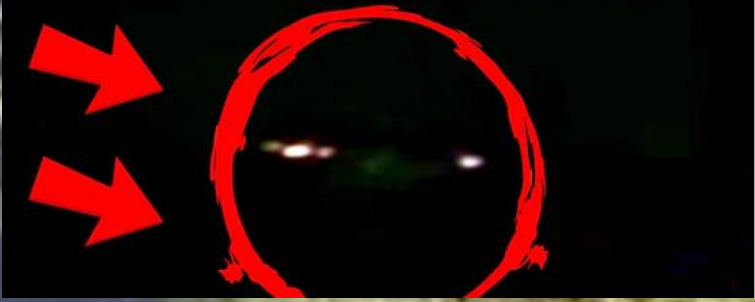


MAJOR UFO SIGHTING OVER HAWAII



INTRODUCTORY OVERVIEW

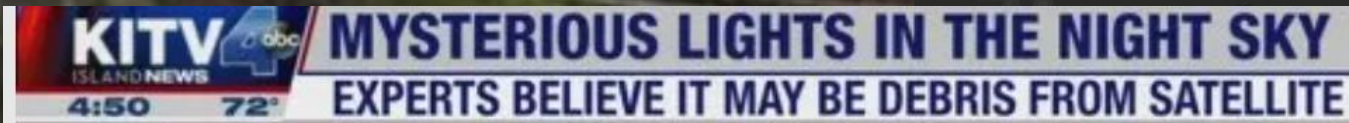
Fireball Swarms from Satellite Reentries -- Astonishing Mass Public Misinterpretations Provide Unexpected Perceptual Lessons



James Oberg

February 4, 2021

jamesEoberg@comcast.net



THIS IS A READER'S DIGEST CONDENSED VERSION OF A MUCH LONGER REPORT

- FULL VERSION HOSTED HERE:
- http://www.satobs.org/seesat_ref/misc/hawaii_mothership_final2.pdf
- and
- <http://www.astronautix.com/data/hawaii-mothership-release.pdf>
-

Further updates, and on-going discussion links:

<https://youtu.be/swv3CTVgVhs>

- And <http://www.abovetopsecret.com/forum/thread1275886/pg1>
- I'm developing a blog on this general subject, a rough draft is here, <https://rocketspotting.blogspot.com/2019/01/introduction.html>

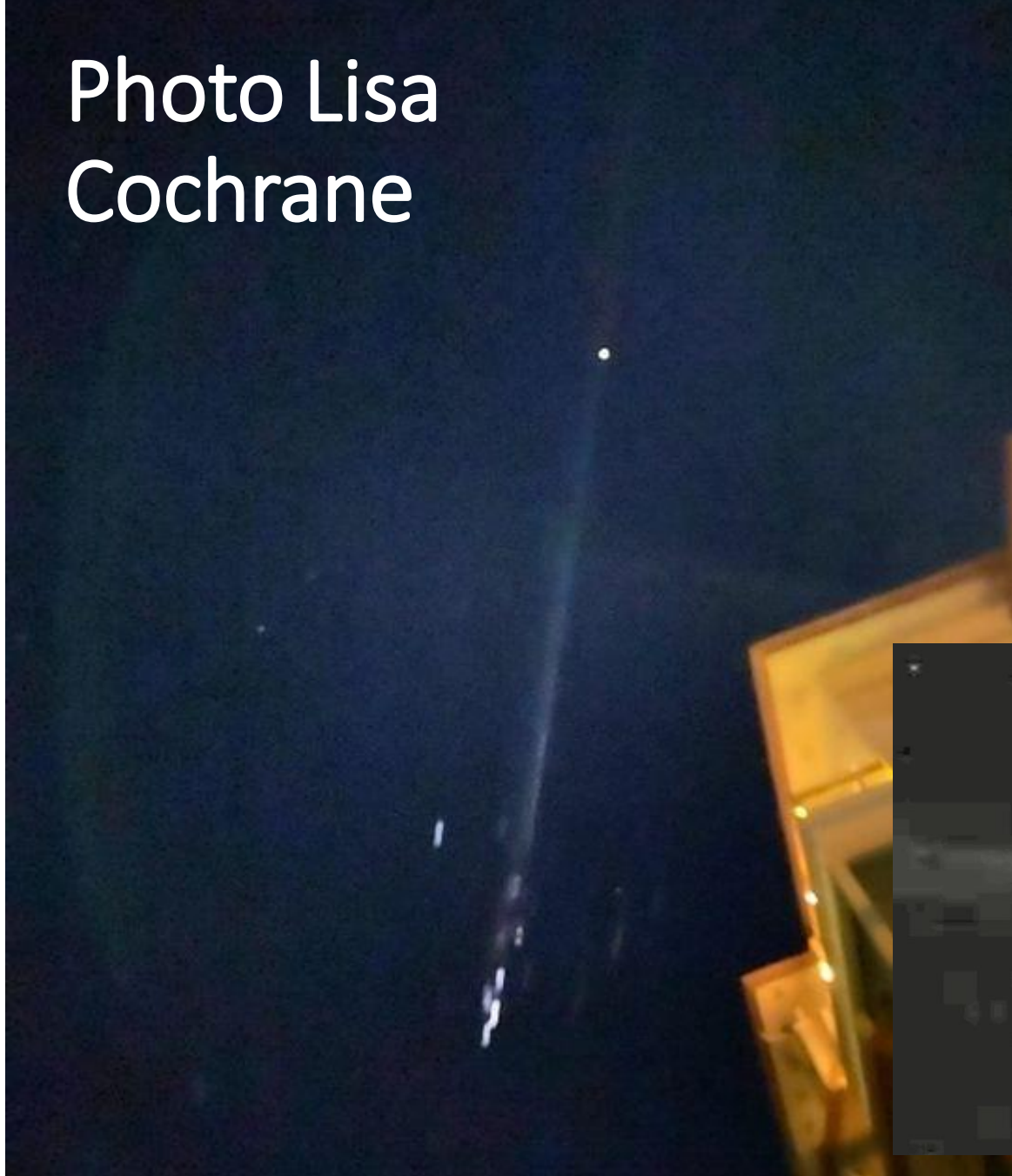
INTENTIONS OF ORIGINAL PRESENTATION

- THIS PRESENTATION IS NOT ABOUT WHAT “TRUE UFOS” ARE, OR ARE NOT.
- INSTEAD, USING THE OCTOBER 24, 2020 HAWAII EVENT, IT WILL FOCUS ON ONE SPECIFIC SPACEFLIGHT-RELATED VISUAL STIMULUS WHICH HAS BEEN PRODUCING UFO REPORTS FOR MANY YEARS, REPORTS WHICH HAVE BEEN WIDELY ACCEPTED AS UNEXPLAINABLE
- IT WILL SEEK TO GENERALIZE WHAT THIS EVENT CAN TEACH RESEARCHERS ABOUT HOW TO ASSESS SIMILAR REPORTS OF THIS TYPE IN THE FUTURE [AND FROM THE PAST]
- ALONG WITH THE EXTENSIVE EVIDENCE EXPLAINING THIS EVENT, IT WILL EXTENSIVELY [EVEN EXHAUSTIVELY] DOCUMENT THE NATURE AND THE VARIETY OF GENERAL PUBLIC REACTIONS TO IT, IN ORDER TO CREATE A RELIABLE ARCHIVE FOR FUTURE RESEARCHERS

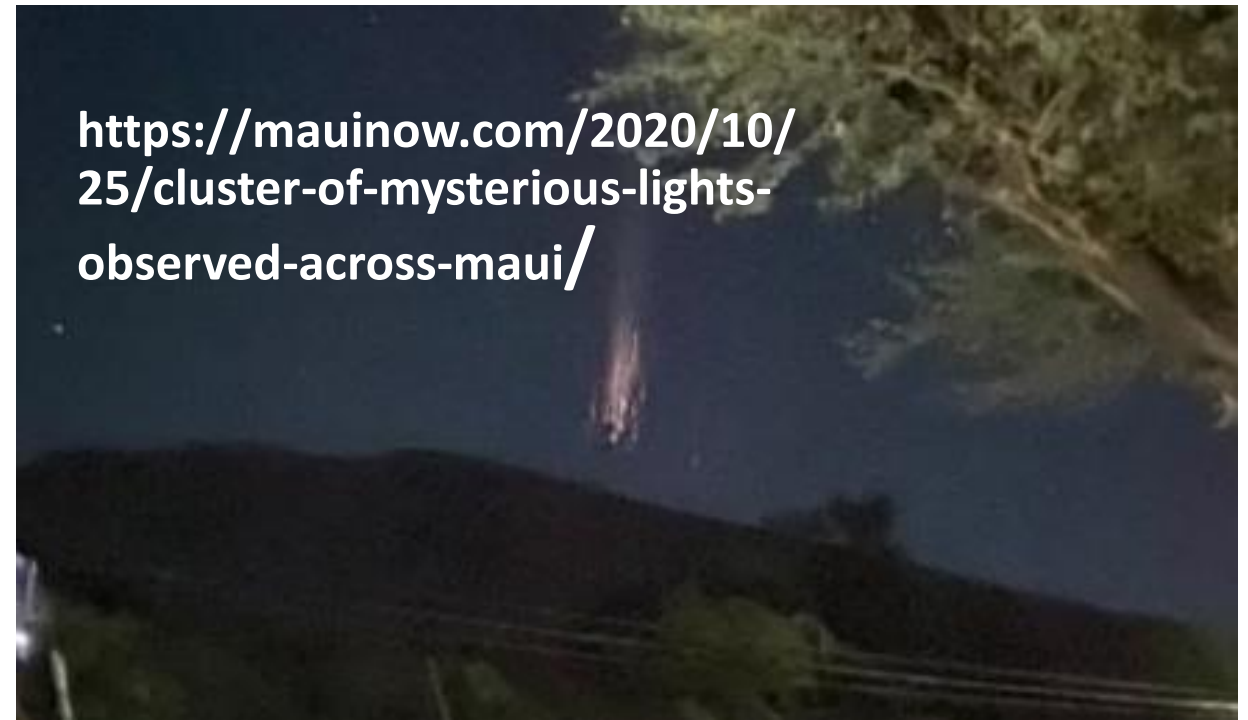
Hawaii ‘mothership’ == “yet more of the same”

- ‘Classic’ satellite reentry fireball swarm mass misinterpretation
- Perfect time to maximize witnesses – late evening, Saturday night
- Clear local weather
- Dozens of videos posted within hours
- Majority of posters saw a structured hull with mounted lights, although a significant minority correctly reported separate lights [which some interpreted as a ‘fleet’ of UFO orbs]
- Many off-the-cuff explanations such as Starlink launch or Orionid meteor shower, or drones or balloons or secret military aircraft
- Distance estimates ranged from a few hundred feet to several miles.
- Many observers reported maneuvering including course and altitude changes, as well as hovering
- Vehement attacks [worst ever seen] on the idea it was only a reentering satellite, with nasty personal insults to proponents of that explanation.

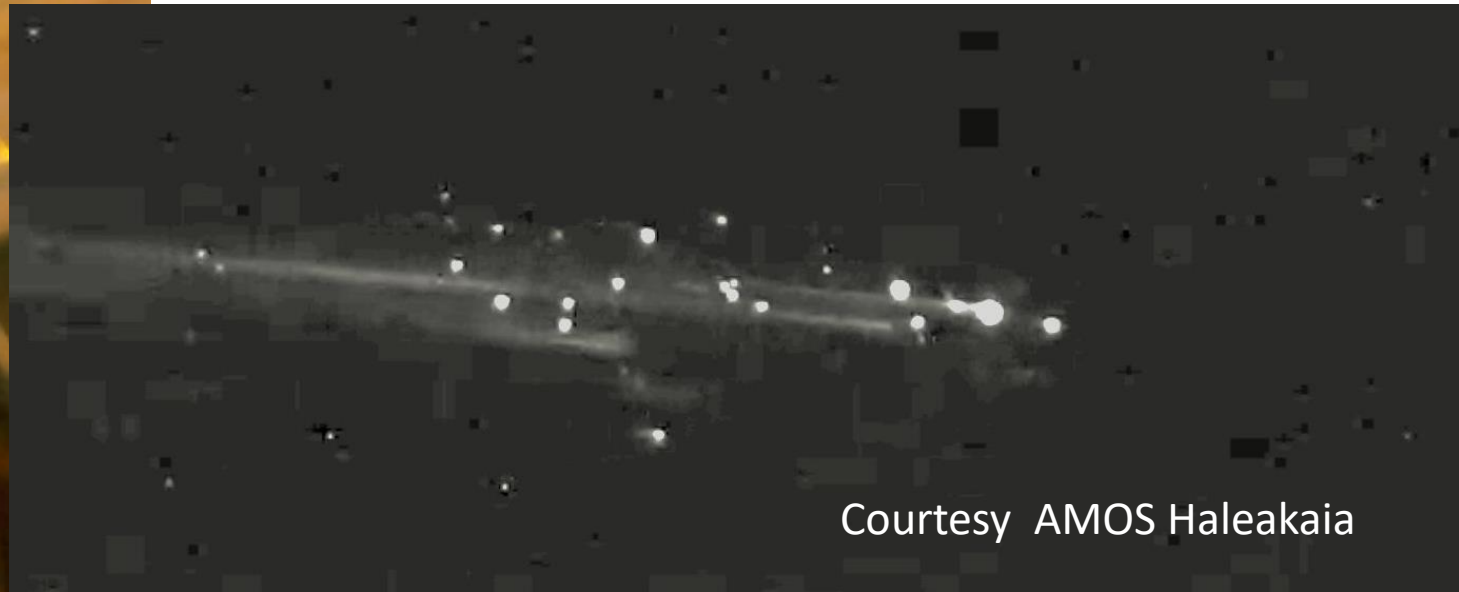
Photo Lisa Cochrane



feb 2021



<https://mauiNOW.com/2020/10/25/cluster-of-mysterious-lights-observed-across-maui/>



Courtesy AMOS Haleakala

REENTRY FIREBALL SWARMS AS UFOs

BEST VERBAL DESCRIPTION:

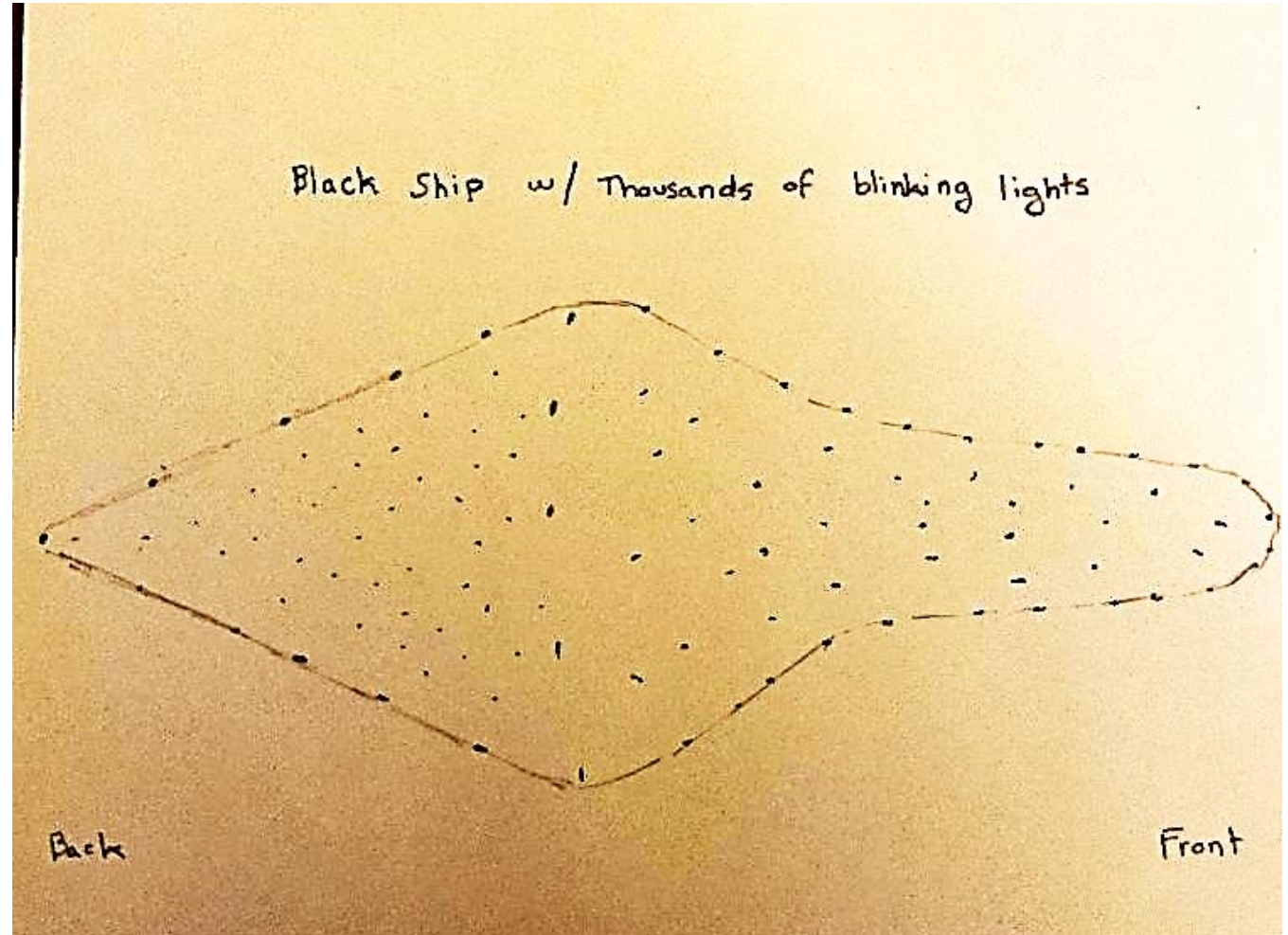
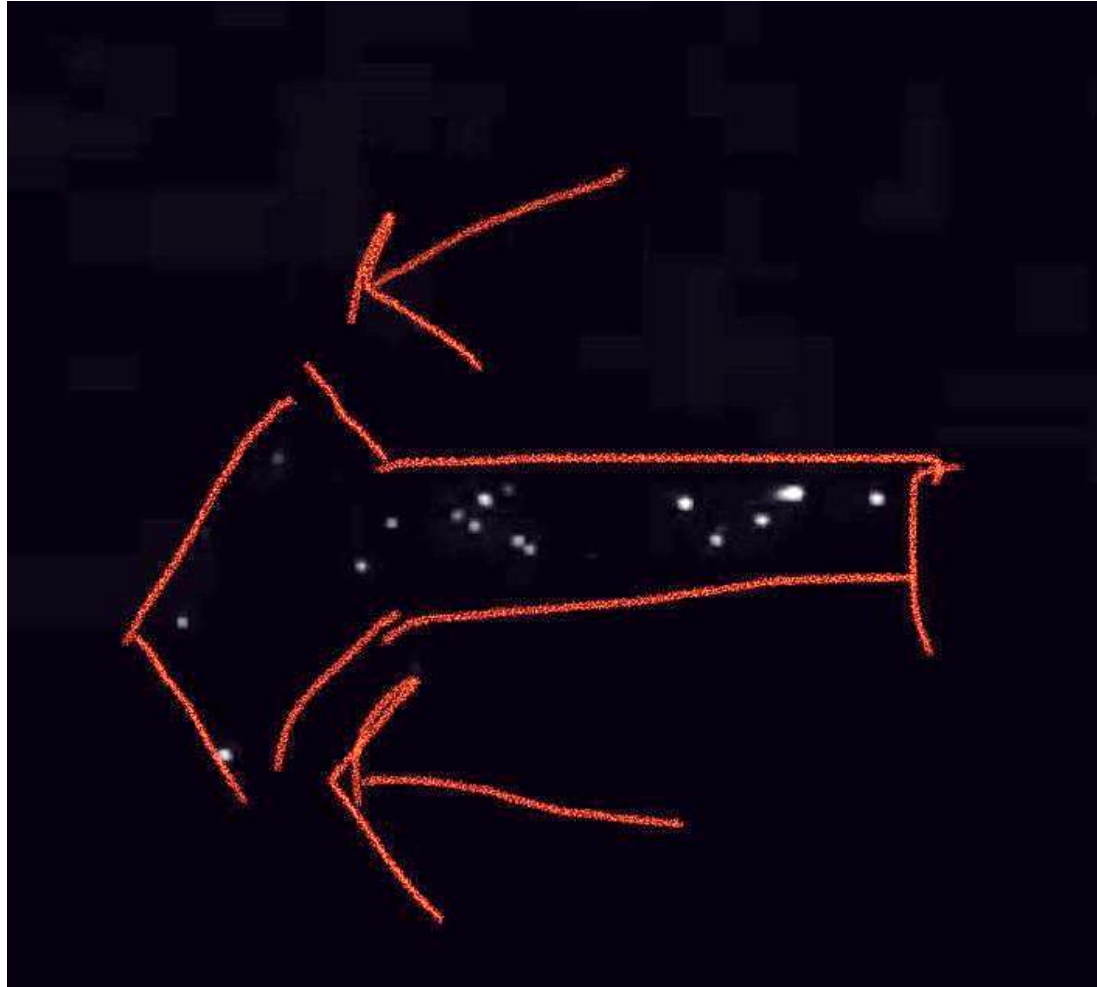
Kimberly Lani [Nov 10, 2020, then deleted] == I saw it, over the open molokai sky. We don't have much light at night, so it was **very clear viewing**. It was **a massive thing**, coming in from **south/west** direction, headed **northeast**. I saw what looked like **flaming lights in the front**, almost like **a point**. The lights all together, resembled **a triangular aircraft shape**. The mid section had **2 bands of lights in a rhythmic circular pattern**. It was **quite massive**, since I don't know how far away it was....my best description was saying it was as big as a small neighbor Hawaiian island. Like Lanai. ?? That's just what I could relate it to. There was **no noise** around it, that we could hear. I swear, I saw what looked like **an energetic behind it**. Not yellow in flame but maybe like a **smoky type coloration**. Definitely **something there from the rear**, in contrast to the night sky.

Nov 27 – “Flying UFO over Maui Drawing” witness comment

- I saw a **very low flying ship the size of a football arena** fly over the top of my house, completely silent. ... The **ship** was covered **in thousands of blinking lights**, some quite large but also a ton of small ones. Pictures and video don't do it justice. When I saw it, I started yelling in the middle of the street trying to get my wife's attention and the neighbors as it was 10 at night. The only reason I was outside was that I had a friend who was out of town and he had asked me to water his plants, well I forgot to water them earlier so I was over there with a headlamp on watering bushes. When I walked back across the street, that's **when I saw it come over the top of my house**. It was **absolutely massive**. Like nothing I have ever seen or knew could exist. I wake up everyday and think about it, **my world got flipped upside down**.
- Hope this drawing is alright, **the craft definitely had a wingspan**. I don't understand how **something that large** could move **in silence**.

Nov 27 – “Flying UFO over Maui Drawing” = “Pictures and video don’t do it justice”

Copyright ©2020 Eric Weiss, all rights reserved // USED WITH PERMISSION



Typical comments 1

- Cuzzer55 == **A massive mothership** . But drboylan.com has related information about this subject. <https://youtu.be/r0eKSp0c5Ow>
- NUNNA URBIZNEZ == The way the lights twinkle and **appear to bank left doesn't look like individual objects**. It looks like **one solid object**. <https://youtu.be/OHVzuAcWYlg>
- Almut Behnke == I saw it too , it flew **right over my head**, the lights were different colors and it flew from sea towards land.. not like they say rocket booster disintegrating over the water.. **this thing was a real huge space ship..** and it flew **lower** than on the picture here... and there was a slight sound and **a kind of tail** behind it like steam...how would a rocket booster after 12 years **have stable lights still functioning?** And this craft was **not falling at all** it was **manovering**...and it had a certain energy to it also... <https://youtu.be/XxTEI5cL-UY>
- Gregory Gabaylo == It was flying **so close!** UFO!!! You could see the Lights! But in the Dark **you could see the Huge round body Spacecraft** with no noise!!! MAKAKILO, HAWAII. <https://youtu.be/bsnrYh85c-U>
- Mikhail Romensky == not a fleet, it's **huge ship**. <https://www.youtube.com/watch?v=3PYSKehYrjA>
- 808Man • Saturday night @ 10PM I took my dog to the yard in my Nuuanu home and looked up to see what looked like **a blimp-size object** moving from Honolulu Airport to the North-Northeast **covered in lights**. NO SOUND! At first I thought it to be a jet bound for the Mainland but it quickly disappeared. The explanation of a Chinese rocket falling to earth make sense. <https://www.kitv.com/story/42818104/mysterious-lights-over-hawaii-ufo-or-space-junk>

Typical comments 2

- Eric Weiss == I saw it too, It flew **directly over head** of me as well. They are definitely not telling the truth after seeing it with my own eyes. I was so bummed that astronomer came out and tried to speculate... **if he would have seen it, he wouldn't be saying it was a rocket booster**. Thing was **so low, silent, slow and had adjacent lights all traveling at the same speed**, blinking as opposed to burning off. I have no idea as to what it was, but it sure isn't what they are telling us. <https://youtu.be/gueJuqBF2iY>
- L H == I was thinking from the first video that someone just caught a meteor shower; they do look similar and there have been a few taking place over the past week. Well... this video has blown that hypothesis apart! **That is a BIG ship just cruising right on by!** Woof - that is crazy!! I honestly believe they will be landing soon and in that - completely change our world in a great, new way. This is a good thing.... Thank you!
<https://www.youtube.com/watch?v=3PYSKehYrjA>
- Frank Smith == At 11 PM at kona airport **floated by me at 1,500 feet**, hugh!!! It looked like **a mother ship**!!! Its was breath taking!! Its was no drone!!!! Silent and big!!!
<https://youtu.be/OHVzuAcWYlg>
- LeBron James == [I]t simply is **not** just a rocket's debris. All the lights turn on and off **at the same time** and **they were seen from London to Hawaii**. It has been spotted **countless times the past 4 months**.
- DOT to DOT == Light pattern is **too solid and organized** to be any debris or asteroid. **Horizontal** flight path. This is a craft in stealth mode with lights... Even the University says they are not 100% in their "reasonable" explanation. ... UAP secret tech. Most likely ours. <https://youtu.be/gueJuqBF2iY>

<https://youtu.be/R3PN9pqR-lo>

Shawn Ehrlich [Jan 2, 2021] == i personally seen it and **it wasn't that high in the sky** like there video. ima tell you first hand **this was no reentry of any kind**. it was **a lot lower to the ground** so much that i could see the orbs glowing the front orb looked like a full moon glowing from the inside. the smaller lights that was in the middle of the y shape that it took form too looked like shooting stars.. i put this in my ipad pro and did some filtering and **definitely was no rocket booster** why are they so quick to say it's that and not anything else. coverup ? yes of course be a free thinker that \$hit was **like nothing i've ever seen before** in my life and i've seen satellites in the early morning skies i've seen misfired rockets from vanderburg air force base in cali ive seen meteors big and small nothing is even comparable to that.

Scene at Waikoloa Scenic Point

Big Island, Hawaii 10/24/20 10 PM

Flying at Helicopter Elevation headed north, northeast

Ship made no sound, had a smoke stream

Behind it [white solid cloud had a slight arch]

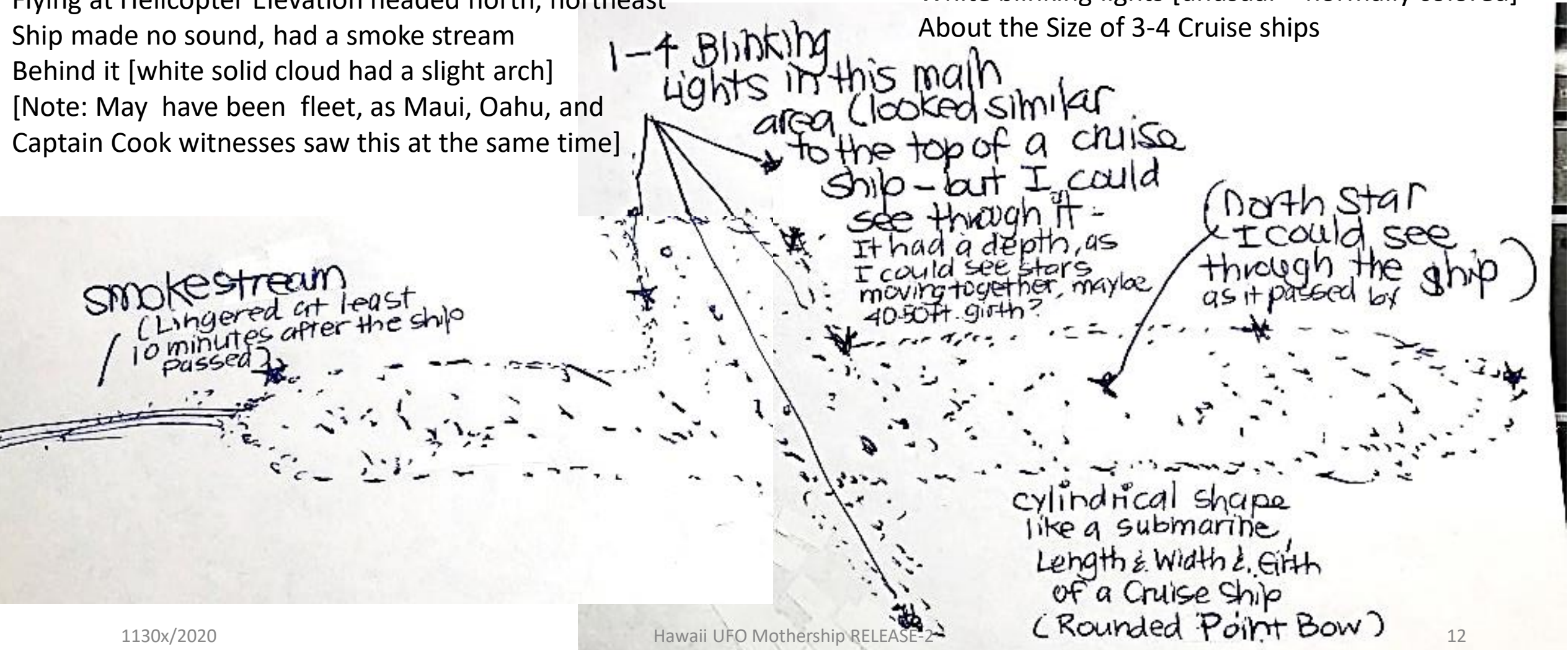
[Note: May have been fleet, as Maui, Oahu, and Captain Cook witnesses saw this at the same time]

Lights came from South, Southwest – Over the Ocean
headed toward Pohakuloa

[From Kona Airport headed north, northeast]

White blinking lights [unusual – normally colored]

About the Size of 3-4 Cruise ships



Jeffrey Neubauer part 1 of 2

These orbs **changed direction** when passing waikoloa town. The orbs were **very low in the sky, clearly below the clouds** during most of my personal experience, before **ascending into them** and disappearing on its trajectory toward the area between mauna kea and waimea... [satellite?] Possibly the **dumbest** cover up explanation I have ever heard. This is **not what space junk looks like** when falling through our atmosphere. ... space junk doesn't **continuously change direction in mid air**. The one time I did see space junk falling into earth atmosphere years ago; it looked like a large fireball. These small, **perfectly round, glowing white orbs** did not look even close to a fireball. They all stayed the same size, and the first 5 to 7 **never deviated from the V pattern**. Anyways, believe what you will, maybe one day that will change once you get a first hand experience. [more]



