, the names of the panel members ... cannot be revealed," nor was the name of the agency they were serving. His account makes it sound as if the scientists were sincerely concerned about the need for better data because, as Ruppelt put it, "many of the reports had been made by credible observers—people who think things out carefully.... And the panel must have been at least partially convinced that an expanded effort would prove something interesting because the expansion they [*sic*] recommended would require a considerable sum of money" (Ruppelt, 1956). Nothing in the report substantiates this reading of panel members' thoughts. In any case, no expansion of Blue Book took place.

In 1958, responding to a letter from the **National Investigations Committee on Aerial Phenomena**, the Air Force released three paragraphs of the panel's conclusions and the names of the five scientists who signed the document ("No Reason," 1958). A brief reference to the panel appeared two years later in a debunking book by an Air Force UFO spokesman, Lt. Col. Lawrence J. Tacker (Tacker, 1960). In 1966 *Saturday Review* science columnist John Lear received a fuller version of the report (Lear, 1966).

The Robertson panel has had many critics, and even one of its members, Page, later became more open-minded about the UFO phenomenon (Story, 1980), co-editing a book on the subject (Sagan and Page, 1974) and writing the introduction to another in which the author's conclusions were unambiguously pro-UFO (Story with Greenwell, 1981). Hynek later complained that the "panel's attention was directed largely to a defense and security problem rather than to a scientific one.... No mention was made of or explanations offered for the great many 'Unidentified' cases already in the Blue Book files. Since the cases had been selected for [panel members] by Blue Book, the prejudicial nature of the 'trial of the UFOs' is obvious.... The Robertson panel ... made the subject of UFOs scientifically unrespectable, and for nearly 20 years not enough attention was paid to the subject to acquire the kind of data needed even to decide the nature of the UFO phenomenon" (Hynek,

1972). Two chroniclers of official UFO policy have written that the "Robertson Panel could be described not so much as a 'scientific' panel as a 'propaganda' panel. Its purpose was to justify the CIA's new policy of keeping the UFO subject out of the public domain as much as possible. Labeling a twelve-hour round table discussion of UFOs a 'scientific study' is ludicrous, especially considering the fact that, in at least one instance, 1000 hours was spent on one case (Trementon, Utah, 1952) by Navy analysts and the conclusion was *unknown*" (Fawcett and Greenwood, 1984).

Sixteen years later, when the Air Force-sponsored University of Colorado UFO project (known as the Condon Committee after director Edward U. Condon) conducted a much fuller investigation and came, amid great controversy (Saunders and Harkins, 1968), to conclusions much like the Robertson panel's, the committee's final report, in a section written by Condon himself (who had also been criticized for prejudging the UFO question), went out of its way to defend its predecessor: "The panel has been criticized for not having spent more time studying its problem. But in January 1953, the subject only had a four and a half year history and it was really quite possible for a group of this competence to review the whole situation quite thoroughly in a week" (Gillmor, 1969).

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RUPPELT, EDWARD J. (1923-1960)

Edward J. Ruppelt was born in Iowa in 1923. He attended grade school and high school there, and in 1942 he was drafted into the Army Air Force. He flew submarine patrol off the Atlantic coast and was graduated from radar school to become one of the early airborne radar operators. During the war he was given five battle stars, two theater combat ribbons, three Air Medals, and two Distinguished Flying Crosses. After being released into the Army reserves in 1945, he entered Iowa State College, earning a degree in aeronautical engineering in 1951. Not long afterwards he was recalled to active duty and assigned to the Air Technical Intelligence Center (ATIC) at Wright-Patterson Air Force Base in Dayton, Ohio. There he worked on classified technical projects.

On September 10 and 11, 1951, a series of dramatic visual sightings and radar trackings of fast-moving UFOs at Fort Monmouth, New Jersey (see **Fort Monmouth Radar/Visual Case**), brought to a boil simmering concerns among top service personnel about the militantly skeptical stance of **Project Grudge**, the Air Force's official UFO-investigating body. The Army Signal Corps radar center at Fort Monmouth teletyped a detailed report of the incident both to

Wright-Patterson and to Air Force headquarters in Washington, and almost immediately Maj. Gen. C. B. Cabell ordered an investigation by ATIC, which sent two lieutenants (one of them Grudge head Jerry Cummings) to the scene. Over two days the officers interviewed all the witnesses and radar operators, then flew to Washington for a morning meeting at the Pentagon. Those who grilled the officers made no secret of their impatience with the "hoax, hallucination, and misidentification" approach Grudge had taken. Cabell ordered a new UFO project.

Before the month was over, Lt. Col. N. R. Rosengarten, chief of the Aircraft and Missiles Branch of ATIC, had asked Ruppelt to head the project. Ruppelt remained with it for two years, leaving it (and the Air Force) in September 1953. He immediately busied himself with efforts to speed up reporting procedures, to brief Air Force officers on the dimensions of the UFO problem, to develop a standardized questionnaire for witnesses, and to obtain a statistical study of UFO characteristics. He was hampered by inadequate funding, but in early 1952 Grudge was given the new code name **Project Blue Book** and upgraded in importance. Because of the competence he had already demonstrated, the relatively low-ranking Ruppelt was allowed to remain in charge, though under normal circumstances new leadership would have been brought in and the project given to an officer with at least the rank of colonel.

During Ruppelt's reign Blue Book dealt with some of the most celebrated cases in UFO history, including the **Washington National radar/visual sightings**, the **Lubbock lights**, and others. Ruppelt and his staff analyzed over 4500 sightings, finding conventional solutions for most but acknowledging one-fourth remained puzzling even after extensive study. Most observers of Blue Book agree that the Ruppelt years comprised the project's golden age, when the investigations were most capably directed and conducted. Ruppelt himself was open-minded about UFOs, and his investigators were not known, as Grudge's were, for forcing explanations on cases when they did not fit.

In 1956 Ruppelt published an account, part memoir, part history, of the Air Force's UFO projects, *The Report on Unidentified Flying Objects*, regarded as one

of the major works in the UFO literature. Until the Blue Book files were made available many years later, it was the only authoritative inside account of the Air Force handling of the UFO phenomenon. It was full of startling revelations, such as that in the summer of 1948, in the wake of the **Chiles-Whitted sighting**, investigators from **Project Sign**, the first Air Force UFO project, concluded that the "flying discs" were interplanetary and sent a Top Secret "**Estimate of the Situation**" so stating up the chain of command. "It got to the late General Hoyt S. Vandenberg, then Chief of Staff," Ruppelt wrote, "before it was batted back down.... A group from ATIC went to the Pentagon to bolster their position but had no luck." Some months later the estimate was declassified and burned. After first denying it, the Air Force eventually acknowledged that such a document had existed (Jacobs, 1975).

Besides recounting many heretofore-unpublished UFO sightings by military and government personnel, Ruppelt exposed gross incompetence, especially during the Grudge period (which he characterized as the "Dark Ages"), and behind-the-scenes factional fighting within the Air Force over how to deal with UFO reports. Though outspokenly critical of **Donald Keyhoe** and other civilian ufologists who were accusing the Air Force of covering up UFO secrets, Ruppelt wrote that the best cases were indeed puzzling and even suggestive. He concluded his book, "Maybe the final proven answer will be that all of the UFOs that have been reported are merely misidentified known objects. Or maybe the many pilots, radar specialists, generals, industrialists, scientists, and the man on the street who have told me, 'I wouldn't have believed it either if I hadn't seen it myself', knew what they were talking about. Maybe the earth is being visited by interplanetary spaceships. Only time will tell."

Most readers of the book got the impression that Ruppelt thought time was more likely to tell the latter than the former, and UFO proponents were ecstatic, foes enraged. A *New York Times* reviewer treated Ruppelt as a virtual flying-saucer "cultist." Capt. Charles A. Hardin, then head of Blue Book, happily quoted the reviewer's most scathing remarks in a letter to Gen. Harold E. Watson of Air Force Intelligence, noting that the recently released, dismissive **Project Blue Book Special Report 14** "is serving well

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ESTIMATE OF THE SITUATION

In late July or early August 1948, in the wake of the July 25 **Chiles-Whitted sighting**, in which a cigar-shaped UFO with portholes and a flaming exhaust nearly collided with an Eastern Airlines DC-3 over Montgomery, Alabama, personnel at **Project Sign**, the U.S. Air Force's first known UFO project, drafted an intelligence report, an "estimate of the situation."

The estimate of the situation was, according to **Edward J. Ruppelt**, who headed the later **Project Blue Book**, a "rather thick document with a black cover ... printed on legal-sized paper. Stamped across the front were the words TOP SECRET" (Ruppelt, 1956). After reviewing reports from scientists, pilots, and other credible observers, it concluded that the best evidence indicated an extraterrestrial origin for UFOs.

The report made its way through channels until it got to Air Force Chief of Staff Gen. Hoyt S. Vandenberg, who rejected it on the grounds that its authors had not proven their case. Some months later it was declassified and all copies were ordered to be burned, though, Ruppelt noted, a "few copies, one of which I saw, were kept as mementos of the golden days of the UFOs." This turn of events caused proponents of interplanetary visitation to go out of official favor and to be reassigned. Officers who considered UFOs to be misinterpreted mundane phenomena rose to power in **Project Grudge**, which replaced Sign.

No copies of this near-legendary document have surfaced since, though its existence has been confirmed by Dewey J. Fournet, Jr., who as an Air Force major in the Pentagon served as liaison with the official UFO project headquartered at Wright-Patterson Air Force Base in Dayton, Ohio (Hall, 1964; "New Debunking Campaign," 1960/1961). Nonetheless for years the Air Force, which by the mid-1950s would be consistently hostile to claims that UFOs have an extraordinary origin, denied that there ever had been such an estimation of the situation (Hall, *op. cit.*). Lt. Col. Lawrence J. Tacker, the Air Force's official UFO spokesman, would declare that such a document existed only in the imaginations of "avid saucer believers" (Tacker, 1960), even though the Air Force had cleared Ruppelt's book for publication ("Was Ruppelt Book Cleared?", 1957).

In the early 1980s, while attending one of a number of regularly scheduled meetings of intelligence officers, Kevin D. Randle, a U.S. Air Force Reserve captain who years later would investigate the Roswell incident (a reported UFO crash in New Mexico in July 1947; see **Crashes of UFOs**), met a colonel who said he had worked at the Air Technical Intelligence Center (which oversaw the Air Force UFO projects) in the late 1940s. The officer told Randle that the fabled estimate had been hand-delivered by courier to Vandenberg, who handed it back with instructions that two paragraphs be removed. The informant (since deceased) said these paragraphs referred to physical evidence recovered in New Mexico.

According to Randle's paraphrase of the account, Sign personnel "finished writing their report knowing that without the physical evidence, it was nearly

terrestrial visitors, and the Air Force knows it but won't admit it—and his scoop made the press wires.

Over the next four years Edwards mentioned UFOs often on his broadcasts. Meanwhile, despite his considerable listenership, his superiors at the AFL grew ever more displeased with his freewheeling commentary. In late 1951 he was given an "assistant" who read all the scripts and approved them before they could be read on the air. By the spring of 1954, Edwards would write in his autobiography, "The AFL censor began pressing for more international malarkey in the broadcasts, including twelve such 'suggestions' in one program. More foreign news, more puff stories for a few AFL chieftains, less of the material that had made the program one of the nation's top radio news shows" (Edwards, 1956a). On August 7 Edwards sent George Meany of the AFL Executive Council a letter of resignation, effective at the end of the next 13-week broadcasting cycle. In response, on the eleventh, Meany fired him, effective immediately.

Edwards's attorney put out a statement to the press giving his client's reasons for the less-than-amicable parting: "Mr. Edwards finds Mr. Meany's demands totally unacceptable because they varied and violated the terms of his contract, and, in practice, amounted to a directive to slant the news to fit Meany's personal ambitions, animosities and prejudices" (*ibid.*) For its part the AFL complained that Edwards "failed to differentiate clearly between news and opinion." At a press conference, in an apparently off-the-cuff remark, Meany said he had fired Edwards because "he talked too much about flying saucers," but this evidently was not the real reason. Edwards would point out that "I broadcast only 17 such brief reports in eight and a half months of 1954" (Edwards, 1957).

He joined the staff of Hullinger Productions, a Washington-based company which had been formed to make news-oriented television movies. The pilot program consisted of a debate between Keyhoe and airline pilot/UFO witness William Nash on one side and debunkers Willy Ley (a popular science writer) and Jonathan Leonard (*Time's* science editor). Despite initial enthusiasm the production company was unable to sell the show to the networks. Edwards suspected that the Pentagon, never happy with his public charges of a UFO cover-up, had used its

influence to kill the show. Soon afterwards he felt his suspicions had been confirmed when he was invited to lunch by a "fellow who called himself General Gamble." Gamble offered him a high-level job with the Defense Department at \$18,500 a year starting salary, plus expenses. He would be his own boss and could fly free on military aircraft. Gamble would not tell him, however, what the job was. A captain who accompanied Gamble would say only that the job was an unusual one.

Edwards claimed to have recorded the conversation with a concealed tape recorder. He asked, "How do you fellows know that I have any special qualifications for this job you're talking about?" According to Edwards, the general replied, "You have shown a lot of interest in it.... You have often mentioned it in your broadcasts—that is why we have contacted you." The captain added that the job would take him to some out-of-the-way places where he would see things few people had seen. He would, of course, be sworn to secrecy. Edwards turned down the job offer (*ibid.*).

He returned to Indianapolis, where he would live for the rest of his life, working as a commentator on local radio and television stations. From 1959 to 1961 he resumed broadcasting for Mutual. He also kept himself busy writing on UFOs and other unexplained phenomena, contributing more than 40 articles to the pulp digest *Fate* between 1957 and 1963. He also wrote an autobiography, *My First 10,000,000 Sponsors* (1956), and the first of three books consisting of short chapters on various "true mysteries," *Strangest of All* (1956)—a format that would be widely imitated, most successfully by Brad Steiger, in the 1960s and 1970s.

In 1966, with public interest in UFOs fueled by an ongoing wave of sightings, his *Flying Saucers—Serious Business* hit the best-seller lists. Despite its popular success the book was criticized by ufologists for its many factual errors and careless reporting. Coral Lorenzen of the **Aerial Phenomena Research Organization** characterized it as "catastrophic to researchers who deal with facts" (Lorenzen, 1966). A follow-up book, *Flying Saucers—Here and Now!*, appeared the next year.

Edwards died on June 23, 1967.

impossible to prove their case.... Vandenberg saw the final document, dated 5 August 1948. After reading it, he said that the conclusions weren't warranted without physical evidence. But the paragraphs that had contained information about the physical evidence had been eliminated by Vandenberg's orders" (Randle, 1989).

At the time Randle knew nothing of the Roswell incident. His informant provided no more information on what the "physical evidence" consisted of, and Randle would make the connection only years later.

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EXTRATERRESTRIALISM

In the 1970s the concept of "ancient astronauts" became widely popular through the writings of Erich von Däniken, even though, as early as the 1950s, books by Desmond Leslie, **M. K. Jessup**, and **George Hunt Williamson** had made similar arguments about extraterrestrial visitation and interaction with humanity thousands of years ago. The most learned

proponent of such ideas is also the least-remembered (and arguably least-understood): a rabbinical scholar named Yonah Fortner, who, writing under the name Y. N. Ibn Aharon, proposed a radically revised—some would say science-fictional—version of early human history.

In a 1977 interview (Steinberg, 1977) Fortner related that he began reading Chaldean literature, in the original Aramaic, when he was eight years old. In due course he was fluent in a number of ancient languages. From his reading he developed a theory he called "extraterrestrialism," which he outlined in a series of articles for **James W. Moseley's** *Saucer News*. Extraterrestrialism held that the Chaldeans possessed an extraordinary technology and an advanced physics. They met aliens known as the Elohim, who were devoted to the making of prophecy. The Elohim and the Chaldean intermarried, although the Elohim did not necessarily have the human race's best interests at heart.

The Chaldeans were also familiar with a race of beings referred to as the Titans, who came from another world and for a time settled in Central Asia and what is now Nigeria. The Titans came to earth because they were "trying to escape some thing or condition.... The Chaldeans were insistent on the voluntary nature of the Titans's departure, and said that they left because they felt that, as our race was native here, the planet belonged to us." Nonetheless they maintained some kind of friendly communication with the Chaldeans, even rescuing survivors of the Great Flood. A malevolent alien race was also on the scene, the Serpent people, whom the Titans forced underground when they arrived, though the Serpent race had been here even before biological evolution began on earth. According to Fortner, "They interrupted the homogenous development of our race during the period between 3,000 and 500 B.C., and they interfered badly in the government of predynastic Egypt, as well as of the mountain states of Central Asia and China. There is some evidence that they are still around" (Ibn Aharon, 1957/1958).

