

CASE FILE 89 / 237UAP00556

# 237UAP00556

Multiple-witness public UAP report; score 40

NORMAL-OBJECT FAVORED

REPORT NO.	UAP-OM-89-237UAP00556	DISPOSITION	NORMAL-OBJECT FAVORED
PRIMARY CASE	237UAP00556	GENERATED	2026-05-20 18:32 UTC
REPORT TIME	2023-09-26T03:13:00+00:00	OBSERVER	43.16841, -75.60200
SOURCE CASE IDS	237UAP00556		

## Abstract

This case file evaluates a reported UAP sighting against historical Starlink orbital elements. The primary external-object candidate is a 3-object same-launch group from 2021-03-04, spanning azimuth 29.75-49.0 deg and elevation 14.21-27.95 deg. The analysis distinguishes plausible geometric overlap from unresolved witness-language features.

This is a standalone independent analysis prepared from public-source records and public orbital datasets. It is not an official government determination, classification marking, or agency-authored report.

# 1. Executive Summary

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237UAP00556 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: strong ADS-B aircraft candidate N718TW B752 a99b83 at 28.5 km, azimuth 141.9 deg, elevation 22.5 deg, 7.69 min from report. Dense satellite presence alone is not treated as causation in this packet.

## 1.1 Key Findings

- Source score 40 based on: negative official correlation, maneuvering/motion anomaly, UAP/UFO language.
- Report time used: 2023-09-26T03:13:00+00:00.
- External object layer used: Starlink.
- Disposition standard: NORMAL-OBJECT requires case-specific causal fit. Satellite density above the horizon is context only and cannot by itself resolve the report.
- Case-specific ordinary-object evidence: strong ADS-B aircraft candidate N718TW B752 a99b83 at 28.5 km, azimuth 141.9 deg, elevation 22.5 deg, 7.69 min from report.
- Non-causal context / rejection screens: substantial orbital-object sky background; context only, not causation.
- Remaining hard features: hard maneuver language.
- Objects above horizon: 250; at/above 10 deg: 126.
- Top compact same-launch/designator group: 3 objects from 2021-03-04.
- No explicit Starlink/balloon wording was found in the source excerpt used for ranking.

## 1.2 Bottom Line

**NORMAL-OBJECT FAVORED:** A case-specific ordinary-object candidate exists from source language, orbital geometry, launch-object context, or compact trajectory grouping. Dense ordinary sky traffic alone is not treated as causation.

# 2. Source Control

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The source-control table identifies the public report records reviewed for this case and lists public access links where available. The table is included so this PDF remains interpretable when distributed by itself.

CASE ID	REPORT DATE FIELD	FACILITY / TITLE	TEXT EXTRACT	PUBLIC PDF LINK
237UAP00556	9/25/2023 11:13:00 PM (-04 EDT)	JBU811 UFO-UAP ACTIVITY 09-25-2023	text extract present	<a href="#">237UAP00556.pdf</a>

### 3. Original Report Evidence

PRIMARY EXCERPT USED FOR MATCHING	Washington Operations Center Date: 9/25/2023 11:13:00 PM (-04 EDT) Title: JBU811 UFO-UAP ACTIVITY 09-25-2023 Latitude: 43.168405219999997 Latitude: -75.602004910000005 DESCRIPTION PRELIM INFO FROM FAA OPS: ROME, NY/UFO-UAP ACTIVITY/ 2313E/BOSTON ARTCC ADVISED JETBLUE 811, BCS3, BOS - ORD, REPORTED AN UNIDENTIFIED AERIAL PHENOMENON OF MULTIPLE LIGHTS ORBITING FROM THE 12 O'CLOCK POSITION WHILE W BOUND AT FL360 8 WSW RME. NO EVASIVE ACTION TAKEN. NO LEO NOTIFICATION. LIGHTS APPEAR TO BE SIMILAR TO ACFT LANDING LIGHTS VCNTY THE BIG DIPPER CONSTELLATION. THE FOLLOWING FLIGHTS REPORTED SIMILAR SIGHTING: LXJ652, DAL2685, CMP422, AND UAW5WR. WOC 7-3333 RC/MC
REPORT TIME USED	2023-09-26T03:13:00+00:00
OBSERVER COORDINATE USED	43.16841, -75.60200
OBSERVER SOURCE BASIS	(public text extract 237UAP00556)