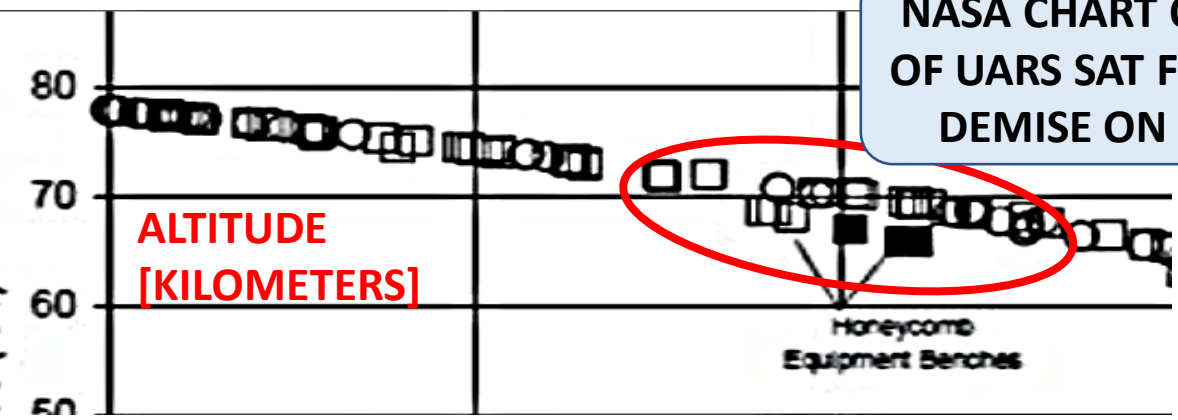
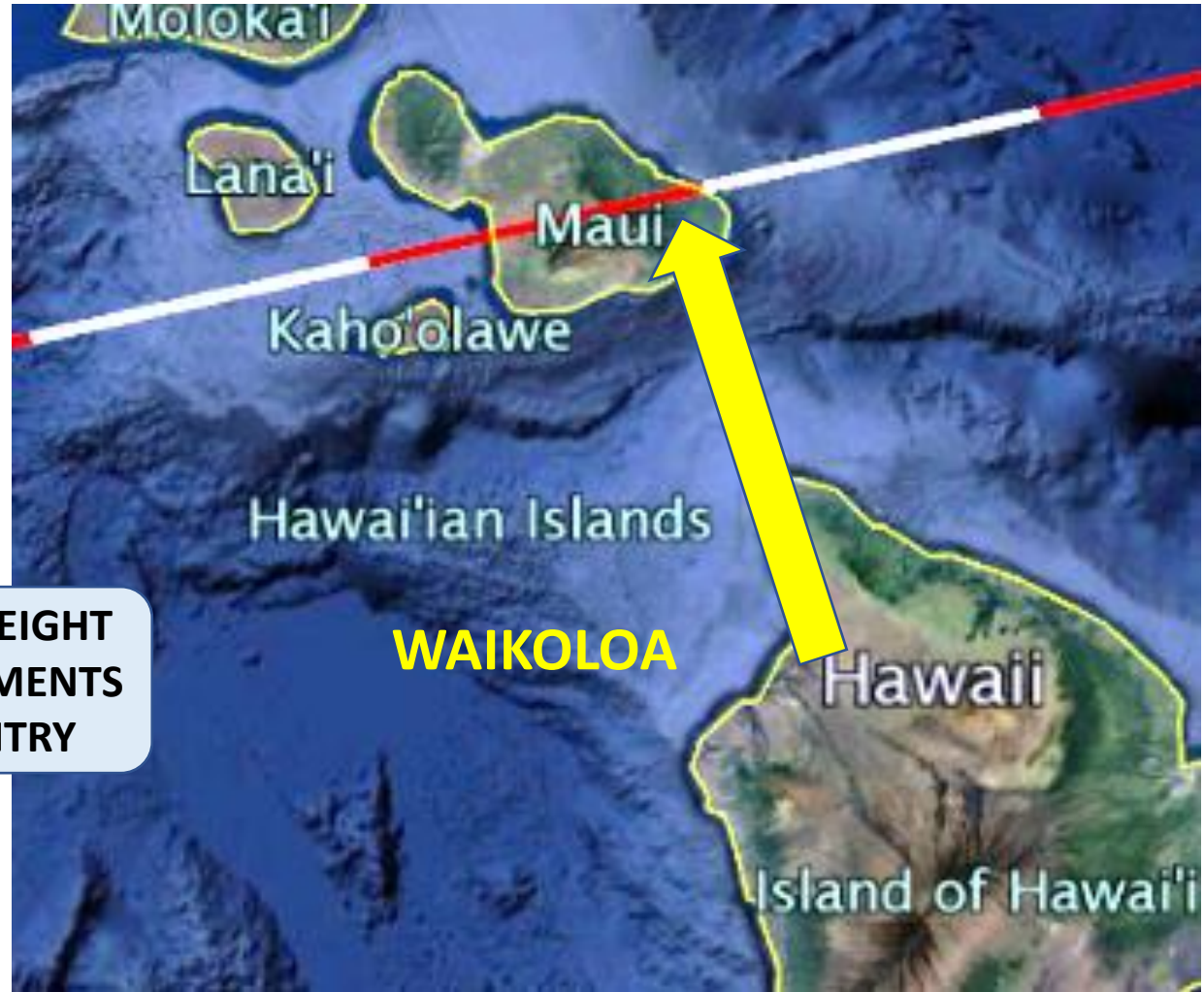
Jeffrey Neubauer part 2 of 2

<https://youtu.be/OHVzuAcWYIg>

.... I live in waikoloa hawaii and **experienced these orbs up close and personal for over a minute and a half**. I spent hours today writing a lengthy description on Mufon.com of what had to be **the coolest moment in my life**. These orbs had **no trail** behind them and they moved **very slow across my neighbors house**. You can check out my my full description over on that website if you wish. The news tells us that space debris fell from the sky last night; which by all means is probably true, but what I witnessed last night was **100% not space debris**.... These orbs were **under the clouds, not far away from me**. Some also **accelerated and then slowed** down. One was **spinning in a very tight circle** for a reason I can't remotely understand. Have you ever seen space junk do that? I didn't think so.

EYES CAN LIE, BUT GEOMETRY DOESN'T

The critical observation was from Waikoloa Scenic Point on the big island, where the keen-eyed observer Claire Bajo noticed the fireball swarm pass left-to-right directly across Polaris [the North Star], giving an elevation angle of 20 degrees. Since observers on Maui 100 mile away saw it passing directly overhead flying WSW to ENE, simple trigonometry gives an altitude of 40 miles, exactly the level that typical satellite fragments are brightest on their long shallow descent. And that path was exactly the one pre-calculated for the demising satellite rocket.



NASA CHART OF HEIGHT OF UARS SAT FRAGMENTS DEMISE ON REENTRY

summary

explanation



- Source of fireball was quickly identified as the reentry of the third stage of the Chinese CZ-3B booster [2008-055B] launched October 29, 2008. <https://en.wikipedia.org/wiki/Venesat-1>
- The payload is still in orbit. This booster stage's orbit slowly decayed, and a reentry warning had been issued.
- Actual reentry was about an hour past the pre-reentry prediction interval, not unusual.
- Ground track for propagated forward motion to time of observed fireball swarm precisely put the path right over Maui passing almost due west to east, as actually observed.
- Surviving debris impact would have been Pacific Ocean far east of Hawaii.

Event appearance and witness accounts fall within classic pattern from the early Space Age

- Dark night sky, cloudless conditions
- Collection of bright lights moving ‘in formation’
- For overhead pass, takes about two minutes to cross sky
- Early phase with tails, which die out later
- Dazzling lights often mask dimmer background stars
- No sound [except coincidental ambient sources]
- Common misperception creates image of structured object
- Viewing overhead pass often creates confusion over swerving
- Distance estimates are no better than wild guesses





RESPONSIBLE AGENCY ISSUED ROUTINE REENTRY WARNING

2008-055B 25 Oct 2020 05:24 UTC \pm 1 hour
AEROSPACE.ORG

INITIAL WARNINGS CAN ONLY SPECIFY SEVERAL
ORBITS AROUND THE EARTH, NOT ONE SPOT

AEROSPACE FOCUS AREAS ABOUT NEWS EVENTS

CZ-3B ROCKET BODY (ID 33415)

SHARING    

Reentry Prediction

Predicted Reentry Time	25 Oct 2020 05:24 UTC \pm 1 hour
Orbit Epoch	25 Oct 2020 05:11:43.589 UTC
Prediction Ground Track	

- <https://Aerospace.org/reentries/cz-3b-rocket-body-id-33415>



ALL-SKY CAMERA CAPTURES EVENT

2020-10-25

08:01:40 Z

[10:02 pm local]

Haleakala telescope ATLAS all-sky monitor at 10:01 p.m.
Astronomers at the University of Hawaii Institute of Astronomy

02k59147o0397w
MJD 59147.334490
2020-10-25T08:01:40Z
32.0 s

- https://ogden_images.s3.amazonaws.com/www.mauinews.com/images/2020/10/27055850/object-in-sky-10-24-20.jpg

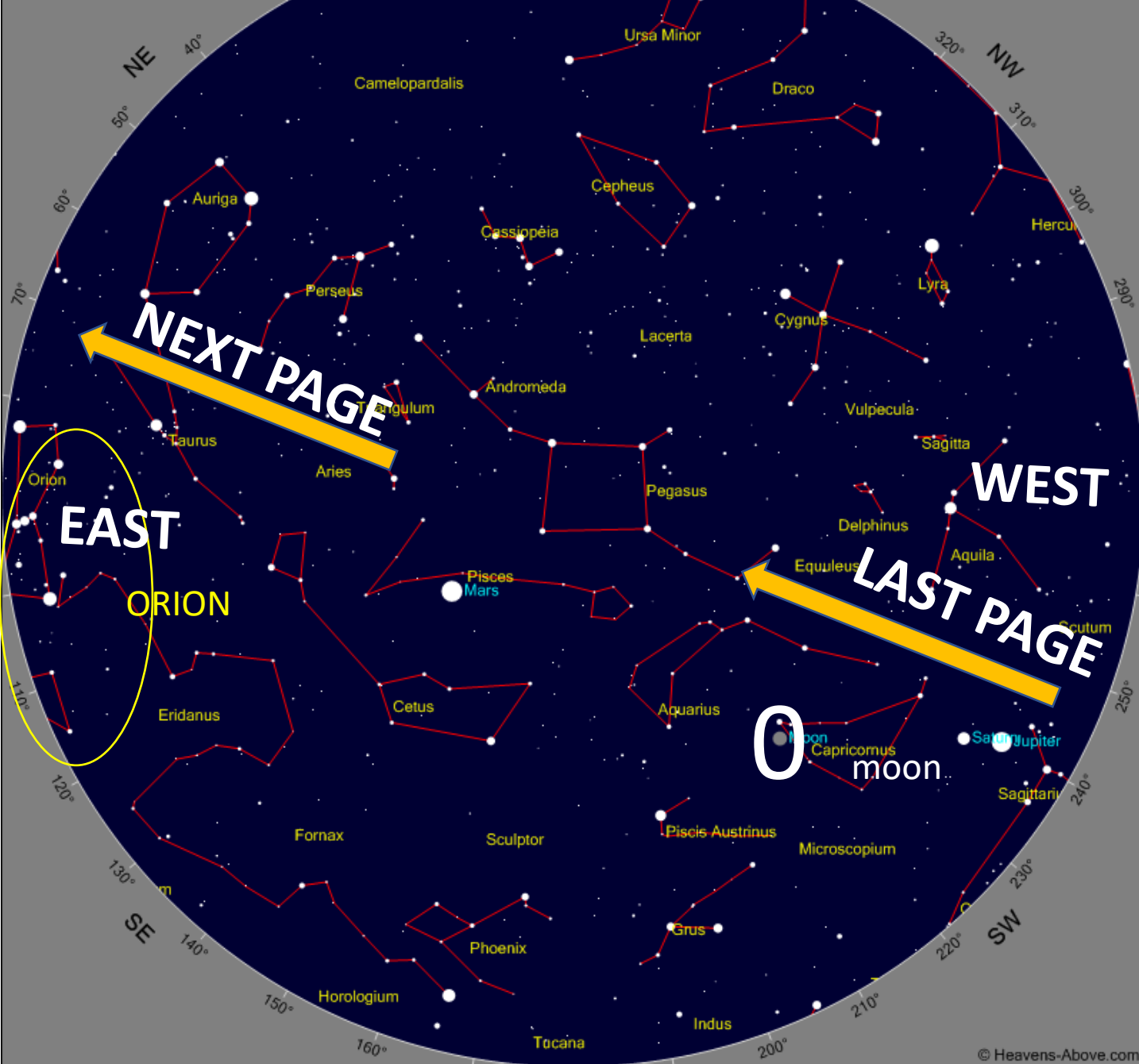


Photo Lyle Krannichfeld

<https://www.heavens-above.com/SkyChart.aspx?lat=20.8432&lng=-156.3627&loc=Unnamed&alt=0&tz=GMT>

CHFT: Our east facing cloud cam caught what we think is the re-entry of a satellite last night at 22:03:51 // [3:26 PM · Oct 25, 2020](https://twitter.com/CFHTelescope/status/1320461779869323265) · [Hootsuite Inc.](https://twitter.com/CFHTelescope/status/1320461779869323265)

<https://twitter.com/CFHTelescope/status/1320461779869323265>

CHFT = CANADA FRANCE HAWAII TELESCOPE



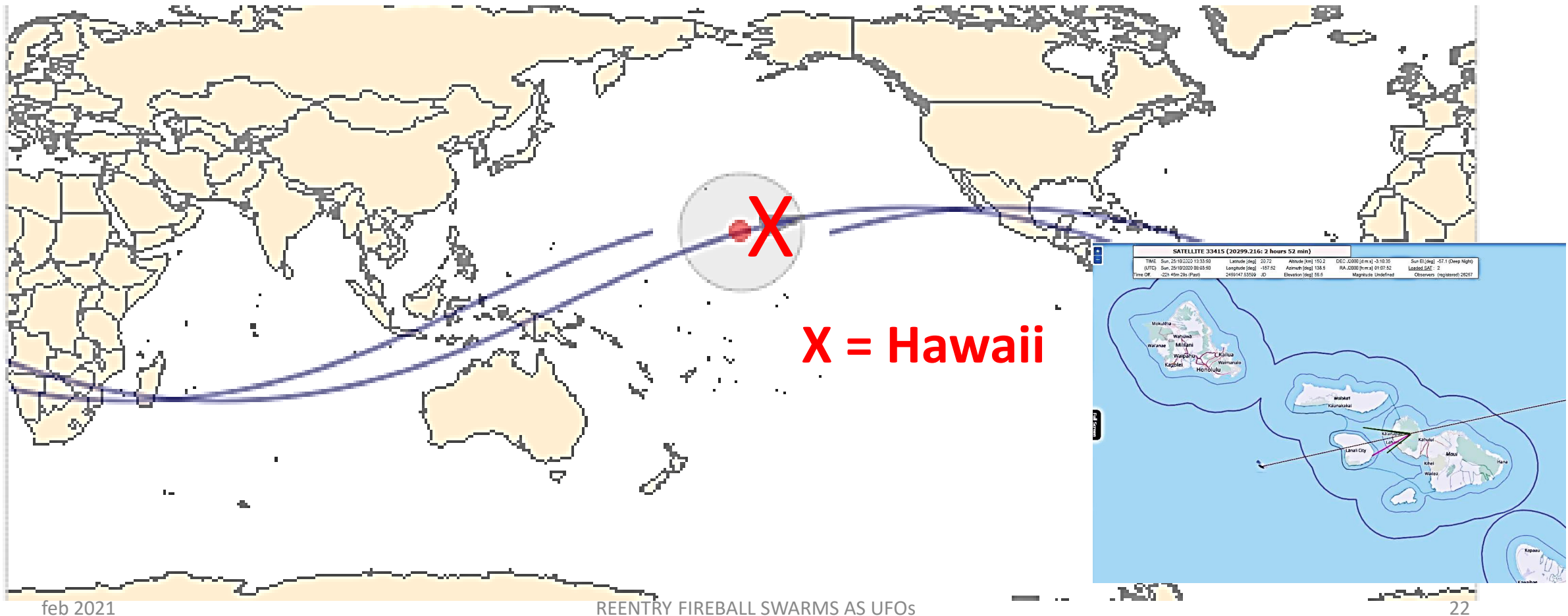
- <https://pbs.twimg.com/media/ELM5rzCXgAUfhho?format=jpg&name=900x900>

<https://Aerospace.org/reentries/cz-3b-rocket-body-id-33415>

position of 2008-055B on 25 Oct 2020 at 08:02 UTC

UTC/GMT -10 hours, local = 10:02 PM

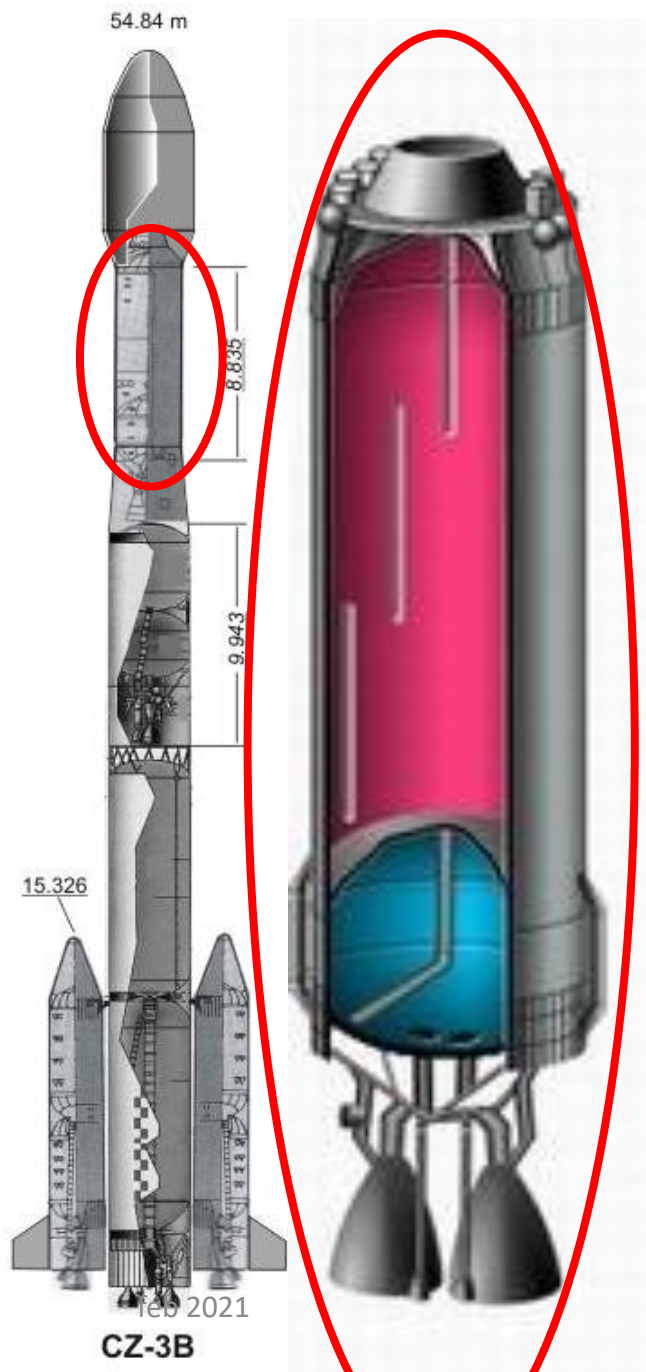
<https://www.wolframalpha.com/input/?i=position+of+satellite+2008-055B+on+25+Oct+2020+at+08%3A02+UTC%3A00>



CZ-3B third stage

EMPTY MASS

2,800 kg (6,100 lb).



