

# “KYSST-15” == Kapustin Yar to Sary Shagan Topol Launch #15 [with comparison to #14]

2017 Dec 26 // ~03:30 UTC



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REVIEW DRAFT 3 [FINAL]

2018 Jan 23



# Volgograd Region media highlights 25-31 Dec 17

Caversham *BBC Monitoring* 23:59 UTC Dec 31, 2017

Volgograd Region residents could witness an intercontinental ballistic missile flying over the area, V1.ru news agency reported on 26 December. The Defense Ministry confirmed a test launch of the Topol intercontinental ballistic missile from the Kapustin Yar range in Astrakhan Region. Test tracks and onsite measurement system at the Kapustin Yar range make it possible **to test combat equipment that is capable of penetrating an air defence system across the whole spectrum of possible conditions** for its delivery to targets in the interests of the Strategic Missile Troops and the Navy (V1.ru news agency, Volgograd, 1441 gmt 26 Dec 17; photo at: <http://v1.ru/text/gorod/380554671628288.html>)

# OVERVIEW

KYSS-15

New activity in a fascinating decade-old Russian test program of defense-penetrating ICBM warheads aboard retired ICBMs from Volga launch site

Almost a year after previous flight [last launch 2016 Dec 24], two flights in quick succession [2017 Sep 27 and 2017 Dec 26]

Previous patterns of widespread dashcam/pocketcam observations [usually categorized as UFOs] continued; BOTH were widely seen and recorded

First ever imagery of internal structure of plume spray [illumination effect?]

Unusually, both launches did NOT give launch time

Unusually, KYSS-15 press release did not mention Sary Shagan target zone

MOST UNUSUALLY, after half of previous tests flown in post-SUNSET twilight, for the first time KYSS-15 was flown in pre-DAWN twilight

This allowed new observation areas far to the west to observe/record events nobody there had ever seen before [including time-tagged all-sky cameras]

# “CLASSIC” KYSST visual phenomena

Flight profile apparently unchanged, three distinct flight phases:

ASCENT - nominal first and second stage [two minutes],  
leaving narrow ascent plume that quickly kinks from winds,  
three minute coast [crosses half the sky while invisible],

DESCENT - third stage fires 65 seconds canted downwards to impact test range

WARHEAD BUS SPINUP – Several-seconds firing creates brief spiral  
followed by rapid plume enlargement and dispersal into invisibility



Descent plume spray created sharp-edged triangular fan that reached >200 km in length

Upper portions of plume spray were ejected with substantial vertical component that allowed significant altitude gain before falling back into atmosphere

Standard plume shadows from missile body structures [particularly back end ‘hole’] very clear

THIS TIME == Post-stage3-burn spiral [probably warhead bus spin-up], seen from behind through engine plume into brightening dawn, so was harder to observe but was still present



# KY-SS Topol tests family

1. 2005 Nov 01 1710 gmt +3 [sunset + 4h33m]
2. 2007 Dec 08 14:43 gmt +3 [sunset + 1h41m] [-024°]
3. 2009 Dec 10 1235 gmt +3 [sunset + 34m] SEEN [-005°]
4. 2010 Dec 05 1911 gmt +3 [sunset + 7h09m]
5. 2012 Jun 07 1739 gmt +4 [sunset + 43m] SEEN [-004°]
6. 2013 Oct 10 1339 gmt +4 [sunset - 39m] SEEN +ISS
7. 2013 Dec 27 1730 gmt +4 [sunset + 4h33m]
8. 2014 Mar 04 1810 gmt +4 [sunset + 3h25m]
9. 2014 May 20 1708 gmt +4 [sunset + 31m] SEEN [-003°]
10. 2014 Nov 11 ??? +3 [rumored failure] sunset = 1323
11. 2015 Aug 22 1513 gmt +3 [sunset - 45m] SEEN
12. 2015 Nov 17 1212 gmt +3 [sunset - 1h04m] SEEN
13. 2016 Dec 24 1755 gmt +3 [sunset + 4h49m]
14. 2017 Sep 26 15:28 gmt ?? [sunset + 42m] SEEN [-006°]
15. 2017 Dec 26 03:30 gmt ?? [SUNRISE - 1h18m] SEEN [-012°]