### 4. Methodology

- Spacetime extraction.** The report time and observer coordinate were extracted from the public text report and normalized to UTC. Aviation fixes/radials were resolved during earlier preprocessing where applicable.
- External object dataset.** The object layer used historical Space-Track/TLE-derived Starlink element rows. The analytic mode for this case is historical Starlink element propagation and same-launch/designator sky grouping.
- Propagation.** Orbital elements were propagated to the report minute and observer location. For launch-object checks, samples around the report minute were retained. For Starlink group checks, objects above the horizon were clustered by sky position and filtered for same-launch groupings.
- Comparison.** The output was compared against the report's count of lights, direction cue, motion language, altitude/radar language, and whether the file itself already suggested a satellite explanation.
- Causation standard.** Mere object presence above the horizon is treated as background context only. A normal-object disposition requires a case-specific causal fit, such as a named launch object, a compact same-launch trajectory group, or source language that directly supports that object class.
- Disposition assignment.** *Identified* means a specific normal object fits the report spacetime and the hard reported features do not materially conflict. *Normal-object favored* means a case-specific ordinary aerospace/orbital candidate exists, but it is not a full named identification. *Insufficient* means the file is too thin to carry high anomaly value. *High-value unresolved* is used when radar, video, rapid maneuver, or multi-witness features remain after reasonable normal-object checks.

## 5. External Object Evidence

### 5.1 Search Volume and Density

This table is a screening layer only. Objects above the horizon show background opportunity; they do not establish causation unless a specific object or compact trajectory group matches the reported behavior.

STARLINK CATALOG IDS CONSIDERED	4825	HISTORICAL ELEMENT ROWS	4782
ABOVE HORIZON AT REPORT MINUTE	250	AT/ABOVE 10 DEG	126
LARGEST SAME-SKY CLUSTER	95		

### 5.2 Same-Launch / Same-Designator Candidate Groups

#	LAUNCH DATE	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS	MEMBERS
1	2021-03-04	3	29.75-49.0 deg	14.21-27.95 deg	eastward, setting	STARLINK-2189, STARLINK-2161, STARLINK-2184

### 5.3 Primary Group Members

OBJECT	NORAD	LAUNCH	AZ	EL	RANGE KM	APPARENT MOTION	ELEMENT AGE H
STARLINK-2189	47768	2021-03-04	42.81	27.95	1045.17	eastward, setting	4.47
STARLINK-2161	47747	2021-03-04	29.75	15.87	1479.92	eastward, setting	5.98
STARLINK-2184	47766	2021-03-04	49.0	14.21	1564.57	eastward, setting	4.45

### 5.4 Bright-Sky Context: Top Starlink Objects by Elevation

OBJECT	AZ	EL	RANGE KM	APPARENT MOTION	LAUNCH DATE
STARLINK-3209	162.17	70.95	571.67	westward, setting	2021-12-02
STARLINK-5903	270.11	65.82	612.1	westward, setting	2023-03-24
STARLINK-1309	207.76	64.16	605.43	westward, setting	2020-03-18
STARLINK-4068	91.81	62.99	603.34	eastward, setting	2022-05-18
STARLINK-1507	184.14	61.92	616.31	westward, setting	2020-06-13
STARLINK-4438	349.07	61.26	641.71	westward, setting	2022-08-31
STARLINK-5951	90.21	58.78	648.63	westward, setting	2023-06-12
STARLINK-2433	49.26	56.07	652.63	eastward, setting	2021-03-11
STARLINK-5973	260.07	55.39	671.2	westward, setting	2023-06-12
STARLINK-5603	144.64	50.21	733.12	westward, setting	2023-03-03
STARLINK-3143	351.12	48.16	708.18	eastward, setting	2021-12-02
STARLINK-5156	299.45	47.53	714.02	eastward, setting	2022-10-05

### 5.5 Largest Sky Clusters

#	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS
1	95	5.43-358.01 deg	10.62-61.26 deg	eastward, rising, eastward, setting, nearly fixed azimuth, setting, westward, rising, westward, setting
2	18	126.15-176.19 deg	10.41-50.21 deg	eastward, setting, westward, rising, westward, setting

#	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS
3	3	162.17-207.76 deg	61.92-70.95 deg	westward, setting
4	3	299.45-304.92 deg	35.43-47.53 deg	eastward, setting, westward, rising
5	2	90.21-91.81 deg	58.78-62.99 deg	eastward, setting, westward, setting

### 5.6 Space-Track SATCAT Enrichment

Space-Track SATCAT metadata was pulled as a cached subset for NORAD catalog IDs appearing in this packet's evidence tables. This section adds owner/type/status context to the propagated object candidates.

