Presented: 2 Feb. 2023

Gary Voorhis Jr., President and CEO *

Prof. Matthew Szydagis

Prof. Kevin Knuth,Head of Science

Jason Turner,Treasurer/Secretary $

Steven Wood,Senior Counsel Vela Wood P.C.

Alex Garcia,Public Relations

Prof. Cecilia Levy

Dr. Ben Placek + other Volunteers

Independent Consultants and Contractors

Ronald Olch,camera engineer

Timeline of Salient Events

Nov 10, 2004
- UAP Encounter with the USS Nimitz Carrier Group

Dec 18, 2017
- New York Times article

Aug 30, 2019
- UAPx founded by Gary Voorhis and Kevin Day

June 25, 2021
- UAP Task Force (UAPTF) Report

July 10, 2021
- Expedition to Catalina Island and Laguna Beach, California

Nov 23, 2021
- Airborne Object Identification & Management Synchronization Group (AIOMSG) formed

May 17, 2022
- First Congressional hearings in 50 years on UAPs

July 15, 2022
- All-domain Anomaly Resolution Office (AARO) formed

Who We Are

UAPx = Federally recognized tax-exempt 501(c)(3) scientific research organization focusing on the scientific study of UAPs as defined by the United States Government.

- **Comprised of a cross-functional team of interdisciplinary experts, including respected scientific researchers, attorneys, military veterans, and tenured university professors, with current funding from the U.S. Department of Energy and prior affiliation with NASAPrimary Missions: Obtain information regarding UAPs through ELINT, SIGINT, MASINT, and Field Research.Multi-messenger study of UAPProvide scientific and academic insight to governments, agencies, and individuals on data representing potential breakthrough technologies.Identify issues related to aerospace safety/security**

Stated Objectives

Function as a liaison between the U.S. Government and academia

* Represent the academic and scientific communities conducting high-quality, scientific, peer-reviewed UAP research* Conduct research and provide scientific data to intelligence agencies

Provide access to UAP experts to craft messaging and talking points for the public

* Interface with agencies, departments, cabinets, and officials* Advice on science, talking points, terminology, history, as well as other considerations...

First Expedition, to the Catalina Channel

Spent five days in two places in California collecting data, as proof of principle, near the location of past UAP tracks (2004)