Yet another alien group was the Nakhsha, who were human in appearance. "One member of this race, namely the God of Israel," Fortner wrote, "is the

target of Western monotheism at the present time" (*ibid.*).

Under extraterrestrial guidance human culture emerged from its primitive beginnings around 27,000 B.C. into intertribal unity, with a common language and culture. The priests functioned as diplomats; they "dealt and quibbled with our neighbors in space in much the same way as we might deal and quibble with the emissary of an influential foreign power" (Ibn Aharon, 1958a). This golden age began 2000 years before the Great Deluge (which destroyed Atlantis) of 9000 B.C. "The average human of those days could visit the nearby planets with ease," according to Fortner, "and he was acquainted with terrestrial geography at first hand" (*ibid.*).

Eventually conflict broke out between the many extraterrestrials now settled on earth as well as between human beings and aliens. One source of conflict was the arrival, in 1340 B.C., of an extraterrestrial named Shaday Elili Athunu, otherwise known as Y'hova, who befriended the citizens of Elam Asur, near the headwaters of the Nile. He met a local (human) malcontent, Abraham, who complained about the high-handed ways of the rich people of the city. Y'hova agreed, adding that the priests were also evil, their knowledge dangerous and destructive. Y'hova was the true god, and Abraham and his family must leave the city and offer up sacrifices to this new deity. Abraham's family did what it was told. During Abraham's wanderings Y'hova "proceeded to slaughter various among his own brethren, and to burn them in their cities, using the weapons of old, which had been built into his ships only for use among the stars" (1958b). It was during this period that Sodom and Gomorrah were destroyed by nuclear bombs. But Y'hova was doing nothing the other ET gods did not do, and in time, as Abraham himself matured into a wise prophet, Y'hova did well by his Chaldaic and Hebrew followers. This Y'hova became the God of the Christians and Jews.

Fortner insisted that the "God of Israel should not be confused with the general run of space visitors because he was either unique or very nearly unique in his decision to make a career among the people of earth. He was not a visitor. He was a dweller among us, but very importantly he was committed to us" (Steinberg, *op. cit.*). Yet he would leave over periods of

time, sometimes as many as 400 years at a stretch, and in his absence doubts about his existence would grow. Some of his followers would turn to other gods. When Y'hova returned, he would be furious at the neglect shown him and his teachings, and he would demand fresh sacrifices and new proofs of allegiance.

"I have to emphasize this," Fortner said, "that the God of Israel is an alien, he is not a human being.... The God of Israel is not an extraterrestrial in the sense of being an errant Martian or Venusian.... The God of Israel is a very august and ancient and perhaps nearly immortal being, who does not come from our visible universe at all. He comes from a higher order of being, a dimension beyond all known dimensions." With the birth of the modern state of Israel—"the restoration of Zion [which] is the proof of our god," in Fortner's words—it is evident that Y'hova is back among us, speaking to certain unnamed prophets in the Israel. "I believe that the God of Israel is making and has made certain categorical demands of this generation, and that he is increasingly able to enforce his views by selective interference and selective use of his special gifts and attributes on behalf of those who do his will" (*ibid.*)

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and in due course given a Section Eight discharge from the Army. Childers soon faded back into obscurity.

Childers's first wife told Detroit investigators that her husband got his stories from science-fiction comic books. His mother remarked that Lee "has always been a problem child" (*ibid.*).

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PROJECT A

In July 1952 the administration and faculty of Ohio Northern University, a small Methodist school located in Ada, vowed to put their collective expertise together to solve the UFO mystery. They announced the formation of Project A, Investigation of Phenomena, and said that members of the engineering, pharmacy, law, and liberal arts colleges would examine the available evidence under the direction of Warren Hickman, the university dean.

Project personnel sought reports from the public and collected clippings from American and foreign newspapers. Correspondents were sent copies of a questionnaire, as were witnesses whose addresses were given in news stories. In return the project received a disappointing 54 completed questionnaires; it believed it needed a minimum of 200 to conduct a scientific sampling. In the first of two reports on its work, Project A drew some "general conclusions," notably that the objects were usually disc-shaped, silent, and fast-moving. "Our major conclusion to date is that no one explanation fits all sightings," the report stated, "and about twenty percent of the sightings definitely fit the category of unnatural phenomena" (*Project A*, 1953).

Hoping to gather more reports, project personnel wrote civilian UFO organizations and asked if they would share the reports that came their way. One

such group, the Los Angeles-based **Civilian Saucer Investigation** (CSI), was in the process of closing down, and its head, aviation writer Ed J. Sullivan, said he would be willing to give CSI's files (consisting of about 1000 sightings) to the project; first, however, he had to secure permission from other CSI officers. But when that permission was not immediately forthcoming, university officials closed down Project A in mid-1954. A final two-page report gave the reason as lack of cooperation from the public and the civilian organizations.

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PROJECT BLUE BOOK, 1952-1959

In March 1952 the U.S. Air Force's UFO-investigation group **Project Grudge**, having been reinvigorated since the appointment the previous September of Capt. **Edward J. Ruppelt** as its head, was upgraded and given a new formal name, Aerial Phenomena Group, and codename, Project Blue Book. According to Ruppelt, "Blue Book was derived from the title given to college tests" (Ruppelt, 1956). Years later the man who chose it, Lt. Col. Charles Cooke, said he wanted a name, presumably unlike **Project Sign** or **Grudge**, "without overtones" (Gross, 1982).

With reports on the upswing, Ruppelt laid plans for a more comprehensive investigation than any done previously. With Air Technical Intelligence Center's (ATIC's) electronic, analysis, and investigating groups, as well as the radar section, cooperating fully with Blue Book, Ruppelt hoped to gather hard data. On March 19 he and other ATIC representatives briefed the Air Defense Command (ADC) leadership and asked its assistance in getting scope-camera film of UFOs as they were being tracked on ADC radar.

Exactly one week later Ruppelt met with Cambridge



Astronomer Josef Allen Hynek, of Ohio State University and later Northwestern University, served as chief scientific consultant to the U.S. Air Force's UFO projects Sign, Grudge, and Blue Book.

Research Laboratory scientists (known as the Beacon Hill Group) who advised the Air Force on technical matters. "Several excellent suggestions were offered," according to a classified Blue Book Status Report (No. 5, dated March 31, 1952). "One was to employ sound detection apparatus in the location where concentrations of sightings have been reported.... In the future, cameras, professionally termed 'patrol cameras', will be developed that can detect such objects" (*United States Air Force*, 1968).

During a visit to Wright-Patterson Air Force Base in Dayton, Ohio, where Blue Book was headquartered, physicist Joseph Kaplan, an Air Force Scientific Advisory Board member involved in the study of the Southwest's mysterious **green fireballs**, suggested a special diffraction grid be placed on patrol cameras, allowing spectrum analysis of apparent UFOs. This spectrum, Blue Book noted, would then be "matched

with the spectrum of known objects.... The system will afford a means of determining whether reported objects are actually some new type of aircraft or merely misidentification" (*ibid.*).

On April 5 Air Force Letter 200-5 was issued to intelligence officers at bases everywhere, directing them to report UFO sightings immediately. Copies of these reports were to go to all major Air Force commands, the Air Force director of intelligence, and ATIC. The letter indicated that Blue Book personnel could contact any Air Force unit directly, bypassing the chain of command. "This was almost unheard of in the Air Force," Ruppelt noted, "and gave our project a lot of prestige" (Ruppelt, *op. cit.*).

Throughout 1952 Ruppelt and Blue Book were kept busy investigating major reports, such as the **Washington-National radar/visual sightings** and the still-controversial **Florida scoutmaster case**, and dealing with an enormous wave of sightings during the summer months. Ruppelt recalled, "The situation had never been duplicated before.... All records for the number of UFO reports were not just broken, they were disintegrated" (*ibid.*). Blue Book's eighth status report (December 31, 1952) stated, "During the period 1 Jun 52 to 31 Oct 52 ... 886 reports have been received.... This total of 886 represents 149 more reports than had been received during the previous five-year period this project has been in existence" (*United States Air Force*, *op. cit.*). The figure did not include the 800 reports that had come in via letters from the public.

That summer J. Allen Hynek, an Ohio State University astronomer and Blue Book scientific consultant, spoke with 44 fellow astronomers and solicited their views of the UFO phenomenon. Hynek learned that five had seen UFOs themselves. "This is a higher percentage than among the public at large," he observed.

"The great majority were neither hostile nor overly interested.... I took the time to talk rather seriously with a few of them, and to acquaint them with the fact that some of the sightings were truly puzzling and not at all easily explainable. Their interest was almost immediate, indicating that their general lethargy is due to lack of information on the subject. And certainly another contributing factor to their desire not

to talk about these things is their overwhelming fear of publicity" (*ibid.*).

Blue Book's dealings with scientists were pursued more formally with Battelle Memorial Institute personnel, who in late 1951 had been contracted by the Air Force to collect and analyze UFO data. ATIC was also working on Kaplan's plan to place two-lens stereo cameras—with a diffraction grating over one lens—at air bases and on some F-86 interceptor aircraft. The ADC ordered personnel to put radarscope cameras on 24-hour alert, for use immediately upon the tracking of an unidentified target. Blue Book also planned to put "visual spotting stations" in northern New Mexico, an area that "still consistently produced more reports than any other area in the U.S." (Ruppelt, *op. cit.*). These stations would be equipped with instruments and cameras.

Historian David M. Jacobs has written that "1952 marked the high point of the Air Force's UFO investigation" (Jacobs, 1975). For James E. McDonald, a University of Arizona atmospheric physicist who conducted an intensive study of the UFO question until his death in 1971, "the 24 months from October, 1951 through September, 1953, emerge as a kind of 'heroic period' of Air Force investigations ... the one interval during which UFOs were seriously and relatively vigorously investigated.... Just before that period lay the 'Dark Ages', as Ruppelt aptly labeled the 1949-51 era of Projects Sign and Grudge; and shortly after 1953 began a sort of new dark age when debunking and superficial investigations once again came to characterize [Blue Book's] response to the UFO problem" (*United States Air Force, op. cit.*).

The new dark age. The clogging of intelligence channels during the outbreak of UFO sightings over Washington, D.C., in late July 1952 had upset the Central Intelligence Agency, which feared that a hostile foreign power could take advantage of this sort of communications logjam. This concern, shared by some high-ranking Air Force officers, led to the convening, between January 14 and 17, 1953, of a CIA-sponsored meeting in Washington, at which a small group of skeptical scientists considered and rejected UFO evidence presented it in briefings by Ruppelt, Hynek, and others (*see Robertson Panel*). UFOs might not be a threat to national security, but

belief in them was, in the CIA scientists' estimation; such belief could cause hysteria and could be manipulated by "skillful hostile propaganda." From now on official efforts should be oriented toward debunking.

From then on Ruppelt's ambitions for a more sophisticated, better-financed investigation were to be frustrated. The various plans to put observers and instruments in place were abandoned, and Blue Book's staff was reduced. In February 1953 Ruppelt suggested that an ADC unit, the 4602nd Air Intelligence Service Squadron (AISS), conduct Blue Book's field investigations; by the end of the year it had taken on the task.

When Ruppelt left Blue Book in February for a temporary assignment elsewhere, a staff officer, Lt. Robert Olsson, took his place, and when Ruppelt returned, he found himself in charge of a project which consisted in its entirety of two subordinates and him. On his departure in August, the leadership of Blue Book was given to a noncommissioned officer.

That same month the Air Force issued Regulation 200-2, which instructed air base officers on how to handle UFO reports and ordered them to discuss them publicly only if they were judged to have been solved; otherwise they should be classified—at the minimum—at the Restricted level. To critics of the Air Force such as **Donald E. Keyhoe** this was evidence of a UFO cover-up; to those who knew of the CIA panel, however, this was simply a response to its recommendation to discourage popular interest and speculation. Whatever the reason, penalties for the violating of official policy were severe. In December 1953 the Joint Chiefs of Staff issued Joint-Army-Navy-Air Force-Publication (JANAP) 146; under the subheading "Canadian United States Communications Instructions for Reporting Vital Intelligence Sightings," the unauthorized release of a UFO report became a crime under the Espionage Act, punishable by up to 10 years in prison and a \$10,000 fine.

The once-monthly Blue Book status reports were issued with decreasing frequency, with a greater emphasis on the solving of cases and, as Hynek would remark acidly many years later, the "issuance of propaganda and public relations handouts, which

were often ill-considered and contradictory" (Hynek, 1972).

Under Capt. Charles Hardin (who was appointed Blue Book director in March 1954), the 4602nd assumed a larger and larger role in investigation and analysis, and in February 1955 ATIC told AISS' commander that the purpose of the investigation was to minimize the number of unsolved cases. To accomplish that, according to Jacobs, "the Air Force now broadened the identified category to include probable and possible. These vague subcategories allowed the investigators to identify a report based on their estimate of the probability that the sighting was [of] a known phenomenon. If investigators could not definitely identify a sighting, they could solve the problem, and the case, by placing it in one of these two broadly defined categories. In press releases and final Blue Book evaluation statistics, the probable and possible subcategories disappeared and Blue Book listed the sightings as identified" (Jacobs, *op. cit.*). By the end of 1956 the number of cases listed as unsolved had dwindled to 0.4 percent, from a high of 20 to 30 percent in earlier years.

Though the Battelle Memorial Institute study was completed in 1954, it was not released to the public until October 25, 1955, incorporated into *Project Blue Book Special Report 14*. The report declared it was "highly improbable that any of the reports of unidentified aerial objects examined in this study represent observations of technological developments outside the range of present-day knowledge." Though Bruce Maccabee and other critics would later argue that the report's own data indicated otherwise (Maccabee, 1979), the report was lauded in the press as the final word on UFOs and served—as was apparently its purpose—to lessen the impact of the cover-up charges Keyhoe was making in his just-released, best-selling *The Flying Saucer Conspiracy* (1955).

In April 1956 Capt. George T. Gregory, a debunking hardliner, took over Blue Book and led it in an even firmer anti-UFO direction. In July of the next year, after the 4602nd was disbanded, the 1006th AISS took over what now passed for UFO investigations, then saw its funding reduced. (The 1127th Field Activities Group assumed investigative responsibilities in July 1959 but seldom acted on them.) A revised

AFR 200-2, issued in February 1958, stated the obvious: "Air Force activities must reduce the percentage of unidentifieds to the minimum."

An example of how this was done occurred in early November 1957, after a series of close encounters in west Texas received national attention (*see Levelland Sightings*). Some of the witnesses reported that their car and truck engines failed in the presence of an enormous luminous egg-shaped object (125 feet in diameter in one estimate, 200 in another). Among the observers were local law-enforcement personnel, including the county sheriff. The sightings took place over a three-hour period. The Air Force sent a single investigator, a sergeant in civilian clothes, who showed up at noon two days later, spoke with only a few of the witnesses, and left before the day was over. The official explanation, announced soon after, was that an electrical storm was in progress—not true—and that "ball lightning"—seldom more than a few inches in diameter, never more than a few feet—was responsible for the incident, even though, as Hynek (who in the 1960s fell out of sympathy with Blue Book even as he remained at least a nominal consultant) would remark, there is no "evidence that ball lightning can stop cars and put out headlights" (Hynek, *op. cit.*).

Maj. Robert J. Friend took over Blue Book in October 1958. Trained as a physicist, Friend was personally less hostile to UFO reports than Gregory had been, but his efforts to upgrade the files and catalog sightings according to various observed characteristics were frustrated by lack of funding and assistance. In 1959 ATIC considered dumping Blue Book, then decided to try to transfer it to the Air Research and Development Command and, failing that, to the Secretary of the Air Force's Office of Information, which was not interested either.

Beginning in February 1959, Hynek brought together ATIC and Blue Book staffers in a series of informal meetings, where scientific and public-relations problems were reviewed. Members of the group agreed that eventually the term "unidentified flying objects" should be jettisoned and old cases—the ones private ufologists were reviving in an effort to show UFOs remained unexplained—be reexamined in light of "greater scientific knowledge" which would move

them "from the 'unknown' category" to reclassification in the explained category (Jacobs, *op. cit.*). The group held its last meeting in 1960.

NICAP, Congress, and Blue Book. In January 1957 Donald Keyhoe assumed directorship of the **National Investigations Committee on Aerial Phenomena** (NICAP) and immediately set out to use it as a vehicle to pressure the Air Force to reveal what Keyhoe believed it knew about UFOs but wasn't telling. (Keyhoe's belief in a cover-up was based on his experience as both private journalist and NICAP head. From friends and other sources within the military he repeatedly was told of sightings, often of a dramatic, evidential nature, that—while, supposedly, officially reported—were absent from Blue Book records.)

