ALL-DOMAIN ANOMALY RESOLUTION OFFICE

The U.S. Defense Department & The UAP Mission

Dr. Jon Kosloski

Director, AARO

UNIDENTIFIED ANOMALOUS PHENOMENA

Unidentified Anomalous Phenomena (**UAP**) are sources of anomalous detections in one or more domains (i.e., airborne, seaborne, spaceborne, and/or transmedium) that are not yet attributable to known actors and that demonstrate behaviors that are not readily understood by sensors or observers.

"**Anomalous detections**" include, but are not limited to, phenomena appearing to demonstrate capabilities or material properties exceeding the known state-of-the-art.

UAP may consist of one or more objects and may persist over an extended period.

- UAP are primarily attributable to domain-awareness gaps.
- UAP may represent advanced capabilities operating in domain-awareness gaps.

AARO UAP ATTRIBUTION-PERFORMANCE MATRIX

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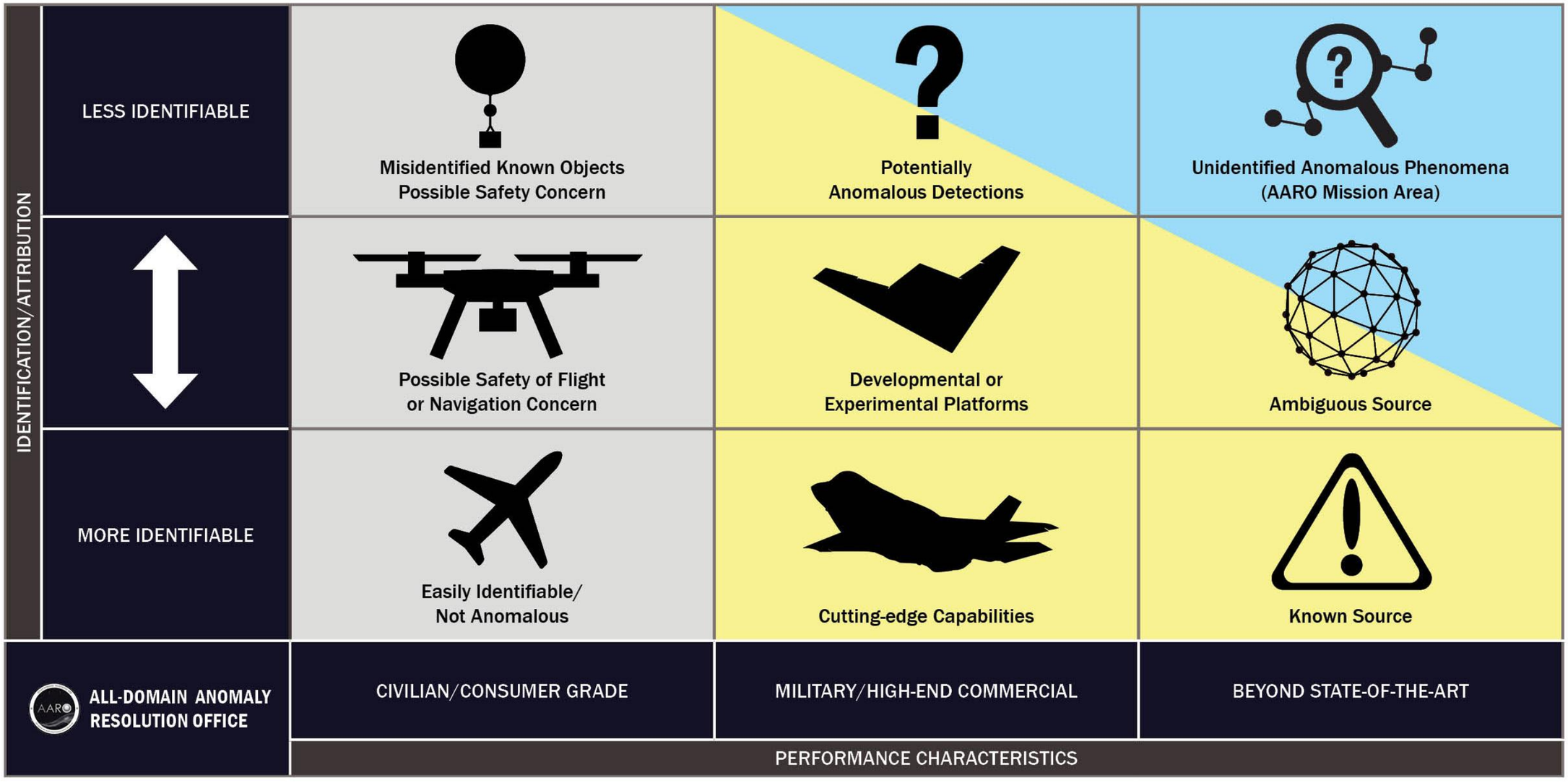

