

CASE FILE 49 / 237UAP00344

# 237UAP00344

Radar/correlation-focused public UAP report; score 54

NORMAL-OBJECT FAVORED

REPORT NO.	UAP-OM-49-237UAP00344	DISPOSITION	NORMAL-OBJECT FAVORED
PRIMARY CASE	237UAP00344	GENERATED	2026-05-20 18:32 UTC
REPORT TIME	2024-01-25T04:47:00+00:00	OBSERVER	41.75424, -107.00152
SOURCE CASE IDS	237UAP00344		

## 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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237UAP00344 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: strong ADS-B aircraft candidate N300BC CL30 a31f6e at 63.1 km, azimuth 145.8 deg, elevation 10.72 deg, 7.97 min from report. Dense satellite presence alone is not treated as causation in this packet.

## 1.1 Key Findings

- Source score 54 based on: radar/primary-return language, negative official correlation, UAP/UFO language.
- Report time used: 2024-01-25T04:47:00+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.
- Case-specific ordinary-object evidence: strong ADS-B aircraft candidate N300BC CL30 a31f6e at 63.1 km, azimuth 145.8 deg, elevation 10.72 deg, 7.97 min from report.
- Non-causal context / rejection screens: very dense orbital-object sky background; context only, not causation.
- Objects above horizon: 1070; at/above 10 deg: 513.
- 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
237UAP00344	04:47 01/25/2024 Callsign: ASA440 Origin: MIA	ZDV Operator: ASA Operator Type: Commercial	text extract present	<a href="#">237UAP00344.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 FL380, 26 NM E of CKW. The unknown phenomenon was three white lights turning on and off consistently, directly in front and well above the aircraft. SKW5152, CRJ2 at FL320 observed the same phenomenon. The UAP was not observed on ATC facility radar system.
REPORT TIME USED	2024-01-25T04:47:00+00:00
OBSERVER COORDINATE USED	41.75424, -107.00152
OBSERVER SOURCE BASIS	aviation_offset:26 NM E of CKW (public text extract 237UAP00344)

### 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	18220	HISTORICAL ELEMENT ROWS	18220
ABOVE HORIZON AT REPORT MINUTE	1070	AT/ABOVE 10 DEG	513
LARGEST SAME-SKY CLUSTER	513		

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 48132	140.15	81.14	556.47	westward, setting	21027AS
NORAD 25980	327.54	80.93	791.46	eastward, setting	99065A
NORAD 10931	115.19	80.0	1524.36	westward, setting	78056B
NORAD 81391	137.64	78.31	814.67	eastward, setting	unknown
NORAD 47647	206.84	77.46	562.5	westward, setting	21012AD
NORAD 41830	271.85	75.3	819.78	eastward, setting	99025EYH
NORAD 49280	29.22	74.67	1224.26	westward, setting	21090B
NORAD 4629	294.63	72.75	1961.49	westward, rising	70091J
NORAD 31256	77.58	72.66	943.16	eastward, setting	99025BMN
NORAD 37998	338.14	72.27	796.52	eastward, setting	93036BQZ
NORAD 54843	220.77	72.01	588.84	westward, setting	22177Z
NORAD 57699	27.75	71.69	590.27	eastward, setting	23129B

### 5.5 Largest Sky Clusters

#	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS
1	513	0.04-359.94 deg	10.0-81.14 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	US: 10, CIS: 9, PRC: 6, UK: 2, JPN: 1, ORB: 1		
OBJECT TYPES	PAYLOAD: 15, DEBRIS: 14		

5.7 Space-Track Metadata for Top Propagated Objects

NORAD	OBJECT NAME	TYPE	OWNER	LAUNCH DATE	DECAY DATE
48132	STARLINK-2474	PAYLOAD	US	2021-04-07	n/a
25980	ORBCOMM FM 30	PAYLOAD	ORB	1999-12-04	n/a
10931	COSMOS 1014	PAYLOAD	CIS	1978-06-07	n/a
47647	STARLINK-2030	PAYLOAD	US	2021-02-16	2025-07-04
41830	FENGYUN 1C DEB	DEBRIS	PRC	1999-05-10	n/a
49280	ONEWEB-0347	PAYLOAD	UK	2021-10-14	n/a
4629	COSMOS 375 DEB	DEBRIS	CIS	1970-10-30	n/a
31256	FENGYUN 1C DEB	DEBRIS	PRC	1999-05-10	n/a
37998	COSMOS 2251 DEB	DEBRIS	CIS	1993-06-16	n/a
54843	STARLINK-5304	PAYLOAD	US	2022-12-28	n/a
57699	STARLINK-30347	PAYLOAD	US	2023-08-27	n/a
37236	COSMOS 951 DEB	DEBRIS	CIS	1977-09-13	n/a

