

UFO ENCOUNTER 1

Sample Case Selected by the UFO Subcommittee of the AIAA

In its "Appraisal of the UFO Problem" A/A Nov. 1970, pp. 49-51, the Subcommittee pledged to give the members of this society an opportunity to form their own opinions with respect to the type of observations which form the core of the UFO controversy.

The selected case, which occurred on July 17, 1957, is treated in the Condon Report (Condon, E. U., 1969, *Scientific Study of Unidentified Flying Objects*, Bantam Books, N.Y., pp.56-58,136-139, 260-266, 750, 877-894). During the study by the University of Colorado group, the case files were not located due to an error in date. In addition, radar and weather analyses were made for September 19, 1957, rather than July 17, 1957. The conclusions drawn by members of the Condon Committee, based on available information are as follows:

1. *If the report is accurate, it describes an unusual, intriguing, and puzzling phenomenon, which, in the absence of additional information, must be listed as unidentified. (Condon, p.57).*
2. *In view of... the fact that additional information on this incident is not available, no tenable conclusions can be reached. From a propagation [Based on a wrong date.] standpoint, this sighting must be tentatively classified as an unknown. (Thayer, p.139).*
3. *If a report of this incident, written either by the B-47*

crew or by Wing Intelligence personnel, was submitted in 1957, it apparently is no longer in existence. Moving pictures of radar scope displays and other data said to have been recorded during the incident apparently never existed. Evaluation of the experience must, therefore, rest entirely on the recollection of crew members ten years after the event. These descriptions are not adequate to allow identification of the phenomenon encountered. (Craig, p.265).

4. *After review the unanimous conclusion was that the object was not a plasma or an electrical luminosity by the atmosphere. (Altschuler, p.750).*

Subsequently, James McDonald has been able to locate the case files, to correct the date of the flight and to draw additional information from the files as well as from personal interviews with the crew. At the request of the UFO Subcommittee, he describes the case in the following article. It is left to the reader to draw his own conclusions.

The aircraft Commander, Lt. Colonel Lewis D. Chase, USAF (Ret.), has confirmed the accuracy of this report in a letter to the Subcommittee.

This sample case may serve to illuminate the difficulties in deciding whether or not the UFO problem presents a scientific problem.

Air Force Observations of an Unidentified Object in the South-Central U.S., July 17, 1957

Summary

An Air Force RB-47, equipped with electronic countermeasures (ECM) gear and manned by six officers, was followed by an unidentified object for a distance of well over 700 mi. and for a time period of 1.5 hr., as it flew from Mississippi, through Louisiana and Texas and into Oklahoma. The object was, at various times, seen visually by the cockpit crew as an intensely luminous light, followed by ground-radar and detected on ECM monitoring gear aboard the RB-47. Of special interest in this case are several instances of simultaneous appearances and disappearances on all three of those physically distinct "channels," and

rapidity of maneuvers beyond the prior experience of the aircrew.

Introduction

In the early morning hours of July 17, 1957, an RB-47 was flying out of Forbes Air Force Base, Topeka, Kansas, on a composite mission that included gunnery exercises over the Texas-Gulf area, navigation exercises over the open Gulf, and finally ECM exercises scheduled for the return trip across the south-central United States. The RB-47 was carrying a six-man crew, of whom three were electronic warfare officers manning ECM gear in the aft portion of the aircraft. Their names are as follows: Lewis D. Chase, pilot; James H. McCoid, co-pilot; Thomas H. Hanley, navigator; John J. Provenzano, No.1 monitor; Frank B. McClure, No.2 monitor; Walter A. Tuchscherer, No.3 monitor.

I shall draw upon my interview with the crew as well as case files which I finally located. The files consist of a three-

page TWX filed from the 745th ACWRON, Duncanville, Texas, at 1557Z on July 17, 1957, and a four-page case summary prepared by E. T. Piwetz, Wing Intelligence Officer, 55th Reconnaissance Wing, Forbes AFB, and transmitted to ADC Hq., Ent AFB, Colorado, in compliance with a request of August 15, from Col. F. T. Jeep, Director of Intelligence, ADC. That summary, plus a 12-page Airborne Observer's Data Sheet, was forwarded on November 17 from ADC to Blue Book, and was evidently the first notification Project Blue Book received concerning this case.

The 12-page Data Sheet (AISOP #2) was prepared by Major Chase on September 10, and contains a number of points of relevance not covered in other parts of the case file.