Civil Regulatory/Law Enforcement Department of Defense/Intelligence Community (IC) All-domain Anomaly Resolution Office

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MISSION, VISION, & FUNCTION

Congress established AARO to investigate what hazards or threats UAP might present across service, regional, and domain boundaries.

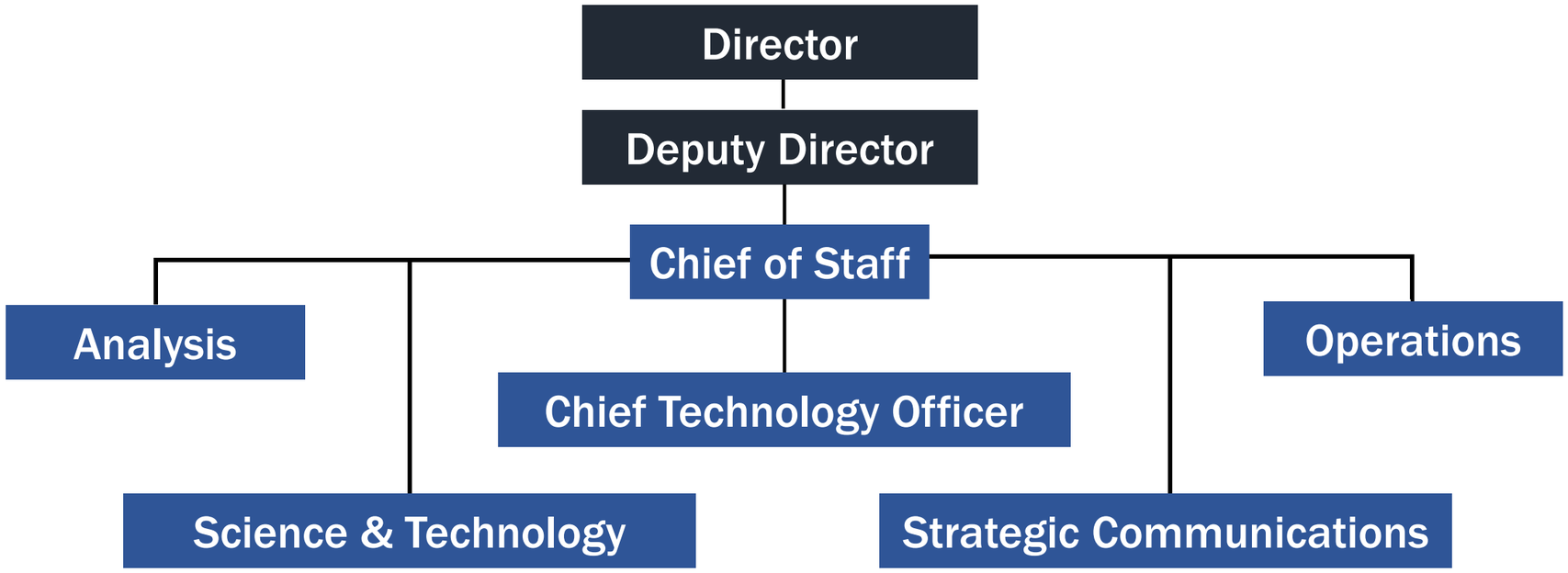
MISSION:

Minimize technical and intelligence surprise by synchronizing identification, attribution, and mitigation of UAP in the vicinity of national security areas.