KYSS-15

PARENTHETICAL NUMBER IS SUN ELEVATION ANGLE [NEGATIVE MEANS BELOW HORIZON] SHOWING WHY SOME WERE SUNLIT AFTER SUNSET. 5° = 15 km, 10° = 80 km, 25° = 600 km

# Interview with RSVN [Strategic Missile Troops] CDR Colonel General Sergey Viktorovich Karakayev

*Krasnaya Zvezda Online*, Dec 14, 2017 -- [Interview with Karakayev prior to Strategic Missile Troops Day, by Dmitriy Andreyev & Igor Zotov titled "17 December Is Strategic Missile Troops Day": "Nuclear Shield Is Reliable: Its Mobile and Fixed Components Supplement One Other"]....

- **[KZ] How many missile launches did the RSVN conduct in 2017, how many are planned in 2018, and what are their features?**
- **[Karakayev]** There were five missile launches in 2017, one more is planned, and it is planned to carry out 12 launches in 2018.
- **[KZ] Why is the Topol missile complex being used for testing advanced warheads?**
- **[Karakayev]** The Topol missile itself has the principal technical characteristics similar to the Yars missile. Therefore using a delivery vehicle subject to recycling based on service life and recycling it by the launch method substantially reduces the cost of flight testing the warheads.
  - Сколько РВСН проведено в 2017 году пусков ракет, сколько запланировано в 2018 году и каковы их особенности?
  - В 2017 году проведено 5 пусков ракет и ещё один запланирован, а в 2018 году намечено провести 12 пусков.
  - Почему для испытаний перспективного боевого оснащения используется ракетный комплекс «Тополь»?
  - Сама ракета «Тополь» имеет основные технические характеристики, схожие с ракетой «Ярс». Поэтому использование подлежащего утилизации по срокам эксплуатации носителя и его утилизация методом пуска существенно снижает стоимость лётных испытаний боевого оснащения.

**DEC 14 PREDICTION**

**“one more is planned”  
and twice as many in ‘18**

# "Yuriy Solomonov: The Bulava, Topol, and Yars Will Penetrate Any Missile Defense"

*Rossiyskaya Gazeta* // Dec 2, 2017 // by Sergey Ptichkin

**For Russian strategic rockets, missile defense does not exist. The Bulava, Topol, and Yars will penetrate any missile defense. This was confidently asserted by Yuriy Solomonov, the chief designer of the Topol-M and Yars ground-based missile systems.**

Yuriy Semenovich Solomonov, a Russian Academy of Sciences member and Hero of the Russian Federation [RF], is one of the creators of the homeland's strategic missile weaponry. He was formerly head of the Moscow Institute of Thermal Technology and was its chief designer. The Strategic Missile Troops' [SMT] ground-based mobile systems were and are being built under his supervision. His opinion is very authoritative.

In recent years, the United States has been actively rolling out its own missile defense worldwide. The EuroPRO is being deployed in immediate proximity to the RF's borders. To what extent is that system able to protect the West in general and the United States in particular, against a possible missile counterstrike by Russia's SMT? A strike [by us] can only be retaliatory -- we have not been, and will not be, the first to attack anyone. In Yuriy Solomonov's opinion, neither the United States' nor Europe's missile defense boasts any protective function. They are not weapons, but a political instrument.

According to Yuriy Solomonov's firm conviction, the United States has no effective missile defense, either mobile or stationary. All our land- and sea-based strategic missiles, according to repeatedly made calculations, overcome missile defense systems with a probability that is close to level one [maximum].

# Report organization:

KYSS-15

- Appearance of KYSS-15
- Consequences of NEW solar illumination direction
- All-sky cameras and the puzzle of plume spray max altitude
- More details on KYSS-15
- Ascent phase of recent KYSS missions
- Spiral phase
- Brief description of 'standard' KYSS-14
- Was KYSS-14 observed by cosmonauts on ISS?
- Appendix 1 – Links to Oberg reports on previous observations
- This report assumes reader familiarity with earlier summation reports [http://satobs.org/seesat\\_ref/misc/KYSS-12.pdf](http://satobs.org/seesat_ref/misc/KYSS-12.pdf)
- and December 2016 -- <http://www.jamesoberg.com/KYSS-13.pdf>

