

CASE FILE 80 / 237UAP00293

# 237UAP00293

High-altitude public UAP report; score 46

NORMAL-OBJECT FAVORED

REPORT NO.	UAP-OM-80-237UAP00293	DISPOSITION	NORMAL-OBJECT FAVORED
PRIMARY CASE	237UAP00293	GENERATED	2026-05-20 18:32 UTC
REPORT TIME	2023-08-27T02:40:00+00:00	OBSERVER	31.80854, -104.91004
SOURCE CASE IDS	237UAP00293		

## Abstract

This case file evaluates a reported UAP sighting against historical Starlink orbital elements. The primary external-object candidate is a 13-object same-launch group from 2023-07-16, spanning azimuth 191.2-222.09 deg and elevation 10.81-38.41 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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237UAP00293 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: historical Starlink object traffic at the report spacetime. Dense satellite presence alone is not treated as causation in this packet.

## 1.1 Key Findings

- Source score 46 based on: multiple aircraft/facility witnesses, high-altitude report, UAP/UFO language.
- Report time used: 2023-08-27T02:40:00+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.
- Non-causal context / rejection screens: source language itself invokes satellite/space/launch context; substantial orbital-object sky background; context only, not causation.
- Objects above horizon: 261; at/above 10 deg: 105.
- Top compact same-launch/designator group: 13 objects from 2023-07-16.
- 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
237UAP00293	02:40 08/27/2023 Callsign: UAL1491 Origin: LAS	ZAB Operator: UAL Operator Type: Commercial	text extract present	<a href="#">237UAP00293.pdf</a>

### 3. Original Report Evidence

PRIMARY EXCERPT USED FOR MATCHING	Aircraft reported an unidentified aerial phenomenon off the front side while W bound at FL360, 70 NM E of ELP. The unknown phenomenon was white with a bright white aura around it traveling E bound above them. Some aircraft described it as a missile. These reports correlate with a train of Space X satellites moving SW to NE bound. Additional aircraft reporting UAP: ASA25, AAL2697, SWA4691, ABX3151, SKW3147. All aircraft altitudes were FL340 to FL400.
REPORT TIME USED	2023-08-27T02:40:00+00:00
OBSERVER COORDINATE USED	31.80854, -104.91004
OBSERVER SOURCE BASIS	aviation_offset:70 NM E of ELP (public text extract 237UAP00293)

### 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	4661	HISTORICAL ELEMENT ROWS	4618
ABOVE HORIZON AT REPORT MINUTE	261	AT/ABOVE 10 DEG	105
LARGEST SAME-SKY CLUSTER	32		

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

#	LAUNCH DATE	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS	MEMBERS
1	2023-07-16	13	191.2-222.09 deg	10.81-38.41 deg	westward, rising, westward, setting	STARLINK-6367, STARLINK-6361, STARLINK-6358, STARLINK-6363, STARLINK-5353, STARLINK-6370, STARLINK-6218, STARLINK-6032

### 5.3 Primary Group Members

OBJECT	NORAD	LAUNCH	AZ	EL	RANGE KM	APPARENT MOTION	ELEMENT AGE H
STARLINK-6367	57376	2023-07-16	191.2	38.41	580.14	westward, setting	4.67
STARLINK-6361	57379	2023-07-16	197.43	34.76	624.41	westward, setting	4.67
STARLINK-6358	57377	2023-07-16	202.36	31.32	674.92	westward, rising	4.67
STARLINK-6363	57375	2023-07-16	209.45	25.36	788.55	westward, rising	4.67
STARLINK-5353	57370	2023-07-16	212.06	22.83	849.93	westward, rising	4.67
STARLINK-6370	57373	2023-07-16	214.23	20.56	913.67	westward, rising	4.67
STARLINK-6218	57368	2023-07-16	216.06	18.53	979.39	westward, rising	4.67
STARLINK-6032	57371	2023-07-16	216.45	18.06	994.75	westward, rising	0.16
STARLINK-6174	57366	2023-07-16	218.97	15.02	1114.65	westward, rising	4.67
STARLINK-6322	57337	2023-07-16	205.5	14.59	1374.19	westward, rising	4.67
STARLINK-6168	57369	2023-07-16	220.15	13.5	1183.76	westward, rising	4.67
STARLINK-6338	57364	2023-07-16	221.18	12.11	1253.98	westward, rising	4.67