VISION:

Effectively and efficiently detect, track, analyze, and manage anomalous detections and UAP via normalized and systematized DoD, IC, and civil business practices adhering to the highest scientific and intelligence-tradecraft standards with transparency and shared awareness.

AARO DIVISIONS AND ORGANIZATION



SUBMITTING A REPORT TO AARO

- Military and DoD civilian personnel should report through their command or service per GENADMIN Joint Staff J3 Washington DC 191452ZMAY23 “Unidentified Anomalous Phenomena Reporting and Material Disposition.”

- Civilian pilots are encouraged to promptly report UAP sightings to air traffic control. AARO receives UAP-related Pilot Reports from the Federal Aviation Administration.

OTHER REPORTS TO AARO

AARO accepts reports of U.S. Government programs or activities related to UAP from current or former U.S. Government employees, service members, or contractor personnel with direct knowledge. These reports will be used to inform AARO’s congressionally directed Historical Record Report.

For additional information on reporting, please visit www.aaro.mil/Submit-A-Report/

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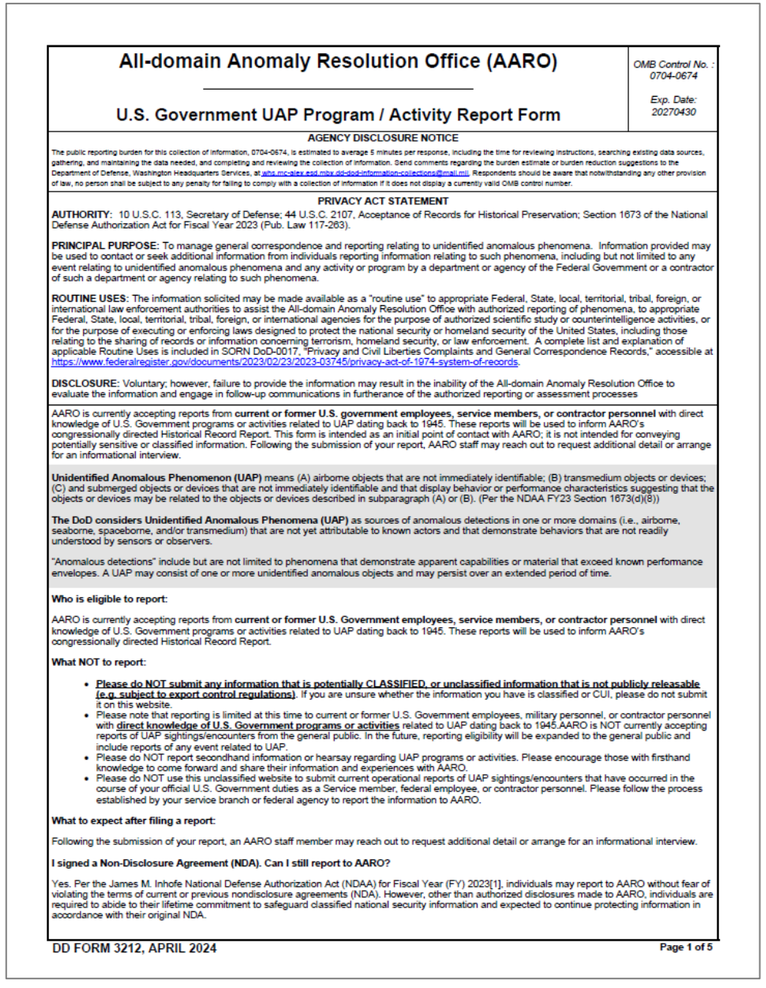

All-domain Anomaly Resolution Office (AARO)

U.S. Government UAP Program / Activity Report Form

OMB Control No. : 0704-0674

Exp. Date: 20270430

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0704-0674, is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering, and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PRIVACY ACT STATEMENT

AUTHORITY: 10 U.S.C. 113, Secretary of Defense; 44 U.S.C. 2107, Acceptance of Records for Historical Preservation; Section 1673 of the National Defense Authorization Act for Fiscal Year 2023 (Pub. Law 117-263).

PRINCIPAL PURPOSE: To manage general correspondence and reporting relating to unidentified anomalous phenomena. Information provided may be used to contact or seek additional information from individuals reporting information relating to such phenomena, including but not limited to any event relating to unidentified anomalous phenomena and any activity or program by a department or agency of the Federal Government or a contractor of such a department or agency relating to such phenomena.

