

CASE FILE 87 / 237UAP00562

# 237UAP00562

Multiple-witness public UAP report; score 44

NORMAL-OBJECT FAVORED

REPORT NO.	UAP-OM-87-237UAP00562	DISPOSITION	NORMAL-OBJECT FAVORED
PRIMARY CASE	237UAP00562	GENERATED	2026-05-20 18:32 UTC
REPORT TIME	2023-10-14T01:47:00+00:00	OBSERVER	28.39222, -80.60771
SOURCE CASE IDS	237UAP00562		

## Abstract

This case file evaluates a reported UAP sighting against the available orbital-object layer. No compact same-launch group fully identifies the file by itself. The final disposition is assigned under a normal-object favored standard, where ordinary aerospace/orbital explanations are preferred when they reasonably fit the report.

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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237UAP00562 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: historical public LEO catalog objects object traffic at the report spacetime. Dense satellite presence alone is not treated as causation in this packet.

## 1.1 Key Findings

- Source score 44 based on: multiple aircraft/facility witnesses, maneuvering/motion anomaly, UAP/UFO language.
- Report time used: 2023-10-14T01:47:00+00:00.
- External object layer used: public LEO catalog objects.
- Disposition standard: NORMAL-OBJECT requires case-specific causal fit. Satellite density above the horizon is context only and cannot by itself resolve the report.
- Non-causal context / rejection screens: source language itself invokes satellite/space/launch context; very dense orbital-object sky background; context only, not causation.
- Remaining hard features: multiple witnesses/facilities.
- Objects above horizon: 1056; at/above 10 deg: 510.
- No compact same-launch/designator group survived the report threshold.
- 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
237UAP00562	10/13/2023 9:47:00 PM (-04 EDT)	CONUS UFO-UAP ACTIVITY 10-12-2023	text extract present	<a href="#">237UAP00562.pdf</a>

### 3. Original Report Evidence

PRIMARY EXCERPT USED FOR MATCHING	Washington Operations Center Date: 10/13/2023 9:47:00 PM (-04 EDT) Title: CONUS UFO-UAP ACTIVITY 10-12-2023 Latitude: 28.392218199999999 Latitude: -80.607713200000006 DESCRIPTION PRELIM INFO FROM FAA OPS: CAPE CANAVERAL, FL/UFO-UAP ACTIVITY/2101L/ZSU-ZJX-ZKC-ZTL-ZME-ZHU-ZFW- ZDV ADVISED, MULTIPLE ACFT REPORTED SIMILAR SIGHTING OF AN UNIDENTIFIED AERIAL PHENOMENON CONSISTING OF BRIGHT LIGHTS SHINING THROUGH SMOKE RING OR A POSSIBLE ROCKET CLIMBING AS HIGH AS FL300-FL340. PHENOMENON HAD THE APPEARANCE OF A POTENTIAL SPACEX MISSION FAILURE. HQ SPACE OPS CONFIRMED SUCCESSFUL MISSION AND ROCKET BODY RECOVERY IN PROGRESS. WOC 7-3333 RC/RL
REPORT TIME USED	2023-10-14T01:47:00+00:00
OBSERVER COORDINATE USED	28.39222, -80.60771
OBSERVER SOURCE BASIS	(public text extract 237UAP00562)

### 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 public LEO catalog objects element rows. The analytic mode for this case is historical public LEO catalog objects 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.

PUBLIC LEO CATALOG OBJECTS CATALOG IDS CONSIDERED	20131	HISTORICAL ELEMENT ROWS	20131
ABOVE HORIZON AT REPORT MINUTE	1056	AT/ABOVE 10 DEG	510
LARGEST SAME-SKY CLUSTER	510		

No compact same-launch/designator group survived the report threshold. In this condition, satellite density remains context only and cannot by itself resolve a report with hard features.