Not just another flying-saucer club, NICAP included on its board of directors such luminaries as retired Rear Adm. Delmer S. Fahrney, who had headed the Navy's missile program; retired Vice Adm. Roscoe H. Hillenkoetter, first CIA director; retired Air Force Maj. Dewey Fournet, Pentagon liaison officer for Blue Book; retired Rear Adm. Herbert B. Knowles; Albert M. Chop, former Air Force Pentagon press spokesman; and other military officers, scientists, clergymen, and prominent citizens. In a much-publicized NICAP press conference, Adm. Fahrney, saying that UFOs appeared to be intelligently controlled but neither American nor Soviet in origin, implied that UFOs were visitors from outer space.

Keyhoe had been stirring popular doubts about the Air Force's handling of UFO matters since 1950, when his article "The Flying Saucers Are Real" in the January issue of *True* caused a sensation. He had gone on to write three books attacking UFO secrecy. One of these books, *Flying Saucers from Outer Space* (1953), drew heavily on official reports Keyhoe had managed to get declassified through the efforts of Chop and Fournet, who shared Keyhoe's conviction that UFOs were important, possibly even interplanetary. The Air Force subsequently charged that Keyhoe had obtained the cases illegally, but after Chop signed an affidavit attesting otherwise, the Air Force was forced to acknowledge Keyhoe had done nothing wrong. Keyhoe saw the episode as the result of a "fierce battle [which] had developed between the censor-

fighters [Chop, Fournet, Ruppelt] and the silence group" (Keyhoe, 1955).

Soon after Keyhoe took charge at NICAP, the organization offered a "permanent Air Force-NICAP liaison, to clear up misunderstandings.... The NICAP Board and Panel of Advisers would examine the UFO cases listed as solved by the Air Force. If they agreed, NICAP would endorse the answers publicly." NICAP would also help the Air Force "prepare the public for whatever conclusion might be officially disclosed later" (Keyhoe, 1960). The Air Force declined the offer.

Keyhoe and NICAP lobbied hard, though with little success, for Congressional hearings. In January 1958 the Senate Subcommittee on Government Operations briefly considered them, but Richard Horner, the Air Force's assistant secretary for research and development, persuaded the subcommittee's chief counsel that the hearings were neither good for the Air Force nor necessary for national security, since Blue Book had the situation well in hand. The following June Blue Book briefed several interested House members, who left convinced that hearings would serve no purpose. In August Blue Book head Capt. Gregory convinced the House Subcommittee on Atmospheric Phenomena that private groups such as NICAP were more interested in profits than facts and should be ignored.

In October the Air Force released a fact sheet which asserted that, owing to "refinements" in its investigatory procedures, unsolved sightings were now being reduced to negligible numbers (1.8 percent). At the same time a secret staff study by Air Force intelligence officers addressed the public-relations problems caused by Keyhoe, whom it characterized as a "political adventurer" now allied with Ruppelt. This was a bizarre and false allegation; in 1957 Ruppelt had refused Keyhoe's offer to become a NICAP adviser and had privately embraced—and by 1959 would publicly embrace—Blue Book's anti-UFO line. Both Keyhoe and Ruppelt, the study charged, were in the UFO "business" strictly for the money; yet together they "represent a formidable team from which plenty of trouble can be expected" (Jacobs, *op. cit.*). The study recommended that 18 to 20 personnel be assigned to temporary UFO-investigation duty;

they would investigate—and presumably solve—reports, such as those published in newspapers, that had not been sent directly to Blue Book. These were the kinds of reports NICAP and other civilian organizations found useful for their purposes, and the Air Force needed to counter their efforts. Though ATIC urged implementation of the plan, Air Force Headquarters killed it (*ibid.*).

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PROJECT BLUE BOOK SPECIAL REPORT 14

Project Blue Book Special Report 14 (dated May 5, 1955) was released, with considerable fanfare, on October 25, 1955. An accompanying press release stated that a "private scientific group under the supervision of the Air Technical Intelligence Center [ATIC] at Dayton, Ohio," had disproven the existence of UFOs. It quoted Secretary of the Air Force Donald A. Quarles: "On the basis of this study we believe that no objects such as those popularly described as flying saucers have overflown the United States. I feel certain that even the unknown three per cent could have been explained as conventional phenomena or illusions if more complete observational data had been available."

Though others would dispute this interpretation of the study's findings, Quarles's remarks would receive the enthusiastic and uncritical endorsement of mainstream media as eager as the Air Force to discourage

continuing popular speculation about extraterrestrial visitation. *Time's* science editor Jonathan N. Leonard hailed the study, whose contents comprised *Report 14*, as "massive, intelligent, painstaking and detailed ... a cruel blockbuster" for UFO "cultists" ("Saucer Blue Book," 1955). But to former **Project Blue Book** head Capt. Edward J. Ruppelt, who had helped initiate it four years earlier, this was "not a good study" (Ruppelt, 1956b). Nonetheless, as historian David M. Jacobs has written, "by 1956 *Special Report 14* had become the cornerstone of the Air Force's position on UFOs ... that the Air Force had 'scientifically' studied UFOs and found no evidence for their existence as a unique phenomenon" (Jacobs, 1975).

Background. On December 26 and 27, 1951, Ruppelt, then director of **Project Grudge** (to be renamed Blue Book less than four months later), and Col. S. H. Kirkland of ATIC met with members of the Battelle Memorial Institute, a think tank based in Columbus, Ohio, and asked them to lend their assistance to the Air Force's revitalized UFO investigation. "Besides providing experts in every field of science, they would make two studies for us[:] a study of how much a person can be expected to see and remember from a UFO sighting, and a statistical study of UFO reports. The end product of the study of the powers of observations of a UFO observer would be an interrogation form" (Ruppelt, 1956a). Battelle agreed on January 8, 1952, to take on the project, noting, "It is reasonable to believe that some type of unusual object or phenomena [sic] is being observed as many of the sightings have been made by highly qualified sources" (Maccabee, 1979).

Project Stork, the classified codename of the Battelle study, officially started on March 31, under the supervision of William Reid. There were five listed requirements: "Provide a panel of consultants.... Assist in improving interrogation forms.... Analyze existing sighting reports.... Subscribe to a clipping service.... Apprise the sponsor monthly of all work done" (Gross, 1982).

By early June Stork personnel had drawn up a list of approximately 30 report characteristics to be coded onto IBM cards and prepared a tentative sighters' questionnaire. That summer Stork had to deal with a

flood of reports resulting from one of history's major UFO waves, sightings not only of increased quantity (more than tripling) but of improved quality as well. As Stork noted in its seventh status report (November 10, 1952), these "reports are now in more detail and often consist of sightings of one object by more than one individual."

Stork was to have completed the analysis by October 1, 1953, but apparently its work continued as late as the spring of 1955. Stork's findings were incorporated into Blue Book's fourteenth status report. (The previous status report, dated September 30, 1953, was the twelfth. It is believed that the proposed thirteenth became *Report 14*, perhaps, as Herbert J. Strentz has suggested, because of a "military form of triskaidekaphobia" [Strentz, 1970].)

Contents and conclusions. Stork's cases came from military sources or from completed versions of the questionnaire it had developed; a small number were "in the form of direct letters from unquestionably reliable sources." After weeding out some 800 reports which were too poorly documented to be useful, it considered the remaining 3201, the bulk of them from **Project Sign**, **Grudge**, and Blue Book files of sightings from June 1, 1947, through December 31, 1952. These were then broken down into nine categories of evaluation: balloon, astronomical, light phenomena, birds, clouds and dust, insufficient information, psychological, unknown, and other.

The first step in the evaluation was to ascertain the essential facts from the reports. The second involved determination of the observer's credibility and the report's self-consistency as well as its general quality. The third step was the categorization or identification of the object.

The initial identification was done by the individual who transcribed the report onto a worksheet. Afterwards a member of the identification panel judged the report without knowing what the other person's conclusions were. If the two arrived at the same identification, it was accepted as the final conclusion—but only if one or the other or both did not call the object an unknown. If they disagreed on a conventional explanation, other panel members analyzed the case. If either or both suggested the object was an unknown, the whole panel studied the case.

Bruce Maccabee, a physicist who would later write a comprehensive, and largely critical, review of *Report 14*, remarks that "it should be clear that [Stork personnel] took special precautions to assure that UNKNOWNS really were unknown" (Maccabee, 1979/1983). The unknowns were defined as "those reports of sightings wherein the description of the object and its maneuvers could not be fitted to the pattern of any known object or phenomenon."

Stork asserted that statistical analysis (including a chi-square technique used to determine whether one thing is truly different from or identical to another) uncovered "no trends, patterns, or correlations"; thus "the probability that any of the UNKNOWNS considered in this study are 'flying saucers' is concluded to be extremely small, since the most complete and reliable reports from the present data, when isolated and studied, conclusively failed to reveal even a rough model."

The critics. Only 100 copies of *Report 14* were printed initially. These were sent to Air Force public information officers, but eventually more copies were made available after California Congressman John E. Moss, chairman of the House Subcommittee on Government Information, pressed the Air Force on the matter. Probably the widest distribution, at least among ufologists, came from the efforts of Leon Davidson, formerly a scientist at Los Alamos Scientific Laboratory and a member of an informal group of scientists and engineers who had studied the epidemic of sightings of **green fireballs** in New Mexico in the late 1940s and early 1950s. In 1956 Davidson printed and sold copies of *Report 14*, together with his analysis and commentary.

Early on Davidson had become convinced that flying saucers were secret devices developed by the U.S. government. In his view *Report 14* was a clever attempt to hide this fact. Davidson focused the bulk of his analysis, however, on the curious discrepancy between, on one hand, the October 25, 1955, Air Force press release and the report's "Summary" and, on the other, the report's content.

He remarked on the interesting fact that in the Stork study "Unknown sightings constitute 33.3% of all the object sightings for which the reliability of the sighting is considered 'Excellent'." The chi-square test

had shown, as even *Report 14*'s authors had to acknowledge, that "there was very little probability that the Unknowns were the same as the Knowns. But they refused to admit that this meant that 'saucers' could be a real type of novel object."

The **National Investigations Committee on Aerial Phenomena** (NICAP) disputed *Report 14*'s claim that the absence of uniformity in witnesses' descriptions of UFOs made it impossible to construct a model flying saucer. NICAP cited these words from a 1949 Grudge analysis: "The most numerous reports indicate daytime observation of metallic disc-like objects roughly in diameter ten times their thickness." It added, "From this official description a working model of a UFO or a flying saucer can be built without the slightest trouble" ("Serious Flaws," 1958).

A later critic, physicist and ufologist Stanton T. Friedman, complained that the Air Force's claim of a mere three percent of unknowns was false; in fact, it "only referred to a small group of 131 sightings looked at under pressure to reduce (by one means or another) the percentage of the Unknowns in the six months preceding the issuance of the press release.... [W]hen one examines the quality distribution [one] finds that the better the quality of the sightings the MORE likely they could *not* be identified and the least likely that they were 'insufficient information' sightings.... [A] careful examination of this document leads one directly to the explanation that some of the objects which were reported were intelligently controlled extraterrestrial vehicles observed by competent observers for an extended period of time under good viewing conditions.... [T]he conclusions and press releases bear little relationship to the data" (Friedman, 1971).

Subsequently, in a more comprehensive critique, Friedman stated that the unknowns seldom bore any resemblance in either appearance or behavior to the knowns. Typically the former "were described as metallic symetric [sic] discs, or in some cases, much larger cigar shaped objects into and out of which the discs would fly," with extraordinary performance characteristics (Friedman, 1979).

Another critic was no less than Blue Book's onetime chief scientific consultant, astronomer J. Allen Hynek,

who expressed astonishment at Stork's allegation that there was no clear difference between the knowns and the unknowns. *Report 14's* conclusion, he wrote, "completely disregards the results of these [chi-square] tests almost brazenly, as if they did not exist." The result was, in his estimation, "utterly incredible" (Hynek, 1977).

The most thorough reevaluation of the report was conducted by Bruce Maccabee, an optical physicist interested in UFOs. Maccabee found that *Report 14's* data indicated that the "best qualified observers make the best reports and are most likely to be reporting true UNKNOWNs, while the poorest observers make the poorest reports (most INSUF. INFO. [insufficient information]) and are the least likely to be reporting true UNKNOWNs." Most of the objects that figured in the unknowns were visible for a longer period of time than most of the known objects—which, according to Maccabee, "contradicts the generally held feeling that most UNKNOWNs result from short term observations."

In trying to dispose of a finding they apparently found intuitively unacceptable, the Stork analysts could only guess that the "psychological make-up" of witnesses in the unknown cases, plus a single unrecognized source (balloon, airplane, "atmospheric distortion," or other conventional stimulus) for many of the sightings, had skewed the results so as to create an artificial distinction between knowns and unknowns. Maccabee dismissed the argument as "weak in view of the pains [the analysts] apparently took to identify all cases" (Maccabee, 1979/1983).

The analysts then decided that since astronomical explanations figured in the knowns, the unknowns might be the same as the knowns, except that with the former astronomical sightings had been removed. Seeking a match, the analysts deleted the astronomical category from the knowns, then compared them to the unknowns—to little effect. Finally they were reduced to the speculation—which explicitly defied their finding that the unknowns tended to be reports for which the *most* information was available—that unknowns were such because of the "unavailability of supplemental data," even though "insufficient information" was another category entirely.

Maccabee wrote that when *Report 14's* data were

analyzed, the claim could be made that the "probability that the characteristics [in color, duration of observation, number, light brightness, shape, and speed] of the UNKNOWNs match the characteristics of the KNOWNs is comparable to the product of the probabilities of these six tests, a number that is small to say the least: 0.000000000625! Being somewhat more conservative, I think that it would be reasonable to claim that the probability that the distributions all match (i.e., the probability that the UNKNOWNs equal the KNOWNs at least statistically) is much less than 1%" (*ibid.*).

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PROJECT GRUDGE

With the initiation of Project Grudge, wrote **Edward J. Ruppelt**, who would serve as the project's last director and the first of its successor, **Project Blue Book**, the "Dark Ages" of U.S. Air Force UFO study began. Reports were now "being evaluated on the premise that UFOs couldn't exist. No matter what you see or hear, don't believe it" (Ruppelt, 1956).

Following the rejection by Air Force Chief of Staff Gen. Hoyt S. Vandenberg of the **Estimate of the Situation**, prepared by the pro-extraterrestrial-visitation faction of **Project Sign**, the project (headquartered at Wright-Patterson Air Force Base, Dayton, Ohio) was taken over by personnel who were convinced that all reports could be accounted for in conventional terms. Plans for an expanded investigation were cancelled. On February 11, 1949, Sign was renamed Grudge, retaining the older project's 2A security classification.

As part of its effort to "get rid of UFOs," as Ruppelt put it, Grudge cooperated with journalist Sidney Shallett, who in a two-part article in the widely read *Saturday Evening Post* wrote that flying saucers had much more to do with mistakes, hoaxes, and gullibility than with interplanetary visitors (Shallett, 1949). Grudge thought that Shallett's piece would discourage people from reporting UFOs, but when a flood of sightings came to the project a few days after the second installment, personnel were convinced that because Shallett had mentioned, if only in passing, that some sightings remained unexplained, his article had only fed belief in UFOs. A debunking press release a few days later failed to stem rising interest in

UFOs—and suspicion of official pronouncements on the subject.

According to Ruppelt, the Shallett article, indicative of what to outsiders (and even some insiders) looked like an abrupt reversal in official UFO policy, "planted a ... seed of doubt. If UFOs were so serious a few months ago, why the sudden debunking? Maybe Shallett's story was a put-up job for the Air Force" (*ibid.*).

With J. Allen Hynek, an Ohio State University astronomer and UFO skeptic who had been hired as consultant to give a scientist's perspective on sightings, Grudge set out to explain all reports. By August 1949 it had prepared a 600-page report (Technical Report No. 102-AC 49/15-100, classified Secret) which reviewed 244 sightings. It acknowledged that 23 percent remained unexplained, but "there are sufficient psychological explanations for the reports of unidentified flying objects to provide plausible explanations for reports not otherwise explainable.... [T]here is no evidence that objects reported upon are the result of an advanced scientific foreign development; and therefore, they constitute no direct threat to the national security." Nonetheless, anticipating a later concern of the CIA-sponsored **Robertson panel**, Grudge fretted that "public apprehension" about UFOs could be used by enemy forces for psychological-warfare purposes.

The project "recommended that the investigation and study" of UFO reports "be reduced in scope" (Gillmor, 1969).

Thereafter Grudge "lapsed more and more into a period of almost complete inactivity" (Ruppelt, *op. cit.*). On December 27 the Air Force announced it was closing down the project, even as it was launching a classified investigation into a rash of reports of unusual aerial phenomena in New Mexico (*see Green Fireballs and Other Southwestern Lights*). Meanwhile Grudge's files were put into storage.