What We Used: Our Equipment & Resources

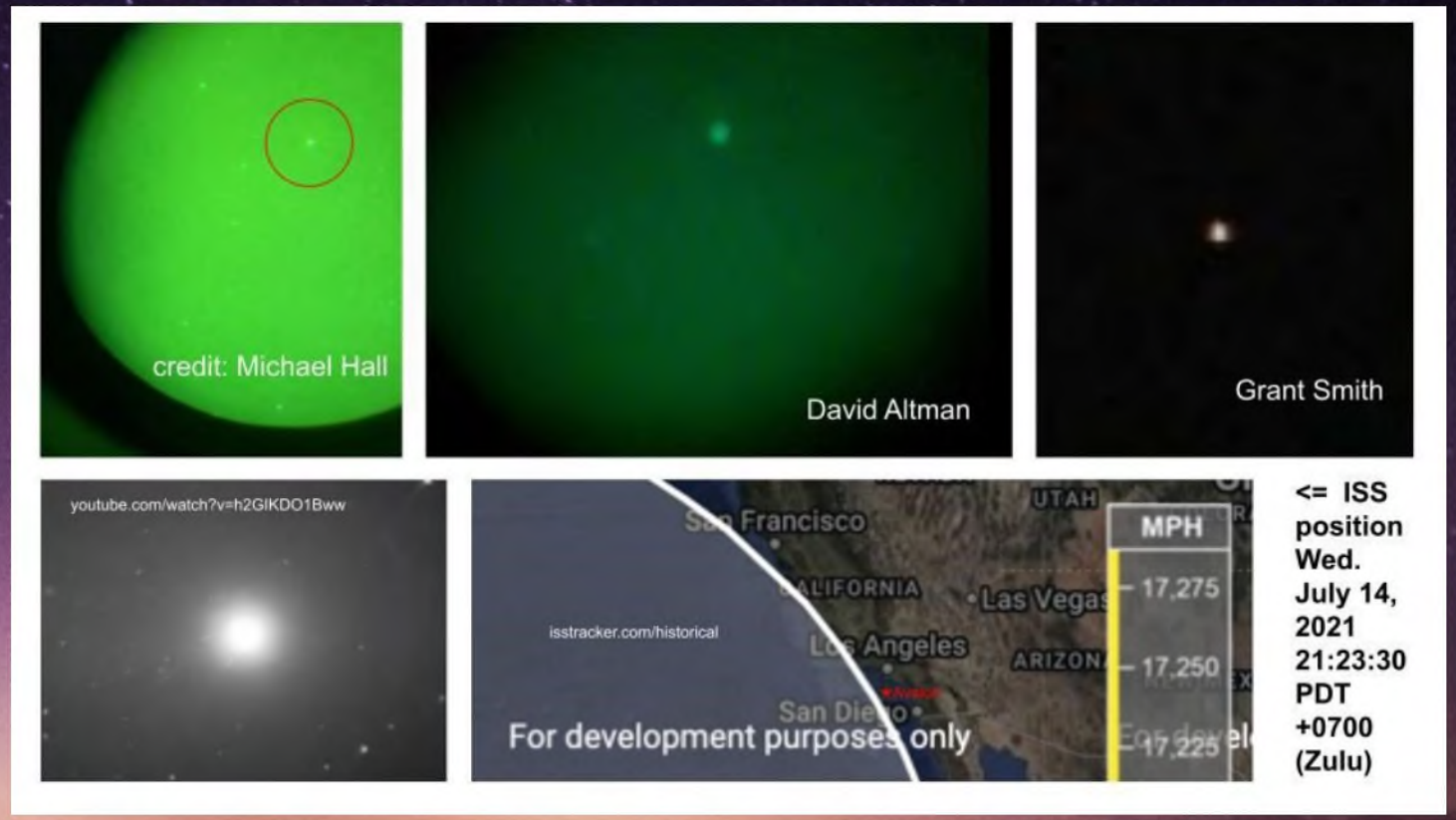
- 8 FLIR (Forward Looking IR) CamerasLWIR or Long-wavelength infrared, like those used on U.S. fighter jetsUFODAP visible-light (partially IR for night) camera system, designed/built by retired engineer Ron Olchhttps://ufodap.com/ MIT's Cosmic Watch (as in see not clock)More on this laterPlus much more: night vision, binoculars, quantum random number generator

First Expedition: Events of Note

- Not every initial ambiguity has been ultimately found to be an anomalyInitial list of the most interesting events(1) Dark area in the UFODAP camera(2) Fuzzy, non-blinking, noiseless sphere(3) Hot vertical streaks in Teledyne FLIR(4) Objects visible via PTZ camera but not fisheye, despite wider angle of latter(5) Few-frame cold spot in the infrared(6) Spikes in quantum random # generator

Self Analysis, and Classification of Mundane Phenomena

- At right: fuzzy spheroid ultimately identified as most likely the ISS (2)By time, location, and speedDespite being outside nominal viewing range of the station for that nightMoreover, (3) explained as non-uniformity correction (NUC) and (6) as cell phoneItems (1,4,5) remain events of interest: unexplained



