

CASE FILE 79 / 237UAP00033

237UAP00033

Multiple-witness public UAP report; score 48

HIGH-VALUE UNRESOLVED

REPORT NO.	UAP-OM-79-237UAP00033	DISPOSITION	HIGH-VALUE UNRESOLVED
PRIMARY CASE	237UAP00033	GENERATED	2026-05-20 18:32 UTC
REPORT TIME	2018-06-05T11:32:00+00:00	OBSERVER	42.91100, -82.52890
SOURCE CASE IDS	237UAP00033		

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

237UAP00033 was screened against historical public LEO catalog objects orbital elements at the extracted time and observer coordinate. The screen did not produce enough mundane evidence to close the case under the normal-object favored standard. Hard features retained for follow-up: multiple witnesses/facilities.

1.1 Key Findings

- Source score 48 based on: multiple aircraft/facility witnesses, NORAD/AMOC/EADS/CONR check, UAP/UFO language.
- Report time used: 2018-06-05T11:32:00+00:00.
- External object layer used: public LEO catalog objects.
- Disposition standard: UNRESOLVED 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: very dense orbital-object sky background; context only, not causation.
- Remaining hard features: multiple witnesses/facilities.
- Objects above horizon: 755; at/above 10 deg: 356.
- 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

HIGH-VALUE UNRESOLVED: Hard report features remain after the normal-object screens, such as primary/radar evidence, multiple witnesses, footage references, or motion language that still conflicts with the available object layer.

2. Source Control

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
237UAP00033	11:32 06/05/2018 Paged: NO	ZAB	text extract present	237UAP00033.pdf

3. Original Report Evidence

PRIMARY EXCERPT USED FOR MATCHING	ZAB reports multiple ACFT reporting possible UFO sighting in VCNTY of PHN (Amarillo, TX) from 0440-0440. ACFT were NW bound from DFW area. HQ DEN contacted NORAD who reports no known activity. 0525 ZAB reports internet search revealed NASA website indicating the Space Station would be visible from that vicinity and in that time frame. ZAB OMIC is logging the event in the daily record.
REPORT TIME USED	2018-06-05T11:32:00+00:00
OBSERVER COORDINATE USED	42.91100, -82.52890
OBSERVER SOURCE BASIS	aviation_fix:VCNTY of PHN (public text extract 237UAP00033)

4. Methodology

1. **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.
2. **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.
3. **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.
4. **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.
5. **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.
6. **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	12724	HISTORICAL ELEMENT ROWS	12724
ABOVE HORIZON AT REPORT MINUTE	755	AT/ABOVE 10 DEG	356
LARGEST SAME-SKY CLUSTER	354		

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 37888	259.86	77.85	1107.16	eastward, setting	66040AT
NORAD 39076	1.88	75.16	1460.21	eastward, setting	13005E
NORAD 39676	14.49	75.15	823.86	eastward, setting	87060AP
NORAD 39647	51.59	69.37	850.37	westward, setting	87060Q
NORAD 21291	346.3	69.3	916.24	westward, setting	75052AC
NORAD 5211	45.05	62.5	1643.92	westward, setting	71041B
NORAD 5922	34.13	62.11	1149.39	eastward, setting	60016E
NORAD 21187	308.51	62.01	1965.51	eastward, setting	91009BA
NORAD 37327	64.92	60.36	832.52	eastward, setting	93036BKT
NORAD 4751	204.38	59.92	1086.91	eastward, setting	70025CZ
NORAD 22840	352.74	59.15	1567.7	eastward, rising	91009CK
NORAD 465	193.36	56.96	929.64	westward, setting	61015FB

5.5 Largest Sky Clusters

#	COUNT	AZIMUTH SPAN	ELEVATION SPAN	MOTION LABELS
1	354	0.52-359.59 deg	10.14-75.16 deg	eastward, level, eastward, rising, eastward, setting, nearly fixed azimuth, setting, westward, rising, westward, setting
2	1	259.86-259.86 deg	77.85-77.85 deg	eastward, setting
3	1	308.51-308.51 deg	62.01-62.01 deg	eastward, 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	30
TOP OWNERS	CIS: 16, US: 9, PRC: 2, CZCH: 1, GLOB: 1, JPN: 1		
OBJECT TYPES	DEBRIS: 20, PAYLOAD: 8, ROCKET BODY: 2		