PACKET SATCAT SUBSET ROWS	5370	FETCHED	2026-05-19T01:19:50+00:00
THIS CASE NORAD IDS CHECKED	33	SATCAT ROWS MATCHED	33
TOP OWNERS	US: 33		
OBJECT TYPES	PAYLOAD: 33		

### 5.7 Space-Track Metadata for Top Propagated Objects

NORAD	OBJECT NAME	TYPE	OWNER	LAUNCH DATE	DECAY DATE
49752	STARLINK-3209	PAYLOAD	US	2021-12-02	n/a
55996	STARLINK-5903	PAYLOAD	US	2023-03-24	n/a
45414	STARLINK-1309	PAYLOAD	US	2020-03-18	n/a
52681	STARLINK-4068	PAYLOAD	US	2022-05-18	n/a
45748	STARLINK-1507	PAYLOAD	US	2020-06-13	2025-06-16
53682	STARLINK-4438	PAYLOAD	US	2022-08-31	n/a
56918	STARLINK-5951	PAYLOAD	US	2023-06-12	n/a
47841	STARLINK-2433	PAYLOAD	US	2021-03-11	n/a
56916	STARLINK-5973	PAYLOAD	US	2023-06-12	n/a
55762	STARLINK-5603	PAYLOAD	US	2023-03-03	n/a
49738	STARLINK-3143	PAYLOAD	US	2021-12-02	n/a
53973	STARLINK-5156	PAYLOAD	US	2022-10-05	n/a

### 5.9 NASA / NOAA / ADS-B Expansion Layer

NASA POWER/Horizons/DONKI batch context had not yet been written for this case at packet build time.

### 5.11 Free Source Availability and Remaining Work

LAYER	STATUS	CASE-SPECIFIC NOTE
ADSB.LOL HISTORICAL RELEASE LISTING	screened/present	planes-readsb-staging-0 1616.5 MiB; planes-readsb-prod-1 1615.5 MiB; planes-readsb-prod-0 1616.5 MiB
ADSB TRACKS DOWNLOADED	not yet exhausted	Requires targeted extraction from large daily history archives before claiming aircraft exhaustion.
NOAA GOES IMAGERY	not yet exhausted	Needed for cloud/lightning visual context.
NOAA GOES ABI/GLM MANIFEST	screened/present	Public S3 object availability for the report hour.
NOAA NEXRAD WEATHER RADAR	not yet exhausted	Weather radar only; not ATC radar.
NOAA IGRA RADIOSONDE	screened/present	Needed for balloon drift plausibility.

LAYER	STATUS	CASE-SPECIFIC NOTE
ASOS/METAR WEATHER OBSERVATIONS	screened/present	Nearest station surface observations around report time.

- ADSB.lol historical: extract aircraft traces from adsblol/globe\_history\_2023 for 2023-09-26, then filter +/-60 min and 250 nmi around 43.1684,-75.6020.
- NASA POWER/Horizons/DONKI: batch context for 237UAP00556 at 2023-09-26T03:13:00+00:00.
- NOAA GOES: pull nearest ABI/GLM products for the UTC hour and render cloud/lightning map.
- NOAA NEXRAD: select nearest radar stations and render Level-II/III weather radar sweep around event time.
- NOAA IGRA: find nearest radiosonde station launches bracketing the event and model wind drift for balloon-like descriptions.
- Space-Track gp\_history/decay: fetch exact historical element rows and decay/reentry status for top candidate NORAD IDs.

### 5.12 Weather, Imagery, and Balloon Query Plan

This plan identifies the concrete free sources needed for the next case-specific weather and balloon checks. These are not treated as completed exclusions until the data are downloaded and plotted.

GOES SATELLITE	GOES16
GOES ABI PREFIX	<a href="https://noaa-goes16.s3.amazonaws.com/ABI-L2-CMIPF/2023/269/03/">https://noaa-goes16.s3.amazonaws.com/ABI-L2-CMIPF/2023/269/03/</a>
GOES GLM LIGHTNING PREFIX	<a href="https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2023/269/03/">https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2023/269/03/</a>

### 5.13 Nearest Weather-Airport Candidates

STATION	NAME	DISTANCE KM	COORDINATE
KRME	Griffiss International Airport	17.40	43.23, -75.41
KSYR	Syracuse Hancock International Airport	41.40	43.11, -76.11
KART	Watertown International Airport	97.60	43.99, -76.02
KGTB	Wheeler Sack Army Air Field	99.10	44.06, -75.72
KITH	Ithaca Tompkins Regional Airport	102.70	42.49, -76.46