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

OBJECT	AZ	EL	RANGE KM	APPARENT MOTION	LAUNCH DATE
STARLINK-5202	335.3	65.13	591.96	eastward, setting	2022-12-17
STARLINK-2374	144.58	61.77	615.3	westward, setting	2021-03-14
STARLINK-1166	1.77	55.62	653.48	eastward, setting	2020-01-29
STARLINK-3857	210.55	48.06	705.25	westward, rising	2022-05-06
STARLINK-5050	61.65	47.71	709.76	eastward, setting	2022-09-24
STARLINK-1997	279.1	44.92	748.38	eastward, setting	2021-02-04
STARLINK-30208	157.49	44.21	763.22	westward, setting	2023-07-20

OBJECT	AZ	EL	RANGE KM	APPARENT MOTION	LAUNCH DATE
STARLINK-30288	154.53	42.78	420.77	westward, setting	2023-08-27
STARLINK-3666	317.22	41.01	786.74	eastward, setting	2022-03-09
STARLINK-3663	311.18	40.04	793.3	eastward, setting	2022-03-09
STARLINK-6367	191.2	38.41	580.14	westward, setting	2023-07-16
STARLINK-3373	357.21	38.2	826.97	eastward, rising	2022-01-19

5.5 Largest Sky Clusters

#	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS
1	32	5.76-358.44 deg	10.29-38.2 deg	eastward, rising, eastward, setting, westward, setting
2	23	267.25-334.16 deg	10.03-41.01 deg	eastward, level, eastward, rising, eastward, setting, westward, rising
3	23	191.2-236.7 deg	10.7-38.41 deg	eastward, rising, westward, rising, westward, setting
4	14	98.04-156.4 deg	10.6-35.34 deg	eastward, setting, westward, level, westward, rising, westward, setting
5	2	154.53-157.49 deg	42.78-44.21 deg	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	39	SATCAT ROWS MATCHED	39
TOP OWNERS	US: 39		
OBJECT TYPES	PAYLOAD: 39		

5.7 Space-Track Metadata for Top Propagated Objects

NORAD	OBJECT NAME	TYPE	OWNER	LAUNCH DATE	DECAY DATE
54761	STARLINK-5202	PAYLOAD	US	2022-12-17	n/a
47913	STARLINK-2374	PAYLOAD	US	2021-03-14	2025-01-26
45060	STARLINK-1166	PAYLOAD	US	2020-01-29	n/a
52494	STARLINK-3857	PAYLOAD	US	2022-05-06	n/a
53890	STARLINK-5050	PAYLOAD	US	2022-09-24	n/a
47592	STARLINK-1997	PAYLOAD	US	2021-02-04	n/a
57415	STARLINK-30208	PAYLOAD	US	2023-07-20	n/a
57698	STARLINK-30288	PAYLOAD	US	2023-08-27	n/a
51978	STARLINK-3666	PAYLOAD	US	2022-03-09	2025-01-04
51976	STARLINK-3663	PAYLOAD	US	2022-03-09	2025-12-18
57376	STARLINK-6367	PAYLOAD	US	2023-07-16	n/a
51122	STARLINK-3373	PAYLOAD	US	2022-01-19	2024-07-04

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 1537.3 MiB; planes-readsb-prod-1 1537.3 MiB; planes-readsb-prod-0 1534.5 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 adslol/globe\_history\_2023 for 2023-08-27, then filter +/-60 min and 250 nmi around 31.8085,-104.9100.
- NASA POWER/Horizons/DONKI: batch context for 237UAP00293 at 2023-08-27T02:40:00+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/2023/239/02/">https://noaa-goes16.s3.amazonaws.com/ABI-L2-CMIPF/2023/239/02/</a>
GOES GLM LIGHTNING PREFIX	<a href="https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2023/239/02/">https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2023/239/02/</a>

### 5.13 Nearest Weather-Airport Candidates

STATION	NAME	DISTANCE KM	COORDINATE
KCNM	Cavern City Air Terminal	84.70	32.34, -104.26
KELP	El Paso International Airport	138.50	31.81, -106.38
KBIF	Biggs Army Air Field (Fort Bliss)	138.90	31.85, -106.38
MMCS	Abraham González International Airport	144.90	31.64, -106.43
KALM	Alamogordo White Sands Regional Airport	153.20	32.84, -105.99

- KCNM: [IEM ASOS/METAR daily CSV query](#)
- KELP: [IEM ASOS/METAR daily CSV query](#)
- KBIF: [IEM ASOS/METAR daily CSV query](#)