ROUTINE USES: The information solicited may be made available as a "routine use" to appropriate Federal, State, local, territorial, tribal, foreign, or international law enforcement authorities to assist the All-domain Anomaly Resolution Office with authorized reporting of phenomena, to appropriate Federal, State, local, territorial, tribal, foreign, or international agencies for the purpose of authorized scientific study or counterintelligence activities, or for the purpose of executing or enforcing laws designed to protect the national security or homeland security of the United States, including those relating to the sharing of records or information concerning terrorism, homeland security, or law enforcement. A complete list and explanation of applicable Routine Uses is included in SORN DoD-0017, "Privacy and Civil Liberties Complaints and General Correspondence Records," acoessible at https://www.federalregister.gov/documents/2023/02/23/2023-03745/privacy-act-of-1974-system-of-records.

DISCLOSURE: Voluntary; however, failure to provide the information may result in the inability of the All-domain Anomaly Resolution Office to evaluate the information and engage in follow-up communications in furtherance of the authorized reporting or assessment processes

AARO is currently accepting reports from **current or former U.S. government employees, service members, or contractor personnel** with direct knowledge of U.S. Government programs or activities related to UAP dating back to 1945. These reports will be used to inform AARO's congressionally directed Historical Record Report. This form is intended as an initial point of contact with AARO; it is not intended for conveying potentially sensitive or classified information. Following the submission of your report, AARO staff may reach out to request additional detail or arrange for an informational interview.

Unidentified Anomalous Phenomenon (UAP) means (A) airborne objects that are not immediately identifiable; (B) transmedium objects or devices; (C) and submerged objects or devices that are not immediately identifiable and that display behavior or performance characteristics suggesting that the objects or devices may be related to the objects or devices described in subparagraph (A) or (B). (Per the NDAA FY23 Section 1673(d)(5))

The DoD considers Unidentified Anomalous Phenomena (UAP) as sources of anomalous detections in one or more domains (i.e., airborne, seaborne, spaceborne, and/or transmedium) that are not yet attributable to known actors and that demonstrate behaviors that are not readily understood by sensors or observers.

"Anomalous detections" include but are not limited to phenomena that demonstrate apparent capabilities or material that exceed known performance envelopes. A UAP may consist of one or more unidentified anomalous objects and may persist over an extended period of time.

Who is eligible to report:

AARO is currently accepting reports from **current or former U.S. Government employees, service members, or contractor personnel** with direct knowledge of U.S. Government programs or activities related to UAP dating back to 1945. These reports will be used to inform AARO's congressionally directed Historical Record Report.

What NOT to report:

- **Please do NOT submit any information that is potentially CLASSIFIED, or unclassified information that is not publicly releasable (e.g. subject to export control regulations).** If you are unsure whether the information you have is classified or CUI, please do not submit it on this website.
- Please note that reporting is limited at this time to current or former U.S. Government employees, military personnel, or contractor personnel with **direct knowledge of U.S. Government programs or activities** related to UAP dating back to 1945.AARO is NOT currently accepting reports of UAP sightings/encounters from the general public. In the future, reporting eligibility will be expanded to the general public and include reports of any event related to UAP.
- Please do NOT report secondhand information or hearsay regarding UAP programs or activities. Please encourage those with firsthand knowledge to come forward and share their information and experiences with AARO.
- Please do NOT use this unclassified website to submit current operational reports of UAP sightings/encounters that have occurred in the course of your official U.S. Government duties as a Service member, federal employee, or contractor personnel. Please follow the process established by your service branch or federal agency to report the information to AARO.

What to expect after filing a report:

Following the submission of your report, an AARO staff member may reach out to request additional detail or arrange for an informational interview.

I signed a Non-Disclosure Agreement (NDA). Can I still report to AARO?

Yes. Per the James M. Inhofe National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2023[1], individuals may report to AARO without fear of violating the terms of current or previous nondisclosure agreements (NDA). However, other than authorized disclosures made to AARO, individuals are required to abide to their lifetime commitment to safeguard classified national security information and expected to continue protecting information in accordance with their original NDA.