- KRME: [IEM ASOS/METAR daily CSV query](#)
- KSYR: [IEM ASOS/METAR daily CSV query](#)
- KART: [IEM ASOS/METAR daily CSV query](#)

### 5.14 Nearest Radiosonde Stations

STATION	NAME	DISTANCE KM	COORDINATE
USM00072518	ALBANY COUNTY AIRPORT; NY.	153.80	42.75, -73.80
USM00072528	BUFFALO/GREATER BUFFALO INT.;	254.50	42.94, -78.72
USM00072501	UPTON; NY.	341.70	40.87, -72.86
CAM00071722	MANIWAKI UA; QUE	349.90	46.30, -76.01
USM00074389	GRAY; ME.	438.30	43.89, -70.26

### 5.15 ASOS/METAR Surface Weather Observations

surface visibility ranged 10-10 statute miles; no precipitation was reported in the retained observations; low/broken/overcast cloud layers were present in at least one observation. Surface ASOS/METAR observations describe airport-level weather and visibility; they do not by themselves prove conditions at the sighting altitude or line of sight.

STATION	DISTANCE KM	NEAREST OBS UTC	VIS SM	SKY	WIND DEG/KT	METAR
KRME	17.40	2023-09-26T02:53:00+00:00	10.00	CLR, M, M, M	90.00 / 5.00	KRME 260253Z AUTO 09005KT 10SM CLR 13/11 A3032 RMK AO2

STATION	DISTANCE KM	NEAREST OBS UTC	VIS SM	SKY	WIND DEG/KT	METAR
						SLP267 T01280106 53018
KSYR	41.40	2023-09-26T02:54:00 +00:00	10.00	FEW14000, M, M, M	110.00 / 6.00	KSYR 260254Z 11006KT 10SM FEW140 14/10 A3030 RMK AO2 SLP256 T01440100 51013
KART	97.60	2023-09-26T02:56:00 +00:00	10.00	BKN04400, OVC06000, M, M	60.00 / 7.00	KART 260256Z AUTO 06007KT 10SM BKN044 OVC060 16/13 A3030 RMK AO2 SLP257 T01560128 53015

### 5.16 NOAA IGRA Radiosonde Wind Profile

No nearby IGRA sounding was parsed within the +/-1 day window. Radiosonde winds are sparse station soundings; balloon drift remains approximate without launch time, ascent rate, object altitude, and exact line-of-sight bearing.

STATION	NAME	DISTANCE KM	SOUNDING UTC	MEAN DRIFT BEARING	MEAN SPEED M/S	2H DRIFT KM	MAX WIND
USM00072518	ALBANY COUNTY AIRPORT; NY.	153.80	no sounding	n/a	n/a	n/a	n/a at n/a m

### 5.17 NOAA GOES ABI/GLM Public File Manifest

GOES public S3 objects are listed for the report hour where available. This is an availability manifest, not yet a rendered satellite image.

SATELLITE	GOES16	BUCKET	noaa-goes16
ABI SAMPLE FILES	12	GLM SAMPLE FILES	12

#### ABI sample objects:

- [ABI-L2-CMIPF/2023/269/03/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232690300206\\_e20232690309514\\_c20232690309580.nc](#)
- [ABI-L2-CMIPF/2023/269/03/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232690310206\\_e20232690319514\\_c20232690319584.nc](#)
- [ABI-L2-CMIPF/2023/269/03/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232690320206\\_e20232690329514\\_c20232690329591.nc](#)
- [ABI-L2-CMIPF/2023/269/03/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232690330206\\_e20232690339514\\_c20232690339582.nc](#)

#### GLM lightning sample objects:

- [GLM-L2-LCFA/2023/269/03/OR\\_GLM-L2-LCFA\\_G16\\_s20232690300000\\_e20232690300200\\_c20232690300219.nc](#)
- [GLM-L2-LCFA/2023/269/03/OR\\_GLM-L2-LCFA\\_G16\\_s20232690300200\\_e20232690300400\\_c20232690300417.nc](#)
- [GLM-L2-LCFA/2023/269/03/OR\\_GLM-L2-LCFA\\_G16\\_s20232690300400\\_e20232690301000\\_c20232690301019.nc](#)
- [GLM-L2-LCFA/2023/269/03/OR\\_GLM-L2-LCFA\\_G16\\_s20232690301000\\_e20232690301200\\_c20232690301220.nc](#)

### 5.18 ADSB.lol Historical Aircraft Track Extraction

This layer uses the downloaded ADSB.lol daily history archive to test actual aircraft tracks near the report coordinate and minute. It is not treated as a primary-radar substitute; it is a transponder/receiver-derived aircraft screen.