# FIRST OFFICIAL MOSCOW NOTICE ... 11:23 UTC

- **EXPERIMENTAL DATA OBTAINED IN TOPOL ICBM LAUNCH TO BE USED FOR DESIGNING EFFICIENT WAYS OF PENETRATING MISSILE DEFENSES - RUSSIAN DEFENSE MINISTRY [headline only]**
- Moscow *Interfax* English Service, 11:23 UTC Dec 26
- **Russia tests perspective armament for Topol ICBM**
- December 26, 14:50 UTC+3  
**On December 26, a combat team of the Strategic Missile Force test-fired an RS-12M Topol intercontinental ballistic missile**
- More: <http://tass.com/defense/983101>

# FULL ANNOUNCEMENT

KYSS-15

- MOSCOW (Interfax). Dec 26 15:18 UTC - The Russian Strategic Rocket Forces (RVSN) test fired a Topol intercontinental ballistic missile (ICBM) on Tuesday to use the data obtained to develop a warhead capable of efficiently overpowering missile defenses, the Russian Defense Ministry said.
- The missile was test fired from the central joint-force test range in Kapustin Yar, the Arkhangelsk [*JEO: sic! Mistaken reference to Plesetsk*] region, it said. "The objective of the launch was to test a prospective warhead for intercontinental ballistic missiles," it said.
- "The test provided experimental data that will be used to develop efficient means to overpower missile defenses and equip a prospective class of Russian ballistic missiles with them," it said.
- The Kapustin Yar range's test tracks and measurement system permit testing warheads capable of overpowering missile defenses, including "their prospective types, within the entire range of their possible delivery in the interests of the Strategic Rocket Forces (RVSN) and the Navy."



НЛО? Или Дед Мороз?)))в небе над новолипецком



Evgeny Podugolnikov

EVEN BEFORE ANY  
OFFICIAL NOTICE  
THERE WERE SOCIAL  
MEDIA REPORTS OF  
A PHENOMENON IN  
THE PREDAWN SKY

## FIRST NOTICE

Evgeniy Podugolnikov, age 28  
Lipetsk [SE of Moscow]

[major error in date/time  
“Dec 25, 2017 at 11:25 pm”

was Dec 26 at 03:30 UTC]

{posting time ~ 04:30 UTC}

НЛО? Или Дед Мороз?)))

В небе над новолипецком.

UFO? Or Santa Claus?

In the sky over Novolipetsk.

JEO: This the first visual  
observation from this far into  
northwest Russia [almost to  
Moscow] I’d ever heard of

[https://vk.com/podugolnikov\\_evgeny](https://vk.com/podugolnikov_evgeny)

# UFO traverses night sky over western Russia (VIDEO)

Published time: Dec 26, 2017 08:22 MT [05:22 UTC]

- A UFO in the form of a ball of light slowly traversed the night sky over the western Russian city of Lipetsk before exploding in mid-air. The mystery object's flight was caught on camera by a number of eyewitnesses.
- A mystery light-ball trailing in the sky above Lipetsk in Russia's west, was spotted by local residents on Tuesday evening, according to social media posts which called the object "a UFO."

Videos uploaded to Russian social network VKontakte show the mystery flying object leaving a bright tail of light.

- The UFO was visible in all parts of Lipetsk, social media users wrote.
- *"First, there was a bright spot in the sky, then came the light – similar to that of a spotlight – and then it exploded. What was it?"* one user asked.
- Some opined that the mystery light ball was actually a ballistic missile launch or a stage that had separated from a space rocket.
- Others argued it was an emission coming from a nearby steelmaking plant. *"Take a deep breath,"* another user wrote.

<https://www.rt.com/news/414244-ufo-lightball-spotted-russia/>





**Jonathan McDowell** ✓

@planet4589

Follow



Russia launched a Topol rocket from Kapustin Yar on Dec 26; this was probably responsible for the rocket plume observed in E Europe at about 0330 UTC. These Topol tests usually go to the Balkash test range in Kazakhstan for tests of a new reentry vehicle

7:09 AM - 26 Dec 2017

10 Retweets 17 Likes



↻ 10



17

Western private  
space observers  
quickly noticed  
something was up.