5.7 Space-Track Metadata for Top Propagated Objects

NORAD	OBJECT NAME	TYPE	OWNER	LAUNCH DATE	DECAY DATE
37888	NIMBUS 2 DEB	DEBRIS	US	1966-05-15	n/a
39076	GLOBALSTAR M078	PAYLOAD	GLOB	2013-02-06	n/a
39676	COSMOS 1867 COOLANT	DEBRIS	CIS	1987-07-10	n/a
39647	COSMOS 1867 COOLANT	DEBRIS	CIS	1987-07-10	n/a
21291	DELTA 1 DEB	DEBRIS	US	1975-06-12	n/a
5211	COSMOS 412	PAYLOAD	CIS	1971-05-07	n/a
5922	TIROS 2 DEB *	DEBRIS	US	1960-11-23	n/a
21187	SL-8 DEB	DEBRIS	CIS	1991-02-12	n/a
37327	COSMOS 2251 DEB	DEBRIS	CIS	1993-06-16	2025-06-18
4751	THORAD AGENA D DEB	DEBRIS	US	1970-04-08	n/a
22840	SL-8 DEB	DEBRIS	CIS	1991-02-12	n/a
465	THOR ABLESTAR DEB	DEBRIS	US	1961-06-29	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	not yet exhausted	v2018-06-05-planes-readsb-prod-0, v2018-06-05-planes-readsb-prod-1, v2018-06-05-planes-readsb-staging-0, v2018-06-05-planes-readsb-mlatonly-0
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 no public ADSB.lol annual repo found for 2018-06-05, then filter +/-60 min and 250 nmi around 42.9110,-82.5289.
- NASA POWER/Horizons/DONKI: batch context for 237UAP00033 at 2018-06-05T11:32:00+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	https://noaa-goes16.s3.amazonaws.com/ABI-L2-CMIPF/2018/156/11/
GOES GLM LIGHTNING PREFIX	https://noaa-goes16.s3.amazonaws.com/GLM-L2-LCFA/2018/156/11/

5.13 Nearest Weather-Airport Candidates

STATION	NAME	DISTANCE KM	COORDINATE
CYZR	Chris Hadfield Airport	20.40	43.00, -82.31
KMTC	Selfridge Air National Guard Base Airport	41.60	42.61, -82.84
KDET	Coleman A. Young Municipal Airport	68.30	42.41, -83.01
KPTK	Oakland County International Airport	77.70	42.67, -83.42
CYQG	Windsor International Airport	78.80	42.28, -82.96

- CYZR: [IEM ASOS/METAR daily CSV query](#)
- KMTC: [IEM ASOS/METAR daily CSV query](#)
- KDET: [IEM ASOS/METAR daily CSV query](#)

5.14 Nearest Radiosonde Stations

STATION	NAME	DISTANCE KM	COORDINATE
USM00072632	WHITE LAKE; MI.	80.40	42.70, -83.47
USM00072634	GAYLORD; MI.	282.90	44.91, -84.72
USM00072528	BUFFALO/GREATER BUFFALO INT.;	310.20	42.94, -78.72
USM00072520	PITTSBURGH; PA.	326.80	40.53, -80.22
USM00072426	WILMINGTON; OH.	402.80	39.42, -83.82

5.15 ASOS/METAR Surface Weather Observations

surface visibility ranged 9-10 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
CYZR	20.40	2018-06-05T12:00:00 +00:00	9.00	CLR, M, M, M	340.00 / 11.00	CYZR 051200Z AUTO 34011KT 9SM CLR 13/08 A2978 RMK SLP085 DENSITY ALT 700FT
KMTC	41.60	2018-06-05T11:56:00 +00:00	10.00	FEW01500, BKN06500, BKN20000, M	310.00 / 5.00	KMTC 051156Z 31005KT 10SM FEW015 BKN065 BKN200 15/10 A2978 RMK AO2A SLP088 T01460100 10164 20141 53010
KDET	68.30		10.00	OVC06000, M, M, M	320.00 / 4.00	

STATION	DISTANCE KM	NEAREST OBS UTC	VIS SM	SKY	WIND DEG/KT	METAR
		2018-06-05T11:53:00 +00:00				KDET 051153Z 32004KT 10SM OVC060 15/13 A2979 RMK AO2 SLP087 60013 70016 T01500128 10156 20150 53008

5.16 NOAA IGRA Radiosonde Wind Profile

Nearest sounding implies mean 0-12 km wind drift toward 253.5 deg at 9.89 m/s; a passive balloon could drift about 71.2 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
USM00072632	WHITE LAKE; MI.	80.40	2018-06-05T12:00 :00+00:00	253.50	9.89	71.20	35.90 at 17250.00 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/2018/156/11/OR_ABI-L2-CMIPF-M3C01_G16_s20181561100498_e20181561111265_c20181561111333.nc](#)
- [ABI-L2-CMIPF/2018/156/11/OR_ABI-L2-CMIPF-M3C01_G16_s20181561115498_e20181561126265_c20181561126335.nc](#)
- [ABI-L2-CMIPF/2018/156/11/OR_ABI-L2-CMIPF-M3C01_G16_s20181561130498_e20181561141265_c20181561141337.nc](#)
- [ABI-L2-CMIPF/2018/156/11/OR_ABI-L2-CMIPF-M3C01_G16_s20181561145498_e20181561156265_c20181561156338.nc](#)