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(UNCLASSIFIED)

(U) Example of the Report Form found on AARO’s website.

UAP ANALYTIC TRENDS

AARO analyses confirm only a very small percentage of UAP reports display anomalous signatures. Most anomalous detections reported to AARO demonstrate ordinary characteristics of readily-explainable sources.

LACK OF DATA HINDERS COMPREHENSIVE ANALYSES

- Many cases in AARO's holdings remain unresolved because of a lack of verifiable data. Cases lacking sufficient data to inform a rigorous analysis cannot be resolved.
- High-quality empirical data is necessary for AARO's adherence to the scientific method and intelligence tradecraft, modeling, simulation, and peer review.

SENSOR BIAS INFLUENCES REPORTING

- AARO's reliance on DoD-sourced reports leads to a collection bias near major range and test facilities, special use airspace, and operational areas.
- Interagency cooperation and partnerships with civil aviation authorities lessens military-centric collection bias by incorporating reports from commercial pilots. Thus, broadening collection area over a greater geographic area.

INCREASED CIVIL REPORTING MAY SHIFT COLLECTION BIAS AND TRENDS

- AARO received more than 100 reports from the FAA, contributing to analyses of UAP trends over the United States and its territorial waters.
- Most civilian reports lack sufficient data to inform a conclusive analysis—i.e., sightings of "lights" without notes on objects' morphology/characteristics, geospatial location, or anomalous behaviors.

AARO'S CONTRIBUTIONS TO NATIONAL SECURITY

- Developing sensors for UAP detection and tracking
- Developing protocols for rapid response to anomalies
- Advancing scientific understanding of UAP
- Synchronizing increased domain awareness in space, skies, and sea
- Disseminating guidance on UAP reporting for DoD and intelligence personnel
- Resolving UAP reports that impact national security, personnel protection, or counterintelligence missions
- Reducing and mitigating technical surprise by adversaries

CASE - MIDDLE EAST “ORB”

CHARACTERISTICS AND PERFORMANCE

- In 2022, an electro-optical sensor aboard an MQ-9 Reaper UAS platform operating in the Middle East recorded a spherical object.
- The object’s characteristics and behavior are consistent with other “metallic orb” observations in the region.
- The object did not appear to demonstrate anomalous performance characteristics.
- The object did not threaten airborne-asset safety.
- AARO holds this case in its “**Active Archive,**” pending discovery of additional data.
- AARO uses Active Archive cases to contribute to trend and statistical analyses.