**MOST SPECTACULAR
“FIREBALL SWARMS”
TYPICALLY COME FROM
UPPER STAGES WITH
HEAVY HEAT-RESISTENT
OR PRESSURIZED PARTS
THAT SURVIVE ENTRY
DECELERATION AND
HEATING AS SEPARATE
COMPONENTS WHOSE
INERTIA CARRIES THEM
ALONG PARALLEL PATHS
ON A VERY SHALLOW
TRAJECTORY BELOW
‘KARMAN BOUNDARY’
[~80 KM] WHERE DRAG
CREATES FIREBALLS.**

REENTRY FIREBALL SWARMS AS UFOs

Third stage
https://en.wikipedia.org/wiki/Long_March_3B

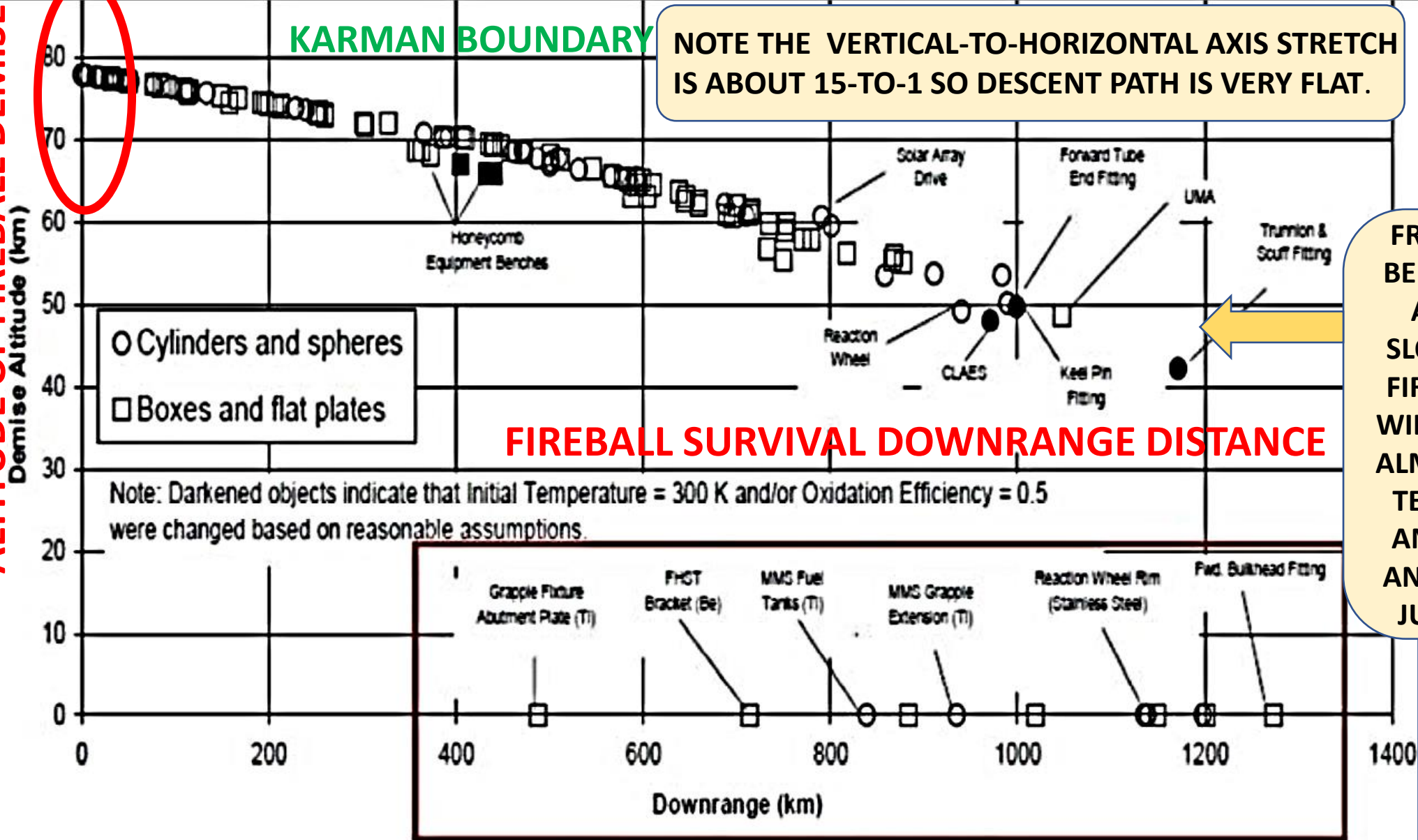
Length	12.38 m (40.6 ft)
Diameter	3.0 m (9.8 ft)
Propellant mass	18,200 kg (40,100 lb)
Engines	2 × <u>YF-75</u>
Thrust	167.17 kN (37,580 lbf)
<u>Specific impulse</u>	4,295 m/s (438.0 s)
Burn time	478 seconds
Fuel	<u>LH₂</u> / <u>LOX</u>

ARTISTIC LICENSE ALLOWED GLARING ILLUSTRATIVE INACCURACIES IN THE DURATION OF FIREBALL PHASE



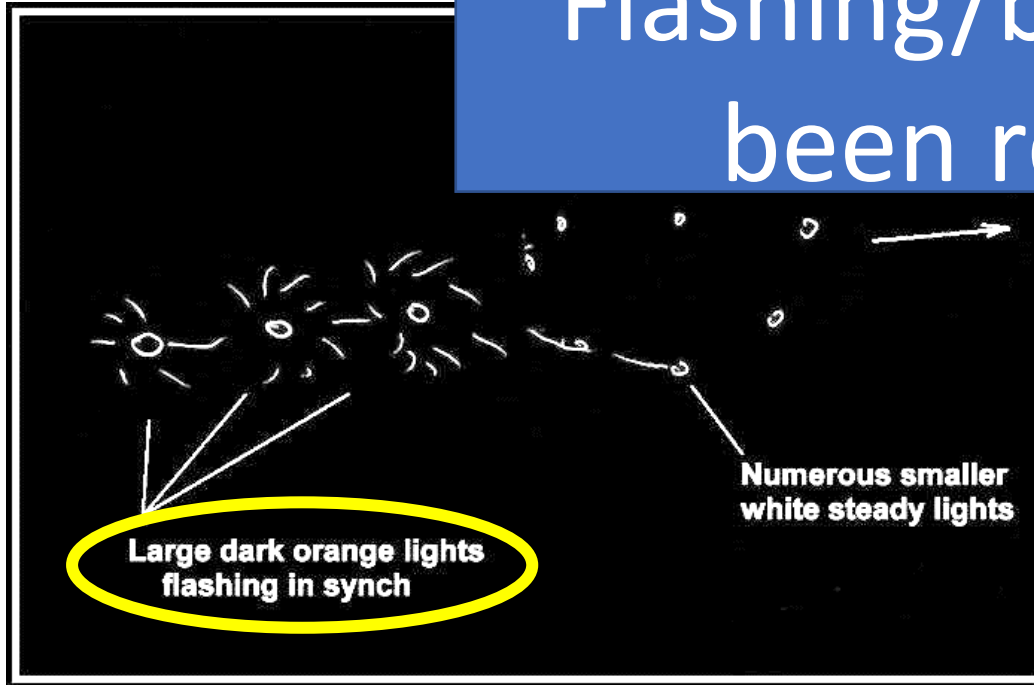
CONTRARY TO THESE FANCIFUL ILLUSTRATIONS, ON REENTRY, FLAMING SATELLITE DEBRIS HAS NEVER BEEN OBSERVED FALLING AT SUCH STEEP ANGLES. BUT DUE TO PERSPECTIVE NEAR THE HORIZON IT CAN POSSIBLY GIVE THAT APPEARANCE.

ALTITUDE OF FIREBALL DEMISE



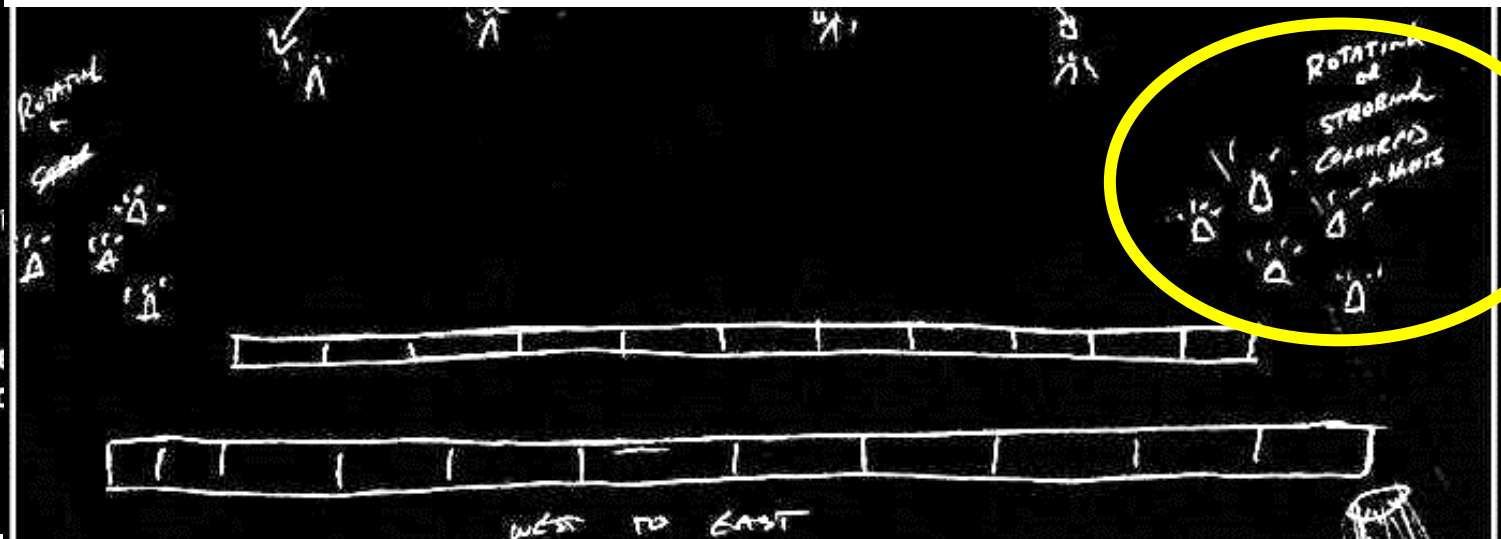
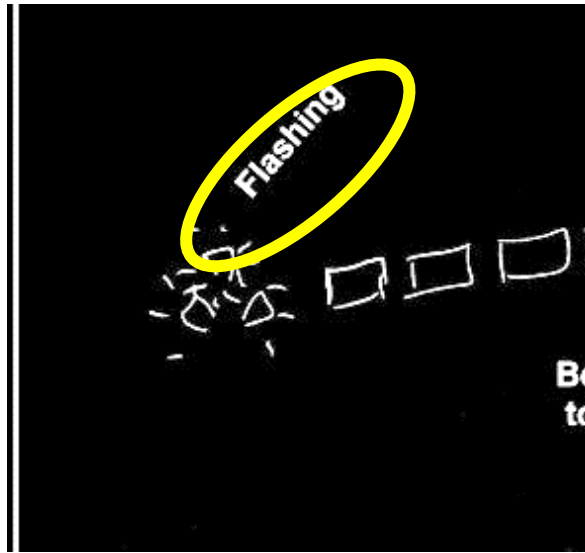
feb 2021 NASA UARS demise altitude/reentry fireball swarms as UARS schematic

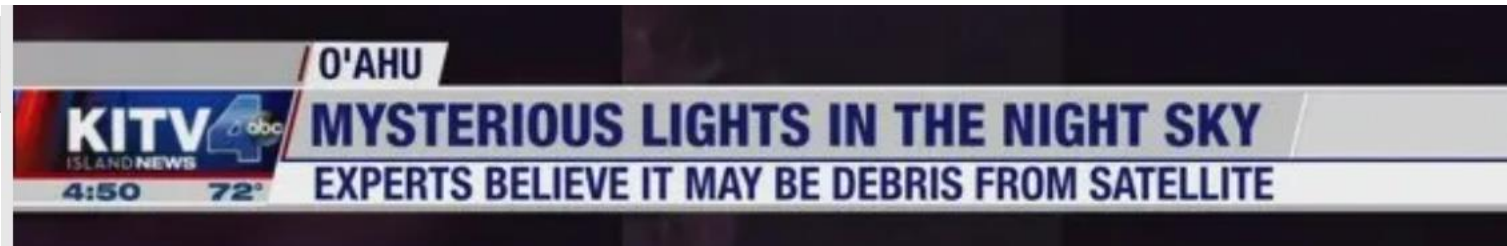
Flashing/blinking lights have been reported before



WITNESS DRAWINGS --

SIMILAR FLASHING LIGHTS ON 1996 YUKON REENTRY FIREBALLS SIGHTING





TOP LOCAL STORIES

More mysterious lights appear over Hawaii (and they're likely not Starlink satellites)



INITIAL MASS MEDIA NEWS COVERAGE



Astronomers Say Cluster of Mysterious Lights in Maui Sky was an Old Rocket Booster

October 25, 2020, 12:19 AM HST · Updated October 25, 9:18 PM

Mysterious lights over Hawai'i: UFO or space junk?

Social media lit up over the weekend

Monday, October 26th 2020, 6:20 AM HST by KITV Web Staff

News ▶ Weird News ▶ UFO

Multiple witnesses notice strange lights over Hawaii sparking UFO frenzy

It is not thought the strange formation of lights are Chinese lanterns or SpaceX's Starlink satellites. Conspiracy the wildly claimed they could be part of an "alien mothership"

SHARE COMMENTS

By **Simon Green** Video News Editor
11:28, 26 OCT 2020

MYSTERY SOLVED: Cluster of Mysterious Lights Observed on Maui is an Old Rocket Booster

<https://youtu.be/OodCzJeuFvY>

Jamie Holland Brown == How does a falling rocket booster **fly up a hill?** My dog woke me up to watch it go from down hill pass the Kona Airport then up over Hualalai. It looked like **transparent like glass with twinkling lights.**

JTruth Be Told == oh please. Cut it out already. We've ALL woken up recently except for these Bsers. ... My thoughts are that this guy is **smoking too much Pakalolo.**

Clarity Seer == There are many videos of this event and **in none of them does anything appear to be "falling"**. I call bull\$hit.