In its January 1950 issue *True*, then a hugely popular men's magazine, ran a dramatic article, "The Flying Saucers Are Real," by retired Marine Corps major and aviation journalist **Donald E. Keyhoe**. Keyhoe wrote that "Project Saucer"—the project's public nickname (its classified real name was not generally known)—was only pretending to be skeptical, that in

reality it knew UFOs to be extraterrestrial but wanted to keep this unsettling truth secret. The article attracted enormous attention and for years afterwards influenced popular opinion about an official UFO cover-up.

The public pronouncement notwithstanding, Grudge was not quite dead. It retained a marginal existence, enough at least to assist Bob Considine as he researched a UFO-bashing piece which would appear in the January 1951 issue of *Cosmopolitan*. In it Considine, with Grudge's encouragement, lashed out at UFO witnesses, whom he characterized as "screwballs" and "true believers."

By the summer of that year the nearly inert Grudge was down to one investigator, Lt. Jerry Cummings. But the situation changed rapidly in September, following a series of sightings and radar trackings of fast-moving unknowns in the vicinity of an Army Signal Corps radar center in New Jersey (see **Fort Monmouth Radar/Visual Case**). Ordered to investigate immediately, Cummings and Lt. Col. N. R. Rosengarten, chief of the Air Technical Intelligence Center's Aircraft and Missiles Branch, spent a day at the site interviewing all participants, then reported personally to Maj. Gen. C. P. Cabell, head of Air Force Intelligence. Once there, Cummings and Rosengarten were taken into a meeting already in progress and subjected to severe criticism by Cabell, other high-ranking military officers, and two representatives of Republic Aircraft. The group complained about the quality of Grudge's work and its apparent indifference to a potentially explosive national-security matter. By the time the two officers were ready to return to Wright-Patterson, they had been ordered to reorganize the UFO project.

Cummings's days in the Air Force were numbered, however, and soon he was released from active duty to return to the California Institute of Technology, to resume work on a classified government project. Rosengarten asked Ruppelt, an intelligence officer attached to the Air Technical Intelligence Center (ATIC) at Wright-Patterson, to reorganize Grudge. On October 27 Grudge was officially back in business.

Ruppelt set about filing and cross-referencing all Grudge and Sign reports. He put together a staff

consisting of individuals who had no firm opinions about the UFO phenomenon and consequently could judge reports on their merits. ("I had to let three people go for being too pro or too con" [*ibid.*].) Beginning in December, staff members prepared regular status reports which were issued approximately monthly. Four of these appeared during Grudge's remaining reign; the first three were classified Confidential, the last Secret (*United States Air Force*, 1968).

Working with Hynek, the new Grudge staff prepared a standardized questionnaire for UFO reports. Ruppelt and others briefed Air Force officers around the country to let them know that reports would be gladly received and competently investigated.

In an effort to learn about sightings Grudge was not getting, Ruppelt subscribed to a clipping service. He hoped to be able to gain insights into the UFO phenomenon through the compilation of statistics, and he got the Air Force to agree. It contracted with the Battelle Memorial Institute, a Columbus-based think tank, to conduct such an analysis (which would be incorporated into *Project Blue Book Special Report 14*, released in 1955).

By March 1952 the Air Force had upgraded Grudge from a mere "project within a group" to a "separate organization, with the formal title of the Aerial Phenomena Group" (*ibid.*). That same month Grudge got a new name: **Project Blue Book**.

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PROJECT MAGNET. See Wilbert Brockhouse Smith.

PROJECT SECOND STOREY. See Wilbert Brockhouse Smith.

PROJECT SIGN

On September 23, 1947, in the wake of the **Kenneth Arnold sighting** and other puzzling UFO reports over the summer, Lt. Gen. Nathan F. Twining, head of the Air Materiel Command, wrote a letter to the office of the commanding general of the Army Air Forces. Twining had been asked to conduct a preliminary review of the issue of "flying discs," and after discussions with engineers under his command, he concluded, and so informed Brig. Gen. George Schulgen, "The phenomenon reported is something real and not visionary or fictitious." The objects were metallic, disc-shaped, soundless in all but a few cases, and remarkably maneuverable. "It is recommended," Twining wrote, "that ... Headquarters, Army Air Forces issue a directive assigning a priority, security classification and Code Name for a detailed study of this matter" (Gillmor, 1969). The information gathered would be made available to other branches of the military and to scientific agencies with government connections.

On December 30 Air Force Chief of Staff Maj. Gen. L. C. Craigie approved the request and ordered Project Sign to be set up under the Air Materiel

Command (AMC) at Wright Field (now Wright-Patterson Air Force Base) in Dayton, Ohio. It would carry a 2A restricted classification. (The highest classification was 1A.) Even the name of the project was classified, though its existence was known to the larger public, which called it "Project Saucer."

Sign began its work on January 22, 1948. Most of its investigations were conducted by Air Force intelligence agencies at the base nearest the sighting. If the case was important enough, personnel from AMC headquarters would fly to the site. There witnesses were directed to fill out a standard questionnaire and to answer a list of questions about their sightings, including time, location, appearance, altitude, speed, and maneuvers. All relevant information and materials went to AMC headquarters to be reviewed and analyzed by evaluation teams, then written up in official reports, copies of which were forwarded to other government agencies and laboratories which might be able to help in identification.

Sign's first major investigation was into the **Mantell incident** of January 7, 1948, in which Kentucky Air National Guard Capt. Thomas F. Mantell, Jr., died in the crash of his F-51 after pursuing an apparent UFO. Sign's explanation, that the object was Venus, met with much incredulity (an Air Force reinvestigation of the incident in 1952 led to a more credible solution, that the object was a Skyhook balloon), but as Sign investigators gained experience, the quality of their research and analysis improved.

The Soviet Union was an early suspect in the production of the discs, though even proponents of the idea conceded it was unlikely that Russian pilots would test their new aircraft (presumably built from captured German technology) over American territory. In any case, Sign's investigation uncovered no evidence that the Soviets had achieved any aeronautical breakthroughs. That would lead eventually to division in the ranks between those who thought UFOs might be the product of a nonearthly foreign technology and those who believed all reports potentially could be laid to prosaic causes (Jacobs, 1975; Ruppelt, 1956).

From the beginning, however, everyone agreed that whatever the more puzzling reports might or might not indicate, other reports undeniably resulted from

simple or complex misidentifications. To help them weed out some of these, those coming from misguided observers who were in fact seeing planets, stars, meteors, and comets, Sign turned to J. Allen Hynek, director of Ohio State University's McMillin Observatory and the closest professional astronomer to Dayton. Years later Hynek would describe himself as the "innocent bystander who got shot"; in other words, an accident of geography dragged him into the thorny question of UFOs, which most of his colleagues then and later would all too happily dismiss as nonsense. By the 1960s Hynek, though still an Air Force UFO consultant, would become an outspoken champion of UFO reality and an equally outspoken critic of the service's handling of the issue (Hynek, 1972).

At 2:45 A.M. on July 24, 1948, a rocket-shaped object with two rows of square "windows" and flames shooting from its rear streaked past a DC-3 flying 5000 feet over Alabama. It was also observed by a passenger (*see Chiles-Whitted Sighting*). An hour earlier, subsequent investigation determined, a ground-maintenance crewman at Robins Air Force Base, Georgia, saw the same or a similar object. On July 20, moreover, a rocket with two rows of windows was seen moving at great speed over The Hague, Netherlands—one of a number of reports of comparable "ghost rockets" in northern Europe in recent months.

The pro-extraterrestrial faction in Sign was convinced it had the proof it was seeking, and within days it prepared a Top Secret **Estimate of the Situation** and sent it up the chain of command. No copy of the document has surfaced, but one Air Force officer who saw it later, Capt. **Edward J. Ruppelt**, said it recounted the DC-3 encounter and other reports by credible observers and declared that the evidence pointed to interplanetary visitation (Ruppelt, *op. cit.*). When the Estimate got to him, the Air Force Chief of Staff, Gen. Hoyt S. Vandenberg, rejected it on the grounds that it had not proven its case. In a few months it was declassified and all copies ordered burned, though some are said to have been kept secretly. For years the Air Force would deny that any such report ever existed (Tacker, 1960).

After this the ET faction went out of favor, and those who argued for prosaic explanations came to domi-

nate the project. (Eventually even the DC-3 encounter was knocked down. Noting the "sheer improbability of the facts as stated," Hynek suggested that the pilots must have been badly mistaken; "the object must have been an extraordinary meteor" since the pilots could not really have seen what they thought they saw.)

Still, a February 1949 Sign report did not reject UFOs outright; it acknowledged it had been unable to explain 20 percent of the cases it had examined. Nonetheless, it went on, "there is the possibility that enough incidents can be solved to eliminate or greatly reduce the mystery associated with these occurrences." When enough cases were solved, the UFO project should be terminated, and any further investigations that might be necessary could be handled routinely "like any other intelligence work." An appendix by James E. Lipp of the Rand Corporation considered the possibility of extraterrestrial life, acknowledging it to be possible but arguing that distances between stars were too vast for visitation to be possible; in any case, "the actions attributed to the 'flying objects' reported during 1947 and 1948 seem inconsistent with space travel."

The Air Force ruled against a Sign proposal to expand its operation by placing UFO teams at every base, and as the ET proponents left the project or were replaced, the anti-UFO faction took uncontested control, and from then on all reports were assumed to be conventionally explainable. On December 16, 1948, Sign even got a new and appropriate name: **Project Grudge**. What Capt. Ruppelt, who would head a subsequent Air Force UFO project, called the "Dark Ages" had begun.

Over two decades later Hynek recalled that the "original 237 Project Sign reports were not convincing and did not support 'visitors from space'. In reviewing these cases again in 1970, I recognized their markedly poor quality.... In 1947-48 there really wasn't too much to get excited about. There were certainly some reports that if taken at near-face value, suggested no possible normal physical explanation, but even these were poor in that they had been inadequately investigated; many crucial data were missing" (Hynek, *op. cit.*).

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PROJECT BLUE BOOK, 1960-1969

On May 19, 1960, native Alaskans in the town of Dillingham were startled at the sudden appearance of a football-shaped object flying along a ridge. One witness viewed it from a distance of only 50 to 100 feet as it barely cleared electric wires 12 feet above the ground. In its passing the object created suction sufficient to pick up two empty five-gallon cans which swirled around beneath it. The witness feared that children playing nearby would also be lifted into the air. Fortunately only the cans were affected.

The object flew between two houses and crossed to the other side of the ridge, a distance of some 100 yards, and dipped slightly as it passed over the ravine. Once arrived at the other side, it ascended abruptly at

a high rate of speed. The cans clanked to the ground as the dead meadow grass directly beneath the object rose and whirled about as if sucked upward. The ascent was accompanied by a sucking noise which the closest witness, a deaf-mute, could not hear but which other witnesses, who were within 200 feet, heard clearly.

Soon afterwards the chief of intelligence at a local Air Force base interviewed the witnesses. Communicating through his brother, the deaf-mute witness was able to describe the object in detail and even draw a sketch of it. According to the investigating officer:

[The witness] described it as follows: it was quite round with a projection on the ends of the center line. Whether this was "fore and aft" or a flange all the way around could not be determined. There was a red band around the object between the projections. On the bottom were two appendages which moved in an undulating motion (the motion was described with arm movements). Also, in the center bottom was a half-moon object which whirled at varying speeds. Apparently, when the object descended [ascended?] rapidly, it whirled very fast. According to [the witness'] account, the angle of incidence to the object of these appendages and the half-moon object changed, but because of language difficulties, it was impossible to determine what relationship this had with the movement of the object except that it possibly occurred when it turned. The object was about as big as an automobile and was silver in color.

The officer also secured descriptions and sketches from other witnesses. These were "very similar" to one another, he said in his report to Project Blue Book headquarters, Wright-Patterson Air Force Base, Dayton, Ohio. He went on:

There still appears to be no logical explanation of the sighting. It is quite obvious that an object was sighted. Whether all of the details of the sighting are correct cannot be ascertained; however, there is no reason to doubt their essential accuracy. At any rate it does not appear that a commonplace object such as an airplane or a balloon was responsible for the sighting.

The weather was clear, and a breeze was blowing at 15 mph. The object was heading more or less directly into the wind. At Wright-Patterson Blue Book analysts explained the object as a "weather balloon with a radar reflector" (Hynek, 1977).

Blue Book's albatross. From April 1952 onward Air Force UFO policy had been spelled out in AFR-202, which was subject to occasional revision and updating. ("AFR" stands for Air Force Regulation.) Until the issuance of the September 1959 version of AFR-202, the Air Force's interest was defined in two ways: as a potential security issue and as information-gathering on "experimentation and development of new air vehicles." The 1959 edition, however, added a third:

Air Force activities must reduce the percentage of unidentifieds to the minimum. Analysis thus far has provided explanation for all but a few of the sightings reported. These unexplained sightings are carried statistically as unidentifieds. If more immediate, detailed objective data on the unidentifieds had been available, probably these too could have been explained. [But human factors in reporting make it] improbable that all of the unidentifieds can be eliminated.

The rush to reduce the percentage of unidentifieds—which the revised 1959 AFR only codified; the practice had been in effect since 1953 (see *The Emergence of a Phenomenon*, pp. 273-75, 289-91)—produced an often jarring disconnection between reports and the explanations the official Air Force project, Blue Book, offered for them. The Alaska incident above is only one of many hundreds that could be cited (for some examples, see **Harris Sighting**, **Hill Abduction Case**, **Portage County Sightings**, and **Red Bluff Sightings**). Moreover, as its own chief scientific consultant, astronomer J. Allen Hynek, would complain in later years:

No real attempt was ever made to gather all the data that were available. The air force investigators had not bothered to gather what was there. In many instances, starting from a mere item on the back pages of a small town newspaper, I have been able to reconstruct, with the patient aid of the observers, a coherent account of reported events. . . . Blue Book files are replete

with cases labeled "Insufficient Information," whereas in many cases the proper label should have been "Insufficient Follow-up" [Hynek, 1972].

The 1954 revision had given only one paragraph to "Release of Facts," in other words to the question of public relations. It permitted local bases to respond to queries about sightings from reporters

when the object is positively identified as a familiar object. . . . For those objects which are not explainable, only the fact that ATIC [Air Technical Intelligence Center, which oversaw Blue Book] will analyze the data is worthy of release, due to the many unknowns involved.

But the 1959 version devoted all of five paragraphs to "Public Relations, Information, Contacts and Releases." Now all UFO information, "regardless of origin or nature," could be released only through the Office of Information Services, Office of the Secretary of the Air Force, at the Pentagon, though the commander of a local base could answer inquiries about an area sighting only if the object had been "*positively identified as a familiar or known object.*" The sentiment was the same, but the italics were a new addition, as if to emphasize the necessity of saying nothing about unidentifieds. It also said the Air Force would make "every effort" to distance itself from outside information released by "newsmen, writers, publishers, or private individuals" who often held views unacceptable to Blue Book. To stress the point, the final paragraph read:

Contacts. Private individuals or organizations requesting Air Force interviews, briefing, lectures, or private discussions on UFO's will be referred to the Office of Information Services. . . . Air Force personnel, other than those of the Office of Information Services, will not contact private individuals on UFO cases nor will they discuss their operations and functions with unauthorized persons unless so directed. . . .

A directive from the Joint Chiefs of Staff, in effect since December 1953, further sought to restrict popular access to official information about UFO sightings. Joint-Army-Navy-Air Force-Publication (JANAP) 146, under the subheading "Canadian-United States

Communications Instructions for Reporting Vital Intelligence Sightings" (CIRVIS), made it a crime under the Espionage Act to share UFO reports with unauthorized personnel. Offenders would face a one- to 10-year prison term or \$10,000 fine. The prohibition applied even to commercial airline pilots who knew of its existence. "This action effectively stopped the flow of information to the public," UFO historian David M. Jacobs remarks. "Only if Blue Book could positively identify a sighting as a **hoax** or misidentification would the Air Force release information to the public. The policy was in effect until December 1969, when the Air Force terminated its involvement with UFOs."

Blue Book was circling the wagons. UFOs had proven a public-relations disaster for the Air Force. Though elite opinion, with some exceptions, received without reservation Blue Book's unfailingly negative assessments of the UFO phenomenon, a growing popular view held that Blue Book's "explanations" were often inadequate or even ridiculous. Worse, many Americans suspected that the Air Force was engaged in a cover-up of significant UFO secrets—a view relentlessly argued by Donald E. Keyhoe, a retired Marine Corps major, popular author, and director of the Washington-based National Investigations Committee on Aerial Phenomena (NICAP). NICAP, which listed prominent citizens and former military officers among its board members and consultants, lobbied hard for congressional hearings into the Air Force's handling of UFO reports. (For a history of Blue Book's predecessors, Projects Sign and Grudge, and Blue Book through 1959, see *Emergence*, pp. 271-84.)