Corroborative sensor data from public sources can assist in disambiguation

The Dark Area

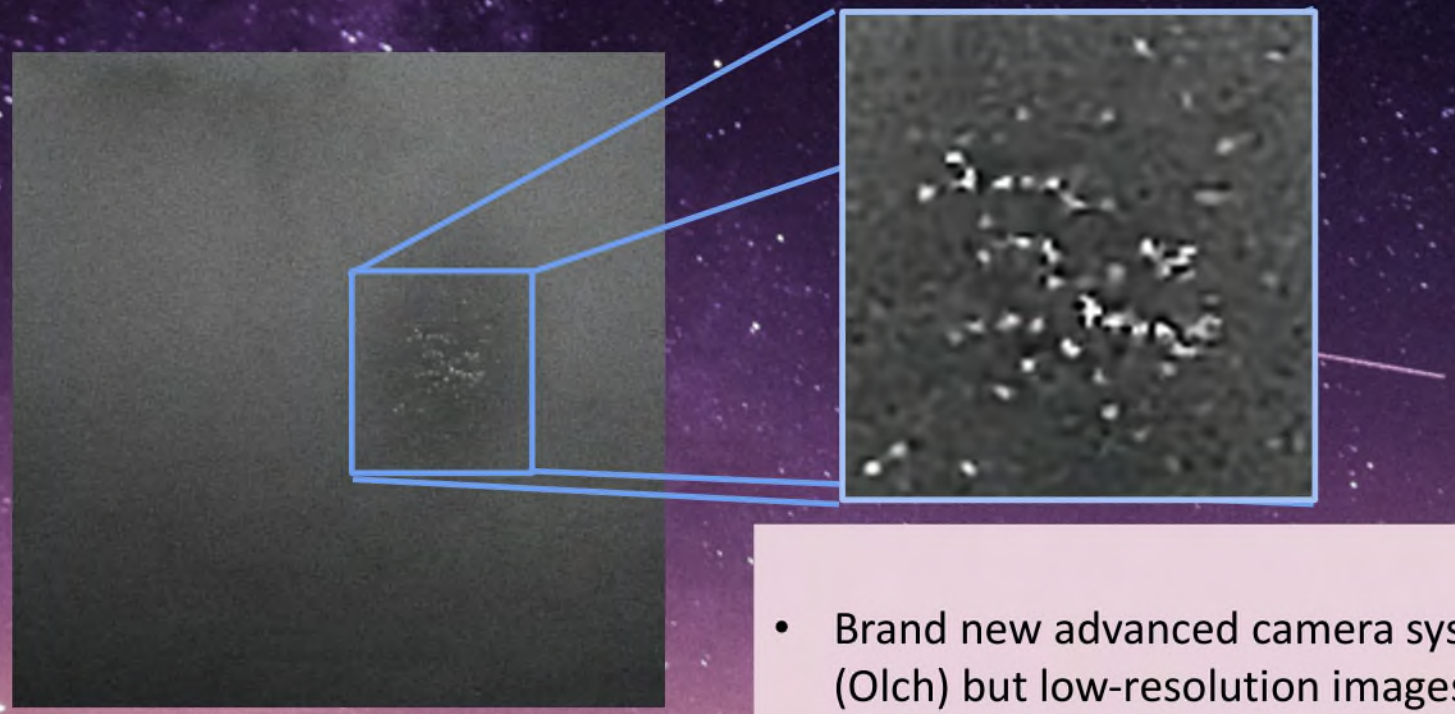
- Recorded, on video in low-light modeAmbiguous dark area Potentially time-correlated to 1-2 high-energy radiation events