Jonathan's Space Home Page

KYSS-15

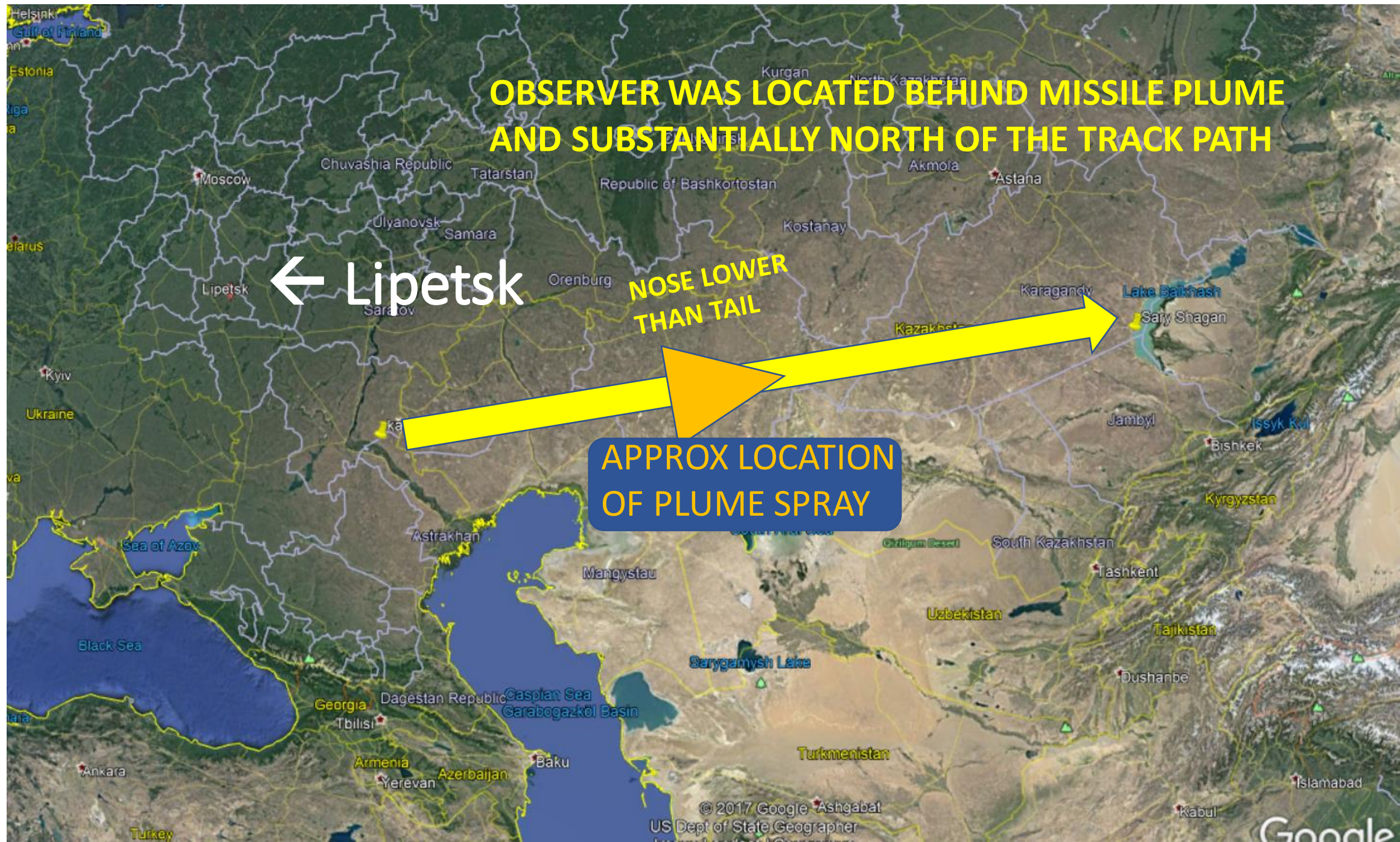


- On these pages, you can find extensive data on the history of space exploration organizations which have helped me. I issue an irregular (approximate historical record of the space age. (Speaking of pedantry, see [my spelli](#)
- I am interminably working on a book on the history of the space program
- [Jonathan's History of Spaceflight](#) (a few extracts)
- Some direct links to parts of the History of Spaceflight:
- [Statistics](#) (Updated 2013)
- [Master Orbital Launch Log](#) (Updated every few months)
- [Master Satellite List](#) (Updated ever few months)
- [Geostationary satellite log](#) (updated every few months)