Steady Eddie == rocket boosters. I can't believe he could say it **with a straight face.**



**John O'Meara Chief Scientist,
W.M. Keck Observatory**

MYSTERY SOLVED #2

Surreal Sculptures == Rocket boosters? What are you kidding? Why dont they just say they were fire flies? **That is about as outlandish as any explanation I can deliver.**

jennifer Nash == Hilarious!!! people might have believed this **bollocks explanation** in the 90's but with social media it's getting harder for these so called experts to cover up with **blatant lies.**

Arni Sigurdsson == 12 years later with blinking strobe lights flying slowly by, stuff reentering the atmosphere breaks apart and burns up, **the swamp gas theory would probably have worked better...!!**

YouTube Sucks == It isn't **the same shape as the rocket booster**, and it's **clearly flying lower** than airplanes that aren't even visible cruising at 37,000 feet. Blinking lights, **close steady long-descent** is not how space debris re-enters our atmosphere... [So] a rocket booster **changes its shape** and has blinking lights **after a decade out of use floating in space**, then cruises **over 3 continents ...**

2020-10-26 // [Mysterious Glowing Orbs Over Oahu, Hawaii, On Oct 2020, Video, UFO Sighting News.](#)

- This eyewitness noticed **some strange lights passing overhead** and was fortunate enough to catch a few seconds of raw footage for us. From the video I see **seven glowing orbs**, however when I add light to several screenshots **I see shadows behind them**...other orbs with them. It looks like not 7 but **closer to 15 objects in the sky**. Some glowing, **but most not**. The objects are **moving strongly fast** and the eyewitness even has trouble keeping up with them. The Hawaiian island of Oahu is small and **it's most likely that these UFOs came from an underwater alien base not far off the coast.**
- Scott C. Waring – Taiwan <https://youtu.be/ACjiWIUaNhA>
- [UFO SIGHTINGS DAILY: Mysterious Glowing Orbs Over Oahu, Hawaii, On Oct 2020, Video, UFO Sighting News.](#)

WHY DO OBSERVERS 'SEE' WHAT ISN'T THERE?

Row/group of bright lights – what does that remind us of?



CRITICAL CULTURAL CONTEXT

EYEWITNESS DRAWINGS OF A FULLY DOCUMENTED SATELLITE REENTRY

In reading witness comments it must first be recognized that similar descriptions have been coming in from **the identical visual stimulus** – a flaming swarm of fireballs from a disintegrating heavy satellite skimming earth's upper atmosphere – **since the earliest years of the Space Age**. All over the world, all cultures, all professions, all ages, **all awesomely similar**.

[more]



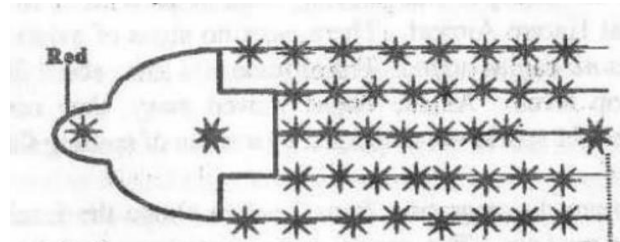
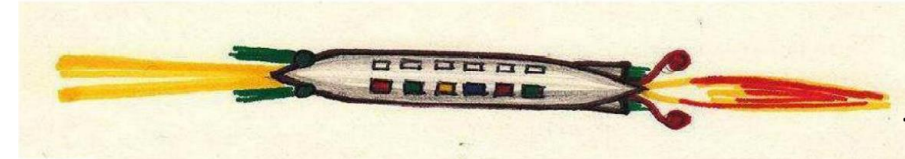
TENNESSEE



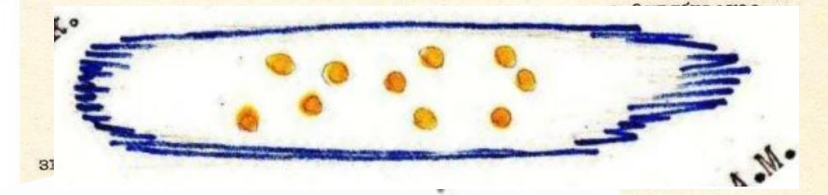
KIEV



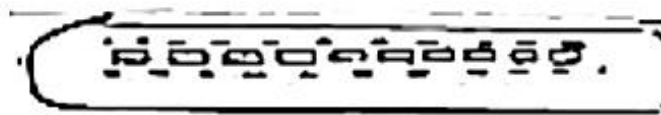
CALIFORNIA



ZIMBABWE



KIEV [GERSHTEYN]

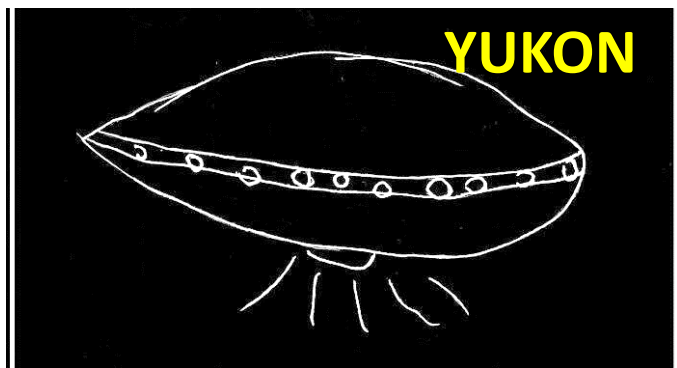


BAHAMAS

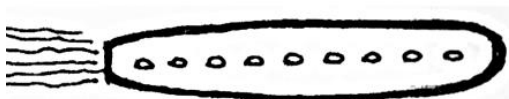
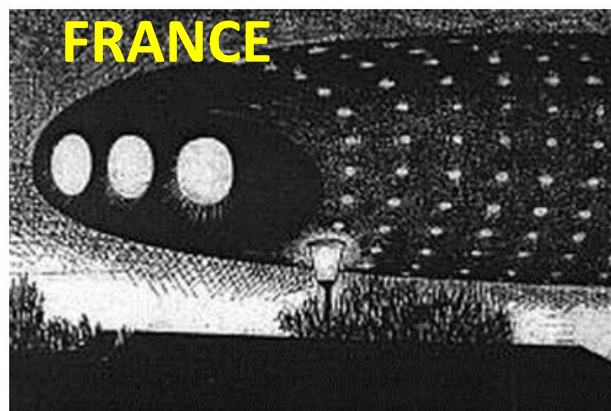
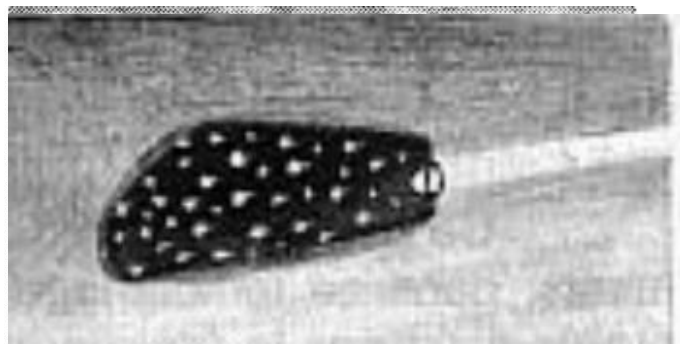


BALTIC

EYEWITNESS DRAWINGS OF A FULLY DOCUMENTED SATELLITE REENTRY



March 30-31, 1993 - UK - cosmos 2238 rocket



Fireman in Lancashire

ENGLAND



Police officer in Hertfordshire

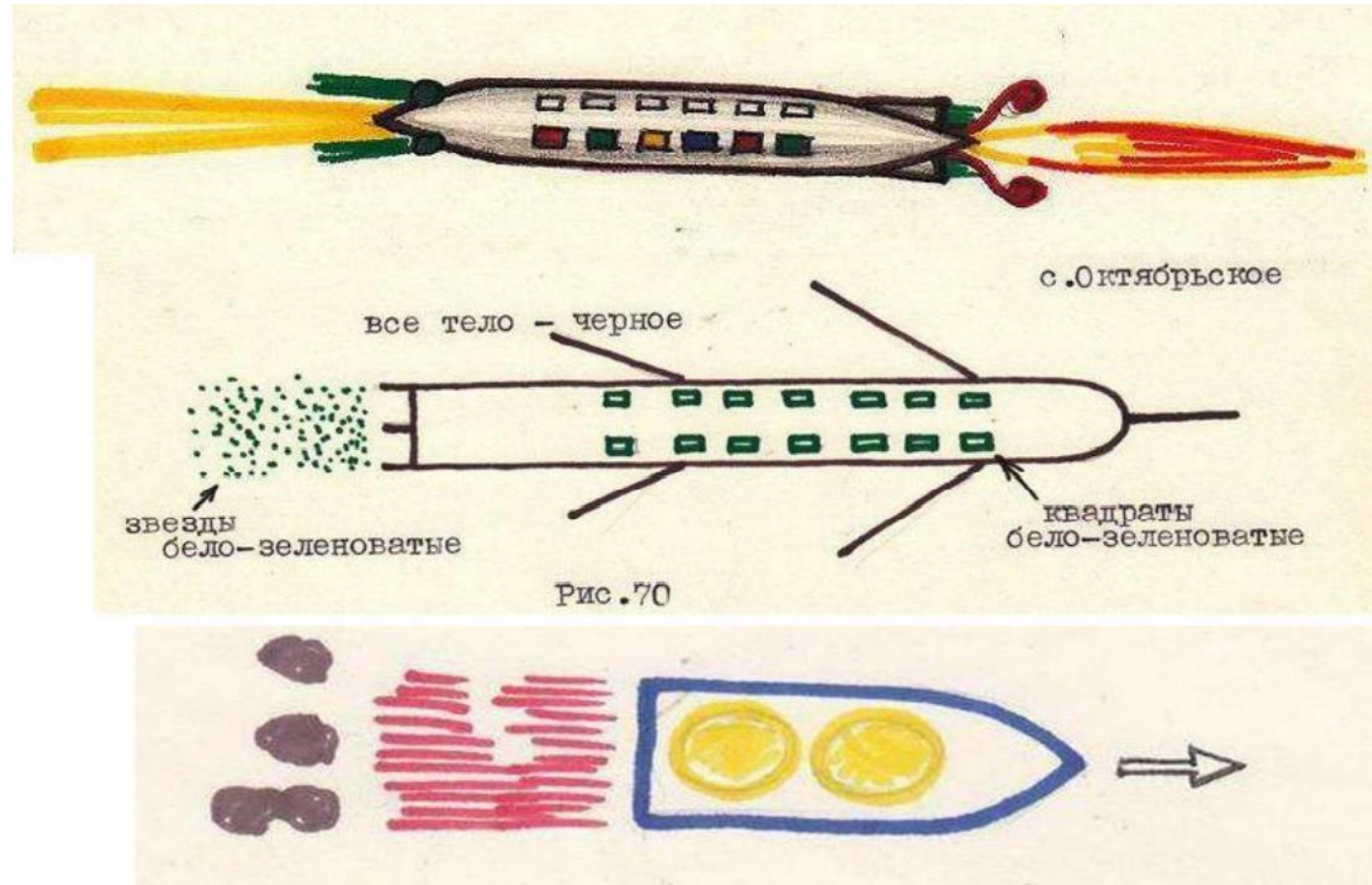
[continued]

The witness misperception is **NOT a failure** of eyesight or of brain or of rationality – it actually reflects a **survival-positive adaptation** to sudden surprising ambiguous visual perceptions in which the individual must amidst urgent uncertainty **quickly** pick out from existing memories what threat or opportunity the perceived object offers so that **fast response** can be useful, even life-critical. False-positives are usually low-cost so they are a preferred strategy – at least, the genetic predisposition to this trait seems to survive to reproduce more offspring much more often over generations.

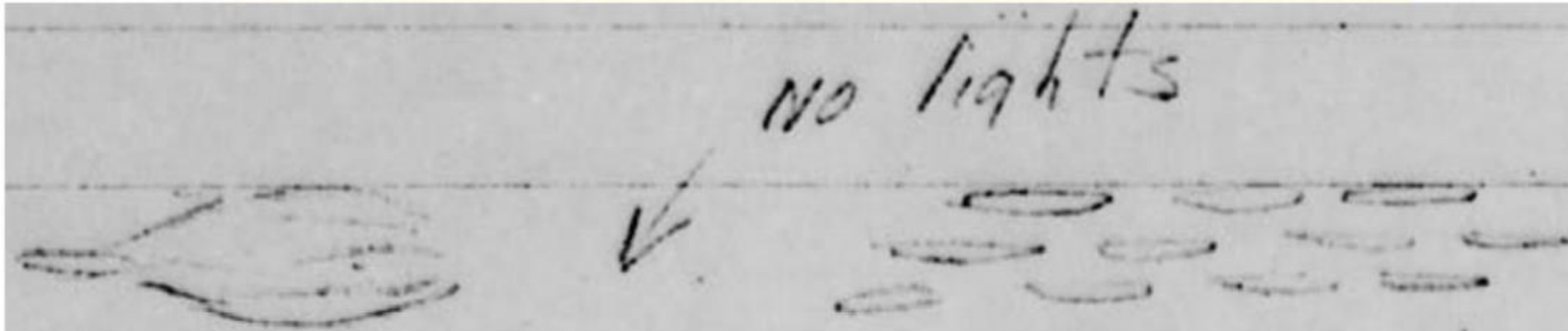
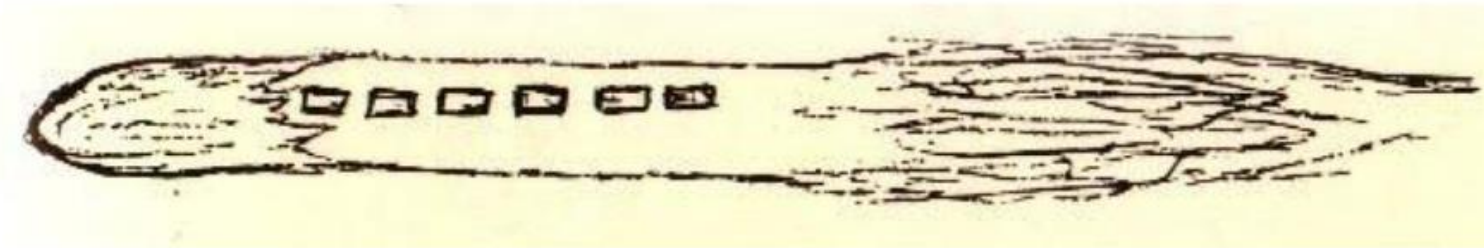
October 30, 1963 kiev swarm – Kosmos-20 RB

http://www.jamesoberg.com/1963_kiev-fireball-swarm-rev-B.pdf

Double-blind 'experiment' in misperception of an astonishing sky apparition, in the Soviet Union, by investigators who did not realize it was a satellite reentry.



March 3, 1968, Zond IV booster, eastern US



- http://satobs.org/seesat_ref/Oberg/680304-Eastern-US.pdf
- <http://files.ncas.org/condon/text/s6chap02.htm#S3>

Baltic, Feb 11, 1976 -- Estonia:

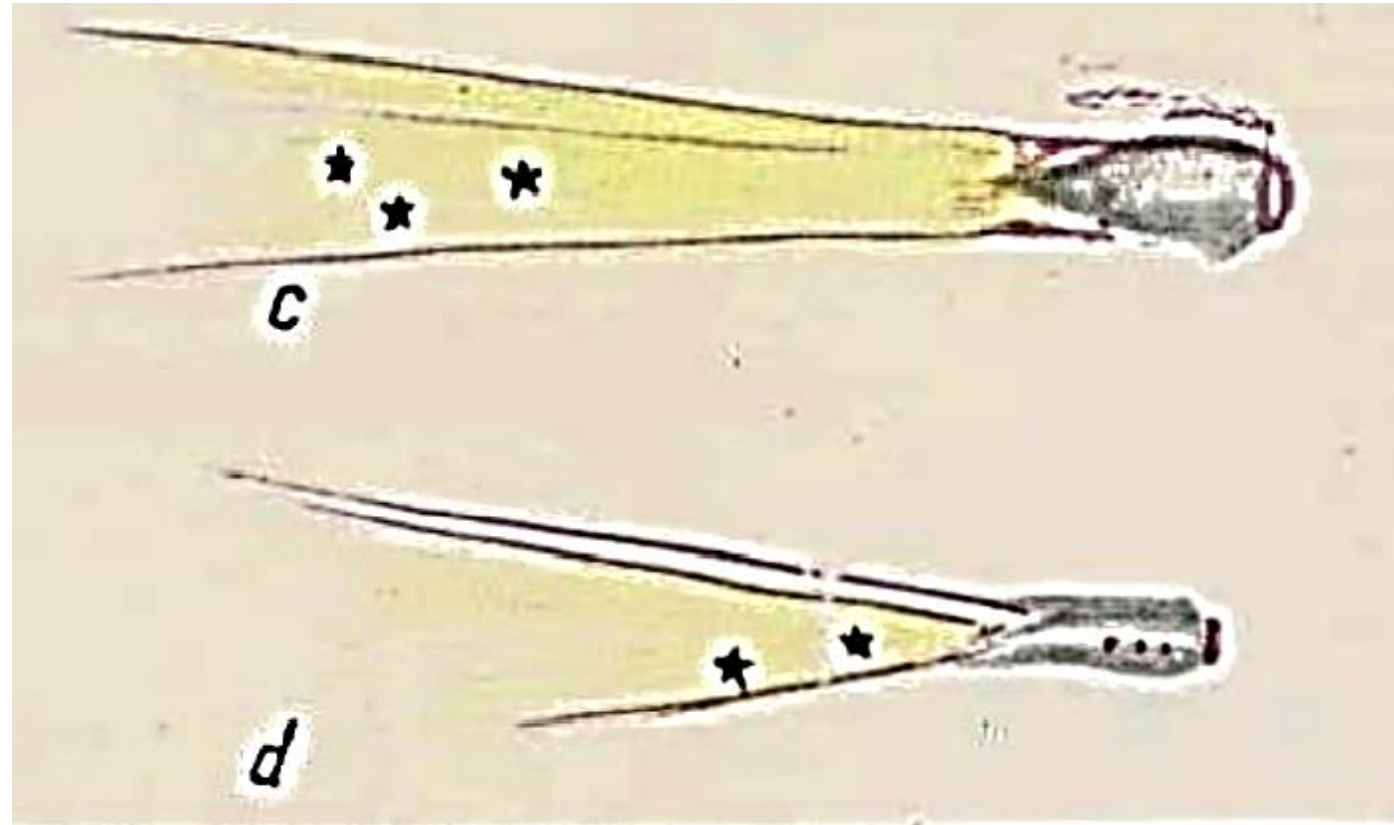
lisaku, Jõgeva, Rapla, Tallinn, Tartu; Russia:
Kuzmolovo, Leningrad, Novgorod, Pskov

1976 Feb 11 15:49	1976-009B	8617	Russia	Cosmos 799 r
----------------------	-----------	------	--------	--------------

[http://satobs.org/seesat ref/Obser/760211-baltic bolide.pdf](http://satobs.org/seesat_ref/Obser/760211-baltic_bolide.pdf)

Mikhail Bortnikov, Sailor “It was 25-30 times bigger than an aircraft, it covered half the sky. Moved slowly, gently and horizontally. Its sound could be heard. Its train was three times longer than itself and it gleamed from red to orange and covered the sky. The cigar was brilliant, and the tail was dull aluminum. On it I noticed some compartments and square hatches.”