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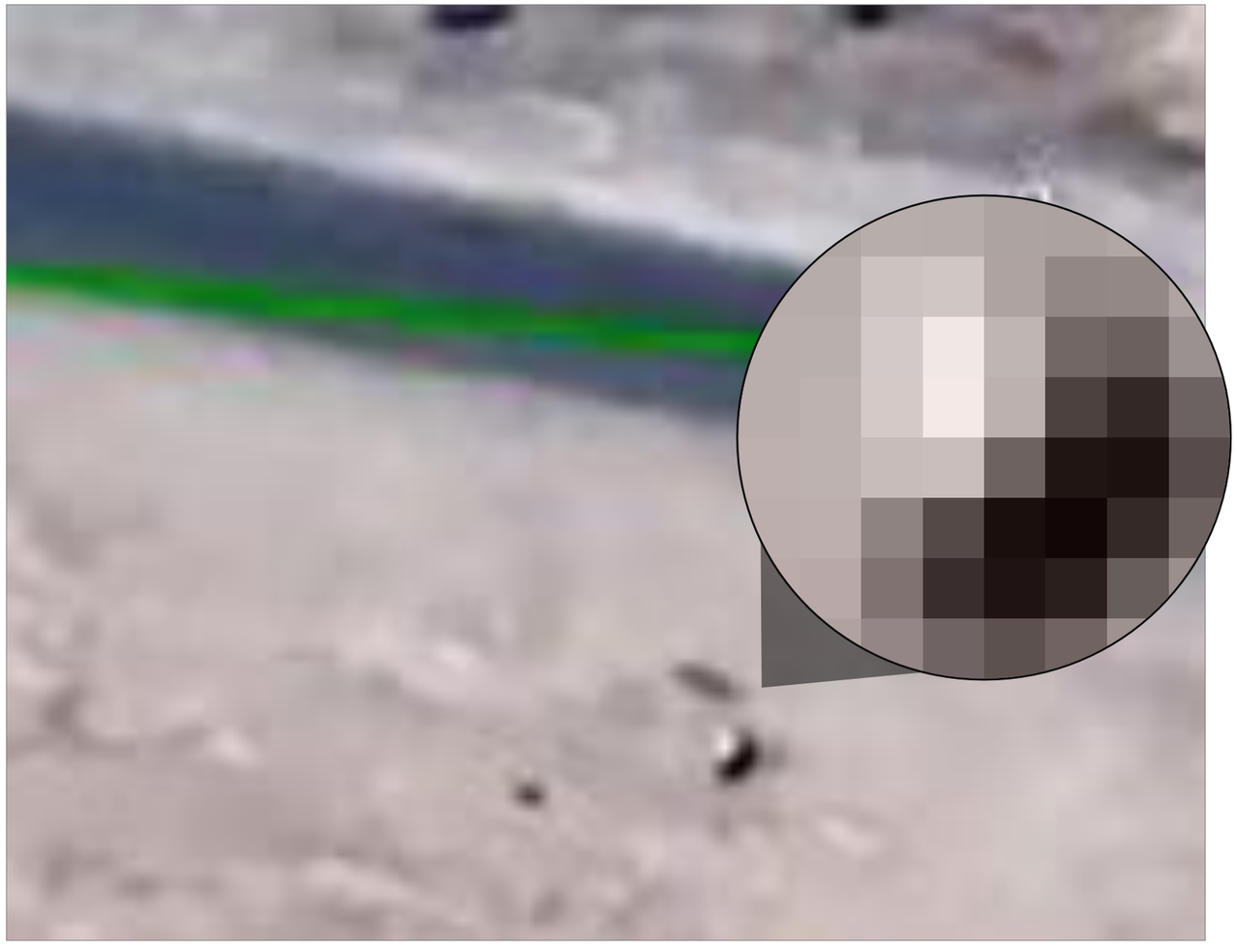

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(U) Middle East “orb,” unresolved. Poor data quality prevents conclusive attribution.

CASE - WESTERN UNITED STATES

CHARACTERISTICS AND PERFORMANCE

- During a training mission in the western United States, a P-3 pilot reported observing three unidentified objects.
- The pilot reported that the objects appeared to move at high speeds.
- The pilot attempted to intercept the objects but was unable to close with them.
- Post event geospatial positioning analysis showed that the objects were significantly farther from the observer than the pilot's initial estimate.
- The object's apparent changes in morphology are visual artifacts attributable to sensor autofocus.
- Air-traffic control data suggest the objects were likely **commercial aircraft** following assigned flight paths to and from major airports.

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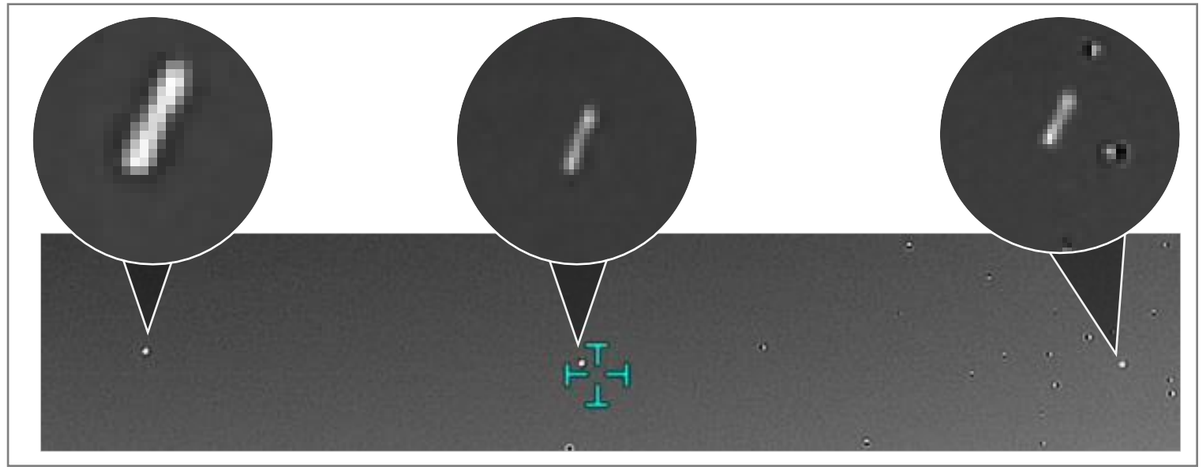