<https://twitter.com/planet4589/status/945672960572084224>

<http://www.planet4589.org/space/>



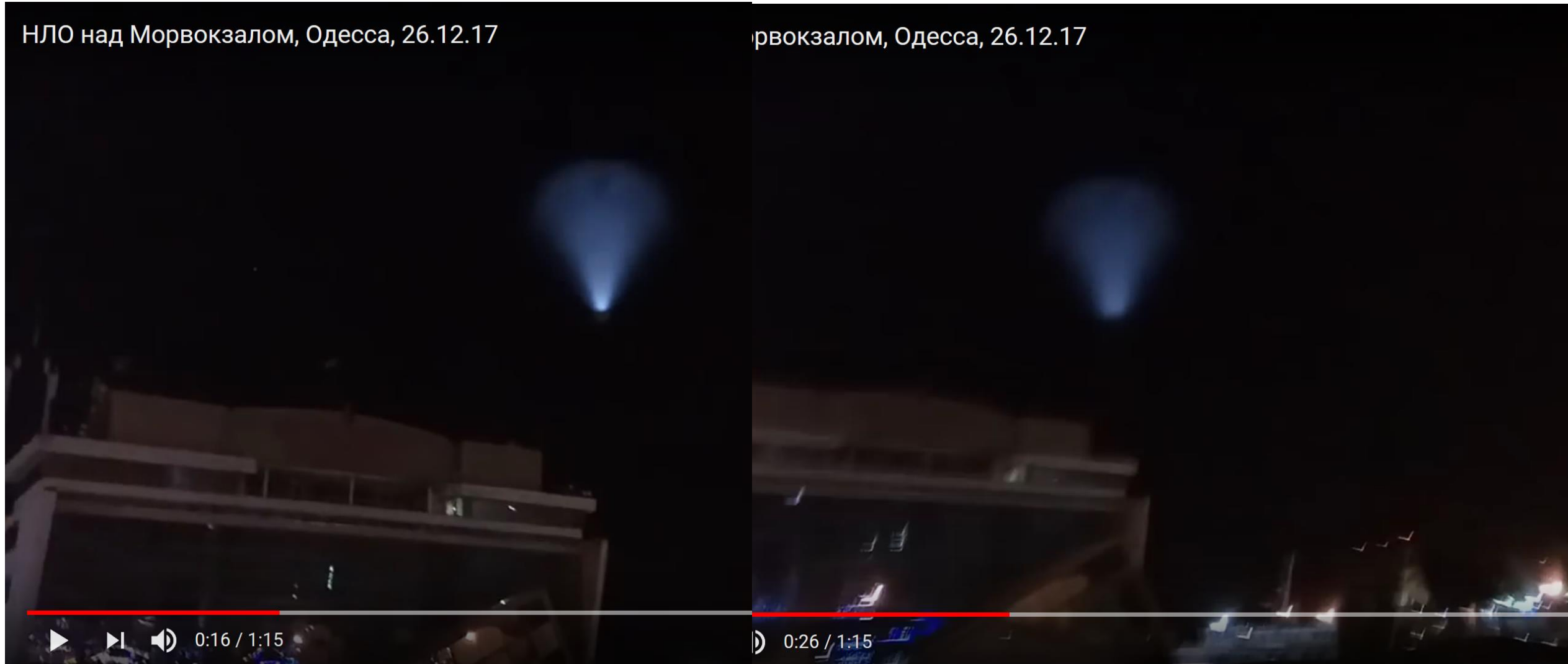




# НЛО над Морвокзалом, Одесса, 26.12.17

## ODESSA 'MORVOKZAL' [SEAPORT TRAIN STATION]

KYSS-15



[https://www.youtube.com/watch?v=\\_paHD1\\_GUAs](https://www.youtube.com/watch?v=_paHD1_GUAs)