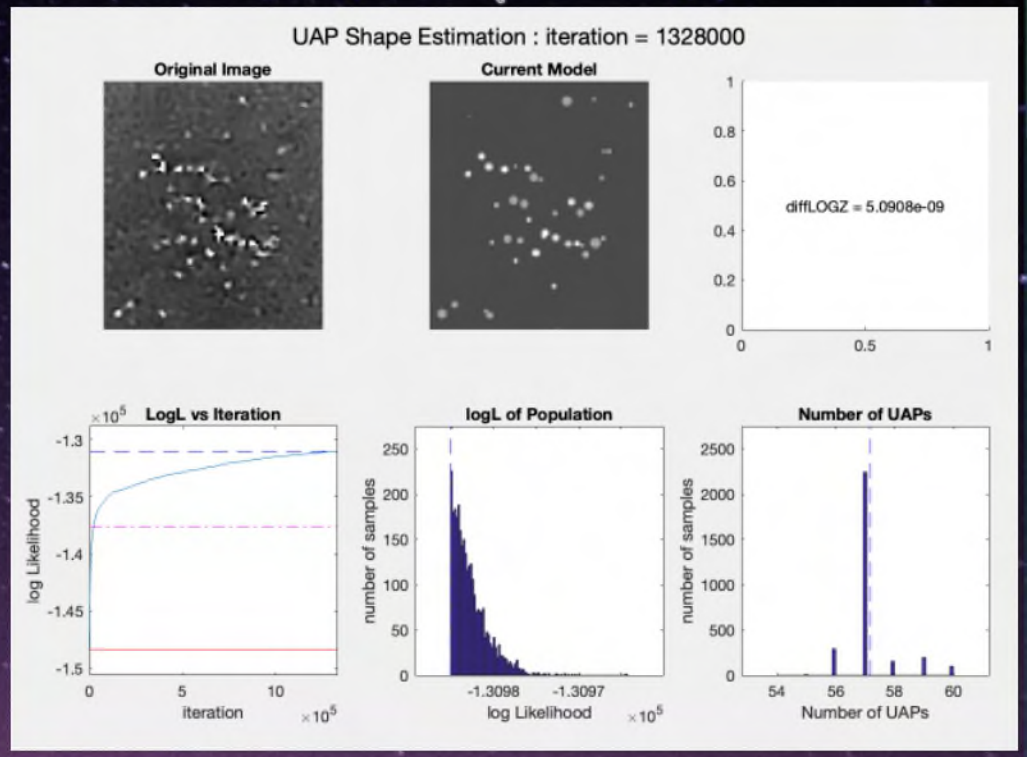
- Unknown originLooks like many dozen bright featuresMultiple discrete objects? One partially-visible object?Must analyze to understand

- Different analysis approachesSuper-resolution shape analysis in progressLight reflection simulations of craft are plannedCorroborative radar data from NOAA suggest the presence of radar-reflective objects: 4am 07/16/2021

- Denied FOIA requests for satellite data and deck logs from Naval vessels in the area Data appear to all be classified, from the time and location of this particular incident No satellite imagery from private companies

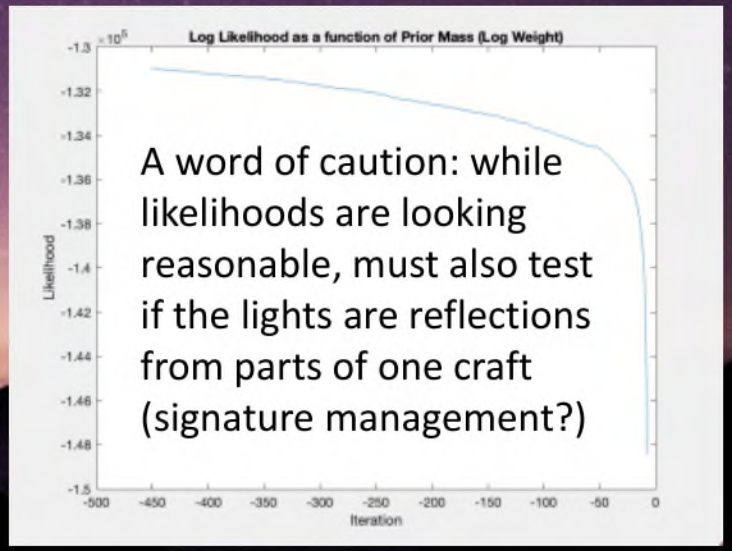
Bayesian Shape Analysis





This is the 0400 Pacific 07/16/21 ambiguous dark spot. The study of it would be better with satellite data certainly but their lack doesn't preclude an analysis

- Brand new advanced camera system (Olch) but low-resolution images due to low light conditions (nighttime, near-IR)Same data-analysis technique for imagery used on low-res Mars rover photosStarting with basic shapes: sphere versus ellipsoid (3D, different angles) then moving on to craft: planes, drones, etc.