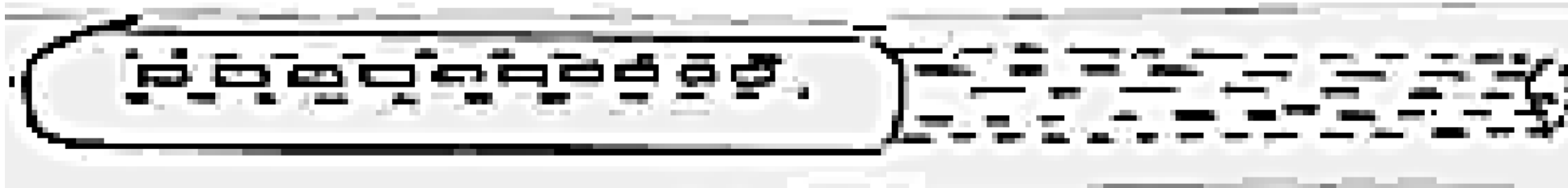
V. Gusca, "Балтийский болид (11.02.76) ", November 25, 2013.
(<http://nectonlab.org/index.php/k2-items/katalog-materialov/info/meteoritika/44-baltic-bolide.html>); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.



Bahamas, Jan 10, 1985 – also Nassau, Spanish Wells, Cherokee Sound; Florida: Miami, Opa-Locka, W. Palm Beach, Vero Beach

http://satobs.org/seesat_ref/Oberg/850111-Bahamas_spaceship.pdf

1985 Jan 11 02:45	1983-049B	14088	Russia	Cosmos 1465 r
----------------------	-----------	-------	--------	---------------



Attrill: "Calculations made based on the arc of sky covered by the object, and its estimated height, placed its length at anything from **around eight hundred feet** - if it was at a height of two thousand feet, to a staggering **half mile in length** at five thousand feet. **Whatever it was it was certainly big!** ...Most other accounts were similar, but some varied in a most interesting way. Patsy Saunders thought she saw **'a huge shiny metal object with lights coming from the sides as if through windows,'** and Anne Parnell on the roof top patio above the Swank Club said it looked like **'the body of a plane, with cabin lights shining.'** Judson Thompson of Village Road and Lionel Symonette of Highland Park independently shared their views. All felt they had seen **an actual shape with lights coming from it** rather than a series of apparently connected but random lights. "

R. Attrill, "Lights in the Sky - a UFO above the Bahamas", at www.motygido.co.uk/bahamas_lights.htm ; J. H. Tolpin, T. Dodson, "Stargazers Mystified As Object Crosses Sky", Sun-Sentinel, Florida, January 11, 1985; "Group Sighting of 400 Foot UFO in the Bahamas – 1985", <http://www.ufotalk.com/group-sighting-of-400-foot-ufo-in-the-bahamas-1985>

"The whole ship had a pulsing 'glow' about it with a strip of what appeared to be windows that changed colors (not hard colors but soft glowing) in a pulsing way. I hate to even say this but they said they could see 'figures, moving' in the 'windows.'"

November 5, 1990 == France

http://satobs.org/seesat_ref/Oberg/901105-French_wave.pdf

MASS SIGHTINGS ACROSS ENTIRE COUNTRY OF LARGE LIGHT-EQUIPPED 'MOTHERSHIP' CRUISING EASTWARD

"Rentree Atmospherique 5 Novembre 1990", GEIPAN, <http://www.cnesgeipan.fr/index.php?id=202&cas=1990-11-01225>;

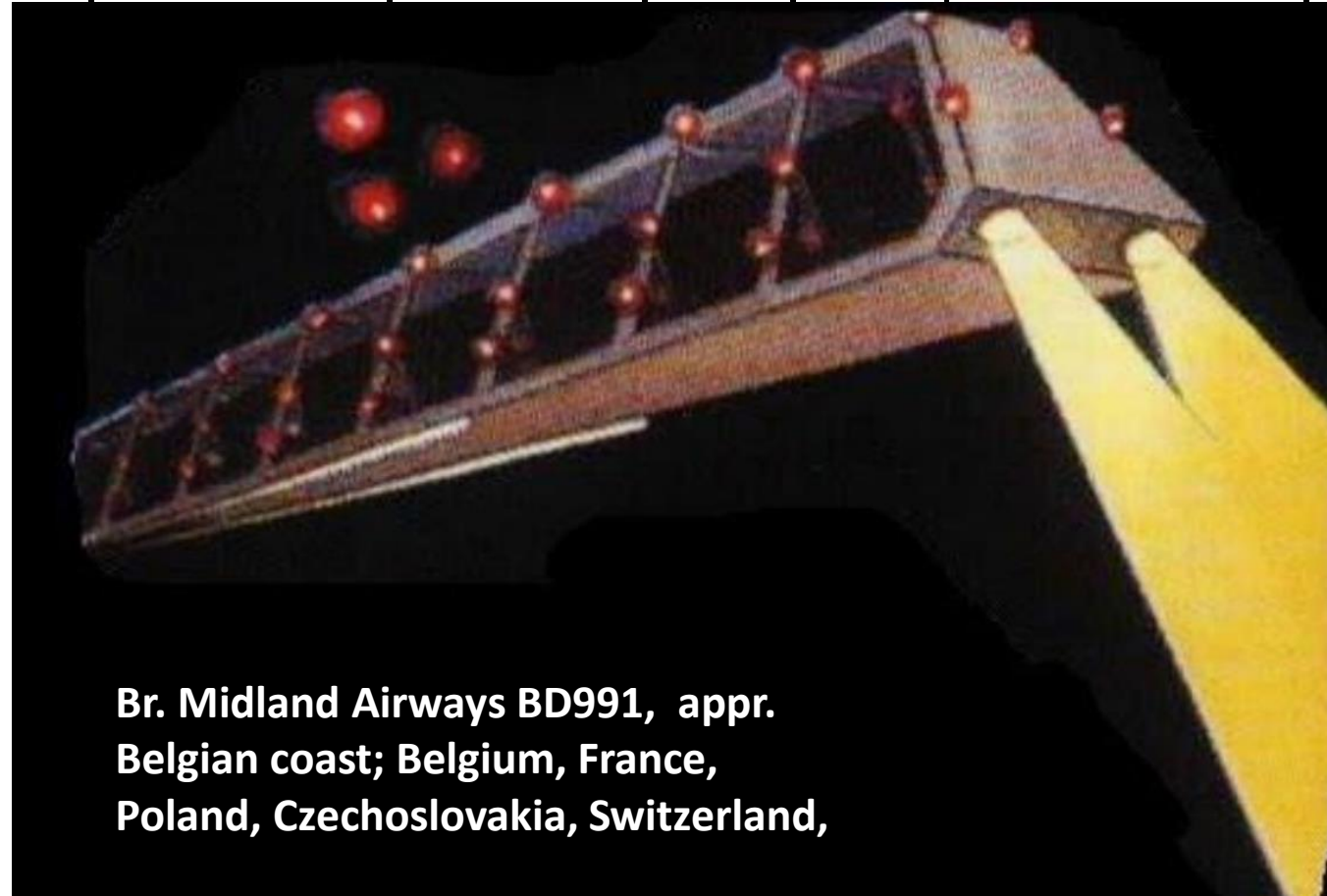
"Analysis of the 1990 UFO reports by British jet fighter pilots", UFONET.NL

(https://web.archive.org/web/20061231233706/http://www.ufonet.nl/nieuws/torna_do/index2.html)

=====

My 1992 letter to MUFON arguing for the satellite reentry explanation: [UFO Flap - James Oberg \(yumpu.com\)](#)

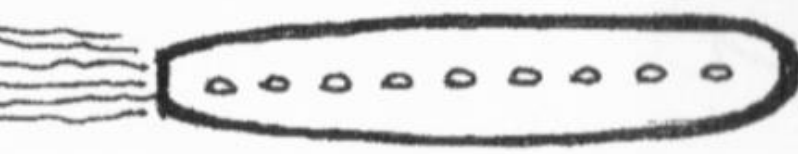
1990 Nov 05 18:00	1990-094C	20925	Russia	Gorizont 21 r
----------------------	-----------	-------	--------	---------------



**Br. Midland Airways BD991, appr.
Belgian coast; Belgium, France,
Poland, Czechoslovakia, Switzerland,**

March 30, 1993 - UK [Cosford]- cosmos 2238 rocket

Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location
1993 Mar 31 00:10	1993-018B	22586	Russia	Cosmos 2238 r	R	11S692	4800	Ireland: Ennis; Wales: West and South; England: Staffordshire, Cornwall, Devon, Somerset, Bristol, Hampshire; France: Rhone Alpes, Midi-Pyrénées, Languedoc-Roussillon; Spain: Catalonia: Portbou, Girona, Torres de Segre, Barcelona, Tarragona



Fireman in Lancashire

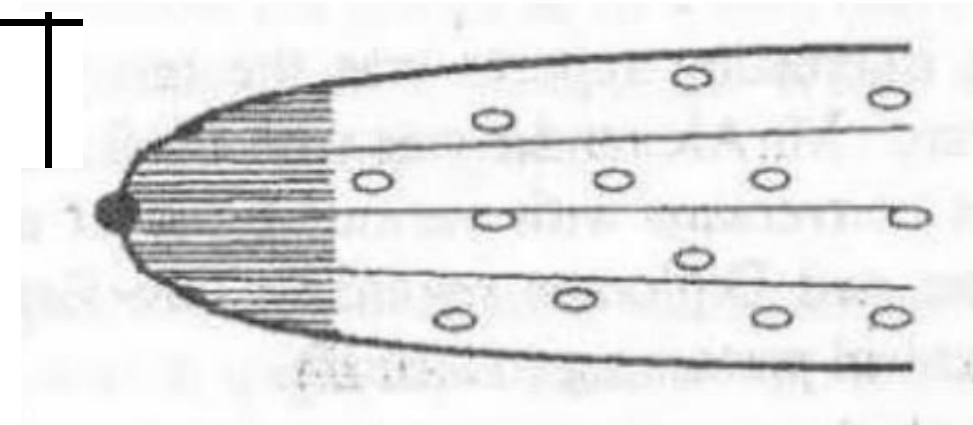


Police officer in Hertfordshire

U.K. MOD Case No. 933 (defe-24-2086.pdf); Nocturnal light sightings in 1993 (<http://thecid.com/ufo/chrono/nl/1993.htm>); G. Anthony, C. Fowler, "UFOs of March 30th/31st 1993 Explained!", Nov 2006 (www.mithrand.karoo.net/index.htm/cosford.htm); J. McGonagle, Cosford (www.uk-ufo.org/cosford/index.html); D. Clarke, The Cosford Incident (drdavidclarke.co.uk/secret-files/the-cosfordincident/); "Los expertos atribuyen la estela que cruzó el cielo de Cataluña a un meteoro o a un satélite", La Vanguardia, Barcelona, Apr 1, 1993:26; "Un cohete ruso causó el fenómeno luminoso del día 31 de marzo", La Vanguardia, Barcelona, Apr 21, 1993:29.

Zimbabwe, Sep 14, 1994 -- towns of Bulawayo, Harare, Hwange, Lake Kariba, Mutare, Zvishavan; also Botswana; South Africa: Johannesburg

1994 Sep 14 18:51	1994-053B	23219	Russia	Cosmos 2290 r
----------------------	-----------	-------	--------	---------------

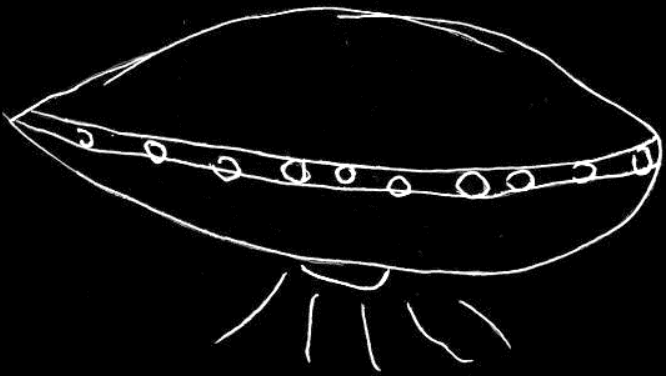


http://satobs.org/seesat_ref/Oberg/940914-africa-pdf1.pdf

- Investigator: “At 21: 10 in Hwange area, near Deka, seven people saw what looked like **a slow-moving aeroplane, as big as a Boeing 747 Jumbo, with cabin lights. It was as low as the tree tops.**”
- Invstigator quotes witness: “I saw **an enormous object with flashing, shimmering, smeary lights**, moving low in the night sky. 'A **faint outline** of a basic Zeppelin-type shape was visible behind the very bright front golden light; the white, bright lights to the rear of the head golden light, at the very rear, were myriads of tiny lights, like satellites, **which sparkled at intervals**, of a red, green, blue and yellow mixture.”

FOX LAKE, YUKON, CANADA DEC 11, 1996

- ... FOX6 was driving in the vicinity of Fox Lake when she noticed a glow on her dashboard that could not be accounted for by the interior illumination of her vehicle. She leaned forward to look up through her windshield and observed **a large arrangement of multi colored lights**. The interior lights in her car started to go dim and the music from her tape deck slowed down.
- ... PEL1 was tending his trapline northeast of Pelly when he observed in the distance to the southwest **a long row of lights** slowly moving over the hills. At first he thought it was a large aircraft coming down. But it was moving much too slowly. "It's a UFO!" As he was walking his flashlight happened to point in the direction of the UFO. As if reacting to his flashlight, the UFO started speeding rapidly toward him. He instinctively cupped the end of his flashlight. As soon as he completed this gesture, the UFO stopped in its track. In a matter of less than a second, it was hovering an estimated 300 yards (275 metres) in front of him!
- ,, At about the same time, PEL2 and PEL3 were travelling northbound just south of Pelly Crossing. To the north they spotted **a huge row of lights** slowly moving from left to right.