5.9 NASA / NOAA / ADS-B Expansion Layer

This source layer adds free NASA context that was previously missing from most packet cases. It is contextual evidence; it does not replace aircraft, satellite, balloon, or radar causation tests.

HOURLY UTC	2024012504
CLOUD AMOUNT	51.57%
PRECIPITATION	0.13 mm/hr
10 M WIND	5.47 m/s
TEMPERATURE	-4.68 C
RELATIVE HUMIDITY	91.91%
DONKI +/-1 DAY	CME: unavailable; FLR: unavailable; GST: unavailable; HSS: unavailable; IPS: unavailable; MPC: unavailable; RBE: unavailable; SEP: unavailable; WSAEnliSimulations: unavailable

5.10 Horizons Sky Geometry Context

OBJECT	AZ	EL	APP MAG
Sun	293.13	-50.46	-26.78
Moon	110.70	57.72	-12.50
Venus	349.77	-70.45	-3.96
Mars	315.04	-66.16	1.34
Jupiter	254.66	35.01	-2.40

OBJECT	AZ	EL	APP MAG
Saturn	275.56	-22.64	0.99

- Sun elevation was -50.5 deg, so this was a dark-sky/nighttime sighting.
- Moon was above horizon at azimuth 110.7 deg / elevation 57.7 deg.
- Planets above horizon: Jupiter (35.0 deg).
- NASA POWER cloud amount for the hour was 51.57%, with precipitation 0.13 mm/hr.

### 5.11 Free Source Availability and Remaining Work

LAYER	STATUS	CASE-SPECIFIC NOTE
ADSB.LOL HISTORICAL RELEASE LISTING	screened/present	planes-readsb-staging-0 1491.0 MiB; planes-readsb-prod-0 1485.0 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\_2024 for 2024-01-25, then filter +/-60 min and 250 nmi around 41.7542,-107.0015.
- NASA POWER/Horizons/DONKI: batch context for 237UAP00344 at 2024-01-25T04:47:00+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	GOES18
GOES ABI PREFIX	<a href="https://noaa-goes18.s3.amazonaws.com/ABI-L2-CMIPF/2024/025/04/">https://noaa-goes18.s3.amazonaws.com/ABI-L2-CMIPF/2024/025/04/</a>
GOES GLM LIGHTNING PREFIX	<a href="https://noaa-goes18.s3.amazonaws.com/GLM-L2-LCFA/2024/025/04/">https://noaa-goes18.s3.amazonaws.com/GLM-L2-LCFA/2024/025/04/</a>

### 5.13 Nearest Weather-Airport Candidates

STATION	NAME	DISTANCE KM	COORDINATE
KRWL	Rawlins Municipal Airport/Harvey Field	17.40	41.81, -107.20
KLAR	Laramie Regional Airport	120.90	41.31, -105.68
KCPR	Casper-Natrona County International Airport	135.70	42.91, -106.46
KHDN	Yampa Valley Airport	142.70	40.48, -107.22
KRKS	Southwest Wyoming Regional Airport	172.30	41.59, -109.07

- KRWL: [IEM ASOS/METAR daily CSV query](#)
- KLAR: [IEM ASOS/METAR daily CSV query](#)
- KCPR: [IEM ASOS/METAR daily CSV query](#)

### 5.14 Nearest Radiosonde Stations

STATION	NAME	DISTANCE KM	COORDINATE
USM00072672	RIVERTON; WY.	189.50	43.06, -108.48
USM00072476	GRAND JUNCTION/WALKER FIELD; C	320.00	39.12, -108.53
USM00072662	RAPID CITY WFO; SD.	402.20	44.07, -103.21
USM00072572	SALT LAKE CITY/INTNL UT.	428.10	40.77, -111.96
USM00074003	DUGWAY PRVGR	528.30	40.17, -112.93