GLM lightning sample objects:

- [GLM-L2-LCFA/2018/156/11/OR_GLM-L2-LCFA_G16_s20181561100000_e20181561100200_c20181561100227.nc](#)
- [GLM-L2-LCFA/2018/156/11/OR_GLM-L2-LCFA_G16_s20181561100200_e20181561100400_c20181561100426.nc](#)
- [GLM-L2-LCFA/2018/156/11/OR_GLM-L2-LCFA_G16_s20181561100400_e20181561101000_c20181561101026.nc](#)
- [GLM-L2-LCFA/2018/156/11/OR_GLM-L2-LCFA_G16_s20181561101000_e20181561101200_c20181561101224.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	2018-06-05T11:32:00+00:00	Directly used in propagation; this is a hard filter, not descriptive context.
LOCATION CONSTRAINT	42.91100, -82.52890	Directly used as observer point for azimuth/elevation/range computation.
COUNT / PATTERN	multiple-object/light language present	No compact same-launch count match; retained for unresolved report features.
MOTION LANGUAGE	not explicit	Reported motion remains only partly explained; this is a principal reason for high-value unresolved status.
RADAR / OFFICIAL CHECK	not specified	Radar or hard maneuvering language is treated as a conflict/collection gap, not hand-waved away.
ANALYTIC DISPOSITION	unresolved	237UAP00033 was screened against historical public LEO catalog objects orbital elements at the extracted time and observer coordinate. The screen did not produce enough mundane evidence to close the case under the normal-object favored standard. Hard features retained for follow-up: multiple witnesses/facilities.

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.
- This case is retained as high-value unresolved because the hardest reported behavior is not resolved by the current normal-object layers.

Appendix A. Public Report Text Extracts

237UAP00033

SKYWATCH INCIDENT REPORT

PRIMARY CODE: OTHER
Date: 11:32 06/05/2018 Paged: NO
Status: Closed
POD: DEN
Reporting Facility: ZAB

REMARKS

ZAB reports multiple ACFT reporting possible UFO sighting in VCNTY of PHN (Amarillo, TX) from 0440-0440. ACFT were NW bound from DFW area. HQ DEN contacted NORAD who reports no known activity. 0525 ZAB reports internet search revealed NASA website indicating the Space Station would be visible from that vicinity and in that time frame. ZAB OMIC is logging the event in the daily record.