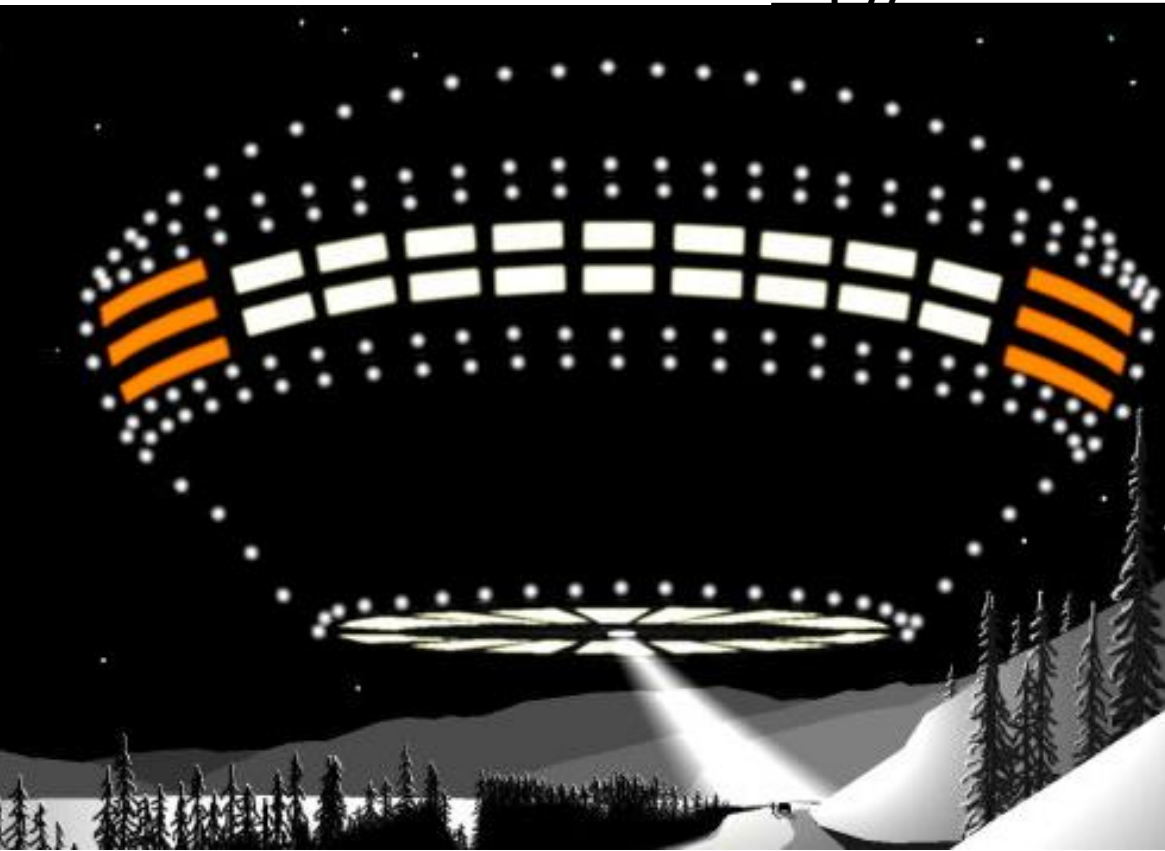


YUKON DEC 11, 1996

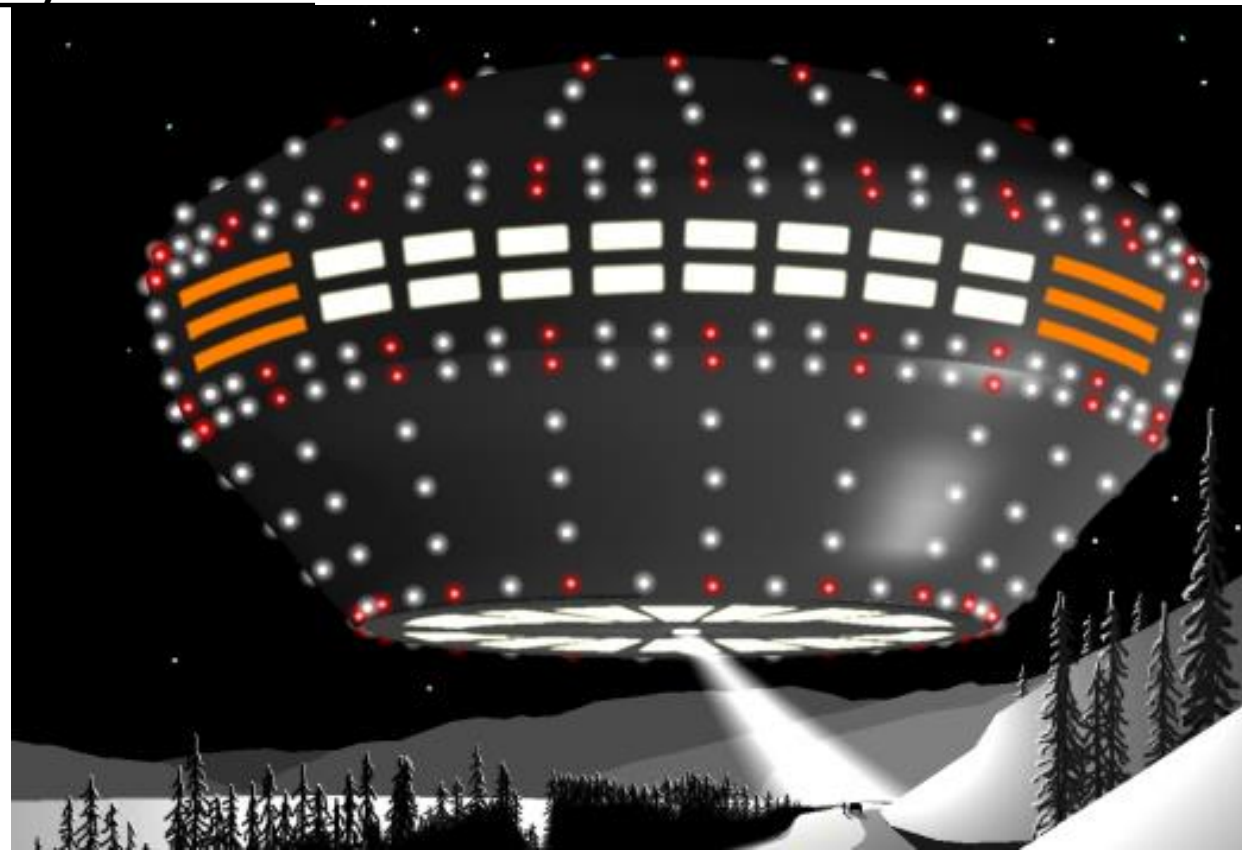
Original sketch
versus improved
later drawings



<http://www.ufobc.ca/yukon/22index.htm>



feb 2021



REENTRY FIREBALL SWARMS AS UFOs

42

September 1, 1999 Russian comsat booster reentry over California

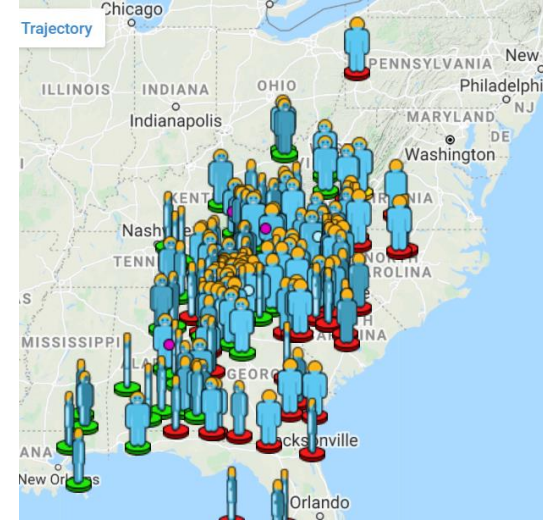
My contemporary article on this:
http://www.jamesoberg.com/space_vehicles_arrive_but_whose.pdf



1999 Sep 02 04:25	1999-010E	25761	Russia	Raduga 1-4 SOZ	H	115861 SOZ	100%
----------------------	-----------	-------	--------	----------------	---	------------	------

California, Nevada,
Oregon, Washington

Eastern US [Georgia to W. Virginia]
June 29th, 2015 [01:28 EDT]
Soviet “Cosmos 606” rocket body
international designator 1973-084D



NUFORC: “...a bizarre looking, disc-shaped, metallic-appearing craft cross the highway in front of their vehicle. The husband, who has 15 years of service in the military, estimated that the object to have been perhaps as long as 250 meters in length [and approximately flying 200 feet in altitude]. He also reported that it was “spewing” flames out the trailing edge of the disc. The object appeared to accelerate, ascend, and then it quickly disappeared in nearby clouds.”



Summary

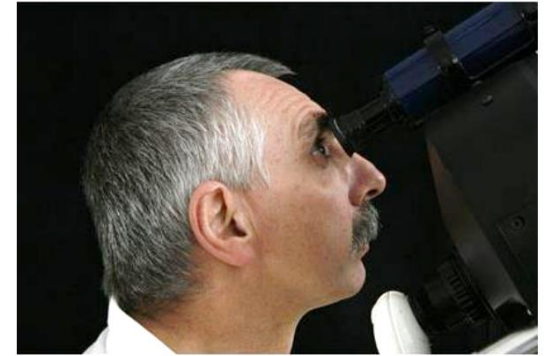
- Across all the Hawaiian islands, an **astounding sky apparition** caught thousands of startled witnesses by surprise on the evening of Saturday, October 24, 2020.
- Dozens of videos were made, and posted on the Internet. **At first, zero drawings.** [two were finally obtained by direct email request]
- The apparition **was caused by the predicted natural orbital decay and spacecraft demise** of a large piece of 'space junk', the third stage of a Chinese rocket booster that had commercially launched a Venezuelan communication satellite in 2008.
- The patterns of eyewitness misperception and misinterpretation of this exactly same phenomenon **match those of previous incidents** dating back to 1963, at the dawn of the Space Age..
- The eagerness with which UFO-related interpretations spread across the Internet, along with vehement rejection of the rational prosaic cause, sadly **reflects a continued reality-defiant corner** of popular culture and significantly diminishes the chances of genuine progress in understanding potentially extraordinary [or deliberately concealed] causes of **other strange reports.**

conclusions

1. Personal observations of unusual and enigmatic sky phenomena remain **a critical engine behind some potentially new scientific insights**, and always will be.
2. The better we appreciate the full range of visual mission phenomena in spaceflight, the better understanding and judgment we'll have to be able **to isolate and zoom in** on the most promising 'unknowns'.
3. Events such as this one [and earlier similar events] sadly reveal widespread public misunderstanding of fundamental features of spaceflight, but that identifies areas needing better person-to-person outreach that everyone can contribute to..
4. This is a 'fixable' problem but the remedy isn't top-down, It's bottom-up,.
5. For 'UFO studies' this very specific category of reports **is a dead end** in terms of the legitimate ongoing search for evidence, but may yet serve to advantage [with other missile-UFO misidentifications] as **a useful calibration** of eyewitness testimony of similar future apparitions -- and a cautionary tale for future events..
6. From all angles, these insights involve not hi-tech science labs but man-in-the-street interactions to overcome these barriers. **It humanizes the heart of research on these topics and offers productive roles to everyone who feels curiosity.**

Visually Observed Natural Re-entries of Earth Satellites

Compiled by Ted Molczan



http://www.satobs.org/reentry/Visually_Observed_Natural_Re-entries_latest_draft.pdf

It can also be accessed via the following web page, along with some individual case reports:

<http://www.satobs.org/decay.html#reentrysightings>

The comprehensive set of web pages that I intend to be the final product of this research will include general information on the science of re-entries and reports on selected individual sightings. A working prototype of the latter is the identification of David Biedny's childhood UFO sighting in Venezuela in 1974, which he and his brother disclosed on the Paracast in 2006: <http://satobs.org/reentry/1974-060B/1974-060B.html>

Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
2018 Jan 27 23:32	2017-086D	43090	Russia	Angosat 1 r	R	Zenit-3SLBF	?	Brazil: Acre: Rio Branco, Tarauacá, Feijó, Cruzeiro do Sul, Porto Walter, Rodrigues Alves, Marechal Thaumaturgo; Peru: Huancané, San Antonio de Putina, Azángaro, Ucayali, San Martín. Debris: 5 pieces found in Puno; one or more near San José, Ninanuyo, Larancahuani and Catacora.	L. Cesar, "Clarão no céu assusta moradores do Acre," G1 AC, Rio Branco, Jan 28, 2018. (https://g1.globo.com/ac/acre/noticia/clarao-no-ceu-assusta-moradores-do-acre.ghtml); "PUNO: EXTRAÑO OBJETO SURCA LOS CIELOS Y ALARMA A LA POBLACIÓN," Panamericana Televisión S.A., Lima, Peru, Feb 4, 2017. (https://panamericana.pe/24horas/nacionales/239668-puno-extrano-objeto-surca-cielos-alarma-poblacion)
2018 Mar 10 05:30	2017-078B	43040	China	Alcomsat 1 r	R	CZ-3B Stage 3	4000	Chile, Argentina, Paraguay, Brazil	ABC Color, "Satélite chino causó revuelo," Mar 10, 2018. (http://www.abc.com.py/nacionales/satelite-chino-causo-revuelo-1682271.html); Télam, "Restos de un cohete chino cruzaron el cielo esta madrugada," Mar 10, 2018. (http://www.telam.com.ar/notas/201803/258321-cohete-chino-formosa-destellos-noche.html)

APPENDIX 2 – Report on the perceptual complexities of assessing accuracy of witness recollections of sudden startling unfamiliar events

“Space Re-Entry Stimulus as CE-3 Generator: The Example of a December 12 1987 case”... Gilles Fernandez // July 2016

“CE-3” refers to ‘Close Encounters of the 3rd Kind’, or alien beings

- INTRODUCTION: Cognitive psychologists generally regard perceiving and remembering as **constructive processes** in which, for example, an internal representation of an external three-dimensional object is "constructed" **on the basis of** the often shifting, ambiguous, or incomplete information **available in memory** or in the two-dimensional perspective projection incident on the sensory surface (Gregory 1970; Neisser 1967; Shepard 1975). The more inadequate the external stimulus or the memory trace of such a stimulus, the more the internal representation of that stimulus **will reflect tendencies of the mind rather than properties of the stimulus.**
- When we **do not know** what we see, or if we already **believe we know** what we will see, then **our perception can be easily distorted**....
- <http://skepticversustheflyingsaucers.blogspot.com/2015/01/space-re-entry-stimulus-as-ce-3.html>

RELATED WITNESS [MIS]PERCEPTIONS OF SPACE/ROCKET EVENTS

- Jimmy Carter 'UFO' was NASA 'barium rocket'
<http://www.debunker.com/texts/200829%20barium-carter.pdf>
- Top Soviet 1967 'UFO Flap' was space-to-ground warhead tests
http://satobs.org/seesat_ref/misc/soviet_1967_wave.pdf
- 1970s-1980s South American UFOs caused by Russian space launches
http://satobs.org/seesat_ref/misc/molniya_clouds_over_south_america.pdf
- Space Age 'space clouds' from worldwide rocket launches
http://satobs.org/seesat_ref/misc/Space_clouds-Strange_Spinoff_of_the_Space_Age.pdf
- California missile/rocket launches spark UFO reports
http://satobs.org/seesat_ref/misc/misperceiving_missiles.pdf
- Nov 07, 2015 Trident SLBM launch off California
http://satobs.org/seesat_ref/misc/151107-cali_slbm_witness_analysis.pdf
- Norway Dec 2009 'spiral UFO' was missile test
<http://www.astronautix.com/data/norwayspiral.pdf>
- Australia June 2010 'spiral UFO' was Falcon9 rocket
http://satobs.org/seesat_ref/misc/180314-falcon9s2-australia.pdf
- China July 2017 UFO was military missile test
<http://jamesoberg.com/china/>
- July 2, 2017 China's Long March 5 launch failure seen from Philippines
http://satobs.org/seesat_ref/misc/18_chisat_fail_phil_final_draft.pdf

MORE WITNESS [MIS]PERCEPTIONS OF SPACE/ROCKET EVENTS

- September 20, 1977 -- Petrozavodsk "Jellyfish UFO" solved
<http://www.jamesoberg.com/ufoosm-petrozavodsk.PDF>
- SpaceX Falcon9 upper stage plumes
http://satobs.org/seesat_ref/misc/zuma_vs_falcon9-stage2_clouds_plumes_overview.pdf
- Florida Twilight Phenomenon of Atlas Rocket Launch, Sep 2, 2015:
http://satobs.org/seesat_ref/misc/190502-ksc-2015sep02.pdf
- Russian 'spiral UFO' from routine rocket launches
http://satobs.org/seesat_ref/misc/tomsk_spiral_ufo_2006.pdf
- Dec 22, 2017 Falcon 9 VAFB launch
http://satobs.org/seesat_ref/misc/Dec_22,_2017_falcon-9_Vandenberg_launch.pdf
- Public misinterpretations of the SpaceX launch on October 7, 2018:
http://satobs.org/see.../misc/20181007-mass-reports_1128.pdf
- FH [falcon heavy] escape burn to Mars Feb 06, 2018 observed from SW USA
http://satobs.org/seesat_ref/misc/180206_fh_s2_burn3_d2.pdf
- Russian warhead tests and 'spiral UFOs'
http://satobs.org/seesat_ref/misc/191128-kyss17_D_no-appx.pdf
- Oct 26, 2017 ICBM launch over Siberia
http://satobs.org/seesat_ref/misc/171027-siberia.pdf