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

#	LAUNCH DATE	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS	MEMBERS
No same-launch group identified.						

### 5.3 Primary Group Members

OBJECT	NORAD	LAUNCH	AZ	EL	RANGE KM	APPARENT MOTION	ELEMENT AGE H
No members available.							

### 5.4 Bright-Sky Context: Top public LEO catalog objects Objects by Elevation

OBJECT	AZ	EL	RANGE KM	APPARENT MOTION	LAUNCH DATE
NORAD 14179	159.66	75.28	1505.62	westward, setting	83069J
NORAD 57643	134.08	72.85	581.17	westward, setting	23122M
NORAD 21128	34.67	71.94	1604.28	westward, setting	76067BY
NORAD 30903	229.21	70.72	932.28	westward, setting	99025AYR
NORAD 82205	114.62	70.62	1413.59	westward, setting	unknown
NORAD 34652	66.83	70.34	750.98	westward, setting	97051KD
NORAD 9955	128.76	69.43	2352.69	westward, setting	76126AV
NORAD 31248	293.84	67.92	1012.94	eastward, setting	99025BME
NORAD 31383	51.93	67.8	884.94	westward, setting	99025BSP
NORAD 31844	199.3	65.04	1009.71	westward, setting	99025CJJ
NORAD 14619	77.49	64.59	1601.55	westward, setting	84001J
NORAD 47751	152.41	61.9	613.95	westward, setting	21017AF

### 5.5 Largest Sky Clusters

#	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS
1	510	1.04-359.84 deg	10.05-75.28 deg	eastward, level, eastward, rising, eastward, setting, westward, level, westward, rising, 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	30	SATCAT ROWS MATCHED	29
TOP OWNERS	CIS: 13, US: 9, PRC: 6, UK: 1		
OBJECT TYPES	DEBRIS: 19, PAYLOAD: 6, ROCKET BODY: 4		

5.7 Space-Track Metadata for Top Propagated Objects

NORAD	OBJECT NAME	TYPE	OWNER	LAUNCH DATE	DECAY DATE
14179	SL-8 R/B	ROCKET BODY	CIS	1983-07-06	n/a
57643	STARLINK-30280	PAYLOAD	US	2023-08-17	n/a
21128	COSMOS 839 DEB	DEBRIS	CIS	1976-07-08	n/a
30903	FENGYUN 1C DEB	DEBRIS	PRC	1999-05-10	n/a
34652	IRIDIUM 33 DEB	DEBRIS	US	1997-09-14	n/a
9955	COSMOS 886 DEB	DEBRIS	CIS	1976-12-27	n/a
31248	FENGYUN 1C DEB	DEBRIS	PRC	1999-05-10	n/a
31383	FENGYUN 1C DEB	DEBRIS	PRC	1999-05-10	n/a
31844	FENGYUN 1C DEB	DEBRIS	PRC	1999-05-10	n/a
14619	SL-8 R/B	ROCKET BODY	CIS	1984-01-05	n/a
47751	STARLINK-2168	PAYLOAD	US	2021-03-04	2024-08-04
47084	SL-14 DEB	DEBRIS	CIS	1991-08-15	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 1491.5 MiB; planes-readsb-prod-0 1491.5 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.
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 2023-10-14, then filter +/-60 min and 250 nmi around 28.3922,-80.6077.
- NASA POWER/Horizons/DONKI: batch context for 237UAP00562 at 2023-10-14T01:47:00+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/2023/287/01/">https://noaa-goes16.s3.amazonaws.com/ABI-L2-CMIPF/2023/287/01/</a>
GOES GLM LIGHTNING PREFIX	<a href="https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2023/287/01/">https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2023/287/01/</a>

### 5.13 Nearest Weather-Airport Candidates

STATION	NAME	DISTANCE KM	COORDINATE
KXMR	Cape Canaveral SFS Skid Strip	9.30	28.47, -80.57
KCOF	Patrick Space Force Base	17.50	28.23, -80.61
KTIX	Space Coast Regional Airport	23.20	28.51, -80.80
KTTS	Space Florida Launch and Landing Facility	26.20	28.61, -80.69
KMLB	Melbourne Orlando International Airport	32.40	28.10, -80.64