There is very relevant information in the case file as to precise times, locations, and other circumstances, and the case file does have the great

virtue of representing a summary account prepared while all of the details were fresh in the minds of the crew.

Before describing the first ECM contact, it is necessary to explain briefly the nature of the ECM gear involved in this case. (Details are no longer classified, although all of the basic case-file documents were initially SECRET.) This RB-47 had three passive direction-finding (DF) radar-monitors for use in securing coordinate information and pulse characteristics on enemy ground-based radar. The #2 monitor, manned by McClure, was an ALA-6 DF-receiver with back-to-back antennas in a housing on the belly of the RB-47 near the tail spun at 150 or 300 rpm as it scanned an azimuth. (Note that this implies ability to scan at 10/sec past a fixed ground radar in the distance.) It's frequency range was 1000-7500 MHz. Inside the aircraft, the signals from the ALA-6 were processed in an APR-9 radar receiver and an ALA-5 pulse-analyzer. All subsequent references to the #2 monitor imply that system.

Number 1 Monitor

The #1 monitor, manned by Provenzano, was an APD-4 DF system, with a pair of antennas permanently mounted on either wing tip. It was working at a higher frequency. The #3 monitor, with a frequency range from 30-1000 MHz, was manned by Tuchscherer. It was not affected and will not be described here. VHF communications were likewise not affected.

For emphasis, it needs to be stressed that the DF receivers are *not* radars and do not emit a signal for reflection off a distant target. They only listen passively to incoming radar signals and analyze signatures and other characteristics. When receiving a distant radar set's signal, the scope displays a pip or strobe at an azimuthal position corresponding to the relative bearing in the aircraft coordinate system. For the case of a fixed ground radar, approached from one side, the strobe is initially seen in the upper part of the scope and moves *down-scope*, a point to be carefully noted in interpreting the following discussion.

Having completed the navigational exercises over the Gulf, Chase headed across the Mississippi coastline, flying at an altitude of 34,500 ft, at about Mach 0.75 (258 kt IAS=500 mph TAS). The weather was perfect and practically cloudless

under the influence of a large high-pressure area extending throughout the troposphere. There were no showers or thunderstorms anywhere along the flight route. Shortly after the coast near Gulfport was crossed at a point marked A on the map in page 68, McClure detected on the #2 monitor a signal painting at their 5 o'clock position (aft of the starboard beam). It looked to him as if he were receiving a legitimate ground-radar signal. Upon noting that the strobe was moving *up-scope*, McClure tentatively decided that it must be a ground radar off to their northwest painting with 180 deg ambiguity for some electronic reason. But when the strobe, after sweeping up-scope on the starboard side, crossed the flight path of the RB-47 and proceeded to move *down-scope* on the port side McClure said he gave up the hypothesis of 180 deg ambiguity as incapable of explaining such behavior.

Fortunately, he had examined the signal characteristics on his ALA-5 pulse-analyzer, before the signal left his scope on the port side aft. In discussing it with me, his recollection was that the frequency was near 2800 mcs, and he recalled that what was particularly odd was that it had a pulse-width and pulse repetition frequency (PRF) much like that of a typical S-band, ground-based, search radar. He even recalled that there was a simulated scan rate that was normal. Perhaps because of the strong similarities to ground-based sets such as the CPS-6B, widely used at that time, McClure did not, at that juncture, call this signal to the attention of anyone else in the aircraft. The #1 monitor was not working the frequency in question, it later developed. The #3 monitor was incapable of working the frequency in question, McClure and the others indicated to me.

I next quote information transcribed from the summary report prepared by the Wing Intelligence Officer, COMSTRATRECONWG 55, Forbes Air Force Base, concerning this part of the incident that involved this aircraft (call sign "Lacy 17"):

ECM reconnaissance operator #2 of Lacy 17, RB-47H aircraft, intercepted at approximately Meridian, Mississippi, a signal with the following characteristics: frequency 2995 mc to 3000 mc; pulse width of 2.0 microseconds; pulse repetition frequency of 600 cps; sweep rate of 4 rpm; vertical polarity. Signal moved rapidly up the D/F scope

indicating a rapidly moving signal source; i.e., an airborne source. Signal was abandoned after observation...

Initial Visual Contact

If nothing further had occurred on that flight to suggest that some unusual object was in the vicinity of the RB-47, McClure's observations undoubtedly would have gone unmentioned and would have been quickly forgotten even by him. He was puzzled, but at that point still inclined to think that it was some electronic difficulty.