# Odessa eyewitnesses [directly behind missile path]

- Катя Шалавина == Эта что-то нереальное. Над Знаменкой в Одесской оно было в 5.40мин Облако росло на глазах. Этот прожектор так подсвечивал что было видно насколько оно плотное - небыло видно звёзд через него. И также быстро оно растаяло. На счет ля-ля не знаю но было жутко !!!
- Katya Shalavina == This is something unreal. On the sign in Odessa it was 5:40. The cloud grew in front of my eyes. This spotlight shone so hard that it was visible how dense it was -- there was no stars visible through it. And also it quickly evaporated. ...It was creepy!
- Sergey Garkusha == На многих видео , в том числе и на видео по ключевым словам НЛО Запорожье , видно тело объекта, которое не светится., но которое излучает это свечение. Здесь тоже его видно ,когда камера зуммирует. Я склоняюсь конечно же к ракете, но странно что просматривается тело объекта. Ракету явно бы не было видно. Забейте и присмотритесь. [https://www.youtube.com/watch?v=2b\\_pXSYNWkE](https://www.youtube.com/watch?v=2b_pXSYNWkE)
- Sergey Garkusha -- On many videos, including the video with the key words "UFO Zaporozhye", you can see the body of an object that does not shine, but which emits this glow. You can see it here, too, when the camera zooms in. I am inclined of course to the rocket, but it is strange that the object's body is being viewed.
- Но возможно это дымка из сопла и.т.д. X,3.
- But maybe it's the haze from the nozzle, etc.

# SatTrackCam Leiden (b)log

Thursday, 28 December 2017

Effects of December 26 Russian TOPOL RS-12M ICBM test also seen from the Netherlands



Image (c) Bussloo Public Observatory/Mark-Jaap ten Hove  
click to enlarge



Dr. Marco Langbroek  
[marco@langbroek.org](mailto:marco@langbroek.org)

*"I think these are the most West, and largest distance from the launch site, observations of the phenomena."*

Other all-sky cameras in Germany and Switzerland had closer, better views with precise UTC times logged

# Langbroek blog:

KYSS-15

On 26 December 2017, Russia's Strategic Missile Force conducted a flight test with a TOPOL RS-12M ICBM from Kapustin-Yar in Astrakhan. The test was "*aimed at testing perspective armament for intercontinental ballistic missiles*".

**The test resulted in a sky phenomena that was photographed from East and Central Europe, and, as it turns out, even NW Europe. A luminous bubble-cloud like phenomena appeared in the eastern sky as seen from Europe. There is some incredible imagery from Austria, as well as other locations.**

I sent out an alert to the operators of the Dutch photographic all-sky meteor camera network to see if perhaps they captured something. Most stations were clouded out, but the station at the Bussloo Public Observatory in the east of the Netherlands did capture the event, amidst clouds!

Bussloo is at 6.12 E, 52.20 N. It is 2800 km distant from Kapustin-Yar, which is at 82 degrees azimuth as seen from Bussloo, so almost due East.

The cloud is exhaust from the missile at (very) high altitude in space, illuminated by the sun.

In the image, taken at 03:44 UT (December 26), the top of the blue cloud is at an altitude of ~30 degrees (stars from Corona borealis are visible in the blue cloud: the bright star somewhat right of the center in the second image is Arcturus).

*(I thank Bussloo Public Observatory (Mark-Jaap ten Hove) for their kind permission to publish their photographs and all the Dutch all-sky meteor camera operators for checking their imagery)*

# Observation from Greece [south of track]

KYSS-15

- Nikos Roussos == Dec 30, 2017
- Hey there. That phenomenon took place at 26/12/17 05:35 in the morning over the mountains of Tinos Island, in the Aegean sea Greece...
- A friend of mine and a few more people that were fishing at that time witnessed it! Sadly I only have a photo of it. It's the same thing.
- When I saw your video I was shocked!
- MORE DETAILS TO BE SUPPLIED
- <https://www.youtube.com/watch?v=yu7mNmqqJJ10&t=161s>



# Tinos Island, Greece [mid-Aegean Sea]

KYSS-15



- mm





‘Classic’ image of plume spray formed by 65-second engine burn. All observations are viewing translucent cloud from behind at shallow angle, the bright end is farthest away. Cloud tapers due to acceleration during burn. Back end and sides are sharp-edged. After full burn the plume is about 200 kilometers long and continues to expand until it totally dissipates.



# Jim o message on youtube sites requesting launch time and other eyewitness details

This is the 15th launch in this series of tests, half were in evening twilight. This is the first start in morning twilight, so the sky was dark much farther to the west.