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(U) Western-U.S. objects, likely to have been commercial airliners distorted by visual artifacts caused by video autofocus.

CASE - SOUTH ASIA OBJECT

CHARACTERISTICS AND SIGNATURE

- In 2023, a forward-looking infrared sensor aboard an MQ-9 Reaper recorded an object that appeared to demonstrate anomalous propulsion signatures.
- An atmospheric wake appears to trail the object.
- The “trail” is visually consistent with cavitation—a phenomenon associated with some modes of propulsion in fluid media.
- Cavitation within the atmosphere would indicate an extremely high energy system.
- Post event analysis determined that the visible trail is a camera-software artifact.
- The video compression algorithm used to save this recording overlaid frames on top of one another.
- These compression artifacts caused the software to attempt to resolve differences in the gray, infrared gradient.
- This attempt to compensate introduced visual artifacts that seem to form a trail.
- Analyses of the object’s morphology and air traffic control data suggest the object is a **commercial aircraft** following a known flight path.

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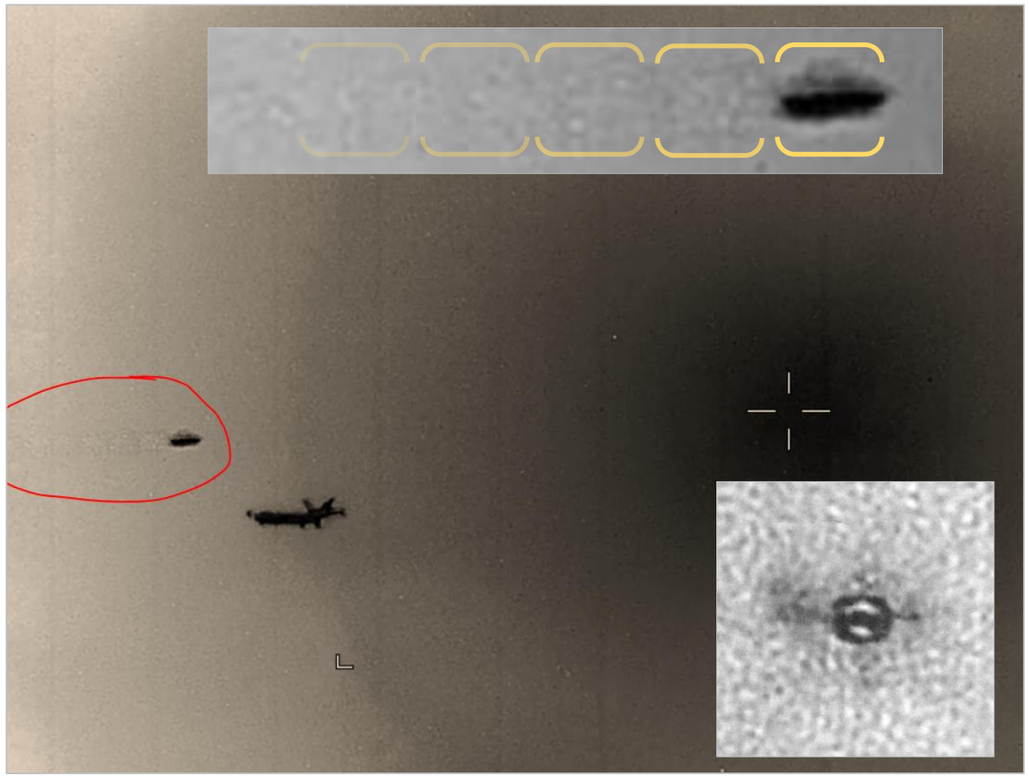

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(U) South Asia object observed with an apparent atmospheric wake, attributable to video compression artifacts. The object was likely a commercial airliner.