Unfortunately for the Air Force, policies such as those outlined in AFR-202 could only fuel suspicion and generate yet more skepticism of its pronouncements. In regularly issued press releases Blue Book insisted it had found no evidence of extraterrestrial visitation, as evidence of which it cited the decreasing percentage of unknowns. Blue Book credited "improved procedures" with eliminating the number of unexplained reports. In reality, the only "procedures" that had been "improved" were bookkeeping ones.

Between 1956 and 1958, when Capt. George T. Gregory headed the project, sightings were often summarily "explained" in several simple, albeit questionable

and misleading, ways. Explanations first listed as "possible" were upgraded to "probable," and "probable" explanations to certain ones. According to Jacobs:

Blue Book extended the probable category to include sightings that represented no data to indicate the object could *not* have been an aircraft, balloon, and so forth. If a witness in his efforts to describe a UFO used words like *jet-like*, *balloon-like*, or *meteor-like*, Blue Book staff identified the object as a jet, balloon, or meteor. The staff did this even when the witness used the words to describe what the object did *not* look like. It also routinely placed some of the most interesting low-level or close encounter reports in the insufficient data category [Jacobs, 1975].

Sightings by young people between 10 to 17 years old were automatically deemed unreliable and imaginary. Reports that came to Blue Book through CIRVIS were labelled "insufficient data" with no attempt made to search out the missing data.

In 1960 a book written by a Pentagon UFO spokesman, Lt. Col. Lawrence J. Tacker, not only pressed those points but blisteringly attacked Blue Book's critics, depicted as charlatans and opportunists playing on the "desires of those people who wish to believe in spaceships" (Tacker, 1960). Interviewed on the December 5, 1960, edition of NBC's *Today Show*, Tacker said he wrote the book because "I felt the Air Force was being set upon by Maj. Keyhoe, NICAP and other UFO hobby groups who believe in spaceships as an act of pure faith." Keyhoe, who was also on the show, repeatedly challenged Tacker, and soon host Dave Garroway himself was asking pointed questions, at one point coolly noting Tacker's apparent ignorance of basic physics. The exchange generated numerous phone calls and letters to NBC, the vast majority of them critical of Tacker and the Air Force ("New Debunking Campaign," 1960).

In late 1958 Gregory's successor, Maj. (later Lt. Col.) Robert J. Friend, and his staff tried to transfer the Aerial Phenomena Group (Blue Book's formal name) from ATIC to Air Research and Development Command (ARDC), on the grounds that UFO reports were a scientific, not a military or intelligence, prob-

lem. The staff complained that UFO study had become an expensive and unproductive burden. Private UFO groups "exploit unidentified flying objects for financial gain, religious or more devious reasons at the expense of the Air Force," causing trouble for Blue Book personnel who could be devoting themselves to more worthwhile (non-UFO) programs. But if the Air Force dropped its UFO project precipitously, it would only provide more ammunition for the critics; therefore disbandment should proceed step by step, and scientists at ARDC could speak to the public with special authority and persuasiveness. Meanwhile they could learn something of scientific value from the various natural and manmade phenomena witnesses mistook for UFOs. ARDC briefly considered, then declined, the offer.

An attempt in 1960 to transfer the UFO problem, which ATIC acknowledged had become 80% a public-relations issue, to the Air Force's Pentagon information office (SAFOI) also failed, in spite of ATIC's strenuous lobbying efforts. Subsequent efforts to turn the matter over to NASA, the National Science Foundation, the Smithsonian Institution, or the Brookings Institution similarly came to naught.

In July of that year, members of the House and Senate as well as the CIA asked for briefings on the Air Force's handling of UFOs. On the fifteenth two CIA representatives and congressmen from the House Armed Services Committee (Richard Smart) and the House Science and Astronautics Committee (Spencer Bereford, Richard Hines, and Frank Hammit) met with Air Force representatives, who included not only Friend and Blue Book scientific consultant J. Allen Hynek but also three generals, one of them the director of intelligence, Maj. Gen. Luehman. Though earlier the Air Force had been able to satisfy congressional inquirers—in part by slandering its critics, especially the hated Keyhoe—this group listened skeptically. Cong. Smart even charged it with withholding information, and complaints were expressed about the scientific and investigative shortcomings of Blue Book's approach. Smart told the Air Force that he expected his committee to be informed of all significant sightings and other developments in the future.

In response ATIC tried to add one more person to the Blue Book staff, which at that point would have raised its number to three, and to obtain additional funds for equipment and salaries. The formal request went to the assistant chief of staff for intelligence (AFCIN), who in September turned it down. ATIC did not relay this fact to Smart when he asked about Blue Book's progress in November, but in early 1961 Blue Book managed to secure a modest funding increase which enabled it to have four officers placed on an on-call basis, to be used when circumstances required. This arrangement survived until Friend left the project in 1963.

Congressional interest in UFOs and Blue Book continued. The most influential congressional critic of Blue Book, Speaker John McCormack, was convinced that UFOs were real and extraordinary. Encouraged by Keyhoe, he asked Science and Astronautics Committee Chairman Overton Brooks to take a look at the question. Brooks made Cong. Joseph Karth head of a Subcommittee on Space Problems and Life Sciences, and Karth and two other members planned for hearings in early 1962. Friend, Hynek, and other ATIC representatives managed to persuade Karth, however, that the Air Force had the UFO problem well in hand; those who argued otherwise, such as Keyhoe and NICAP, were simply exploiting public fears for their own purposes. Not long afterwards Brooks, who was sympathetic to hearings, died, and Cong. George P. Miller, who was not, succeeded him.

In August 1963 Friend left Blue Book, by now convinced that the project should be abandoned altogether, however unfavorable the public reaction might be. But Maj. Hector Quintanilla, who would lead Blue Book until its dissolution in 1969, was satisfied with the status quo. Things went on as before, with air base commanders conducting (as the 1959 AFR-202 put it) "all investigative action necessary to submit a complete initial report of a UFO sighting. Every effort will be made to resolve the sighting in the initial investigation." Only if Blue Book deemed further on-site investigation necessary would it conduct any further inquiries.

Hynek had this to say of the Quintanilla era:

When Major Quintanilla came in, the flag of the utter nonsense school was flying at its highest



In August 1963 Maj. (later Lt. Col.) Hector Quintanilla, Jr., became head of Project Blue Book and directed the project until its closing in 1969.

on the mast. Now he had a certain Sgt. [David] Moody assisting him. . . . [Moody] epitomized the conviction-before-trial method. Anything that he didn't understand or didn't like was immediately put into the psychological category, which meant "crackpot." He would not ever say that the person who reported a case was a fairly respectable person, maybe we should look into it, or maybe we should find out. He was also the master of the possible: possible balloon, possible aircraft, possible birds, which then became, by his own hand (and I argued with him violently at times), the probable; he said, well, we have no category "possible" aircraft. It is therefore either unidentified or aircraft. Well, it is more likely aircraft; therefore, it is aircraft. . . . An "unidentified" to Moody was not a challenge for further research. To have it remain unidentified was a blot . . . and he did

everything to remove it. He went back to cases from Captain Gregory's days and way back into Ruppelt's days and redid the files. A lot that were unidentified in those days he "identified" years and years later [Hynek and Vallee, 1966].

A revised UFO regulation, issued in September 1966 as AFR 80-17, reflected a 1961 action in which ATIC was transformed into the Foreign Technology Division (FTD) of the Air Force Systems Command. Now bearing the heading "Research and Development" rather than "Intelligence," it mostly reiterated earlier requirements but now directed each "commander of an Air Force base [to] provide a UFO investigative capacity. . . . If possible, an individual selected as a UFO investigator should have a scientific or technical background as an investigator." Nonetheless, 80-17 instructed, "Do NOT solicit reports." The only reports to be considered were those communicated directly to the base in question.

The August 1965 wave and aftermath. The events that would culminate in the closing of Blue Book began in the summer of 1965. In early August a sighting wave erupted in the south-central United States and soon spread through the country.

On the evening of the first, a Sunday, numerous Texans reported a bewildering variety of aerial phenomena described variously as "multi-colored lights," "eggs," and "diamonds." As the night progressed, sightings spread to Arkansas, Kansas, Oklahoma, New Mexico, Colorado, the Dakotas, Nebraska, Wyoming, and Washington. At Wichita weatherman John Shockley reported that he had tracked several unidentified objects on the Weather Bureau's radar; the objects flew at altitudes between 6000 and 9000 feet. Assistant Ellis Pike noted that the blips "looked much the same as an airliner's might." "Small and rather diffused," they brightened and dimmed on the screen, moving at 45 mph. Meanwhile the Oklahoma Highway Patrol was reporting that Tinker AFB, Oklahoma City, had tracked UFOs—sometimes as many as four at a time—on its radar. According to the Patrol, several of the objects had dropped from 22,000 to 4000 feet in a matter of seconds, but the Air Force refused to confirm or deny the report ("Unidentified Sky Objects," 1965).

One of the clearest reports came from an Air Force weather observer who asked to remain anonymous because of the service's anti-UFO stance. The object he saw over Norman, Oklahoma, was, in his words, "no mirage." Alternately viewing through 10-power binoculars and a 40-power telescope, he watched a mysterious structure follow an orbital path across the sky. "It was tilted at about 45 degrees," he said, "and then straightened out so I got a good look at it. It looked like Saturn with a flat top and a flat bottom. It was not a true sphere. There were two rings around it, and the rings were a part of the main body; they were not separated from it. . . . [It was] at least twice the size of a Boeing 707. . . . It was a distinct image—as clear as a person's face" ("Flying Saucer," 1965; "Radar Didn't Detect," 1965).

Two rookie police officers at Caldwell, Kansas— notified that flying objects had been observed moving toward the Caldwell airport—sped toward the area to find a 100-foot-long egg-shaped object hovering not far above the ground. When the officers tried to get closer to it, it disappeared behind a hedge row and apparently shut its lights off because they could no longer see it. The officers found no traces of it the next morning (Clark, 1966).

By daylight reports had subsided, and the Air Force already had an explanation: What had been seen were not spaceships but certain astronomical bodies—the planet Jupiter or the stars Rigel, Capella, Betelgeuse, or Aldebaran. "The azimuth and elevations of the reported sightings support this conclusion," a spokesman asserted ("Air Force Says," 1965).

To many, including those who until now had not disputed Air Force explanations, this was too much. Even a presumably neutral UPI reporter, writing out of Wichita, felt constrained to comment, "Ordinary radar does not pick up planets and stars" ("Radar Picks Up," 1965). A damning assessment of the Air Force pronouncement by Robert Risser, director of the Oklahoma Science and Art Foundation Planetarium in Oklahoma City, received widespread publicity: "That is as far from the truth as you can get. These stars and planets are on the opposite side of the earth from Oklahoma City at this time of year. The Air Force must have had its star-finder upside down during August" (*ibid.*).

The editorial reaction was almost uniformly hostile. The *Richmond News Leader* ridiculed the explanation, then added, "Attempts to dismiss the reported sightings under the rationale as exhibited by Project Bluebook [sic] won't solve the mystery . . . and serve only to heighten the suspicion that there's something out there the Air Force doesn't want us to know about." The *Fort Worth Star-Telegram* declared, "They can stop kidding us now about there being no such things as 'flying saucers'." The *Charleston* [South Carolina] *Evening Post* remarked, "If our courts shared the Air Force's professed suspicion of creditable witnesses our jails would be empty." The *Christian Science Monitor* thought the new wave of sightings made "the clearest case yet for a thorough look at the saucer mystery" (Jacobs, *op. cit.*).

As the sightings went on and spread across the nation, UFOs got respectful treatment, and even some heretofore-skeptical scientists were calling for a new investigation. More and more disenchanted with Blue Book but reluctant to express his misgivings publicly, Hynek sent the Air Force a proposal: set up a panel of civilian scientists to study the problem and to make recommendations about the UFO project's future. The Air Force took Hynek's suggestions seriously enough to take them to Gen. Arthur C. Agan, Assistant Deputy Chief of Staff for Plans and Operations. Agan concluded that Blue Book should be continued under FTD so as to "assure that such objects do not present a threat to our national security" (*ibid.*). He urged that the project get more support than it had received in recent years.

In a September 28 letter communicating Agan's recommendations to the Military Director of the Air Force Scientific Advisory Board (AFSAB), Director of Information Maj. Gen. E. B. LeBailly remarked that UFO witnesses included reliable individuals; some of the reports were "spectacular," and only a relatively small number ever came to the Air Force's attention. LeBailly asked that a "working scientific panel composed of both physical and social scientists be organized to review Project Blue Book—its resources, methods, and findings—and to advise the Air Force as to any improvements that should be made in the program to carry out the Air Force's assigned responsibility."

A six-member Ad Hoc Committee to Review Project Blue Book, headed by Brian O'Brien, met on February 3, 1966. All but one (Carl Sagan) were members of AFSAB, and none had any sympathy with the idea that UFO reports represented anything truly extraordinary. Still, it was at least possible that something of interest could be learned from the study of individual sightings; thus Blue Book should "be strengthened to provide opportunity for scientific investigation of selected sightings in more detail and depth than has been possible to date." Furthermore, the Air Force should negotiate contracts "with a few selected universities to provide scientific teams to investigate promptly and in depth certain selected sightings of UFOs. . . . The universities should be chosen to provide good geographical distribution."

On the nights of March 20 and 21, numerous residents of Hillsdale and Dexter, Michigan, saw glowing UFOs. In the former case, an object described as a luminous football shape was seen hovering and maneuvering over a swampy area. Though these were unremarkable sightings compared to some, they got headline treatment in papers all over the country, perhaps reflecting a more open-minded attitude on the part of the mainstream press. When Michigan Cong. Weston Vivian asked for an official investigation, Quintanilla dispatched Hynek to the scene, and three days later, on March 25, Hynek addressed a crowded gathering of reporters at the Detroit Press Club. "It would seem to me," he said, "that the association of the sightings with swamps, in these particular cases, is more than coincidence." The phenomena witnesses were reporting "could have been due to the release of variable quantities of marsh gas" (Hynek, 1976).

As Herbert J. Strentz, author of a study of newspaper coverage of UFOs, would observe, "Press and public reactions to the 'swamp gas' theory were prompt, wide-ranging and generally hostile." A *New Yorker* article sneered, "Marsh gas is more appropriate an image of that special tediousness one glimpses in even the best scientific minds" ("Notes and Comment," 1966). On the other hand, the Air Force had at least two influential defenders, the *New York Times* and CBS News. The effect of Hynek's news conference, in any case, could not have been what the Air Force intended. Now media were paying *more* atten-

tion to UFO stories. So were politicians. Michigan Cong. Gerald R. Ford, who also happened to be House Minority Leader, wrote the House Armed Services Committee and asked for hearings. "The American public deserves a better explanation than that thus far given by the Air Force," he said (Jacobs, *op. cit.*).

The hearing was held on April 5, but only three persons were asked to testify, all of them Air Force representatives: Secretary of the Air Force Harold Brown, Quintanilla, and Hynek. Brown stuck to Blue Book's script: UFOs neither threaten national security nor come from outer space, and the Air Force, which had conducted a "thorough" and "objective" investigation, had the situation in hand. In an allusion to the O'Brien Committee, however, he referred to the likely prospect of "even stronger emphasis on the scientific aspects of investigating the sightings that warrant extensive analysis." Quintanilla offered no formal statement.

Stung by the ridicule to which he had been subjected in the wake of the Detroit press conference, Hynek finally found the courage to state publicly what he had been saying privately for some time:

The press has described me as the "puppet of the Air Force" and has stated that I say only what the Air Force tells me to say. I would like to . . . read to the committee a statement . . . which has certainly not been dictated by the Air Force. . . .

[T]he kind of activity that the press has reported in Michigan is not unusual. It happened only that the Dexter and Hillsdale incidents, although of little scientific significance, have attracted national interest. Now, similar incidents, and some considerably more intriguing, have been occurring for many years. . . . Despite the seeming inanity of the subject, I felt that I would be derelict in my scientific responsibility to the Air Force if I did not point out that the whole UFO phenomenon might have aspects to make it worthy of scientific attention. . . . I am happy that my appearance before this committee affords me a chance to reiterate my recommendations. Specifically, it is my opinion that the body of data accumulated since 1948 . . . deserves

close scrutiny by a civilian panel of physical and social scientists, and that this panel should be asked to examine the UFO problem critically for the express purpose of determining whether a major problem really exists [Hynek, *op. cit.*].