The flight plan called for a turn to the west in the vicinity of Meridian and Jackson, Mississippi (Point B), with subsequent planned exercises wherein the EWOs did simulated ECM runs against known ground radar units. The contemporary records confirm what Chase and McCoid described to me far more vividly and in more detail concerning the unusual events that soon ensued.

They turned into a true heading of 265 deg, still at Mach 0.75 at 34,500 ft. At 1010Z (0410 CST), Major Chase, in the forward seat, spotted what he first thought were the landing lights of another jet coming in fast from near his 11 o'clock position at, or perhaps a bit above, the RB-47's altitude. He called McCoid's attention to it, noted absence of any navigational lights, and as the single intense bluish-white light continued to close rapidly, he used the intercom to alert the rest of the crew to be ready for sudden evasive maneuvers.

But before he could attempt evasion, he and McCoid saw the brilliant light almost instantaneously change direction and flash across their flight path from port to starboard at an angular velocity that Chase told me he had never seen matched in all of his 20 years of flying, before or after that incident. The luminous source had moved with great rapidity from their 11 o'clock to about their 2 o'clock position and then blinked out.

The Airborne Observer's Data Sheet filled out by Chase as part of the post-interrogation gives the RB-47 position at the time of that 1010Z first visual contact as 32-00N, 91-28W, which puts it near Winnsboro in east-central Louisiana (Point C).

The descriptions obtained in the 1969 interviews with these officers are closely supported by the original intelligence report:

**MAP OF THE
JULY 17, 1957,
UFO EPISODE**



KEY

- PATH OF RB-47H DURING PERIOD OF CONTACT WITH UFO
- OTHER PORTIONS OF RB-47H FLIGHT

- A--FIRST ECM CONTACT OVER GULFPORT AREA
- B--RB-47H TURNS TO WEST NEAR MERIDIAN
- C--FIRST VISUAL SIGHTING BY COCKPIT CREW
- D--RB-47H TURNS NORTHWESTWARD TO PURSUE AT FULL POWER
- E--AREA NEAR WHICH AIRCRAFT OVERSHOOTS UFO
- F--OBJECT APPEARS TO RAPIDLY DROP 5000 FT., THEN BLINKS OUT AS RB-47H ATTEMPTS TO DIVE ON IT
- G--LAST ECM CONTACT NEAR OKLAHOMA CITY, 1.5 HR AFTER FIRST VISUAL CONTACT
- H--RB-47H LANDS AT HOME BASE

At 1010Z aircraft cmdr first observed a very intense white light with light blue tint at 11 o'clock from his aircraft, crossing in front to about 2:30 o'clock position, co-pilot also observed passage of light to 2:30 o'clock where it apparently disappeared.

Chase did not observe any magnetic compass anomalies during the flight.

Actions over Louisiana-Texas Area

Immediately after the luminous source blinked out, Chase and McCoid began talking about it on the interphone, with the already alerted crew listening in. McClure, recalling the unusual signal he had received on his ALA-6 back near Gulfport, now mentioned for the first time that peculiar incident and concurrently set his #2 monitor to scan at about 3000 mcs, to see what might show up. He found he was getting a strong 3000 mcs signal from about their 2 o'clock position, just the relative bearing at which the unknown luminous source had blinked out moments earlier.

Provenzano told me that immediately after that they checked out the #2 monitor on other known ground-radar stations, to be sure that it was not malfunctioning; it appeared to be in perfect working order.

He then tuned his own #1 monitor to 3000 mcs and also got a signal from the same bearing. There remained, of course, the possibility that, just by chance, this signal was from a real radar down on the ground and off in that relative direction. But as the minutes went by and the RB-47 continued westward at about 500 mph, the relative bearing of the 3000 mcs source out in the dark did not move down-scope on the monitors as should have occurred with any ground radar, but instead kept up with the RB-47, holding a fixed relative bearing.

I found these and ensuing portions of the entire episode still vivid in the minds of all the men, although their recollections for various details varied somewhat, depending on the particular activities in which they were then engaged.