CASE – "GO FAST"

CHARACTERISTICS AND PERFORMANCE

- **Event:** In January 2015, U.S. Navy aircraft recorded an object appearing to travel at high speeds close to the ocean's surface off Florida's east coast.
- **Findings:** Following in-depth computational analysis of Navy aircraft's flight characteristics and sensor readings, AARO, in coordination with S&T partners, assesses with high confidence the object did not demonstrate anomalous speeds or flight characteristics.
- **Analytic Factors:** AARO assesses with high confidence that the object's altitude was approximately 13,000 feet above sea level and its speed was approximately between 5 and 92 miles per hour.
  - Contemporaneous weather data for the area at the time of event record winds at approximately 69 miles per hour at 13,000 feet.
- The object maintained relatively straight flight path during the observation, consistent with an object drifting with the wind. The object slowly rose and fell slightly during the recording.
  - High confidence analysis of the UAP's exact position was not possible given a lack of precise positional data from the observing Navy aircraft.

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(UNCLASSFIED)

(U) The Department of Defense released the Go Fast video 2017. This image is a screen shot of the video available at www.aaro.mil. The object is circled for visual emphasis.

CASE – MT. ETNA OBJECT

CHARACTERISTICS AND PERFORMANCE

- **Event:** In 2018, a U.S. UAS platform flying over the Mediterranean Sea observed an eruption of Italy's Mt. Etna. The UAS recorded infrared video of an object that seemed to transit the volcano's plume with no impact to its performance, altitude, or bearing.
- **Findings:** AARO and its IC and S&T partners assess with moderate confidence that the object was a balloon. AARO and its partners assess with high confidence that the object drifted with the wind approximately 170 kilometers from the volcano and did not demonstrate anomalous performance characteristics.
- **Analytic Factors:** AARO's assessment is informed by full-motion video analysis, 3D modeling, pixel examination, and novel speed and distance calculation techniques.
  - AARO estimated the distance between the UAS and the object by incorporating historical weather data, including wind speed and cloud deck movement.
  - AARO and its partners found that the object **did not** transit the ash plume by comparing the luminosity of the object's pixels to those around it.
  - AARO used 3D modeling and wind calculations to predict the object's location during frames where it was visually undetectable.
  - Digital postprocessing tools revealed the object to be where AARO's modeling suggested it would be, further validating the findings.

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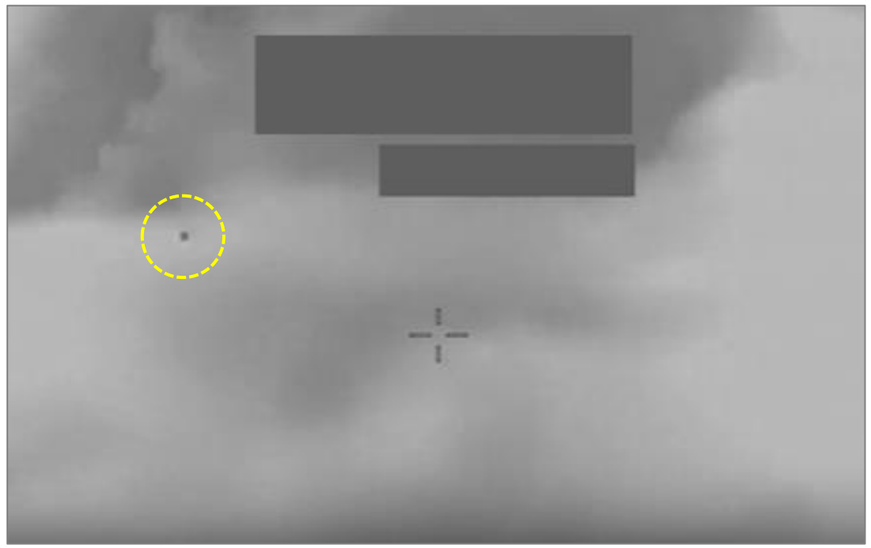

(U) A screen shot from the "Mt. Etna Object" video available on www.aaro.mil. The object is circled for visual emphasis.

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