Committee Chairman L. Mendel Rivers agreed that an independent civilian study was a good idea. So did the Air Force, which recognized it as a way of ridding itself of its UFO albatross. Secretary Brown assigned the Air Force Office of Scientific Research (AFOSR) the task of implementing the O'Brien Committee's recommendations. AFOSR's in-house analysis led it to decide that one university rather than several should be given the assignment. Approached informally, the Massachusetts Institute of Technology and Harvard University expressed zero interest in taking on such a controversial topic. But on October 6, 1966, the University of Colorado signed on to do the study, under the direction of prominent physicist Edward U. Condon. Though the study was hailed and portrayed as an impartial one—and for a time many, including Hynek, believed it was—Condon was deeply skeptical, even contemptuous, of the subject. From the beginning he and the Air Force understood that the conclusions of the **University of Colorado UFO Project** would be negative.

By 1968 the Condon Committee (its informal name) was beset with conflict and embarrassing publicity, much of it associated with the firing of personnel (including Co-Principal Investigator David R. Saunders) who did not share Condon's ever less concealed antipathy to the UFO phenomenon. In its May 14 issue the mass-circulation magazine *Look* carried an article on the committee's problems under the title "Flying Saucer Fiasco." *Science*, the journal of the **American Association for the Advancement of Science**, also reported on the disputes and disarray within the project (Boffey, 1968).

In September of that year, Hynek was surprised to get a letter from Col. Raymond S. Sleeper, the FTD commander. It was, Hynek would write a few years later, "the first time in my 20 years of association with the air force as scientific consultant that I had been officially asked for criticism and advice on scientific methodology and its application to the UFO problem" (Hynek, 1972). In his letter Sleeper mentioned

Hynek's public criticisms of "Project Blue Book for their [sic] lack of scientific evaluations" and asked him to define "those areas of scientific weakness" in a memo to be prepared within the next 30 days.

Hynek prepared an extended commentary. On October 7 he wrote Sleeper, "I address my report to you alone, for as will be apparent, should the present staff of Blue Book read it, any further personal contact with them would prove most embarrassing to all parties concerned. . . . Since my report is rather long, I have prefaced it with a sequential summary of points covered and of recommendations made." That summary, arguably the finest succinct critique of Blue Book ever written, follows (the italics are Hynek's):

A. It is concluded that neither of the two missions of Blue Book (AFR 80-17), (1) to determine if the UFO is a possible threat to the United States and (2) to use the scientific or technical data gained from a study of UFO reports, are [sic] being adequately executed.

B. The staff of Blue Book, both in numbers and in scientific training, is grossly inadequate to perform tasks assigned under AFR 80-17.

C. Blue Book suffers intramurally in that it is a closed system that has fallen victim to the closed loop type of operation. There has been virtually no scientific dialogue between Blue Book and the outside scientific world. Totally inadequate use is made of the extensive scientific facilities of the air force in executing the Blue Book mission. The superb talents and facilities of AFCRL [Air Force Cambridge Research Laboratories] and of AFOSR, for instance, have rarely been used. The lack of scientific dialogue between members of Blue Book and outside scientists has been appalling.

D. The statistical methods employed by Blue Book are nothing less than a travesty.

E. There has been a lack of attention to significant UFO cases, as judged by this consultant and others, and too much time spent on routine cases that contain few information bits and on peripheral public relations tasks. Concentration could be on two or three potentially scientifically significant cases per month, rather than

having Blue Book effort spread thin over 40 to 70 cases per month. Too much attention has been paid to one-witness cases and to cases in which only point-source lights in the sky are seen at night and far too little to the cases of high Strangeness Rating reported by witnesses of conceded reputation.

F. The information input to Blue Book is grossly inadequate. An impossible load is placed on Blue Book by the almost consistent failure of UFO officers at local air bases to transmit adequate information to Blue Book. Many information bits that could have been obtained by conscientious interrogation by the UFO officer are omitted, throwing the burden upon Blue Book to reopen interrogation for additional information, sometimes of the most elementary but necessary sort—e.g., wind directions, angular sizes and speed, details of trajectory, qualifications and nature of witnesses, additional witnesses, etc. The upgrading of original data is the most pressing need within Blue Book.

G. The basic attitude and approach within Blue Book is illogical and unscientific in that a working hypothesis has been adopted which colors and determines the method of investigation. One might put it in the form of a *Theorem*:

For any given reported UFO case, if taken by itself and without respect and regard to correlations with other UFO cases in this and other countries, it is always possible to adduce a possible even though far-fetched natural explanation, if one operates solely on the hypothesis that all UFO reports, by the very nature of things, must result from purely well known and accepted causes.

The theorem has a *Corollary*:

It is impossible for Blue Book to evaluate a UFO report as anything other than a misidentification of a natural object or phenomenon, a hoax, or a hallucination. (In those relatively few cases where even this procedure met with difficulty, the report was evaluated as "Unidentified" but with no indication that the theorem had been outraged.)

H. Inadequate use has been made of the Project scientific consultant. Only cases that the project

monitor deems worthwhile are brought to his attention. His scope of operation, including personal direct access to both unclassified and classified files, has been consistently limited and thwarted. He often learns of interesting cases only a month or two after the receipt of the report at Blue Book, and no attempt is made to bring the consultant into the operating loop except in the most peripheral manner [Hynek, *op. cit.*].

Hynek's criticisms had no effect, and events proceeded on their intended course. By June 1, 1968, the Condon Committee was finished with its investigative phase, and the staff began to write and assemble the 1465-page report that would be released as *Scientific Study of Unidentified Flying Objects*. On January 8, 1969, a National Academy of Sciences (NAS) panel endorsed the report's conclusions, and the next day the Air Force released the volume to the public. In the introduction Condon wrote that the committee's investigation had determined that further UFO research would be scientifically pointless. Nonetheless those who went beyond the introduction found that one-third of the cases remained unexplained even after considerable investigation. Few reporters read beyond the introduction, however, and most scientists and most journalists who commented on the report treated it as the end of the UFO issue. *Nature*, the eminent British scientific journal, called it a "sledgehammer for nuts."

The report had its critics, too, and some of these criticisms were published in the scientific literature. But these voices were heard only by those who were listening for them. Between them the Condon Committee and the Air Force had succeeded in seriously diminishing interest in UFOs. Popular fascination with UFOs dropped, along with the membership rolls of NICAP and other private groups. UFOs would not make headlines again until October 1973, when a great wave exploded in the Southeastern United States. Even so, a year earlier, Hynek's *The UFO Experience*, which carried his first detailed open critiques of Blue Book and the Condon Committee, garnered thoughtful reviews in the science journals and in major newspapers, suggesting that the lingering effects of the two-pronged debunking operation were already fading to some extent.

In early March 1969 SAFOI representative Maj. David J. Shea attended a meeting at the Pentagon. From the moment it opened, he would recall, "there was no doubt that Project Blue Book was finished." All that remained was the sorting out of details such as where the files should be stored. (They eventually went to the Air Force Archives at Maxwell AFB in Alabama. In Shea's words, "The key was to find a place that was accessible yet not too inviting" [Carlson, 1974].)

Air Force Secretary Robert C. Seamans, Jr., announced the closure of Blue Book on December 17. Citing Condon's report, the NAS endorsement, and "past UFO studies," he declared that perpetuation of the project "cannot be justified either on the ground of national security or in the interest of science" (*Air Force*, 1969; Lyons, 1969).

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High Strangeness

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UNIVERSITY OF COLORADO UFO PROJECT

By the late 1950s the U.S. Air Force was ready to shed itself of its UFO burden. To many Americans **Project Blue Book** had lost all credibility. Some thought its explanations for UFO sightings reflected an official desire to "solve" reports at any cost. Others charged that Blue Book was deliberately trying to discredit the

subject as part of a scheme to cover up its powerlessness in the face of visitation by advanced intelligences from elsewhere. A Washington-based organization, the National Investigations Committee on Aerial Phenomena (NICAP), drove the Air Force to distraction with its relentless cover-up allegations and lobbying efforts with Congress. NICAP had the support of a number of prominent citizens, including some high-ranking retired Army, Air Force, and Navy officers.

Within the project some felt that UFOs were a scientific, not a military, problem and thus not something with which the Air Force ought to concern itself. Yet they also feared a public backlash if they dropped Blue Book precipitously. That left one alternative: the Air Force had to find another agency which would take UFOs off its hands. As it would learn, however, none was interested, though over the next few years it would ask NASA, the National Science Foundation, the Smithsonian Institution, and the Brookings Institution. Meanwhile members of Congress were registering occasional expressions of unhappiness with Blue Book, though the project managed to fend off the major congressional hearings NICAP sought.

In early August 1965 a nationwide UFO wave erupted, catching Blue Book off-guard. This time its explanations, even less believable than usual, were openly disputed by astronomers, meteorologists, journalists, and witnesses. A chorus of editorial writers and individual scientists called for a new study. Blue Book's own principal scientific consultant, Northwestern University astronomer J. Allen Hynek, was growing ever more visibly uncomfortable with the project's shortcomings. Hynek urged that Blue Book assemble a panel of civilian scientists who would take a fresh look at the problem and suggest where, if anywhere, Blue Book should go from there. In a September 28 letter to the Military Director of the Air Force Scientific Advisory Board (AFSAB), Maj. Gen. E. B. LeBailly, the Air Force Director of Information, essentially endorsed Hynek's recommendation.

On February 3, 1966, six scientists, calling themselves the Ad Hoc Committee to Review Project Blue Book (also known as the O'Brien Committee after Chairman Brian O'Brien), met to discuss what the project should do about the UFO phenomenon. Five were

associated with AFSAB; the only outsider was astronomer Carl Sagan. Though none believed UFO reports represented anything so extraordinary as extraterrestrial spacecraft, they thought that possibly something interesting could be learned if selected sightings were investigated "in more detail and depth than has been possible to date." They urged the Air Force to work "with a few selected universities to provide scientific teams" to conduct UFO research. As they conceived it, 100 cases a year would be investigated, with an average of 10 days devoted to each.

At this stage UFOs themselves intervened. A series of sightings in southern Michigan on the nights of March 20 and 21 focused public attention on the UFO phenomenon once again. Sent by Blue Book to the scene, Hynek suggested that the "association of the sightings with swamps" pointed to "marsh gas" as the cause.

The response—nationwide incredulity and derision—was followed by a congressional hearing on April 5. That day Air Force Secretary Harold Brown told the House Armed Services Committee that while the Air Force had done an excellent job on UFOs, perhaps there was room for "even stronger emphasis on the scientific aspects." Hynek recommended that a "civilian panel of physical and social scientists . . . examine the UFO problem critically for the express purpose of determining whether a major problem exists."

After Committee Chairman L. Mendel Rivers and other members expressed enthusiasm for the idea, Brown—who until now had not given the O'Brien Committee recommendations any great priority—suddenly realized that maybe he had finally found a way to get the Air Force out of the UFO business. Soon after the hearing was over, Brown acted. Through its Office of Scientific Research (AFOSR), the Air Force was now seeking a university that would accept a contract to investigate UFOs.

The task proved more difficult than anyone had imagined. First AFOSR's Col. Robert Hippler tried. When he gave up, AFOSR scientist William J. Price tried. Harvard University, the Massachusetts Institute of Technology, the University of North Carolina, and the University of California all declined the invitation. None wanted to involve itself with a subject so

controversial—worse, disreputable—as UFOs. Col. J. Thomas Ratchford, another AFOSR scientist, took up the task. He had high hopes that the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, would be interested. Its director, Walter Orr Roberts, certainly was, but William W. Kellogg, associate director of the Laboratory of Atmospheric Sciences, was not. He was too busy with other projects, he said, but he thought a UFO project would be well worth doing if it was done objectively. Roberts then told AFOSR that the University of Colorado might be interested.

Condon and his committee. In late July Col. Ratchford approached the university's most prominent physical scientist, Edward U. Condon, and appealed to his patriotism. Condon had a long, distinguished career in government, business, and academia. During World War II he had served with the Manhattan Project, which built the first atomic bombs. In 1945 President Truman appointed him director of the National Bureau of Standards, a post he held until 1951, when he became director of research for Corning Glass Works. He taught for a year at the University of Pennsylvania, then went on to Washington University in St. Louis between 1956 and 1963 and from there to Colorado. Meanwhile he had also served as president of the American Physical Society, the American Association of Physics Teachers, and the American Association for the Advancement of Science. He was a member of the prestigious, invitation-only National Academy of Sciences (NAS).

Condon was not eager to take on the UFO project. He was busy writing a book, editing the journal *Reviews of Modern Physics*, and running for a position on the university's Board of Regents. On the other hand, his sense of civic responsibility made it difficult for him to turn down the job, and besides, the Air Force was offering the university \$300,000, plus another \$13,000 to cover operating expenses, at a time when the institution was reeling from the effects of cutbacks in state funding.

The university had to be convinced, too. Within days of Ratchford's approaching Condon, Robert J. Low, an assistant dean in the university's graduate school, talked with several prominent scientists. Some warned him that the university should stay away from the



Physicist Edward U. Condon headed University of Colorado UFO Project and was soon enmeshed in furious controversy.

subject. Even to consider the *possibility* that UFOs may exist was not “respectable,” Low was told. On the other hand, Roberts and Kellogg urged acceptance. Low, who favored the project, reported what the scientists had said in an August 9 memo to E. James Archer, dean of the graduate school, and Thurston E. Manning, university vice president and faculty dean:

Our study would be conducted almost exclusively by nonbelievers who, although they couldn’t possibly *prove* a negative result, could and probably would add an impressive body of evidence that there is no reality to the observations. The trick would be, I think, to describe the project so that, to the public, it would appear a totally objective study but, to the scientific community, would present the image of a group of nonbelievers trying their best to be objective but having an almost zero expectation of find-

ing a saucer. One way to do this would be to stress investigation, not of the physical phenomena, but rather of the people who do the observing—the psychology and sociology of persons and groups who report seeing UFO’s. If the emphasis were put here, rather than on examination of the old question of the physical reality of the saucer, I think the scientific community would quickly get the message [Low, 1966].

This memo would come to light a year and a half later, with explosive consequences. Strangely, though the memo was addressed in part to him, Archer would later tell newspaper reporter (and personal friend) R. Roger Harkins that he never received a copy of it. When he finally saw it, he characterized its content as “incredible.” Asked if he thought he had deliberately not been sent a copy, Archer replied, “No comment” (Saunders and Harkins, 1968).

At a September meeting of the psychology department, Stuart W. Cook announced that the university was seriously thinking of signing a contract with the Air Force to conduct UFO research, with Condon directing. The project was not, Low’s suggestion (then unknown) notwithstanding, going to be primarily a psychological study, but it did need help from psychologists. Two members quickly expressed interest. They were William A. Scott and David R. Saunders. The next day Cook would separately approach Michael Wertheimer, a psychologist who specialized in perception, and Wertheimer agreed to participate.

Saunders, who would become co-principal investigator, was destined to play a large role in the project and in the controversies surrounding it. He was also the only project-connected individual with any prior (albeit quite recent) interest in or knowledge of the UFO literature. A few weeks earlier he had read Frank Edwards’s sensationalistic best-seller *Flying Saucers—Serious Business* and, subsequently, NICAP’s more sober and comprehensive *The UFO Evidence* (1964). Intrigued, Saunders had joined NICAP so that he could read its bimonthly newsletter *The U.F.O. Investigator*.

On October 6 Manning signed the contract with the Air Force, which the next day publicly announced the creation of the University of Colorado UFO project.

The project would soon be known by its informal name: the Condon Committee. Low was made project coordinator. Besides Condon, Low, and Saunders, the primary team would consist of these individuals: Franklin Roach, astronomer, Environmental Science Services Administration (ESSA); Michael Wertheimer, psychologist, University of Colorado; Roy Craig, chemist, Colorado; Norman Levine, electrical engineer, University of Arizona; Mary Lou Armstrong, administrative assistant; William K. Hartmann, astronomer, Arizona; Frederick Ayer, physicist, Colorado; Dan Culberson, psychologist, Colorado; James Wadsworth, psychologist-graduate student, Colorado. Other scientists would play secondary, temporary, or brief roles in the ensuing months.

Public response was mostly positive. Ufologists were especially enthusiastic, despite their habitual suspicion of anything associated with the Air Force. NICAP pledged its full cooperation (though director Donald E. Keyhoe privately feared that behind the scenes the Air Force was in control of the project) and soon was copying and forwarding case reports to the project. University of Arizona atmospheric physicist **James E. McDonald**, a champion of the **extraterrestrial hypothesis** (ETH), had harbored some hope that he would be asked to head the project. Even so, he took heart from Condon's reputation for toughness and intellectual independence.

Hynek went to Boulder two weeks after the signing of the contract. He, too, had wanted to be involved with the project but was not invited, "possibly on the grounds," he would write, "that the committee should be composed only of those who knew nothing of the subject and hence could 'take a fresh look' at it." At Franklin Roach's home Hynek met Condon and other committee members. "There seemed to be a sense of adventure such as one gets at the start of a long journey," he would recall. Yet he also noted that Condon had a "basically negative attitude," Mrs. Condon even more so. He chose to believe that "this was only the natural skepticism on the part of a scientist who had not yet examined the data" (Hynek, 1972).