ARCHIVE WINDOW	2023-09-26T02:13:00+00:00 to 2023-09-26T04:13:00+00:00	RADIUS	250.00 nmi
TRACE FILES SCANNED	36356	TRACKS RETAINED	800
SUPPORT STATUS	aircraft strong candidate present	BEST-CANDIDATE NOTE	

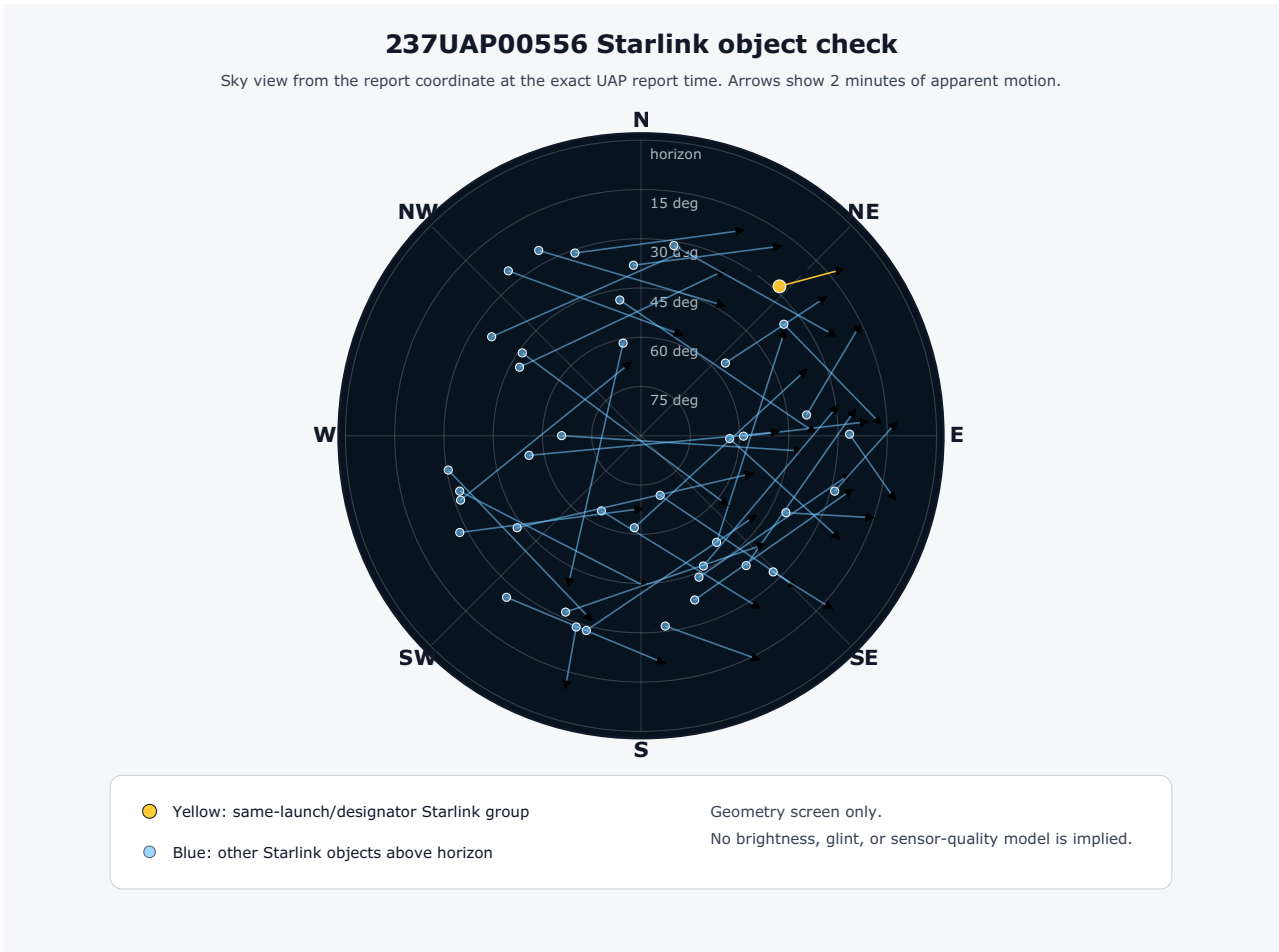
			ordinary-object favored if the report's count, color, direction, and motion can be reconciled with the candidate track(s).
<b>STRONG CANDIDATES</b>	9	<b>PLAUSIBLE CANDIDATES</b>	42
<b>REPORTING-AIRCRAFT TRACKS EXCLUDED</b>	1	<b>WEAK CANDIDATES</b>	99