- KXMR: [IEM ASOS/METAR daily CSV query](#)
- KCOF: [IEM ASOS/METAR daily CSV query](#)
- KTIX: [IEM ASOS/METAR daily CSV query](#)

### 5.14 Nearest Radiosonde Stations

STATION	NAME	DISTANCE KM	COORDINATE
USM00074794	CAPE KENNEDY	10.00	28.47, -80.55
USM00072210	TAMPA BAY AREA; FL.	191.80	27.71, -82.40
USM00072206	JACKSONVILLE/INTNL.; FL.	255.50	30.48, -81.70
USM00072202	MIAMI; FL (72202-0)	294.60	25.75, -80.38
USM00072214	TALLAHASSEE/MUN.; FL.	424.20	30.45, -84.30

### 5.15 ASOS/METAR Surface Weather Observations

surface visibility ranged 7-10 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
KXMR	9.30	2023-10-14T01:55:00 +00:00	10.00	CLR, M, M, M	190.00 / 6.00	KXMR 140155Z AUTO 19006KT 10SM CLR 27/26 A2978 RMK AO2 SLP088 T02710258 RVRNO \$
KCOF	17.50	2023-10-14T01:55:00 +00:00	10.00	CLR, M, M, M	210.00 / 6.00	KCOF 140155Z AUTO 21006KT 10SM CLR 28/24 A2979 RMK AO2 SLP092 T02780238 \$
KTIX	23.20	2023-10-14T00:47:00 +00:00	7.00	BKN03700, M, M, M	170.00 / 7.00	KTIX 140047Z 17007KT 7SM BKN037 26/26 A2982

### 5.16 NOAA IGRA Radiosonde Wind Profile

Nearest sounding implies mean 0-12 km wind drift toward 90.3 deg at 13.08 m/s; a passive balloon could drift about 94.2 km in two hours under this crude layer-average model. 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
USM00074794	CAPE KENNEDY	10.00	2023-10-14T00:00:00+00:00	90.30	13.08	94.20	27.30 at 11040.00 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