Chase varied speed, going to maximum allowed power, but

nothing seemed to change the relative bearing of the 3000-mcs source. They crossed Louisiana and headed into eastern Texas, with the object still maintaining station with them. Eventually they got into the radar-coverage area of the 745th ACWRON, Duncanville, Texas, and Chase dropped his earlier reluctance about calling attention to these peculiar matters and contacted that station (code name "Utah"). The crew was becoming uneasy about the incident by this time, several of them remarked to me. That phase of the incident is tersely described in the following quotes from the report of the Wing Intelligence Officer:

Aircraft comdr notified crew and ECM operator Nr 2 searched for signal described above, found same approximately 1030Z at a relative bearing of 070 degrees; 1035Z, relative bearing of 068 degrees; 1038Z, relative bearing 040 degrees.

Note that the above time would indicate that McClure did not immediately think of making his ALA-6 check, but rather that some 20 min went by before that was thought of. Note also that by 1038Z the

THE UFO SUBCOMMITTEE OF THE AIAA

Chairman

JOACHIM P. KUETTNER

Environmental Research Laboratories of the
National Oceanic and Atmospheric Administration
Boulder, Colorado

Members

JEROLD BIDWELL
Martin-Marietta
Denver, Colorado

GLENN A. CATO
TRW Systems
Redondo Beach, California

BERNARD N. CHARLES
Hughes Aircraft
El Segundo, California

MURRAY DRYER
Environmental Research
Laboratories of the National
Oceanic and Atmospheric
Administration
Boulder, Colorado

HOWARD D. EDWARDS
Georgia Institute of Technology
Atlanta, Georgia

PAUL MacCREADY Jr.
Technical Consulting
Altadena, California

ANDREW J. MASLEY
McDonnell Douglas Missile &
Space Systems
Santa Monica, California

ROBERT RADOS
NASA Goddard Space Flight
Center
Greenbelt, Maryland

DONALD M. SWINGLE
U.S. Army Electronics Command
Fort Monmouth, New Jersey

Secretary

VERNON J. ZURICK

Environmental Research Laboratories of the
National Oceanic and Atmospheric Administration
Boulder, Colorado

unknown source of the 3000 mcs radar-like signal was moving up-scope relative to the 500 mph RB-47. The Wing Intelligence Officer continued:

At 1039Z aircraft comdr sighted huge light which he estimated to be 5000 [ft] below aircraft at about 2 o'clock. Aircraft altitude was 34,500 ft, weather perfectly clear. Although aircraft comdr could not determine shape or size of object, he had a definite impression light emanated from top of object.

At about 1040Z ECM operator #2 reported he then had two signals at relative bearings of 040 and 070 deg. Aircraft comdr and co-pilot saw these two objects at the same time with same red color. Aircraft comdr received permission to ignore flight plan and pursue object. He notified ADC site Utah and requested all assistance possible. At 1042Z ECM #2 had one object at 020 deg relative bearing.

In my interviews with the aircrew, I found differences between the recollections of the various men as to some of these points. McCoid recalled that the luminous source occasionally moved abruptly from starboard to port side and back again. Chase recalled that they had contacted Utah (his recollection was that it was Carswell GCI, however)

prior to some of the above events and that Utah was ground-painting the target during the time it moved up-scope and reappeared visually. As will be seen below, the contemporary account makes fairly clear that Utah was not painting the unknown until a bit later, after it had turned northwestward and passed between Dallas and Ft. Worth. Chase explained to me that he got FAA clearance to follow it in that off-course turn (Point D) and indicated that FAA got all jets out of the way to permit him to maintain pursuit. The Intelligence summary continues:

At 1042Z ECM #2 had one object at 020 deg relative bearing. Aircraft comdr increased speed to Mach 0.83, turned to pursue, and object pulled ahead. At 1042.5Z ECM #2 again had two signals at relative bearings of 040 and 070 deg. At 1044Z he had a single signal at 050 deg relative bearing. At 1048Z ECM #3 was recording interphone and command position conversations.

ADC site requested aircraft to go IFF Mode III for positive identification and then requested position of object. Crew reported position of object as 10 n. mi. northwest of Ft. Worth, Texas, and ADC site Utah immediately confirmed presence of objects on their scopes.

At approximately 1050Z object

appeared to stop, and aircraft overshot. Utah reported they lost object from scopes at this time, and ECM#2 also lost signal.