### 5.19 Top ADS-B Candidate Tracks

AIRCRAFT	STATUS	SCORE	MIN DIST KM	NEAREST DT MIN	ALT FT	AZ	EL
N718TW B752 a99b83	strong aircraft candidate	74.92	19.10	0.12	38100	141.90	22.50
XA-AMR B788 0d085d	strong aircraft candidate	72.17	35.70	0.03	37975	332.80	16.70
N327DN A321 a388a9	strong aircraft candidate	70.61	4.00	0.05	35025	111.30	16.03
N807NN B738 aafd17	strong aircraft candidate	68.17	69.90	0.05	37000	193.80	8.06
N323US A320 a37b48	strong aircraft candidate	67.09	71.10	0.15	35000	205.70	7.71
N855DN B739 abba43	strong aircraft candidate	63.14	66.10	0.07	37000	194.60	8.61
N870NN B738 abf78f	strong aircraft candidate	60.69	48.00	0.00	36750	137.10	9.42
N88341 E75L ac2bf8	strong aircraft candidate	59.83	70.90	1.65	6850	239.80	1.36



6. Annotated Evidence Figure



Generated figure copied from the local evidence-plot output. It is included as an analytic visualization, not as original sensor imagery.

## 7. Analytic Comparison

CRITERION	REPORT EVIDENCE	ANALYTIC TREATMENT
TIME CONSTRAINT	2023-09-26T03:13:00+00:00	Directly used in propagation; this is a hard filter, not descriptive context.
LOCATION CONSTRAINT	43.16841, -75.60200	Directly used as observer point for azimuth/elevation/range computation.
COUNT / PATTERN	three-object/light language present	Primary same-launch group contains 3 propagated objects in a compact sky sector.
MOTION LANGUAGE	orbit	Apparent motion labels in the object table provide a plausible but not definitive comparison.
RADAR / OFFICIAL CHECK	not specified	No ATC radar return can be consistent with distant orbital objects or visual aircraft-light hypotheses, but it does not prove the match.
ANALYTIC DISPOSITION	normal-object	237UAP00556 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: strong ADS-B aircraft candidate N718TW B752 a99b83 at 28.5 km, azimuth 141.9 deg, elevation 22.5 deg, 7.69 min from report. Dense satellite presence alone is not treated as causation in this packet.

## 8. Caveats, Limitations, and Collection Gaps

- No raw cockpit video, ATC replay, radar plot, or witness interview transcript was reviewed unless explicitly stated in the public source text.
- Aviation-derived coordinates can represent a nearby fix/radial or report point, not necessarily the actual line-of-sight intercept point.
- Starlink visibility depends on illumination, observer altitude, atmospheric conditions, and apparent brightness; this analysis tests geometry, not photometry. No brightness model is used unless explicitly stated elsewhere in the case file.
- TLE propagation is appropriate for screening and reconstruction but is not a substitute for authoritative operational ephemerides.
- When many satellites are above the horizon, generic presence is weak evidence and is not treated as causation. The report emphasizes named launch-object checks or compact same-launch trajectory groups.
- Normal-object favored is not the same as a perfect named-object identification; it requires a case-specific ordinary-object candidate stronger than simple object density.

# Appendix A. Public Report Text Extracts

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## 237UAP00556

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Washington Operations Center

Date: 9/25/2023 11:13:00 PM (-04 EDT)  
Title: JBU811 UFO-UAP ACTIVITY 09-25-2023  
Latitude: 43.168405219999997                      Latitude: -75.602004910000005

DESCRIPTION

PRELIM INFO FROM FAA OPS: ROME, NY/UFO-UAP ACTIVITY/2313E/BOSTON ARTCC ADVISED JETBLUE 811, BCS3, BOS - ORD, REPORTED AN UNIDENTIFIED AERIAL PHENOMENON OF MULTIPLE LIGHTS ORBITING FROM THE 12 O'CLOCK POSITION WHILE W BOUND AT FL360 8 WSW RME. NO EVASIVE ACTION TAKEN. NO LEO NOTIFICATION. LIGHTS APPEAR TO BE SIMILAR TO ACFT LANDING LIGHTS VCNTY THE BIG DIPPER CONSTELLATION. THE FOLLOWING FLIGHTS REPORTED SIMILAR SIGHTING: LXJ652, DAL2685, CMP422, AND UAW5WR. WOC 7-3333 RC/MC