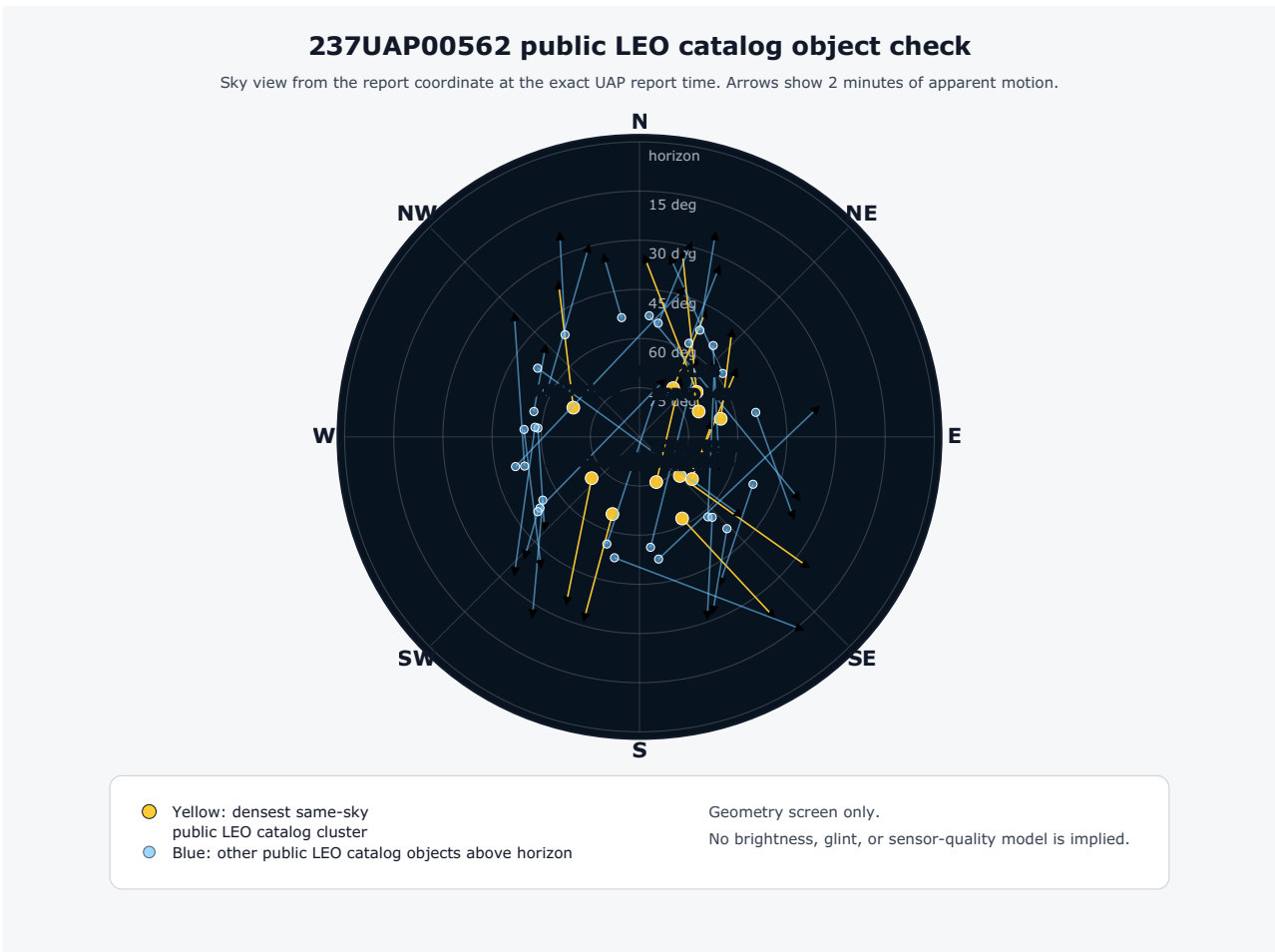
#### ABI sample objects:

- [ABI-L2-CMIPF/2023/287/01/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232870100207\\_e20232870109516\\_c20232870109568.nc](#)
- [ABI-L2-CMIPF/2023/287/01/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232870110207\\_e20232870119516\\_c20232870119569.nc](#)
- [ABI-L2-CMIPF/2023/287/01/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232870120207\\_e20232870129516\\_c20232870129566.nc](#)
- [ABI-L2-CMIPF/2023/287/01/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232870130207\\_e20232870139515\\_c20232870139573.nc](#)

#### GLM lightning sample objects:

- [GLM-L2-LCFA/2023/287/01/OR\\_GLM-L2-LCFA\\_G16\\_s20232870100000\\_e20232870100200\\_c20232870100216.nc](#)
- [GLM-L2-LCFA/2023/287/01/OR\\_GLM-L2-LCFA\\_G16\\_s20232870100200\\_e20232870100400\\_c20232870100415.nc](#)
- [GLM-L2-LCFA/2023/287/01/OR\\_GLM-L2-LCFA\\_G16\\_s20232870100400\\_e20232870101000\\_c20232870101020.nc](#)
- [GLM-L2-LCFA/2023/287/01/OR\\_GLM-L2-LCFA\\_G16\\_s20232870101000\\_e20232870101200\\_c20232870101216.nc](#)

## 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	2023-10-14T01:47:00+00:00	Directly used in propagation; this is a hard filter, not descriptive context.
LOCATION CONSTRAINT	28.39222, -80.60771	Directly used as observer point for azimuth/elevation/range computation.
COUNT / PATTERN	three-object/light language present	No compact same-launch count match; retained for unresolved report features.
MOTION LANGUAGE	climbing	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	237UAP00562 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: historical public LEO catalog objects object traffic at the report spacetime. 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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### 237UAP00562