### 5.14 Nearest Radiosonde Stations

STATION	NAME	DISTANCE KM	COORDINATE
USM00072364	SANTA TERESA; NM.	169.00	31.87, -106.70
USM00072265	MIDLAND/MIDLAND REG. AIRTERM	257.40	31.94, -102.19
MXM00076225	CHIHUAHUA; CHIH.	365.10	28.67, -106.03
USM00072365	ALBUQUERQUE/INT.; NM.	392.60	35.04, -106.62
USM00072261	DEL RIO/INT.; TX.	468.20	29.37, -100.92

### 5.15 ASOS/METAR Surface Weather Observations

surface visibility ranged 7-10 statute miles; no precipitation was reported in the retained observations; no low broken/overcast cloud ceiling was evident in the retained station observations. 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
KCNM	84.70	2023-08-27T02:53:00 +00:00	10.00	CLR, M, M, M	180.00 / 5.00	KCNM 270253Z AUTO 18005KT 10SM CLR 29/16 A3008 RMK AO2 SLP124 T02940161 53008
KELP	138.50	2023-08-27T02:51:00 +00:00	10.00	FEW15000, FEW25000, M, M	100.00 / 8.00	KELP 270251Z 10008KT 10SM FEW150 FEW250 32/10 A3009 RMK AO2 SLP107 T03220100 53015
KBIF	138.90	2023-08-27T02:55:00 +00:00	7.00	FEW15000, FEW25000, M, M	100.00 / 6.00	KBIF 270255Z 10006KT 7SM FEW150 FEW250 32/10 A3012 RMK AO2A SLP084 DATA ESTMD T03150098 \$

### 5.16 NOAA IGRA Radiosonde Wind Profile

Nearest sounding implies mean 0-12 km wind drift toward 355.5 deg at 4.35 m/s; a passive balloon could drift about 31.3 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
USM00072364	SANTA TERESA; NM.	169.00	2023-08-27T00:00 :00+00:00	355.50	4.35	31.30	35.60 at 5303.00 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.

<b>SATELLITE</b>	GOES16	<b>BUCKET</b>	noaa-goes16
<b>ABI SAMPLE FILES</b>	12	<b>GLM SAMPLE FILES</b>	12

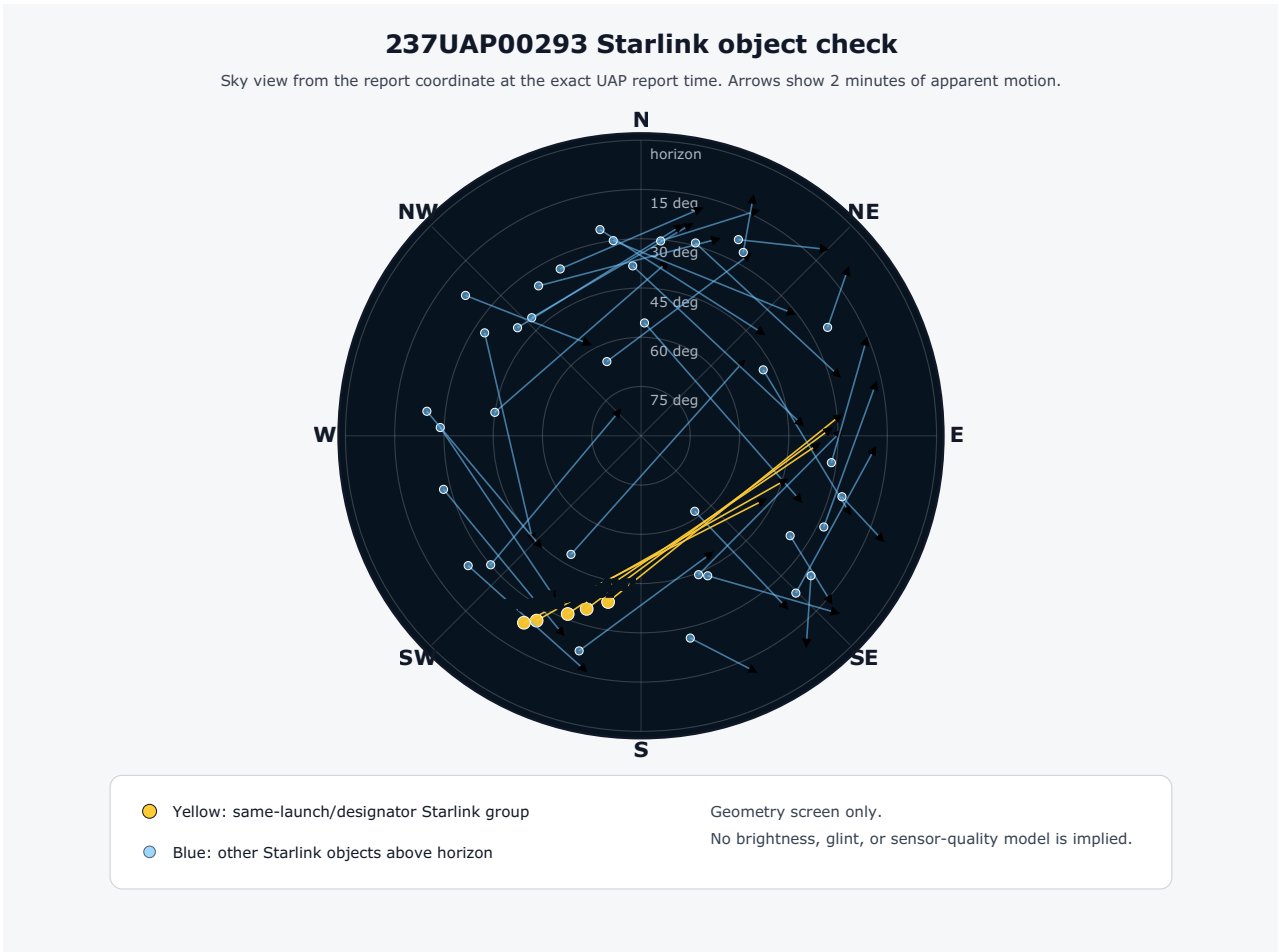
#### ABI sample objects:

- [ABI-L2-CMIPF/2023/239/02/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232390200203\\_e20232390209511\\_c20232390209575.nc](#)
- [ABI-L2-CMIPF/2023/239/02/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232390210203\\_e20232390219511\\_c20232390219584.nc](#)
- [ABI-L2-CMIPF/2023/239/02/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232390220203\\_e20232390229511\\_c20232390229570.nc](#)
- [ABI-L2-CMIPF/2023/239/02/OR\\_ABI-L2-CMIPF-M6C01\\_G16\\_s20232390230203\\_e20232390239511\\_c20232390239581.nc](#)

#### GLM lightning sample objects:

- [GLM-L2-LCFA/2023/239/02/OR\\_GLM-L2-LCFA\\_G16\\_s20232390200000\\_e20232390200200\\_c20232390200220.nc](#)
- [GLM-L2-LCFA/2023/239/02/OR\\_GLM-L2-LCFA\\_G16\\_s20232390200200\\_e20232390200400\\_c20232390200416.nc](#)
- [GLM-L2-LCFA/2023/239/02/OR\\_GLM-L2-LCFA\\_G16\\_s20232390200400\\_e20232390201000\\_c20232390201020.nc](#)
- [GLM-L2-LCFA/2023/239/02/OR\\_GLM-L2-LCFA\\_G16\\_s20232390201000\\_e20232390201200\\_c20232390201220.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	2023-08-27T02:40:00+00:00	Directly used in propagation; this is a hard filter, not descriptive context.
LOCATION CONSTRAINT	31.80854, -104.91004	Directly used as observer point for azimuth/elevation/range computation.
COUNT / PATTERN	not explicit	Primary same-launch group contains 13 propagated objects in a compact sky sector.
MOTION LANGUAGE	moving	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	237UAP00293 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: historical Starlink 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

## 237UAP00293

SKYWATCH INCIDENT REPORT

PRIMARY CODE: UNIDENTIFIED AERIAL PHENOMENON

Date: 02:40 08/27/2023

Status: Closed

POD: DEN

Reporting Facility: ZAB

Callsign: UAL1491

Aircraft: B39M

Tail Number:

Operator: UAL

Origin: LAS

Destination: EWR

New Destination:

Operator Type: Commercial

Paged: YES

REMARKS

Aircraft reported an unidentified aerial phenomenon off the front side while W bound at FL360, 70 NM E of ELP. The unknown phenomenon was white with a bright white aura around it traveling E bound above them. Some aircraft described it as a missile. These reports correlate with a train of Space X satellites moving SW to NE bound. Additional aircraft reporting UAP: ASA25, AAL2697, SWA4691, ABX3151, SKW3147. All aircraft altitudes were FL340 to FL400.