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": "2018-06-05T11:32:00+00:00",
  "source_excerpt": "ZAB reports multiple ACFT reporting possible UFO sighting in VCNTY of PHN (Amarillo, TX) from 0440-0440. ACFT were NW bound from DFW area. HQ DEN contacted NORAD who reports no known activity. 0525 ZAB reports internet search revealed NASA website indicating the Space Station would be visible from that vicinity and in that time frame. ZAB OMIC is logging the event in the daily record.",
  "historical_starlink_element_rows": 12724,
  "observer": {
    "lat": 42.9109993,
    "lon": -82.52890015,
    "source": "aviation_fix:VCNTY of PHN (public text extract 237UAP00033)"
  },
  "case_id": "237UAP00033",
  "starlink_above_horizon_at_report_time": 755,
  "starlink_catalog_ids_considered": 12724,
  "largest_same-sky_cluster_count": 354,
  "starlink_at_or_above_10_deg": 356,
  "top_starlinks": [
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      "azimuth_deg": 259.86,
      "azimuth_plus_2m_deg": 330.31,
      "azimuth_plus_5m_deg": 339.34,
      "element_age_hours": 1.63,
      "element_epoch": "2018-06-05T13:10:05.272896+00:00",
      "elevation_deg": 77.85,
      "elevation_plus_2m_deg": 47.64,
      "elevation_plus_5m_deg": 18.82,
      "epoch_altitude_km": 1075.72,
      "ground_track_bearing_deg": 342.92,
      "ground_track_label": "NNW",
      "launch_date": "66040AT",
      "launch_designator": "66040AT",
      "name": "NORAD 37888",
      "norad_id": "37888",
      "range_km": 1107.16,
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      "subpoint_lat": 42.5704,
      "subpoint_lon": -84.9179
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      "azimuth_plus_2m_deg": 93.19,
      "azimuth_plus_5m_deg": 111.11,
      "element_age_hours": 1.29,
      "element_epoch": "2018-06-05T12:49:36.531840+00:00",
      "elevation_deg": 75.16,
      "elevation_plus_2m_deg": 62.66,
      "elevation_plus_5m_deg": 32.47,
      "epoch_altitude_km": 1420.15,
      "ground_track_bearing_deg": 120.52,
      "ground_track_label": "ESE",
      "launch_date": "13005E",
      "launch_designator": "13005E",
      "name": "NORAD 39076",
      "norad_id": "39076",
      "range_km": 1460.21,
      "sky_motion_label": "eastward, setting",
      "subpoint_lat": 45.6623,
      "subpoint_lon": -82.4004
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      "azimuth_plus_5m_deg": 32.71,
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      "element_epoch": "2018-06-05T21:21:26.858016+00:00",
      "elevation_deg": 75.15,
      "elevation_plus_2m_deg": 34.11,
      "elevation_plus_5m_deg": 10.16,
      "epoch_altitude_km": 780.64,
      "ground_track_bearing_deg": 34.14,
      "ground_track_label": "NE",
      "launch_date": "87060AP",
      "launch_designator": "87060AP",
      "name": "NORAD 39676",
      "norad_id": "39676",
      "range_km": 823.86,
      "sky_motion_label": "eastward, setting",
      "subpoint_lat": 44.5445,
      "subpoint_lon": -81.938
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  "azimuth_plus_5m_deg": 35.03,
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  "element_epoch": "2018-06-05T11:17:56.647392+00:00",
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  "elevation_plus_2m_deg": 31.74,
  "elevation_plus_5m_deg": 9.24,
  "epoch_altitude_km": 780.71,
  "ground_track_bearing_deg": 34.0,
  "ground_track_label": "NE",
  "launch_date": "87060Q",
  "launch_designator": "87060Q",
  "name": "NORAD 39647",
  "norad_id": "39647",
  "range_km": 850.37,
  "sky_motion_label": "westward, setting",
  "subpoint_lat": 44.37,
  "subpoint_lon": -79.9105
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  "azimuth_plus_2m_deg": 212.72,
  "azimuth_plus_5m_deg": 203.02,
  "element_age_hours": 0.08,
  "element_epoch": "2018-06-05T11:36:58.623840+00:00",
  "elevation_deg": 69.3,
  "elevation_plus_2m_deg": 51.83,
  "elevation_plus_5m_deg": 16.46,
  "epoch_altitude_km": 863.91,
  "ground_track_bearing_deg": 197.16,
  "ground_track_label": "SSW",
  "launch_date": "75052AC",
  "launch_designator": "75052AC",
  "name": "NORAD 21291",
  "norad_id": "21291",
  "range_km": 916.24,
  "sky_motion_label": "westward, setting",
  "subpoint_lat": 45.4018,
  "subpoint_lon": -83.3917
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  "azimuth_plus_2m_deg": 30.26,
  "azimuth_plus_5m_deg": 24.62,
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  "element_epoch": "2018-06-05T11:35:48.512832+00:00",
  "elevation_deg": 62.5,
  "elevation_plus_2m_deg": 41.07,
  "elevation_plus_5m_deg": 20.18,
  "epoch_altitude_km": 1486.8,
  "ground_track_bearing_deg": 20.96,
  "ground_track_label": "NNE",
  "launch_date": "71041B",
  "launch_designator": "71041B",
  "name": "NORAD 5211",
  "norad_id": "5211",
  "range_km": 1643.92,
  "sky_motion_label": "westward, setting",
  "subpoint_lat": 46.6889,
  "subpoint_lon": -76.8279
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  "azimuth_deg": 34.13,
  "azimuth_plus_2m_deg": 74.36,
  "azimuth_plus_5m_deg": 87.72,
  "element_age_hours": 3.75,
  "element_epoch": "2018-06-05T15:16:55.163712+00:00",
  "elevation_deg": 62.11,
  "elevation_plus_2m_deg": 38.96,
  "elevation_plus_5m_deg": 15.86,
  "epoch_altitude_km": 977.31,
  "ground_track_bearing_deg": 101.18,
  "ground_track_label": "E",
  "launch_date": "60016E",
  "launch_designator": "60016E",
  "name": "NORAD 5922",
  "norad_id": "5922",
  "range_km": 1149.39,
  "sky_motion_label": "eastward, setting",
  "subpoint_lat": 46.3109,
  "subpoint_lon": -79.157
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  "azimuth_plus_2m_deg": 344.33,

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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: 237UAP00033
TIME AND OBSERVER COORDINATE	extracted	2018-06-05T11:32:00+00:00 at 42.91100, -82.52890
ORBITAL OBJECT PROPAGATION	screened	public LEO catalog objects
SPACE-TRACK SATCAT METADATA	screened	30 NORAD IDs checked; 30 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	high-value unresolved	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. *237UAP00033.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-615/493468575/237UAP00033.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>
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/>