On November 11 Hynek and Jacques Vallee, a Northwestern University colleague and author of two pro-ETH books (one published just the month before),

gave an extended briefing to Condon and his staff. Hynek urged the project to adopt a rating system which would allow investigators to eliminate explainable sightings and focus their attention on the most puzzling. If physical scientists who examined a raw report could not explain it, a social scientist would consider the reliability of the witnesses. In the end, if the sighting emerged from this screening process as both strange and credible, it would be deemed worthy of further investigation. Vallee spoke of the necessity of standardized report forms which also asked all the right questions, and he emphasized the importance of speedy data collection procedures.

On the fourteenth Maj. Hector Quintanilla, the head of Blue Book, and AFOSR's Col. Hippler spoke to the committee. Soon afterwards Mary Romig of the Rand Corporation, an Air Force think tank, lectured briefly on ball lightning and its possible association with UFO sightings. At Saunders's invitation Keyhoe and Richard Hall of NICAP briefed the committee on November 28. Hall and Saunders would form a close working relationship, and for a two-week period in early 1967 Hall would work in Boulder as a paid consultant whose task was to develop a case book of well-documented unexplained reports. As with so much the project would start, nothing would come of Hall's efforts.

Saunders and other staff spent the rest of 1966 traveling and seeking advice on how the committee could learn of sightings shortly after their occurrence so that it could conduct immediate on-site investigations. The committee already had promises from the Air Force, NICAP, and the Tucson-based Aerial Phenomena Research Organization (APRO) to forward interesting cases as soon as they came to their attention. (NICAP would be the most responsive in this regard. It set up an Early Warning Network consisting of its most trusted and competent representatives, who informed the committee of fresh sightings and investigated them.) In November Hynek and Low went to North Dakota, where three months earlier two sightings had taken place. The purpose of the trip was to give Hynek a chance to show Low how field investigations are conducted.

Given the job of preparing a questionnaire for witnesses, psychologist Scott produced a 21-page docu-

ment. Only one page inquired about the details of the sighting; the rest asked psychological questions. When the questionnaire was rejected, Scott resigned from the project. In his place the committee hired three physical scientists as consultants. The two remaining psychologists, Saunders and Wertheimer, disagreed over whether it would be possible to prove extraterrestrial visitation from the study of UFO reports. Saunders thought it was, while Wertheimer argued that since the nature of alien intelligence is unknown, it is logically impossible to distinguish it from "miscellaneous" non-ET phenomena which he called "framasaunds." Saunders prevailed, however, and the committee committed itself to testing the ETH.

Conflict and crisis. Though scientists, ufologists, and journalists who dealt with the working staff came away with the impression that they were dealing with genuinely engaged, open-minded individuals, another attitude was in evidence at the highest level: the level at which Condon and Low reigned. Saunders would write, "The Project was only a few days old when we noticed that the phrase 'damn UFO' had crept into [Condon's] vocabulary." On October 9, just two days after the project had been announced, the *Denver Post* quoted Low as saying that the project barely met the university's criteria for acceptability; it had been taken on only because, Low indicated, it was hard to say no to the Air Force. Condon wrote a letter to the editor to clear up what he characterized as a misunderstanding.

Yet when Condon did something far more embarrassing and ill-advised, Saunders had to explain what it was he had done wrong and what the consequences were likely to be. The crisis erupted on January 31, 1967, when Saunders stopped at NICAP headquarters in Washington, D.C., to pick up some case material. Keyhoe and Hall promptly showed him a clipping from the January 26 issue of an upstate New York newspaper, the *Elmira Star-Gazette*. The story reported a lecture Condon had given in Corning, New York, the day before. Condon had said that UFOs "are not the business of the Air Force. . . . It is my inclination right now to recommend that the government get out of this business. My attitude right now is that there's nothing to it." "With a smile," the article said, Condon added, "but I'm not supposed to reach a conclusion for another year."

Deeply shocked, Saunders suggested there had been some mistake. Perhaps Condon was misquoted. Not so, said Keyhoe and Hall; several NICAP members had attended the lecture, and one had already resigned from NICAP to protest its support of what he had concluded was a sham investigation.

The next morning, back in Boulder, Saunders confronted Condon, who read the article, confirmed that he had been accurately quoted, and wondered why Saunders was making such a fuss about it. It took the younger man half an hour to get Condon to understand the effect his words were having on those the committee was counting on to provide it with case material. Finally and reluctantly Condon wrote Keyhoe a letter. In it he claimed that the quotes were taken out of context.

Meanwhile Condon was participating in no field investigations, and he seldom sought out staff members. Nearly all communications came through Low. Condon dozed through briefings as if visibly expressing his contempt for the speakers (one of whom, McDonald, was growing ever more vocally critical). At one point Hall flew to Boulder and personally handed Condon a comprehensive investigative report on NICAP's investigation of the **Portage County sightings**, an extraordinary multiple-witness case in Ohio, involving a two-state police-car chase of a large, low-flying UFO—by any standard one of the most significant and evidential cases in the history of the phenomenon. Much later Hall came to realize that Condon had paid no attention to the document. The case would not even be mentioned in the committee's final report.

The only thing that did interest Condon was the crackpot contingent of the saucer world. On June 20 he attended the cartoonish "Congress of Scientific Ufologists" in New York City. He regaled scientific colleagues and lecture audiences with tales of contactees and other eccentrics who made themselves known to him or the project. He even dispatched field investigators to sites where contactees had predicted landings. According to Saunders:

It was this monomania . . . that laid us open to the most criticism from outsiders. Condon's actions offended me for several particular reasons. To begin with, he was devoting only half

of his University time to the Project and could ill afford to waste those valuable hours. Second, he was rapidly alienating NICAP, APRO, and various others whose cooperation we vitally needed. Every time he delivered one of his speeches, someone would have to patch up the badly strained relations. . . . Worst of all, his treatment of the persons in these cases offended me as a psychologist. They may have needed help, but they did not need to be laughed at. It was as if Condon had lost all sense of perspective and was sacrificing these unfortunates to relieve his own frustration [Saunders, *op. cit.*].

Meanwhile Low occupied himself with adding reports to the case book, making little distinction between those that might be scientifically interesting and those that were obviously explainable. Within the project Low let it be known that he considered UFOs silly and the ETH absurd. In March 1967 he put those views into a supposedly confidential position paper and distributed it to the staff; yet he had been expressing the same sentiments in quasi-public discussions and lectures to various professional groups already. In August, while in Europe representing the committee at an International Astronomical Union conference in Prague, he took a side trip to Loch Ness. He explained later that he wanted to compare belief in the loch's fabled monster with belief in another nonexistent phenomenon, UFOs. The staff had thought he might want to meet such leading lights of European ufology as *Flying Saucer Review* editor Charles Bowen and the respected French authority Aimé Michel. As it happened, at the time Bowen was visiting Michel at his home, and Low could have seen both of them at once.

In another indication of where the study was going, Saunders talked at length with Condon and Low on September 19, 1967, about ways of improving the project's public image. Saunders protested the policy of not releasing any information until publication of the final report. If the study should find that UFOs are extraterrestrial, Saunders argued, the public needed some kind of advance warning so as to soften the shock. If the committee continued its silence, attentive outside observers could reasonably infer that it

was heading toward negative—anti-ETH—conclusions, in which case its objectivity could be called into question. Condon at first professed not to understand what Saunders was talking about, then stated that if, improbably, the committee came to pro-ETH conclusions, he would either take them directly to the President or contact the Air Force and let one or the other, or both, decide if the American people should be informed. Low told Saunders the matter was none of his business.

On the evening of September 21, Saunders took a call from Keyhoe. The day before, he said, NICAP had learned of an after-dinner speech Condon had given in Washington to an audience of former National Bureau of Standards colleagues. It was a jocular exercise, concentrating almost entirely on three crackpot cases. Not all audience members had been amused, and though there was no press coverage, word got to NICAP. Keyhoe informed Saunders that NICAP had come to the provisional decision to sever its ties with the project. He added, however, that the membership still knew nothing of this, and if Saunders could think of a convincing reason why NICAP should not abandon the project, Keyhoe was willing to listen to it.

Saunders went to Low, who urged him to do whatever he could to mollify Keyhoe. Though it had become nearly impossible to defend Condon and the project, Saunders nonetheless phoned Keyhoe. Obviously Condon was not objective, Saunders said, but his views were his own, not the project's, and he should be made to state that distinction whenever he expressed his opinion in public.

When Saunders went to Condon to apprise him of the new developments and his concerns about them, Condon essentially shrugged them off. If NICAP was going to leave, so be it. Soon afterwards he spoke to a Denver newspaper, the *Rocky Mountain News*, and praised a recent anti-ETH paper published in *Science* (Markowitz, 1967). The headline reported that Condon had grown "disenchanted." Privately Condon growled that was wrong; he had never been "enchanted" to start with. The newspaper story had Low agreeing with Condon. By now all that was keeping the staff from open revolt was one hold-out: Craig, who insisted Condon still had his full confidence.

Nor, even with this provocation, did NICAP effect an open break. It did decide that it would submit no more case material from its Washington office. It also warned Low that if it was not persuaded that the project was going to conduct itself more impartially, it would shut down the Early Warning Network and end all cooperation between the project and NICAP's subcommittees.

In response Low flew to Washington in October and conferred with Keyhoe and his new assistant director, Gordon Lore. Low freely acknowledged—at this stage it would have been futile to do otherwise—that Condon's opinion of UFOs was "negative." He also said something Keyhoe and Lore found, the former would later tell Condon, "incredible and extremely disturbing":

I see no reason why you have to determine whether the Colorado Project is on the level or not. Your decision should be to send all possible good evidence in hopes of leading to a positive conclusion. Even if it were negative, you could truthfully say you felt this was a wise action to try to convince the project.

What, Keyhoe and Lore wanted to know, would be the point of that? Why cooperate with a project when it clearly had no interest in NICAP's evidence? Why, for that matter, did Low even *want* NICAP to keep sending cases? Low's response was as blunt as it was cynical: "If you don't, the project could be accused of reaching a conclusion without all of NICAP's evidence." Though Low conceded that other project members had a more positive view of the UFO phenomenon, he also said that as committee head Condon could overrule all dissenting opinion and represent his own conclusions as the project's. This despite the fact, also acknowledged by Low, that Condon had conducted not a single field investigation.

In a November 14 letter addressed to Condon, with a copy to Low, Keyhoe cited Condon's public statements and recounted NICAP's unsatisfactory exchange with Low. He went on:

Despite the obstacles, we still believe it is not impossible for the project to operate impartially as originally stated, and thus make it possible

for us to continue our cooperation. We know of several skeptics who, after carefully examining a cross-section of the best evidence, reversed themselves and became convinced that UFOs reported by reliable observers are real and also a serious scientific problem. One whom you know is Dr. James E. McDonald, senior atmospheric physicist at the University of Arizona. For over a year, Dr. McDonald, under a grant by the university, has carried on an extensive investigation, interrogating [sic] hundreds of competent witnesses and evaluating hundreds of visual reports and also radar, a subject on which he is a recognized authority. Dr. McDonald is a perfect example of a skeptical scientist who, after extremely careful and extensive investigations, publicly reversed his negative opinion of the UFO reports.

It is our earnest hope that you will launch a similar personal investigation and remove the unfortunate doubts which have arisen because of your public skeptical statements.

We stand ready to resume the transmission of UFO sighting reports and to continue the early-warning-net alerts and the full cooperation of our Subcommittee investigators. But our responsibilities to the NICAP Board of Governors, our scientific and technical advisers, associate members, the press, public and Members of Congress require that we first clarify the situation and ask for guarantees in the use of NICAP evidence.

Keyhoe asked a series of probing questions about the project's handling of cases, its relationship to the Air Force, Condon's personal knowledge of the NICAP-submitted material (had he even looked at it?), and his own investigations (had he conducted any?). Keyhoe already knew the answer to this last question (Keyhoe, 1967). Condon and Low coolly replied that they had no obligation to answer any of the questions ("NICAP Breaks," 1968).

Fracture and fiasco. All of this was taking its toll on the staff. As early as February 1967, in a letter to a friend, one of the active field investigators had some acid-toned observations:

In a sense I have more to do with what actually gets done than most of "those in charge" because I am working fulltime and I see & hear everything that comes in, and hear it first hand. . . . Most of the project heads (all except one) have duties in their departments and are only part-time on this. Thank God that is the case as most of them contribute generously with the axe and have little positive to offer, much less enthusiasm. . . . It's as though the first concern of the group is to protect themselves from getting tainted by the quasi-scientific animal known as UFO. By the time they have succeeded at this, their value as open-minded scientists has suffered greatly.

In the midst of all this, the staff was doing its best to investigate new cases received through the Early Warning Network. (Despite its earlier commitment to provide the committee with current sightings, Blue Book seldom did so, to everybody's annoyance, even the normally apathetic Condon's.) UFO activity was at an ebb, however, so staff members often turned to older cases. Saunders and Roy Craig, for example, reinvestigated one in which a Great Falls, Montana, man filmed apparent UFOs on the morning of August 15, 1950 (see *The Emergence of a Phenomenon*, pp. 251-54). Saunders would call this the "one sighting of all time that did more than any other to convince me that there is something to the UFO problem." Wertheimer reinterviewed witnesses and airport personnel who had participated in the classic radar/visual case which took place over Washington, D.C., in July 1952 (*Emergence*, pp. 396-403). Between August 1966 and December 1967 there were, according to one estimate (Swords, 1995), some 38 field trips, usually taken by Craig or James Wadsworth. Saunders devoted much of his time to the creation of a computer database which would allow statistical studies of UFO reports.

There was talk of preparing a minority report. The potential danger to serious UFO research from Condon's actions seemed enormous to Saunders, Levine, and other staff members. Most were thoroughly alienated from Condon and Low. Saunders quietly began to plan a report which, after reviewing the most evidential cases, would recommend an expanded, more fully funded study.

The most notorious episode in the history of the Condon Committee had its genesis in a chance discovery made in July 1967. Craig, one of the newer members of the project (he had been there two months), was slated to speak about the project to a couple of audiences in Portland, Oregon. He asked Low for some background material, and among other files Low handed him one marked "AF Contract and Background." As he read through it, Craig came upon Low's August 1966 memo—the one that would eventually be tagged the "trick memo." It disturbed him so much that he decided to show it to Norman Levine, who had joined the project around the time Craig had. "See if this doesn't give you a funny feeling in the stomach," he said. It did.

Levine took it to Saunders. As he studied it, Saunders reflected that nothing in it surprised him. It was exactly in line with the actions and attitudes Low had demonstrated all along. The memo was copied and shown to other staff members, none of whom said anything to Low or Condon. Saunders showed a copy to Keyhoe, and now NICAP knew. Keyhoe in turn gave one to McDonald.

Condon and Low detested the scrappy, aggressive McDonald, who had been among the first to see what Condon had in mind for the project that, at least in common parlance, bore his name. All along McDonald had felt *he*, not Condon, ought to be leading the project, and by early 1967 he was communicating criticisms of Condon's efforts to NAS president Frederick Seitz. (According to agreement, NAS was to review the project's findings prior to publication.) Meanwhile he was keeping in regular touch with Saunders and Levine and discussing with them possible joint, post-project UFO studies, perhaps as part of a formal organization which would publish a professional journal. It was not until August 1967, however, that McDonald would get a formal invitation to brief the committee. Condon was barely civil to him.

Still, McDonald, whose expertise on the UFO phenomenon no one disputed, could not be ignored. On January 19, 1968, Low called him and asked what he knew about earlier statistical studies of UFOs. McDonald saw this as an opening to discuss with Low his reservations about the project's operation and direction. Low made it clear he had no interest in McDonald's

opinions, offering the strange observation that McDonald ought not to criticize the project until its work was over. After 45 minutes of this sort of noncommunication, the two hung up the phone. Unable to exorcise his frustrations any other way, the University of Arizona physicist sat down and composed a long letter to Low on January 31.

McDonald explained his reason for writing:

In most scientific activities, a multiplicity of efforts, by groups who are all effectively "equal in the eyes of the law," controls the evolution of progress on the problem in question. Not so with the UFO problem. It will all hinge, for some years hence, on how Dr. Condon and you, and the small investigative staff of the Colorado Project, proceed—on how energetically and how open-mindedly all of you attack this almost unprecedented scientific problem. For these reasons, I feel that to delay longer in speaking out on my growing concerns would be to overlook important scientific obligations. Indeed, I feel I may already have delayed somewhat too long in so speaking out. Thus I cannot accept your suggestion to postpone my queries and criticisms until the end of 1968, when your final report will be made public.