### 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
KRWL	17.40	2024-01-25T04:53:00 +00:00	10.00	CLR, M, M, M	230.00 / 11.00	KRWL 250453Z AUTO 23011KT 10SM CLR M02/M06 A2999 RMK AO2 SLPNO T10171056
KLAR	120.90	2024-01-25T04:53:00 +00:00	10.00	CLR, M, M, M	250.00 / 8.00	KLAR 250453Z AUTO 25008KT 10SM CLR M03/M07 A2997 RMK AO2 SLP147 T10281067
KCPR	135.70	2024-01-25T04:53:00 +00:00	10.00	CLR, M, M, M	220.00 / 11.00	KCPR 250453Z AUTO 22011KT 10SM CLR M01/M04 A2993 RMK AO2 SLP146 T10061039

### 5.16 NOAA IGRA Radiosonde Wind Profile

Nearest sounding implies mean 0-12 km wind drift toward 309.7 deg at 15.4 m/s; a passive balloon could drift about 110.9 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
USM00072672	RIVERTON; WY.	189.50	2024-01-25T00:00 :00+00:00	309.70	15.40	110.90	34.70 at 27068.00 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>	GOES18	<b>BUCKET</b>	noaa-goes18
<b>ABI SAMPLE FILES</b>	12	<b>GLM SAMPLE FILES</b>	12

#### ABI sample objects:

- [ABI-L2-CMIPF/2024/025/04/OR\\_ABI-L2-CMIPF-M6C01\\_G18\\_s20240250400206\\_e20240250409514\\_c20240250409584.nc](#)
- [ABI-L2-CMIPF/2024/025/04/OR\\_ABI-L2-CMIPF-M6C01\\_G18\\_s20240250410206\\_e20240250419514\\_c20240250419589.nc](#)
- [ABI-L2-CMIPF/2024/025/04/OR\\_ABI-L2-CMIPF-M6C01\\_G18\\_s20240250420206\\_e20240250429514\\_c20240250429599.nc](#)
- [ABI-L2-CMIPF/2024/025/04/OR\\_ABI-L2-CMIPF-M6C01\\_G18\\_s20240250430206\\_e20240250439514\\_c20240250439581.nc](#)

GLM lightning sample objects:

- [GLM-L2-LCFA/2024/025/04/OR\\_GLM-L2-LCFA\\_G18\\_s20240250400000\\_e20240250400200\\_c20240250400220.nc](#)
- [GLM-L2-LCFA/2024/025/04/OR\\_GLM-L2-LCFA\\_G18\\_s20240250400200\\_e20240250400400\\_c20240250400421.nc](#)
- [GLM-L2-LCFA/2024/025/04/OR\\_GLM-L2-LCFA\\_G18\\_s20240250400400\\_e20240250401000\\_c20240250401017.nc](#)
- [GLM-L2-LCFA/2024/025/04/OR\\_GLM-L2-LCFA\\_G18\\_s20240250401000\\_e20240250401200\\_c20240250401220.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.

