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Southwest Flight #2452 UAP Case Study: Unraveling the Mystery in American Airspace

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Abstract

A former Navy pilot reports witnessing a glowing, reddish-orange orb during a Southwest Airlines flight at 24,000 feet. The object traveled north-northwest, three times faster than the plane, and remained unidentified despite the witness's expertise in aviation. Investigation confirms the object wasn't a planet, satellite, meteor, drone, or known aircraft. While pilot corroboration was sought, Southwest refused interview access. Given the witness's credibility and lack of plausible explanations, this case qualifies as an Unidentified Aerial Phenomenon (UAP) deserving further investigation.

Keywords: *Unidentified Anomalous Phenomena (UAPs), Unidentified Flying Objects (UFOs), Southwest Airlines, Unexplained sighting, Aviation*

INTRODUCTION

The term "UFO" often sparks immediate mental images of sleek spaceships and intergalactic visitors (Randle, 2022). While the "UFO" acronym persists in popular culture, the scientific community and even government agencies are increasingly adopting terms like "UAP" which can stand either for "Unidentified Anomalous Phenomena" or "Unidentified Aerial Phenomena," depending on the source, to emphasize the objectivity and neutrality inherent in studying these observations (Coleman, 2023; Medina et al., 2023). At its core, a UAP is simply an unidentified object. Remember that "unidentified" doesn't automatically equate to "alien."

In fact, many UAP sightings can be explained through careful investigation and existing scientific knowledge. Misidentified airplanes, natural phenomena like meteors, and even satellites can appear unusual to untrained eyes (Randles, 1992). Resources like FlightRadar24, the American Meteor Society's Fireball log, and online astronomy databases can readily aid in debunking these cases. However, even after filtering out known objects and phenomena, a subset of UAP observations remain unidentified. This case study delves into one such UAP sighting, examining the data objectively and critically while acknowledging the limitations of our current understanding.

On January 21, 2020, at 17:50 local time (23:50 Zulu), aboard a Southwest flight traversing the skies near Rome, Georgia, an individual (hereafter referred to as the witness) encountered a UAP defying explanation. This sighting was subsequently reported in February 2020 to both a local scientist with a vested interest in UAP research and the Mutual UFO Network (MUFON). The witness's account, corroborated by the reported observation of the flight crew, was formally documented in an interview conducted March 16, 2020. However, attempts to corroborate the pilot's alleged sighting proved unsuccessful.

The witness, a seasoned aviation enthusiast in his mid-60s, honed his aircraft identification skills during a two-year stint as a sailor aboard a U.S. Navy aircraft carrier who at the time of his military service could identify nearly all military and civilian aircraft. Though no longer in active service, his passion for flight persists, evident in his frequent Southwest Airlines travels and predilection for window seats near the wings, affording him both direct observation and access to flight data through the seat monitor.

To establish witness credibility, the interviewer verified their name, identity, and background information. Furthermore, the witness provided evidence of keen eyesight and, due to their profession in healthcare, confirmed regular drug testing with a clean record. Given the comprehensive nature of the interview and subsequent report, a descriptive format has been employed.

WITNESS EXPERIENCE

Tuesday January 21, 2020 “was shaping up to be another relatively uneventful day” as the witness boarded Southwest flight #2452 to Atlanta. In another few hours, and at least one more connection, he would be home.

Although it had been many years since the witness served on a naval aircraft carrier, he remained fascinated by aircraft and aviation. He would often still read about the latest aircraft and considered himself very knowledgeable about aircraft of all forms and when on-board he preferred to spend his time alternating between looking out the aircraft window and watching the flight analysis on his seat’s monitor. The witness slid into a window seat near the wings for what he expected to be a typical flight.

The witness continued to watch the trajectory and flight information on his seat monitor. 5:50 pm. The aircraft was near Rome, Georgia now and flying south/southeast to Atlanta at approximately 140 degrees. Their altitude had decreased to roughly 25,000 feet and a slight tailwind was pushing against the aircraft and was expected to cause earlier than expected arrival into Atlanta.

The witness looked out the window and was startled by a reddish ball with a plasma field type glow about “the same size as a quarter of a size of a dime.” The ball flew 500 feet to the left and 1000 feet below the aircraft and appeared to maintain altitude. For the next six seconds, the witness watched as the object continued traveling in a N/NW direction about three times the velocity of the aircraft. There did not appear to be a light trail.

Having never seen anything like this, the witness continued to consider what it could be. A quick back of the napkin calculation... about 20 to 30 feet in circumference if his estimates are correct.¹ Could it be a drone? Unlikely. Drones are typically smaller and to be flying at 24000 feet would seem unlikely? Helicopter? No. This did not seem correct either. The witness went through every aircraft he had seen or heard of. Nothing seemed to fit what he saw.

It did not take long before Southwest flight #2452 landed ahead of schedule in Atlanta. As the witness exited the aircraft, the pilots and other flight crew stood outside the craft welcoming the passengers to their new location while the passengers thanked them for such a wonderful flight.

The witness approached the flight crew for a different reason, to ask if any of them had also seen the reddish craft. As the witness started to ask about the mysterious craft, one of the pilot’s eyes widened in surprise. The pilot admitted those in the cockpit “saw it from way off” and were also unsure of what it was, but it was unlike anything any of them had ever seen before.