## 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": "2023-08-27T02:40:00+00:00",
  "source_excerpt": "Aircraft reported an unidentified aerial phenomenon off the front side while W bound at FL360, 70 NM E of ELP. The unknown phenomenon was white with a bright white aura around it traveling E bound above them. Some aircraft described it as a missile. These reports correlate with a train of Space X satellites moving SW to NE bound. Additional aircraft reporting UAP: ASA25, AAL2697, SWA4691, ABX3151, SKW3147. All aircraft altitudes were FL340 to FL400.",
  "historical_starlink_element_rows": 4618,
  "observer": {
    "lat": 31.808542082182644,
    "lon": -104.91003716616427,
    "source": "aviation_offset:70 NM E of ELP (public text extract 237UAP00293)"
  },
  "case_id": "237UAP00293",
  "starlink_above_horizon_at_report_time": 261,
  "starlink_catalog_ids_considered": 4661,
  "largest_same-sky_cluster_count": 32,
  "starlink_at_or_above_10_deg": 105,
  "same_launch_sky_groups": [
    {
      "azimuth_range_deg": [
        191.2,
        222.09
      ],
      "count": 13,
      "elevation_range_deg": [
        10.81,
        38.41
      ],
      "ground_track_labels": [
        "NE"
      ],
      "launch_date": "2023-07-16",
      "members": [
        {
          "azimuth_deg": 191.2,
          "azimuth_plus_2m_deg": 84.09,
          "azimuth_plus_5m_deg": 64.23,
          "element_age_hours": 4.67,
          "element_epoch": "2023-08-26T22:00:00.999936+00:00",
          "elevation_deg": 38.41,
          "elevation_plus_2m_deg": 28.83,
          "elevation_plus_5m_deg": 3.46,
          "epoch_altitude_km": 379.67,
          "ground_track_bearing_deg": 54.03,
          "ground_track_label": "NE",
          "launch_date": "2023-07-16",
          "name": "STARLINK-6367",
          "norad_id": "57376",
          "range_km": 580.14,
          "sky_motion_label": "westward, setting",
          "subpoint_lat": 28.0047,
          "subpoint_lon": -105.7581
        },
        {
          "azimuth_deg": 197.43,
          "azimuth_plus_2m_deg": 87.82,
          "azimuth_plus_5m_deg": 64.57,
          "element_age_hours": 4.67,
          "element_epoch": "2023-08-26T22:00:00.999936+00:00",
          "elevation_deg": 34.76,
          "elevation_plus_2m_deg": 32.11,
          "elevation_plus_5m_deg": 4.27,
          "epoch_altitude_km": 379.71,
          "ground_track_bearing_deg": 53.71,
          "ground_track_label": "NE",
          "launch_date": "2023-07-16",
          "name": "STARLINK-6361",
          "norad_id": "57379",
          "range_km": 624.41,
          "sky_motion_label": "westward, setting",
          "subpoint_lat": 27.627,
          "subpoint_lon": -106.3802
        },
        {
          "azimuth_deg": 202.36,
          "azimuth_plus_2m_deg": 92.6,
          "azimuth_plus_5m_deg": 64.94,
          "element_age_hours": 4.67,
          "element_epoch": "2023-08-26T22:00:00.999936+00:00",
          "elevation_deg": 31.32,
```

```

    "elevation_plus_2m_deg": 35.78,
    "elevation_plus_5m_deg": 5.13,
    "epoch_altitude_km": 379.74,
    "ground_track_bearing_deg": 53.4,
    "ground_track_label": "NE",
    "launch_date": "2023-07-16",
    "name": "STARLINK-6358",
    "norad_id": "57377",
    "range_km": 674.92,
    "sky_motion_label": "westward, rising",
    "subpoint_lat": 27.2436,
    "subpoint_lon": -107.0018
  },
  {
    "azimuth_deg": 209.45,
    "azimuth_plus_2m_deg": 106.8,
    "azimuth_plus_5m_deg": 65.79,
    "element_age_hours": 4.67,
    "element_epoch": "2023-08-26T22:00:00.999936+00:00",
    "elevation_deg": 25.36,
    "elevation_plus_2m_deg": 43.79,
    "elevation_plus_5m_deg": 7.0,
    "epoch_altitude_km": 379.75,
    "ground_track_bearing_deg": 52.8,
    "ground_track_label": "NE",
    "launch_date": "2023-07-16",
    "name": "STARLINK-6363",
    "norad_id": "57375",
    "range_km": 788.55,
    "sky_motion_label": "westward, rising",
    "subpoint_lat": 26.47,
    "subpoint_lon": -108.2305
  },
  {
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## Appendix C. Source Exhaustion Checklist

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: 237UAP00293
TIME AND OBSERVER COORDINATE	extracted	2023-08-27T02:40:00+00:00 at 31.80854, -104.91004
ORBITAL OBJECT PROPAGATION	screened	Starlink
SPACE-TRACK SATCAT METADATA	screened	39 NORAD IDs checked; 39 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	ADS-B 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. *237UAP00293.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-615/493468575/237UAP00293.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/>
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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/>