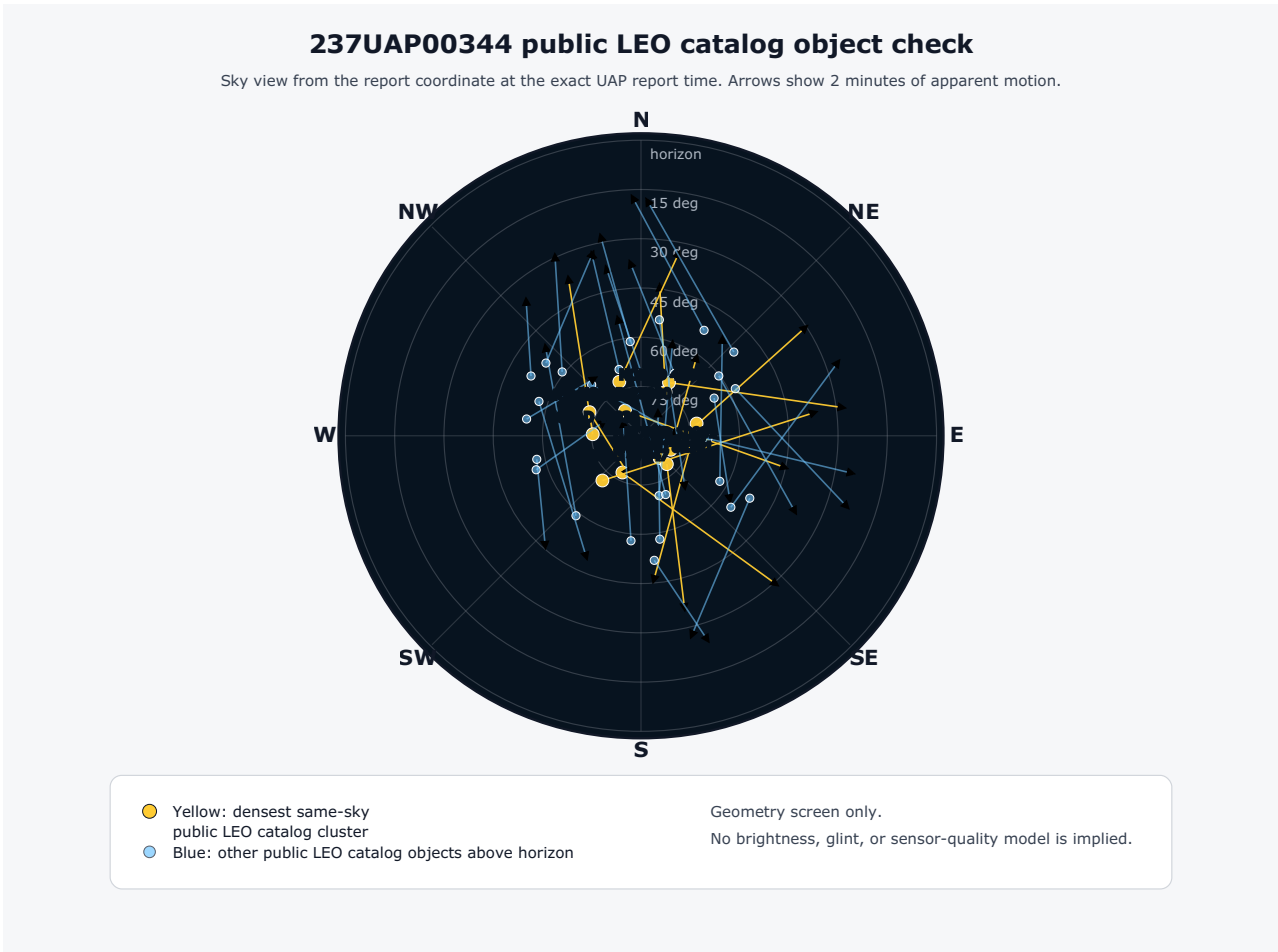
ARCHIVE WINDOW	2024-01-25T03:32:00+00:00 to 2024-01-25T06:02:00+00:00	RADIUS	300.00 nmi
TRACE FILES SCANNED	42503	TRACKS RETAINED	532
SUPPORT STATUS	aircraft strong candidate present	BEST-CANDIDATE NOTE	ordinary-object favored if the report's count, color, direction, and motion can be reconciled with the candidate track(s).
STRONG CANDIDATES	1	PLAUSIBLE CANDIDATES	25
REPORTING-AIRCRAFT TRACKS EXCLUDED	1	WEAK CANDIDATES	38

5.19 Top ADS-B Candidate Tracks

AIRCRAFT	STATUS	SCORE	MIN DIST KM	NEAREST DT MIN	ALT FT	AZ	EL
N300BC CL30 a31f6e	strong aircraft candidate	61.84	30.50	0.08	15100	145.80	10.72
N37305 B38M a44166	plausible aircraft candidate	66.60	85.10	1.40	36000	351.50	6.96
N27733 B737 a2c35a	plausible aircraft candidate	60.30	4.80	2.56	31950	279.20	34.30
N958SW CRJ2 ad5404	plausible aircraft candidate	58.73	36.90	9.02	26000	28.60	11.72
ZK-NZQ B789 c82741	plausible aircraft candidate	56.75	63.50	7.25	32000	167.20	7.71
N450UP B752 a573ec	plausible aircraft candidate	54.67	13.00	0.15	39000	113.00	24.40
N239AZ B763 a22a07	plausible aircraft candidate	53.49	40.20	0.00	40000	151.10	15.70
N868DN B739 abece7	plausible aircraft candidate	46.98	38.50	0.02	34000	22.30	13.48