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Washington Operations Center

Date: 10/13/2023 9:47:00 PM (-04 EDT)  
Title: CONUS UFO-UAP ACTIVITY 10-12-2023  
Latitude: 28.392218199999999                      Latitude: -80.607713200000006

DESCRIPTION

PRELIM INFO FROM FAA OPS: CAPE CANAVERAL, FL/UFO-UAP ACTIVITY/2101L/ZSU-ZJX-ZKC-ZTL-ZME-ZHU-ZFW-ZDV ADVISED, MULTIPLE ACFT REPORTED SIMILAR SIGHTING OF AN UNIDENTIFIED AERIAL PHENOMENON CONSISTING OF BRIGHT LIGHTS SHINING THROUGH SMOKE RING OR A POSSIBLE ROCKET CLIMBING AS HIGH AS FL300-FL340. PHENOMENON HAD THE APPEARANCE OF A POTENTIAL SPACEX MISSION FAILURE. HQ SPACE OPS CONFIRMED SUCCESSFUL MISSION AND ROCKET BODY RECOVERY IN PROGRESS. WOC 7-3333 RC/RL

## 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.

```
{
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  "historical_starlink_element_rows": 20131,
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    "lon": -80.6077132,
    "source": "(public text extract 237UAP00562)"
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  "case_id": "237UAP00562",
  "starlink_above_horizon_at_report_time": 1056,
  "starlink_catalog_ids_considered": 20131,
  "largest_same-sky_cluster_count": 510,
  "starlink_at_or_above_10_deg": 510,
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      "azimuth_plus_5m_deg": 20.63,
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      "element_epoch": "2023-10-14T09:32:17.479392+00:00",
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      "elevation_plus_2m_deg": 68.56,
      "elevation_plus_5m_deg": 35.16,
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      "ground_track_bearing_deg": 13.95,
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      "azimuth_plus_5m_deg": 127.17,
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      "element_epoch": "2023-10-14T02:46:04.508544+00:00",
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      "norad_id": "57643",
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      "azimuth_plus_5m_deg": 26.25,
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      "elevation_plus_5m_deg": 21.66,
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      "launch_designator": "76067BY",
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    "elevation_plus_5m_deg": 10.85,
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    "ground_track_label": "SSW",
    "launch_date": "99025AYR",
    "launch_designator": "99025AYR",
    "name": "NORAD 30903",
    "norad_id": "30903",
    "range_km": 932.28,
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    "launch_designator": "",
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    "norad_id": "82205",
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    "elevation_deg": 69.43,
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    "ground_track_bearing_deg": 22.19,
    "ground_track_label": "NNE",
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    "launch_designator": "76126AV",
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    "norad_id": "9955",
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    "subpoint_lon": -78.1912
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    "subpoint_lon": -74.9863
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"elevation_plus_5m_deg": 2.57,  
"epoch_altitude_km": 553.3
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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: 237UAP00562
TIME AND OBSERVER COORDINATE	extracted	2023-10-14T01:47:00+00:00 at 28.39222, -80.60771
ORBITAL OBJECT PROPAGATION	screened	public LEO catalog objects
SPACE-TRACK SATCAT METADATA	screened	30 NORAD IDs checked; 29 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	not exhausted	ADSB.lol historical release pattern is recorded separately; actual aircraft exhaustion requires targeted trace extraction
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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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. *237UAP00562.pdf, FAA UAP report record copied from RG 615 bulk digital objects*. <https://s3.dualstack.us-east-1.amazonaws.com/NARAprodstorage/lz/electronic-records/rg-615/493468575/237UAP00562.pdf>
6. Hugging Face dataset. *oxzoid/space-track-tle-history: historical TLE archive used for public LEO catalog objects 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>
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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/>