He went on to cite Condon's negative comments, his crackpot obsession, his noninvolvement in field investigation, his distance from the staff, and his failure to focus on the truly anomalous, scientifically interesting cases. One paragraph of the seven-page letter quoted the August 9, 1966, trick memo. "I am rather puzzled by the viewpoints expressed there," McDonald said; "but I gather that they seem straightforward to you, else this part of the record would, presumably, not be available for inspection in the open Project files."

The letter came into Low's hands on February 5. To him nothing else mattered but that one paragraph. In a rage he went to Condon, who also blew up. The following morning, after threatening Saunders with professional ruin, Condon fired him. Levine was also sacked. Condon called the president of the University of Arizona and told him McDonald had "stolen" the memo. Then he wrote McDonald directly and accused him of treachery and disloyalty. He



Robert J. Low, who served as coordinator for the project, shared Condon's disdain for the UFO phenomenon.

also wrote the Air Force to blast Levine, in an apparent effort to damage his security clearance.

On February 24 Mary Lou Armstrong, the assistant administrator, wrote a resignation letter to Condon. She said that "there is an almost unanimous 'lack of confidence' in [Low] as project coordinator and in his exercise of the power of that position." Though Low had little interest in or knowledge of UFOs, he obviously had his mind made up. Those who were actively involved in investigation of reports had come to conclusions quite different from those espoused by Low. She and other staff members resented his effort to isolate them from such UFO authorities as Hynek, Vallee, McDonald, Hall, and others, even as Low freely consulted with anti-UFO scientists and solicited their ideas on how the final report should be written.

The conflict within the project was covered in the press and, in May, in the mass-circulation *Look*,

where John G. Fuller called the Condon Committee a "fiasco" and a "\$500,000 trick." (Midway through its operation the committee received additional funding which brought the total from the original \$313,000 to over half a million dollars.) NICAP announced the cessation of its association in an April 30 news conference at which copies of the Low memo were circulated. When *Science* reported the controversy in its July 26 issue, Condon was so incensed that he resigned from the AAAS, *Science's* sponsor. He was also threatening to sue Saunders and Levine, who were returning the favor. Condon also hinted that he might seek legal action against *Look*. Nothing came of any of this. Late in the year Saunders and Harkins's *UFOs? Yes!* told Saunders's side of the story.

By late spring, though embroiled in scandal, though without the services of some of its most skilled, knowledgeable, and committed personnel, the committee had finished the investigative phase of its operation. From then on, into the fall, the staff concentrated on writing and compiling the final report. In November the manuscript, heavily padded with technical papers only marginally relevant to the ostensible subject of the larger report, was turned over to the NAS, headed by Condon's old friend and former student Frederick Seitz. The NAS review panel, consisting of 11 scientists (whose names McDonald had tried without success to get from Seitz in early 1967), gave the report its enthusiastic approval and backed all its conclusions and recommendations. In a January 9, 1969, letter to Assistant Secretary of the Air Force Alexander Flax, Seitz expressed the hope that the NAS review would "be helpful to you and other responsible officials in determining the nature and scope of any continuing research effort in this area."

Condon vs. the Condon Report. "U.F.O. Finding: No Visits from Afar," the *New York Times* headline read on January 8. Under the headline was the by-line of science reporter Walter Sullivan. Sullivan wrote that the soon-to-be-released University of Colorado Project report would debunk the ETH and dismiss "demands of some scientists and laymen for a large-scale effort to determine the nature of such 'flying saucers'." Such a project, the report says in effect, would be a waste of time and money." Reviewing the

project's history, Sullivan mentioned its critics, whom he characterized as "U.F.O. enthusiasts."

Sullivan was hardly an objective journalist but a partisan already engaged in spin control. Critics were charging that the report was damaged goods; the conflicts and controversies that had troubled the project were raising credibility problems which could be addressed only if the critics themselves were discredited. Though his *Times* article does not mention it, Sullivan had already written the introduction to the Bantam paperback edition (released that same week) of the committee report, formally titled *Scientific Study of Unidentified Flying Objects*. Its actual title and editor (medical journalist Daniel S. Gillmor) notwithstanding, the 965-page paperback—1485 in its Government Printing Office edition—would be called the Condon Report then and forever after.

In the introduction to the Bantam version, Sullivan offered a revisionist history of the project. As Sullivan told the story, Condon, a hard-headed but honest scientist, was unfairly set upon by UFO "buffs" (NICAP) and "disgruntled UFO believers" (Saunders and Levine). Keyhoe's interests, Sullivan implied, were purely monetary; "as author of *Flying Saucers Are Real*, [he] has a vested interest in the confirmation of his thesis." (In reality the book, a paperback published in 1950, had been out of print for over a decade and a half. For an account of Keyhoe's life and career, see *Emergence*, pp. 219-22.) Condon's love of crackpot stories did not reflect bias or contempt, according to Sullivan; these were just the sorts of tales that would naturally engage the attention of "a somewhat garrulous soul who loves to spin a good yarn."

From the critics' perspective in the book as in his tenure as project head, Condon put his conclusions before his evidence. Condon's "Conclusions and Recommendations" begins on page one and ends on page 50. The second paragraph, however, carries the punch line:

[T]he emphasis of this study has been on attempting to learn from UFO reports anything that could be considered as adding to scientific knowledge. Our general conclusion is that nothing has come from the study of UFOs in the past 21 years that has added to scientific knowledge. Careful consideration of the record as it is

available to us leads us to conclude that further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby.

These were the words nearly all popular media focused on, and that portion of the scientific press that had always been hostile to UFOs pronounced that the report had ended the UFO controversy, except of course (as *Nature* expressed it) to "the nuts [who] will be quite immune to its impact" ("A Sledgehammer," 1969). A *Science* editorial remarked that just as some people once saw ectoplasm as evidence for survival after death, so now "many present believers [in UFOs] will continue to believe for their own psychological reasons, which have nothing to do with science and the rules of evidence" (Hoagland, 1969). The traditionally UFOphobic *Time* sneered at the "saucer buffs" whose favorite theories the "Colorado investigation [has] destroyed . . . with simple, rational explanations" ("Saucers' End," 1969). Others compared UFO proponents to flat-earthers. The *Washington Star* (January 10) predicted, "From now on the world will be divided into two camps—the hordes who accept the logical conclusion that UFOs are misinterpreted earth phenomena, and the handful of borderline dingalings who insist that our planet is being given the once-over from outer space" (McDonald, 1969e).

If these sorts of outbursts revealed more about the writers than about their subjects, they also reflected the degree to which, even among the educated elite, the subject of UFOs continued to generate emotions far in excess of what reason alone would account for. It was hard for many people, Condon and his apologists prominently among them, to concede that UFO reports might represent anything at all, least of all a subject worthy of unbiased investigation. Condon, who had had an unprecedented opportunity, blew it and took revenge on those brave or foolish enough to say as much. These included not only Saunders, Levine, and McDonald but Robert M. Wood, a McDonnell Douglas aerospace engineer who briefed the committee on October 13, 1967. Subsequently Wood wrote Condon a critical but polite letter listing his concerns about project shortcomings. Later Wood learned that Condon contacted James S. McDonnell,

CEO of the company Wood worked for, and tried to get him fired (Wood, 1993).

Fortunately there were cooler heads, and not all scientific journals joined the chorus of UFO-bashers. One immediate problem, as anyone who read beyond Condon's introductory essay learned, was that of the 91 case histories the book covered, 30 remained unexplained. As McDonald among others would argue (McDonald, 1969d), even some of the "explained" cases—such as the 1952 Washington National radar/visual sightings and the Tremonton, Utah, film of the same year (*Emergence*, pp. 387-88)—seemed solved more by presumption than by the weight of evidence. But even if one agreed with every negative conclusion arrived at by every project analyst, one could still not get around the embarrassing fact that, as Hynek noted in a review published in *Bulletin of the Atomic Scientists*, "the percentage of 'unknowns' in the Condon report appears to be even higher than in the Air Force investigation . . . which led to the Condon investigation in the first place" (Hynek, 1969).

Hynek also noted that Condon's broad definition of "UFO" caused its own problems. To Condon a UFO is "the stimulus for a report made by one or more individuals of something seen in the sky . . . which the observer could not identify as having an ordinary natural origin." By this loose criterion the committee brought into its focus worthless reports which any trained analyst could have eliminated immediately. A real UFO, in Hynek's judgment (and italics), "is a report . . . the contents of which are puzzling *not only to the observer but to others who have the technical training the observer may lack.*"

Scattered throughout the report are statements by investigators and analysts who explicitly acknowledge the potential existence of UFOs. Some examples: "The preponderance of evidence indicates the possibility of a genuine UFO in this case." "The probability of at least one UFO involved appears to be fairly high." "The apparently rational, intelligent behavior of the UFO suggests a mechanical device of unknown origin as the most probable explanation of this sighting." Of one photographic case (McMinnville, Oregon, May 11, 1950; see *Emergence*, pp. 238-40) it is

said (by project investigator/photoanalyst William Hartmann):

This is one of the few UFO reports in which all factors investigated, geometric, psychological, and physical appear to be consistent with the assertion that an extraordinary flying object, silvery, metallic, disc-shaped, tens of meters in diameter, and evidently artificial, flew within the sight of two witnesses. It cannot be said that the evidence positively rules out fabrication, although there are some factors such as the accuracy of certain photometric measures of the original negatives which argue against a fabrication.

Critics such as Stanford University astrophysicist Peter A. Sturrock found that Condon's summaries of the different investigations were inaccurate, misleading, or false, or some combination thereof. For instance, Sturrock found "little relation between Hartmann's case studies and Hartmann's summary, on the one hand, and Condon's appraisal of UFO photographs, on the other hand" (Sturrock, 1974). In addition to other errors, Condon indicated that Hartmann had solved all the photographic cases.

Elsewhere Condon gave the impression that Gordon David Thayer, who investigated radar cases for the project, had explained all such incidents as arising from anomalous propagation. In fact, Thayer had assigned such an explanation to only 19 of 35 cases and considered a few of the latter (such as the Lakenheath/Bentwaters and RB-47 cases; *Emergence*, pp. 225-27 and 285-86 respectively) extremely puzzling.

Sturrock wondered how the NAS panel could have given its stamp of approval to a report as flawed as Condon's. He could only conclude that it had read only Condon's conclusions, paid modest if any attention to the rest, and rushed to judgment. "Seven weeks is a very short time to digest a report on what was, to all of the panel members, an unfamiliar subject," he suggested.

The views of a UFO subcommittee convened by the **American Institute for Aeronautics and Astronautics** (AIAA) came out of a much longer study of the Condon Report. The subcommittee, under the direc-

tion of Joachim P. Kuettner (head of the ESSA Research Laboratories), consisted of scientists and engineers with no previous position on UFOs. The results of the subcommittee's inquiries were published nearly two years after the release of the Colorado study. In its November 1970 issue the AIAA journal *Astronautics and Aeronautics* carried a three-page statement by the subcommittee. The statement took note of the disparities between the summaries by Sullivan and Condon and the actual content of the report, admittedly "difficult to read" due in large part to its confusing organization. The subcommittee remarked that a careful reading of the report would lead to a conclusion precisely opposite to Condon's. Far from discouraging further scientific inquiry into the UFO phenomenon, the report should encourage it. After all, "a phenomenon with such a high ratio of unexplained cases (about 30%) should arouse sufficient scientific curiosity to continue its study" ("UFO, An Appraisal," 1970).

Others held the same view. Aerospace scientist Robert M. L. Baker, Jr., wrote in *Scientific Research* (April 14, 1969) that the project had produced evidence that "seems to justify scientific investigation along many general and specialized frontiers." In *Physics Today* (December 1969) Gerald Rothberg, who had worked for the project in the summer of 1967, wrote that in this capacity he had personally investigated 100 sightings, three or four of which left him perplexed. Rothberg thought the "residue of unexplained reports" of sufficient potential importance to warrant recognition of the UFO phenomenon as a "legitimate scientific controversy"; a "reputable journal" should open itself to publication of "analyses of UFO reports with the ETI [extraterrestrial intelligence] proponents also stating their results. Who knows? They may just be right."

As had been clear from the beginning, staff members and consultants—those, in other words, actively involved in research, investigation, and analysis—were as a rule more inclined than Condon and Low to believe UFO reports to be worthy of scientific study. In May 1969 Roach, who had worked with the project in 1967, told Hynek that "discerning" readers saw through the flaws of the Condon Report. While failing to clarify the UFO issue, the committee had succeeded in exposing the "fallibility of scientists."

Roach said Hynek would have been the best qualified scientist to head the project (Roach, 1969). From internal memoranda and published statements of 16 project members, Michael D. Swords concluded that 11 favored scientific investigation of the phenomenon; in three cases it was not possible to assign a clear opinion on the question. Only Condon and Low unambiguously deemed serious UFO research beneath science's dignity (Swords, 1995).

After the storm. Speaking before the American Philosophical Society in April 1969, Condon characterized his critics as "flying saucer buffs who have been making money from sensational writing and lecturing to gullible audiences and collecting dues from the membership of their pseudoscience organizations." Even those who were "deeply sincere," however, were misguided followers of an irrational belief akin to astrology and spiritualism. If they were to be more pitied than scorned, on the other hand "publishers who publish or teachers who teach any of the pseudosciences as established truth should, on being found guilty, be publicly horsewhipped, and forever banned from further activity in these usually honorable professions" (Condon, 1969).

Condon's response to his critics never rose above this *ad hominem* level. To the extent that he had any post-committee association with UFOs, it was with the political aspects; specifically, he attempted to squelch further inquiry. Condon managed to postpone, though not to cancel, a AAAS UFO symposium organized by astronomers Carl Sagan and Thornton Page. (A member of an earlier government UFO study, the CIA-sponsored Robertson panel [see *Emergence*, pp. 289-91], which had also come to skeptical conclusions, Page privately thought little of either Condon or the Condon Report; Condon's approach to the UFO question was, in Page's estimation, "regrettably pseudoscientific" [Story with Greenwell, 1981].) Condon lobbied conservative scientists to his cause; swallowing his lifelong political liberalism, he approached Spiro T. Agnew to ask the Vice President to do what he could to stop the symposium. But AAAS president (and old Condon friend) Walter Orr Roberts backed Sagan and Page. The symposium was held at the AAAS convention in Dallas on December 26 and 27, 1969 (see *American Association for the Advancement of Science UFO Symposium*).

On December 17 Air Force Secretary Robert C. Seamans, Jr., announced the long-anticipated closure of Project Blue Book. In his statement Seamans, using words that echoed Condon's, said Blue Book "cannot be justified either on the ground of national security or in the interest of science" (*Air Force*, 1969). Though Blue Book had maintained its lowest profile ever during the Condon years, no one could deny that an era had ended. A *New York Times* article on the closing quoted Condon as calling UFOs "a bunch of damned nonsense" and being "sorry I ever got involved in such foolishness" (Lyons, 1969).

Ironically, for all Condon's effort to discourage scientific UFO research, it flourished as never before in the late 1960s and early 1970s. Looking back at that period in a 1992 lecture, historian of science Steven J. Dick would call it "the peak of scientific open-mindedness to the UFO phenomenon as extraterrestrial or any other hypothesis." Hynek's 1972 book *The UFO Experience* was well received in the scientific literature. "On balance," Cal Tech space scientist Bruce C. Murray wrote in *Science*, "Hynek's defense of UFOs as a valid, if speculative, scientific topic is more credible than Condon's attempt to mock them out of existence." Hynek's critique of the Condon Committee appeared in a chapter titled "Science Is Not Always What Scientists Do."

But all was far from well for proponents of continued UFO investigation. In the wake of the Condon Report, popular interest in UFOs plummeted. NICAP's membership loss in 1969 was so precipitous that it destroyed the organization's effectiveness forever. The organization limped on for another nine years under new leadership, but it was NICAP in name only (see *Emergence*, pp. 259-61). In June 1971, despondent over personal problems unrelated to his UFO interests, McDonald committed suicide at age 51—a loss from which ufology would never fully recover.

In 1973, with Sherman J. Larsen, Hynek organized the Center for UFO Studies (CUFOS), conceiving it as an organization through which well-funded, science-based research could be conducted. The funding did not materialize, and CUFOS would be forced to conduct its business on the shoestring budgets to which other civilian UFO groups had long since resigned themselves. Its many faults notwithstanding,

ing, the Condon Committee would be the last gasp of significantly funded UFO study in America for a long time to come.

Condon died in 1974, but five years earlier, in his review of the Condon Report, Hynek had looked ahead and predicted how the physicist would be remembered in the ages to come:

It is unfortunate that, almost certainly, popular history will henceforth link Dr. Condon's name with UFOs, and only the arcane history of physics will accord him his true place and record his brilliant career in contributing to the understanding, with mathematical elegance, of the nature of the physical world. These contributions UFOs cannot take away from him, even though his work with this problem is analogous to that of a Mozart producing an uninspired pot-boiler, unworthy of his talents.

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