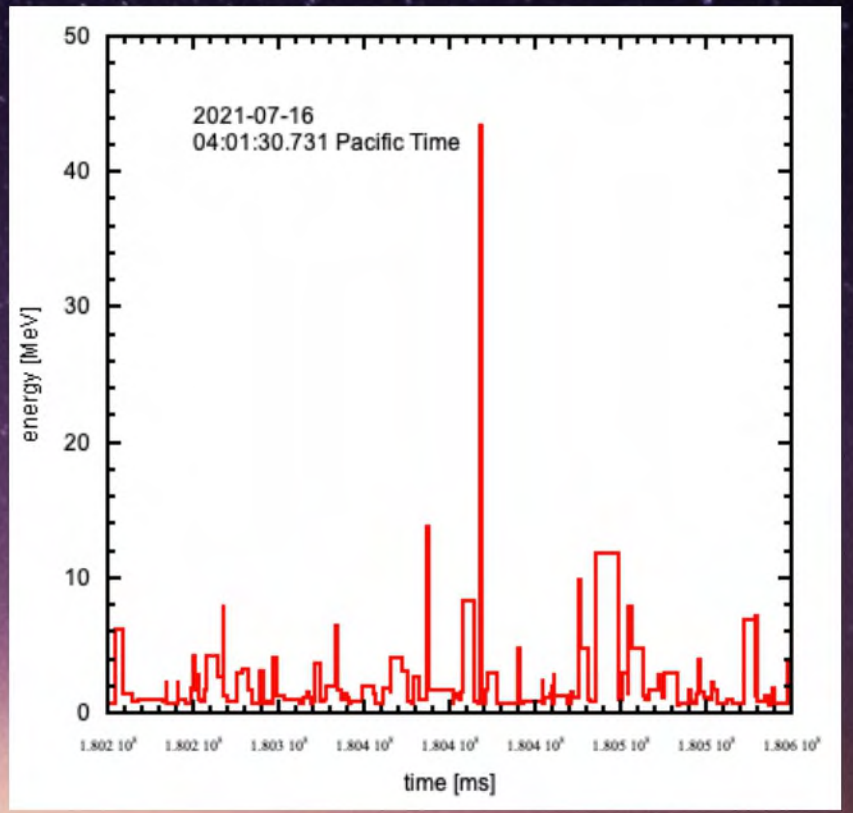


A word of caution: while likelihoods are looking reasonable, must also test if the lights are reflections from parts of one craft (signature management?)

The Cosmic Watch

- Radiation events potentially coincident with dark spotVery important to study radiation: can be a flight safety risk or a health riskUnlike Geiger counter, Cosmic Watch can tell you rate AND energyTwo CWs stacked start to provide directionality – at least in terms of vertical versus horizontal tracks

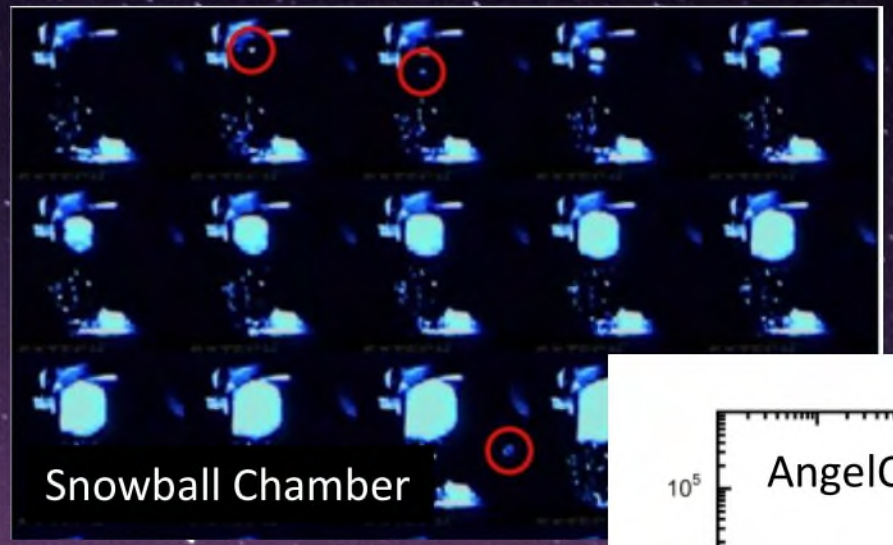
- Primary purpose: radiation detection of power sources of unknown craftSecondary purpose: elemental composition determination for unknown materials