## Appendix B. Computational Evidence Digest

This appendix preserves the principal computed values used in the assessment, shortened to the fields most relevant to audit and review.

```
{
  "report_time_utc": "2023-09-26T03:13:00+00:00",
  "source_excerpt": "Washington Operations Center\n\n\n\nDate: 9/25/2023 11:13:00 PM (-04 EDT)\nTitle: JBU811 UFO-UAP\nACTIVITY 09-25-2023\nLatitude: 43.168405219999997\nLongitude: -75.602004910000005\n\n\n\nDESCRIPTION\n\nPRELIM INFO FROM FAA OPS: ROME, NY/UFO-UAP ACTIVITY/2313E/BOSTON ARTCC ADVISED\nJETBLUE 811, BCS3,\nBOS - ORD, REPORTED AN UNIDENTIFIED AERIAL PHENOMENON OF MULTIPLE LIGHTS ORBITING FROM THE 12\nO'CLOCK\nPOSITION WHILE W BOUND AT FL360 8 WSW RME. NO EVASIVE ACTION TAKEN. NO LEO NOTIFICATION.\nLIGHTS APPEAR TO BE SIMILAR TO ACFT\nLANDING LIGHTS VCNTY THE BIG DIPPER CONSTELLATION. THE\nFOLLOWING FLIGHTS REPORTED SIMILAR SIGHTING: LXJ652, DAL2685, CMP422,\nAND UAW5WR. WOC 7-3333 RC/MC",
  "historical_starlink_element_rows": 4782,
  "observer": {
    "lat": 43.16840522,
    "lon": -75.60200491,
    "source": "(public text extract 237UAP00556)"
  },
  "case_id": "237UAP00556",
  "starlink_above_horizon_at_report_time": 250,
  "starlink_catalog_ids_considered": 4825,
  "largest_same-sky_cluster_count": 95,
  "starlink_at_or_above_10_deg": 126,
  "same_launch_sky_groups": [
    {
      "azimuth_range_deg": [
        29.75,
        49.0
      ],
      "count": 3,
      "elevation_range_deg": [
        14.21,
        27.95
      ],
      "ground_track_labels": [
        "E",
        "ENE"
      ],
      "launch_date": "2021-03-04",
      "members": [
        {
          "azimuth_deg": 42.81,
          "azimuth_plus_2m_deg": 50.47,
          "azimuth_plus_5m_deg": 54.43,
          "element_age_hours": 4.47,
          "element_epoch": "2023-09-26T07:41:14.669088+00:00",
          "elevation_deg": 27.95,
          "elevation_plus_2m_deg": 10.41,
          "elevation_plus_5m_deg": -2.35,
          "epoch_altitude_km": 553.27,
          "ground_track_bearing_deg": 64.03,
          "ground_track_label": "ENE",
          "launch_date": "2021-03-04",
          "name": "STARLINK-2189",
          "norad_id": "47768",
          "range_km": 1045.17,
          "sky_motion_label": "eastward, setting",
          "subpoint_lat": 48.5408,
          "subpoint_lon": -67.7566
        },
        {
          "azimuth_deg": 29.75,
          "azimuth_plus_2m_deg": 48.32,
          "azimuth_plus_5m_deg": 61.04,
          "element_age_hours": 5.98,
          "element_epoch": "2023-09-26T09:12:04.071744+00:00",
          "elevation_deg": 15.87,
          "elevation_plus_2m_deg": 6.43,
          "elevation_plus_5m_deg": -3.86,
          "epoch_altitude_km": 553.1,
          "ground_track_bearing_deg": 86.37,
          "ground_track_label": "E",
          "launch_date": "2021-03-04",
          "name": "STARLINK-2161",
          "norad_id": "47747",
          "range_km": 1479.92,
          "sky_motion_label": "eastward, setting",
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## Appendix C. Source Exhaustion Checklist

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This checklist records which source layers were actually applied to this individual report. It separates checked evidence from unexhausted collection gaps so the disposition is auditable when the PDF is read alone.

SOURCE LAYER	STATUS	CASE-SPECIFIC NOTE
NARA PUBLIC UAP/FAA REPORT	reviewed	Source IDs: 237UAP00556
TIME AND OBSERVER COORDINATE	extracted	2023-09-26T03:13:00+00:00 at 43.16841, -75.60200
ORBITAL OBJECT PROPAGATION	screened	Starlink
SPACE-TRACK SATCAT METADATA	screened	33 NORAD IDs checked; 33 matched in local SATCAT subset
LAUNCH-OBJECT/SUPGP LAYER	not applicable	not a launch-object case
NASA/JPL KNOWN SMALL-BODY LAYER	not selected	CAD/Horizons secondary screen included when this case had NEO-relevant timing/ geometry
NASA POWER/HORIZONS/DONKI CONTEXT	not exhausted	Hourly weather, sky geometry, and space-weather context where local JSON is present