The witness and the pilot were unable to discuss the matter further. It continued to bother him and a month later, the case was submitted for investigation.

INVESTIGATION AND ANALYSIS

Tasked with further investigation, the author sought to interview the flight crew for corroborating testimony. However, Southwest Airlines declined to facilitate communication with the pilot regarding this case. Nevertheless, the author persevered, utilizing various astronomical and aviation databases to gather additional information and to consider possible theories.

1. The object's altitude (24,000 feet), relative position (1,000 feet below the aircraft), and as it was not yet dark (sunset was 17:58) rendered misidentification with any known celestial body (planets, stars, satellites) highly improbable (Heavens Above, 2020).

¹ The interviewer independently did similar calculations. Assuming all of the estimates are correct, an angular size of one quarter of a dime is a little larger than an aspirin and assuming the distance he provided were at right angles to the airplane and taken at the same time, this would suggest at that moment the hypotenuse of the triangle would put it around 1120 feet away suggesting a craft 7.12 feet in diameter or around 22.4 feet in circumference.

2. While the plasma glow suggested a potential meteoric origin, and the sighting coincided with four meteor showers that day, the American Meteor Society's fireball logs revealed only 13 reports of fireballs worldwide (fireballs defined as being brighter than -4 magnitude), none within Georgia, further weakening the meteor hypothesis (American Meteor Society, 2020). Further, assuming this had been a meteor, assuming 22.5 feet in diameter (6.86 meter), an average velocity of 17 km/second, an angle of 45 degrees, and a density of 2500 kg/m³ it would have broken up at 42900 meters (141000 feet) well above the height of the airplane (Marcus et al., 2004).
3. FlightRadar24, a global air traffic tracking system, identified only one flight (NK935) intersecting the witness's trajectory within a 30-minute window. Notably, FlightRadar24 data confirmed NK935 flying above the witness's Southwest flight, contradicting the observed position below (FlightRadar 24, 2020). While some airplanes do turn off their ability to be tracked by FlightRadar, the movement described by the witness is inconsistent with an aircraft. Further, airplanes have distinguishing green, red, and white navigational lights which were not on the UAP further making it unlikely that it was an additional airplane.
4. Federal Aviation Administration (FAA) drone reports confirmed no registered drone activity in Georgia on the date of the sighting (Federal Aviation Administration, 2020). Recreational drones may not be flown more than 400 feet above the ground. The craft was identified at approximately 24,000 feet in altitude, 60 times the height that a recreational drone may fly. A commercial drone in some cases may be able to fly approaching, that altitude however the relatively short duration and that apparent lack of events, plus the lack of a record by the FAA seems a commercial drone is unlikely, leaving the possibility of military drones who while they can reach those altitudes, the object was round while the high flying military drones tend to be shaped more like an aircraft (Bledsoe, 2023). Further, there was no military base close to Rome, Georgia which have large high flying drone capabilities. This appears to weaken, but does not completely eliminate, the drone hypothesis.
5. Environmental factors also demanded consideration. Ground-level temperature stood at 37 degrees Fahrenheit with a 9 mph northerly wind (Weather Underground, 2020). Additionally, the METAR report indicated scattered clouds and 10 miles of pilot visibility, with no rain. While the rare meteorological phenomena called ball lightning could produce a 6 second reddish glow that could move somewhat erratically, the diameter is up to 50 cm (1.64 feet) making it smaller than what was witnessed (Sturrock, 2017). Further, the conditions for lighting were not present. This further diminishes the likelihood of weather-related explanation such as ball lightning.
6. The plasma glow raised the possibility of space debris, but Space Track data revealed no incoming debris trajectories aligning with the time and location of the observation (Space Track, 2020).

DISCUSSION AND CONCLUSION

Although an interview with the pilot would have undoubtedly strengthened the case as would any form of photographic evidence, the witness's background lends significant credence to their account. Their prior military service, coupled with their expertise in aircraft, their involvement in a profession requiring regular drug testing, and their lack of belief in UAPs previous to this incident, makes the witness's statement seem credible.

Analysis of available data indicates the object's altitude at approximately 24,000 feet, positioned a thousand feet below the moving aircraft. Notably, FlightRadar24 showed no corresponding aircraft tracks, the American Meteor Society reported no "fireball" meteors within the vicinity, the Federal Aviation Administration reported no drone activity, and Space Track data revealed no known re-entries aligning with the sighting timestamp. While predictions anticipated several pieces of space debris falling on that day and four meteor showers were active, most such objects entering Earth's atmosphere exhibit a reddish-orange glow and a significantly higher trajectory, often leaving a visible trail. The witness, however, neither observed nor reported any trail associated with the object.

In summary, the witness's observation of a reddish-orange glowing orb traveling in a north-northwest direction beneath an aircraft appears unable to be explained unless it was an unknown military drone flying far from any known military in Georgia. Furthermore, the object remained unidentified despite consultation with an

aviation expert who has studied 90 UAP prior case reports. These anomalous features solidify the case's classification as an Unidentified Aerial Phenomenon, warranting further investigation.

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