## 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	2024-01-25T04:47:00+00:00	Directly used in propagation; this is a hard filter, not descriptive context.
LOCATION CONSTRAINT	41.75424, -107.00152	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	turning	Apparent motion labels in the object table provide a plausible but not definitive comparison.
RADAR / OFFICIAL CHECK	not observed on ATC radar	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	237UAP00344 is assessed as normal-object favored because the available public evidence gives a case-specific ordinary-object candidate: strong ADS-B aircraft candidate N300BC CL30 a31f6e at 63.1 km, azimuth 145.8 deg, elevation 10.72 deg, 7.97 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

237UAP00344

SKYWATCH INCIDENT REPORT

PRIMARY CODE: UNIDENTIFIED AERIAL PHENOMENON

Date: 04:47 01/25/2024  
Status: Closed  
POD: DEN  
Reporting Facility: ZDV

Callsign: ASA440  
Aircraft: B738  
Tail Number:  
Operator: ASA

Origin: MIA  
Destination: PDX  
New Destination:  
Operator Type: Commercial  
Paged: YES

REMARKS

Aircraft reported an unidentified aerial phenomenon off the front side while W bound at FL380, 26 NM E of CKW. The unknown phenomenon was three white lights turning on and off consistently, directly in front and well above the aircraft. SKW5152, CRJ2 at FL320 observed the same phenomenon. The UAP was not observed on ATC facility radar system.

## 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": "2024-01-25T04:47:00+00:00",
  "source_excerpt": "Aircraft reported an unidentified aerial phenomenon off the front side while W bound at FL380, 26 NM E of CKW. The unknown phenomenon was three white lights turning on and off consistently, directly in front and well above the aircraft. SKW5152, CRJ2 at FL320 observed the same phenomenon. The UAP was not observed on ATC facility radar system.",
  "historical_starlink_element_rows": 18220,
  "observer": {
    "lat": 41.75423829027072,
    "lon": -107.00151830900768,
    "source": "aviation_offset:26 NM E of CKW (public text extract 237UAP00344)"
  },
  "case_id": "237UAP00344",
  "starlink_above_horizon_at_report_time": 1070,
  "starlink_catalog_ids_considered": 18220,
  "largest_same-sky_cluster_count": 513,
  "starlink_at_or_above_10_deg": 513,
  "top_starlinks": [
    {
      "azimuth_deg": 140.15,
      "azimuth_plus_2m_deg": 56.53,
      "azimuth_plus_5m_deg": 53.69,
      "element_age_hours": 2.94,
      "element_epoch": "2024-01-25T07:43:25.891680+00:00",
      "elevation_deg": 81.14,
      "elevation_plus_2m_deg": 29.43,
      "elevation_plus_5m_deg": 5.54,
      "epoch_altitude_km": 553.33,
      "ground_track_bearing_deg": 51.28,
      "ground_track_label": "NE",
      "launch_date": "21027AS",
      "launch_designator": "21027AS",
      "name": "NORAD 48132",
      "norad_id": "48132",
      "range_km": 556.47,
      "sky_motion_label": "westward, setting",
      "subpoint_lat": 41.2071,
      "subpoint_lon": -106.3984
    },
    {
      "azimuth_deg": 327.54,
      "azimuth_plus_2m_deg": 102.54,
      "azimuth_plus_5m_deg": 106.82,
      "element_age_hours": 5.51,
      "element_epoch": "2024-01-24T23:16:18.475392+00:00",
      "elevation_deg": 80.93,
      "elevation_plus_2m_deg": 44.42,
      "elevation_plus_5m_deg": 13.88,
      "epoch_altitude_km": 777.42,
      "ground_track_bearing_deg": 108.03,
      "ground_track_label": "ESE",
      "launch_date": "99065A",
      "launch_designator": "99065A",
      "name": "NORAD 25980",
      "norad_id": "25980",
      "range_km": 791.46,
      "sky_motion_label": "eastward, setting",
      "subpoint_lat": 42.596,
      "subpoint_lon": -107.7285
    },
    {
      "azimuth_deg": 115.19,
      "azimuth_plus_2m_deg": 34.89,
      "azimuth_plus_5m_deg": 24.46,
      "element_age_hours": 10.08,
      "element_epoch": "2024-01-25T14:51:54.858816+00:00",
      "elevation_deg": 80.0,
      "elevation_plus_2m_deg": 60.14,
      "elevation_plus_5m_deg": 31.03,
      "epoch_altitude_km": 1486.26,
      "ground_track_bearing_deg": 18.26,
      "ground_track_label": "NNE",
      "launch_date": "78056B",
      "launch_designator": "78056B",
      "name": "NORAD 10931",
      "norad_id": "10931",
      "range_km": 1524.36,
      "sky_motion_label": "westward, setting",
      "subpoint_lat": 40.9108,
      "subpoint_lon": -104.701
    }
  ],
}
```