AIRCRAFT/ADS-B LAYER	screened	36356 trace files scanned; 800 tracks retained; aircraft strong candidate present
NOAA GOES IMAGERY LAYER	not exhausted	Cloud/lightning imagery layer for the report hour
NOAA GOES ABI/GLM MANIFEST	screened	Public S3 object listing for the report hour
NOAA/NEXRAD WEATHER RADAR LAYER	not exhausted	Weather radar only; not ATC/primary radar
NOAA IGRA RADIOSONDE LAYER	screened	Balloon drift plausibility layer
ASOS/METAR SURFACE WEATHER	screened	Nearest station visibility, cloud, wind, precipitation, and METAR observations
WEATHER/BALLOON SOURCE PLAN	planned	Nearest weather-airport, GOES, and radiosonde queries are listed where local plan JSON is present
FINAL ANALYTIC DISPOSITION	normal-object favored	Presence-only satellite density is context only; a stronger case-specific fit is required for normal-object disposition



## References and Source Links

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1. National Archives and Records Administration. *Records Related to Unidentified Flying Objects (UFOs) and Unidentified Anomalous Phenomena (UAPs) at the National Archives*. <https://www.archives.gov/research/topics/uaps>
2. National Archives and Records Administration. *Record Group 615: Unidentified Anomalous Phenomena Records Collection*. <https://www.archives.gov/research/topics/uaps/rg-615>
3. National Archives and Records Administration. *Bulk Downloads for Records Related to Unidentified Anomalous Phenomena (UAPs)*. <https://www.archives.gov/research/catalog/catalog-bulk-downloads/uap-bulk-download>
4. National Archives Catalog. *Records from the Federal Aviation Administration Relating to Unidentified Anomalous Phenomena, National Archives Identifier 493468575*. <https://catalog.archives.gov/id/493468575>
5. National Archives direct digital object. *237UAP00556.pdf, FAA UAP report record copied from RG 615 bulk digital objects*. <https://s3.dualstack.us-east-1.amazonaws.com/NARAprdstorage/lz/electronic-records/rg-615/493468575/237UAP00556.pdf>
6. Hugging Face dataset. *oxzoid/space-track-tle-history: historical TLE archive used for Starlink screening*. <https://huggingface.co/datasets/oxzoid/space-track-tle-history>
7. Space-Track.org. *Public source for the underlying U.S. Space Surveillance Network TLE distribution referenced by the historical TLE archive*. <https://www.space-track.org/>
8. Space-Track.org. *API documentation for SATCAT and catalog metadata classes used for local enrichment*. <https://www.space-track.org/documentation#/api>
9. ADSB.lol. *Interactive API documentation and OpenAPI definition*. <https://api.adsb.lol/docs>
10. ADSB.lol. *Historical open-data release documentation*. <https://www.adsb.lol/docs/open-data/historical/>
11. OpenSky Network. *REST API documentation*. <https://openskynetwork.github.io/opensky-api/rest.html>
12. OpenSky Network. *Historical data via Trino documentation*. <https://openskynetwork.github.io/opensky-api/trino.html>
13. NASA GIBS. *Global Imagery Browse Services API documentation*. <https://nasa-gibs.github.io/gibs-api-docs/>
14. NASA Earthdata. *Common Metadata Repository search API documentation*. <https://cmr.earthdata.nasa.gov/search/site/docs/search/api.html>
15. NOAA / AWS Open Data. *GOES public dataset registry*. <https://registry.opendata.aws/noaa-goes/>
16. NOAA / AWS Open Data. *NEXRAD public dataset registry*. <https://registry.opendata.aws/noaa-nexrad/>
17. NOAA NCEI. *Integrated Global Radiosonde Archive*. <https://www.ncei.noaa.gov/products/weather-balloon/integrated-global-radiosonde-archive>
18. Iowa Environmental Mesonet. *ASOS/AWOS/METAR data download service*. <https://mesonet.agron.iastate.edu/request/download.phtml>
19. CelesTrak. *Spacetrack Report No. 3: Models for propagation of NORAD element sets*. <https://celestrak.org/NORAD/documentation/spacetrk.pdf>
20. CelesTrak. *Supplemental GP element sets documentation and current endpoint index*. <https://celestrak.org/NORAD/elements/supplemental/>