Chase, in reply to my questions, indicated that it was his recollection that there was simultaneity between the moment when he began to sense that he was getting closure at approximately the RB-47 speed, and the moment when Utah indicated that their target had stopped on their scopes. He said he veered a bit to avoid colliding with the object, not then being sure what its altitude was relative to the RB-47, and then found that he was coming over the top of it as he proceeded to close. At the instant that it blinked out visually and disappeared simultaneously from the #2 monitor and from the radar scopes at Site Utah, it was at a depression angle relative to his position of something like 45 deg.

Chase put the RB-47 into a port turn in the vicinity of Mineral Wells, Texas (Point E), and he and McCoid looked over their shoulders to try to spot the luminous source again. All of the men recalled the near simultaneity with which the object blinked on again visually, appeared on the #2 scope, and was again skin-painted by ground radar at Site Utah. The 1957 report describes these events as follows:

Aircraft began turning, ECM #2 picked up signal at 160 deg relative bearing, Utah regained scope contact, and aircraft comdr regained visual contact. At 1052Z ECM#2 had signal at 200 deg relative bearing, moving up his D/F scope. Aircraft began closing on object until the estimated range was 5 n. mi. At this time object appeared to drop to approximately 15,000 ft altitude, and aircraft comdr lost visual contact. Utah also lost object from scopes.

At 1055Z in the area of Mineral Wells, Texas, crew notified Utah they must depart for home station because of fuel supply. Crew queried Utah whether a CIRVIS Report had been submitted, and Utah replied the report had been transmitted. At 1057Z ECM#2 had signal at 300 deg relative bearing, but Utah had no scope contact. At 1058Z aircraft comdr regained visual contact of object approximately 20 n. mi. northwest of Ft. Worth, Texas, estimated altitude 20,000 ft at 2 o'clock from aircraft.

Case added further details on this portion of the events, stating that he requested and secured permission from Utah to dive on the object when it was at lower altitude. He did not recall the sudden descent that is specified in the contemporary account, and there are a number of other minor points in the Intelligence Report that were not recollected by any of the crew. He told me that when he dove from 35,000 ft to approximately 20,000 ft the object blinked out, disappeared from the Utah ground-radar scopes, and disappeared from the #2 monitor, all at the same time. McClure recalled that simultaneous disappearance, too. It should be mentioned that the occasional appearance of a second visual and radar-emitting source was not recalled by any of the officers when I interviewed them in 1969.

Actions over Texas-Oklahoma Area

McCoid recalled that, at about this stage of the activities, he was becoming a bit worried about excess fuel consumption resulting from use of maximum allowed power, plus a marked departure from the initial flight plan. He advised Chase that fuel limitations would necessitate a return to the home base at Forbes AFB, so they soon headed north from the Ft. Worth area (Point F).

McClure and Chase recalled that the ALA-6 system again picked up a

3000 mcs signal on their tail, once they were northbound from Ft. Worth, but there was some variance in their recollections as to whether the ground radar concurrently painted the object. McCoid was unable to fill in any of those details. Fortunately the 1957 Intelligence Report summarized further events in this part of the flight, as they moved northward into Oklahoma:

At 1120Z aircraft took up heading for home station. This placed area of object off the tail of aircraft. ECM#2 continued to [get] D/F signal of object between 180 and 190 deg relative bearing until 1140Z, when aircraft was approximately abeam Oklahoma City, Oklahoma. At this time, signal faded rather abruptly. 55 SRW DOI [55th Strategic Reconnaissance Wing, Director of Intelligence] has no doubt the electronic D/F's coincided exactly with visual observations by aircraft comdr numerous times, thus indicating positively the object being the signal source.

It was Chase's recollection that the object was with them only into southern Oklahoma; Hanley recalled that it was with them all the way to Oklahoma City area (Point G); the others remembered only that it was there for some indefinite distance on the northbound leg between Ft. Worth and Topeka, their home base.

Blue Book

The records indicate that Project Blue Book received summary information on this incident from ADC on Oct. 25, 1957 (over two months after occurrence of the event). A "Brief Summary" ends with the following paragraph:

In joint review with the CAA of the data from the incident, it was definitely established by the CAA that object observed in the vicinity of Dallas and Ft. Worth was an airliner.

This refers to a near-collision of two DC-6 American Airliners near Salt Flats, Texas, 50 mi. from El Paso at 14,000 ft at 3:30 a.m. of this day. (See the map on page 68.) The case is now carried in the official Blue Book files as "Identified as American Airlines Flight 655."

MacDonald Dies

On June 13, James E. MacDonald was found dead in the desert near Tuscon. He was 51 years old.