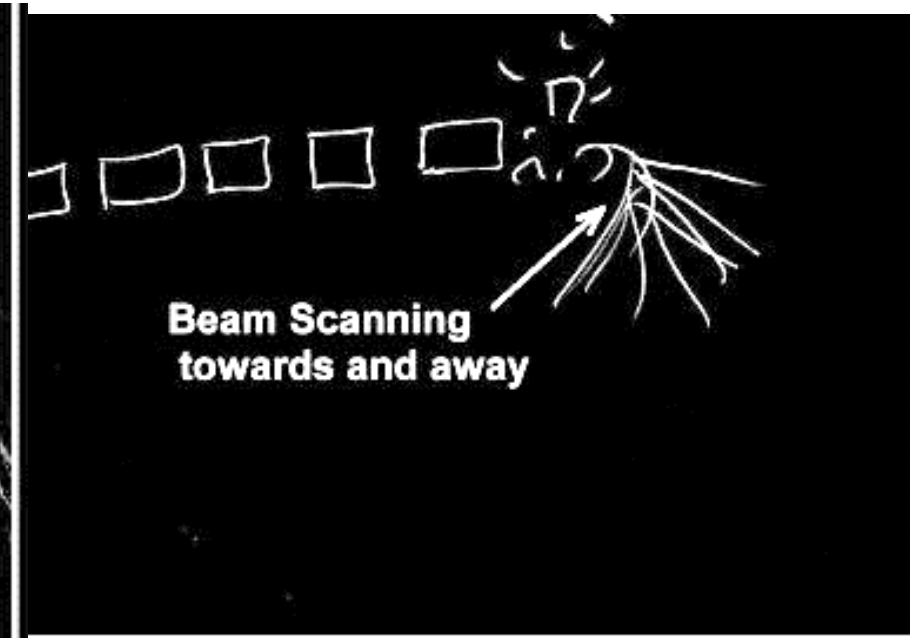
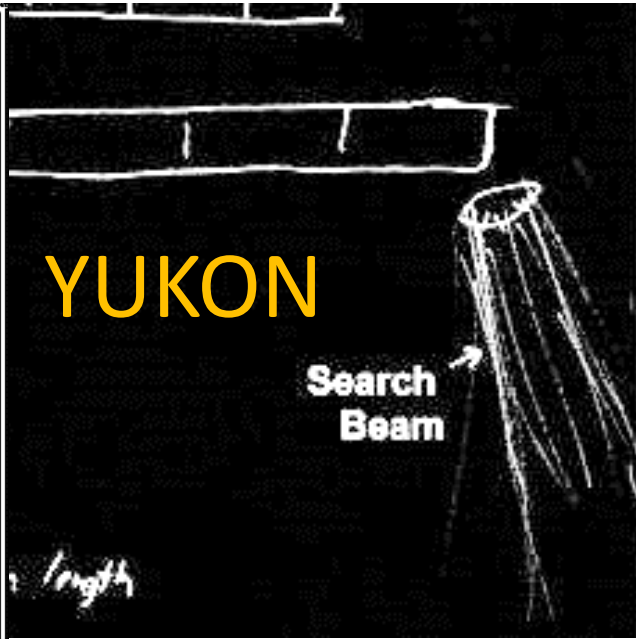
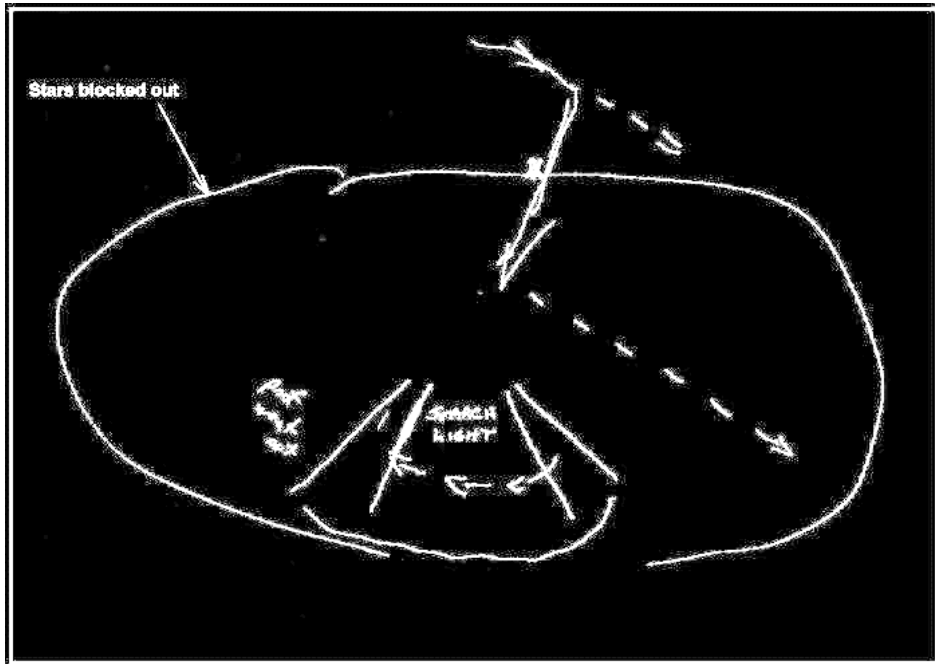
OPEN QUESTION – **WHAT ELSE** ARE THE DATA TRYING TO TELL US THAT WE DIDN'T EXPECT?

Rarely, witnesses to satellite reentry fireball swarms report the apparent object was projecting **SEARCHLIGHT BEAMS**, sweeping the skies near them and ground below.

One clue MIGHT be that the reentries that create the most dramatic apparitions are NOT run-of-the-mill satellites. Once Ted Molczan and I got a long-enough candidate list of 'best' reentry-UFO perceptions, I noticed they were almost all Russian upper stage rockets. Not payloads or window covers or jettisoned trash cans, but big, hulking conglomerations of engines, heavy support bracing, and tanks -- many of which might be not entirely empty. Would they, as they heated during descent, spray fluids through broken valves or hull cracks

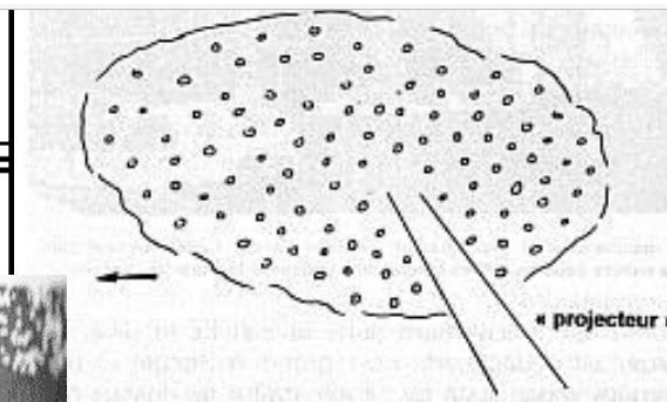
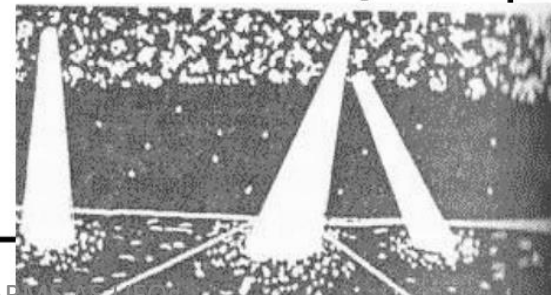
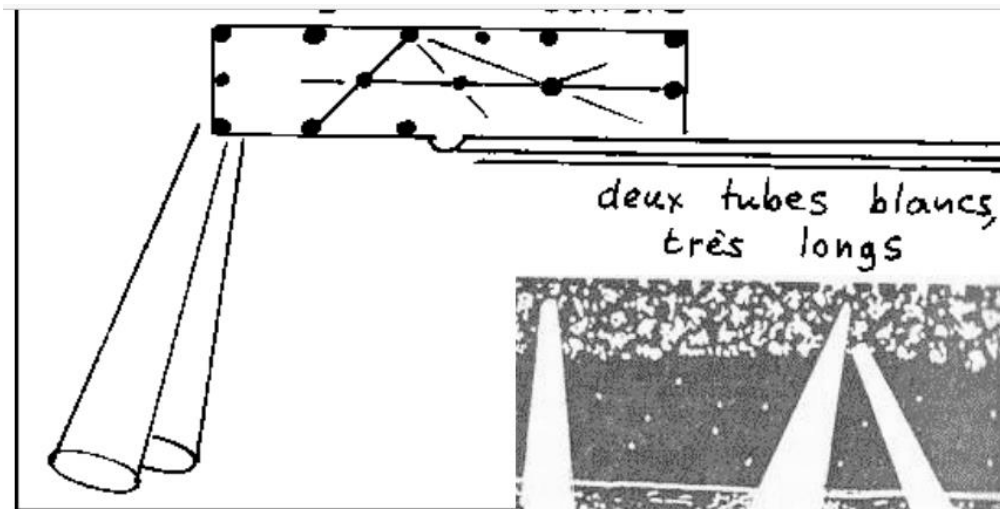
And that far up, near the Karman Boundary [80-100 km] there isn't enough air to be visible in a light beam, it has to be something MATERIAL – but since these events were in Earth's shadow, what was illuminating the 'beams'?

This is an **unpredicted and so far inexplicable feature** that the DATA has insisted we accept as REAL whether it's in accord with our going-in models or not. **That's what I find so wonderful about raw data when assessed scrupulously -- it can slap you in the face with surprises.**



WITNESS SKETCHES FROM YUKON [1996] AND FRANCE [1990] BOOSTER REENTRIES

OCCASIONALLY-OBSERVED & UNEXPLAINED 'SEARCHLIGHT' FEATURE, POSSIBLY DUE TO FUEL TANK VENTING FROM ROCKET STAGES THAT WERE ONLY RECENTLY-LAUNCHED



FRANCE

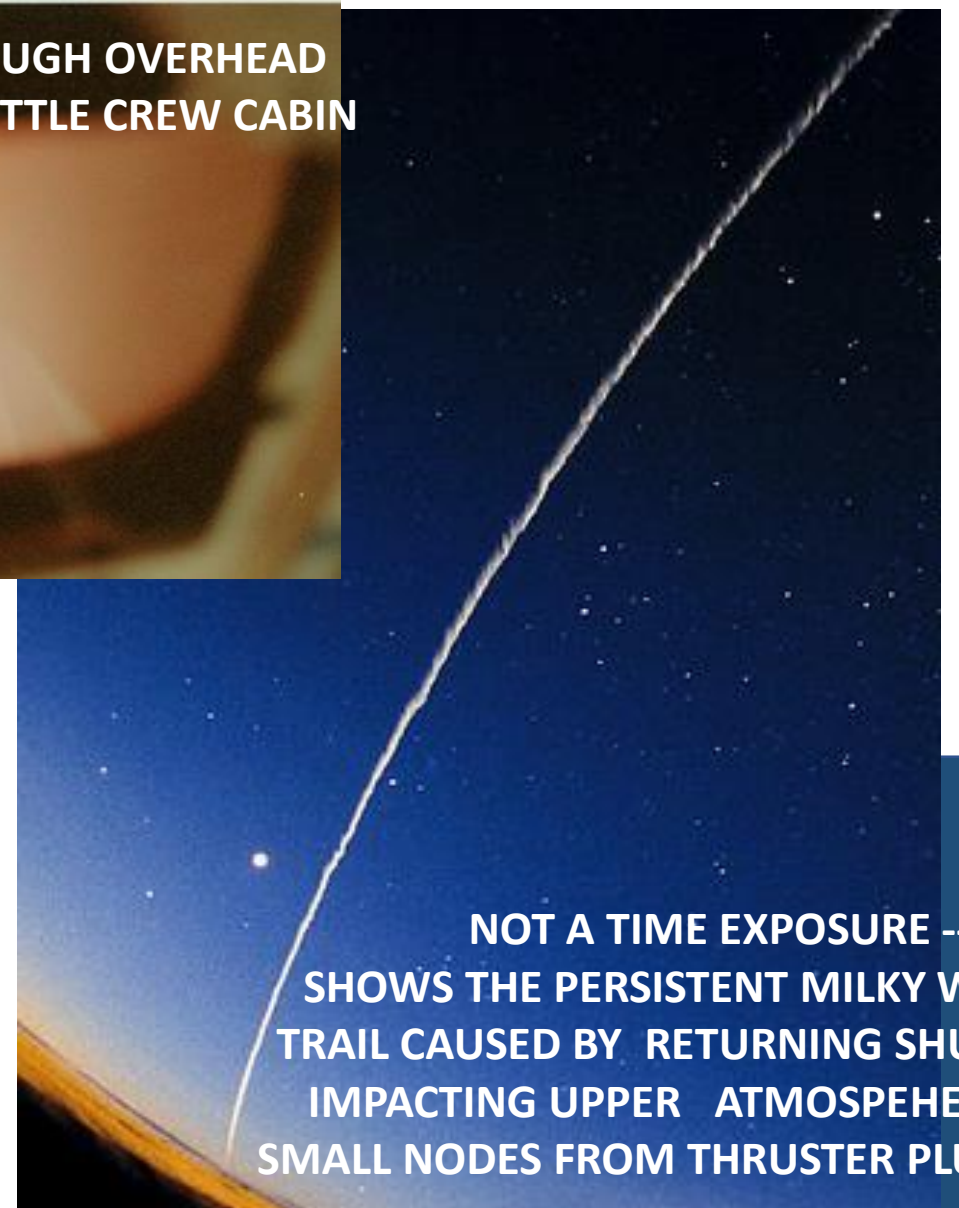
OTHER EXAMPLES OF REENTRY-INDUCED CHEMOLUMINESCENCE?

THESE ARE NOT SMOKE PLUMES OF VEHICLE COMBUSTION PRODUCTS, THESE ARE RESULTS OF MECHANICAL HIGH-SPEED IMPACT WITH IN SITU ATMOSPHERIC COMPONENTS AT ALTITUDES APPROX 60-80 KILOMETERS.

RIGHT: OBSERVATIONS OF SHUTTLE AND PLUMES IMPACTING ATMOSPHERE DURING RETURN FROM ORBITAL FLIGHT [P. MALEY]

BELOW: OBSERVATION OF SOVIET ORBITAL WARHEAD FORWARD-FIRING BRAKING PLUME HITTING ATMOSPHERE AT ABOVE ORBITAL VELOCITY, CREATING GLOW. [F. ZIGEL]

TRAIL VIEW THROUGH OVERHEAD WINDOW OF SHUTTLE CREW CABIN



NOT A TIME EXPOSURE -- THIS SHOWS THE PERSISTENT MILKY WHITE TRAIL CAUSED BY RETURNING SHUTTLE IMPACTING UPPER ATMOSPHERE, & SMALL NODES FROM THRUSTER PLUMES



OPEN QUESTION!

OBSERVING U.S. MANNED ORBITING SPACECRAFT, by Paul Maley

<https://pauldmaley.com/shuttle/>

MALEY DISCUSSED **THE POSSIBLE CAUSE OF WHITE GLOW IN THE TRAIL OF SPACE OBJECTS ENTERING THE ATMOSPHERE.** COULD AN EJECTED PLUME OF FREE GAS MOLECULES [FROM LEFTOVER FUEL] AT THE SAME VELOCITY PRODUCE A SIMILAR GLOW AND 'LOOK LIKE' A 'SEARCHLIGHT' AS OBSERVED ON SOME UPPER STAGE ENTRIES? **CAN ANYBODY PURSUE THIS CLUE SOMEWHERE?**

“Also apparent [on STS-11] in the photos were series of equally spaced knots in the trail. The knots were spotted naked eye but were more distinct in the images. Persistence of the wake was most remarkable even after 30 or 40 seconds had elapsed. ... **The unusual persistence of the Orbiter reentry glow was a very unexpected feature.** Several possible explanations arose. The basic premise is that the orbiter is a blunt-nosed spacecraft traveling through an oxygen-nitrogen atmosphere at high speed. Peak heating occurs when a velocity of 24,000 ft/sec is reached. There is no ionization. Heating is due mainly to collisions between molecules which recombine into excited states producing visible radiative transitions. The **more likely cause** was isolated **to chemiluminescence**, a source of radiation caused by the meeting of O atoms and NO molecules. A spacecraft traveling faster than sound leaves NO in its wake. The O attaches to NO and becomes NO₂. One out of 5 attachments leads to visible radiation....”

- More on ET reentry observations: <https://forum.nasaspaceflight.com/index.php?topic=8293.0>

1. WATCH THE SKIES

2. KNOW HOW TO MEASURE ANGLES, DIRECTIONS,
DURATIONS

3. DOCUMENT ANOMALIES SOON AND
THOROUGHLY

4. REGISTER THEM WITH APPROPRIATE PRIVATE SKY-
OBSERVATION GROUPS

5. GO BACK TO STEP 1