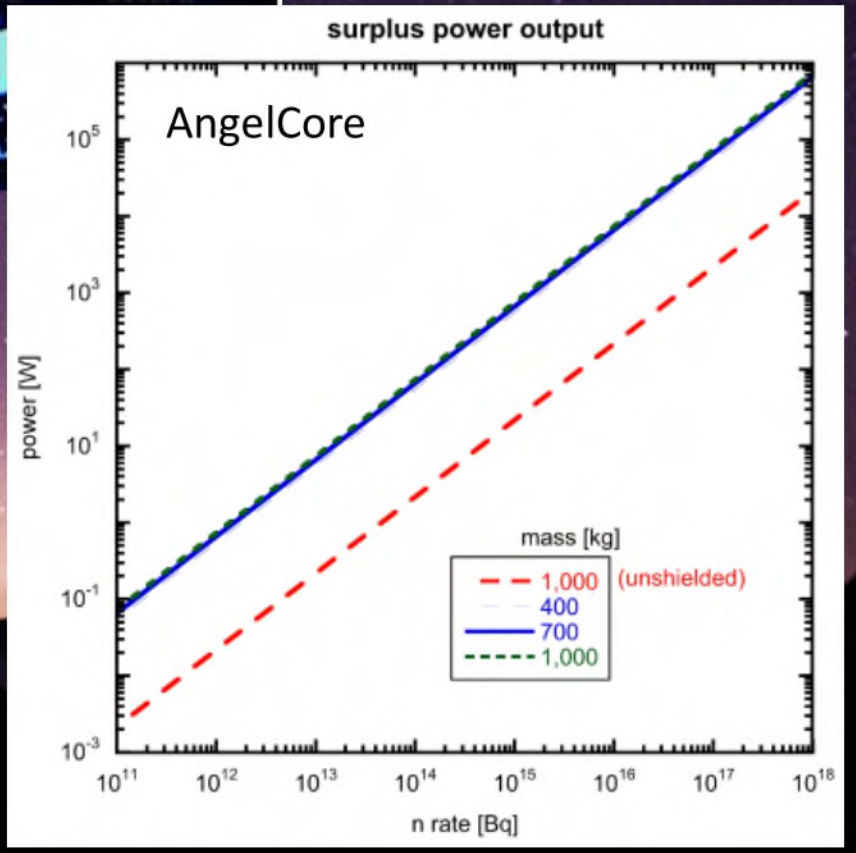


- *control (background) data-taking process. Mainly cosmic muon particles (2 MeV/cm)*

Radiation Detection and Generation Expertise

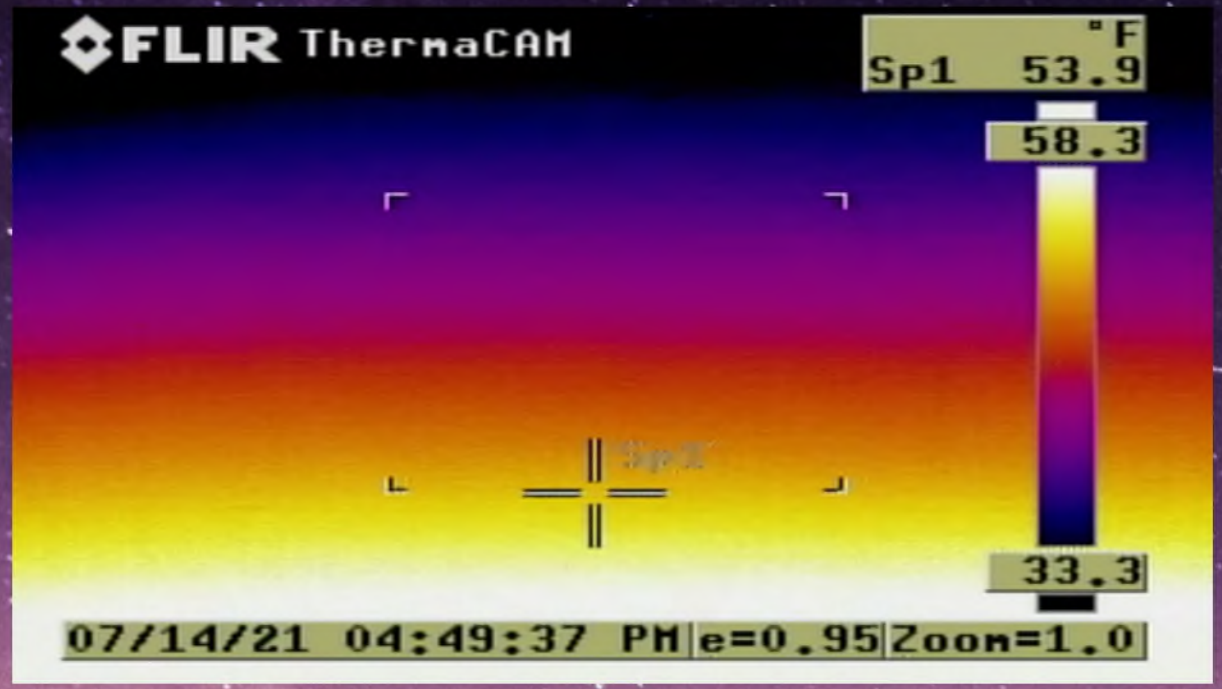
- Craft may have radiation signaturespossibly very unlike anything we have seen until nowradiation is a way to analyze craft materialneed new rad generation AND detection techniques