```

{
  "azimuth_deg": 137.64,
  "azimuth_plus_2m_deg": 165.9,
  "azimuth_plus_5m_deg": 169.18,
  "element_age_hours": 19.09,
  "element_epoch": "2024-01-24T09:41:31.780320+00:00",
  "elevation_deg": 78.31,
  "elevation_plus_2m_deg": 35.27,
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  "subpoint_lat": 43.8866,
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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: 237UAP00344
TIME AND OBSERVER COORDINATE	extracted	2024-01-25T04:47:00+00:00 at 41.75424, -107.00152
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	screened	Hourly weather, sky geometry, and space-weather context where local JSON is present
AIRCRAFT/ADS-B LAYER	screened	42503 trace files scanned; 532 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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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. *237UAP00344.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-615/493468575/237UAP00344.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>
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8. Space-Track.org. *API documentation for SATCAT and catalog metadata classes used for local enrichment*. <https://www.space-track.org/documentation#/api>
9. NASA POWER. *Hourly point API documentation for meteorological context*. <https://power.larc.nasa.gov/docs/services/api/temporal/hourly/>
10. NASA/JPL Solar System Dynamics. *Horizons API documentation for observer geometry and apparent magnitude queries*. <https://ssd-api.jpl.nasa.gov/doc/horizons.html>
11. NASA. *DONKI space weather API documentation*. <https://api.nasa.gov/>
12. ADSB.lol. *Interactive API documentation and OpenAPI definition*. <https://api.adsb.lol/docs>
13. ADSB.lol. *Historical open-data release documentation*. <https://www.adsb.lol/docs/open-data/historical/>
14. OpenSky Network. *REST API documentation*. <https://openskynetwork.github.io/opensky-api/rest.html>
15. OpenSky Network. *Historical data via Trino documentation*. <https://openskynetwork.github.io/opensky-api/trino.html>
16. NASA GIBS. *Global Imagery Browse Services API documentation*. <https://nasa-gibs.github.io/gibs-api-docs/>
17. NASA Earthdata. *Common Metadata Repository search API documentation*. <https://cmr.earthdata.nasa.gov/search/site/docs/search/api.html>
18. NOAA / AWS Open Data. *GOES public dataset registry*. <https://registry.opendata.aws/noaa-goes/>
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20. NOAA NCEI. *Integrated Global Radiosonde Archive*. <https://www.ncei.noaa.gov/products/weather-balloon/integrated-global-radiosonde-archive>
21. Iowa Environmental Mesonet. *ASOS/AWOS/METAR data download service*. <https://mesonet.agron.iastate.edu/request/download.phtml>
22. Celestrak. *Spacetrack Report No. 3: Models for propagation of NORAD element sets*. <https://celestrak.org/NORAD/documentation/spacetrk.pdf>
23. Celestrak. *Supplemental GP element sets documentation and current endpoint index*. <https://celestrak.org/NORAD/elements/supplemental/>