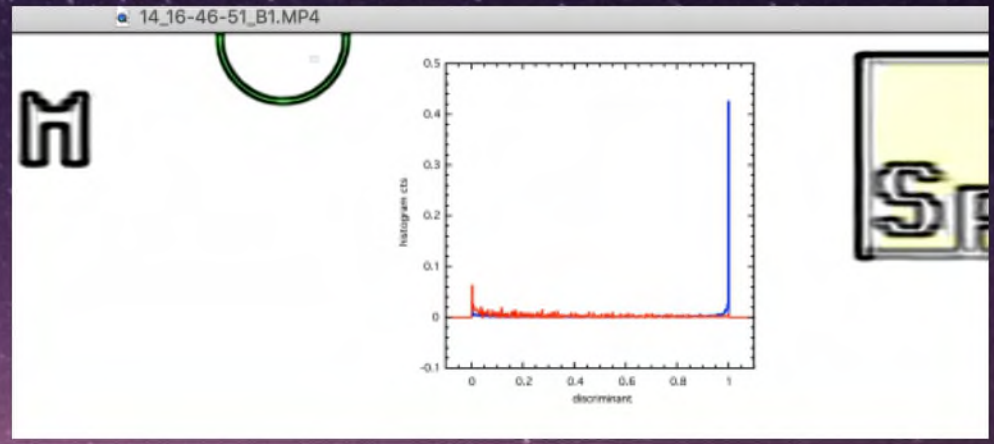




- Radiation experts on the UAPx team: new type of reactor (AngelCore): light-element-based, sub-critical, handheld nuclear fission micro-salt-reactornew radiation detection technique (snowball chamber): supercooled water based radiation detector

C-TAP





- Detection, as well as tracking, of objects too faint for the human eye to notice during manual reviews and too faint for standard software approaches. Developed for FLIR, but also vetted for visible light (UFODAP)Example above: likely a distant, high-altitude international flight (not anomalous)Moving away from large, old-style FLIR cameras to smaller units (handheld, for phones) Higher resolution = better and easier identification

Capabilities: Past, Present, and Future

- In-field Monitoring: Remote and Manned
- Instrument Development & Testing
- Development of AI Tracking Algorithms
- Analyses of UAP imagery and other data
- Isotopic analysis to determine the origin and the provenance of materials

Open DiscussionResources

- How can we help the efforts of individual members, the AARO as a whole, the NASA UAP study, and/or the U.S. Government at large? Website: https://www.uapexpedition.org/ Full version of Catalina preliminary results talk https://www.youtube.com/watch?v=avCDzCxjPEM slides: https://www.uapexpedition.org/post/another-brick-in-the-wall Essay on UAP skepticism: https://www.uapexpedition.org/post/addressing-the-most-common-criticisms-against-studying-uap