Это 15-й запуск в этой серии испытаний, половина из них в вечерние сумерки. Это первый старт в утренние сумерки, так что небо было темно гораздо дальше на запад.

# ... and many, many more [TBS]

KYSS-15

- SW Russia
- Ukraine
- Poland
- Germany
- Switzerland
- Austria
- Hungary
- Romania
- Bulgaria
- Greece
- Turkey
- Armenia
- Azerbaijan
- other

# WHAT NEW VIEWING FEATURES RESULT FROM THE PRE-SUNRISE LAUNCH?

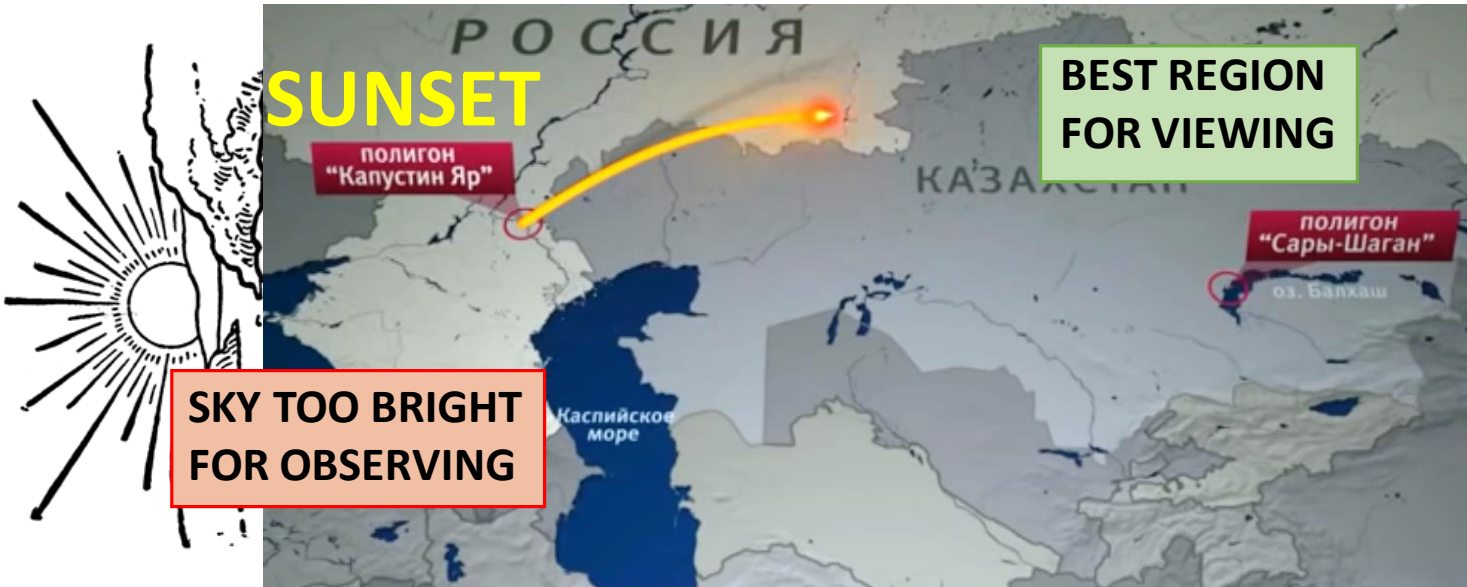
- Viewers saw the badminton shuttlecock shape of the 65-second burn of the third stage, canted about 30 degrees BELOW horizontal
- Depending on location left or right of rocket's trajectory, orientation of the plume spray tilted different ways
- NEW reversed direction of plume illumination totally shifted the ground regions where the plume spray was visible, or not
- This in turn created new range of aspect angles of observer-to-plume

# Dec 26/0333 UTC solar illumination

- Kapustin Yar SR 04:48 el -012
  - Astrakhan SR 04:30 el -009
  - Tyumen SR 04:18 el -005
  - Omsk SR 03:32 el -000.6 [sky too bright THIS time]
  - Novosibirsk SR 02:53 el +003 [post-sunrise – no sightings]
- 
- Info needed to verify plume spray was in sunlight

# VISIBILITY vs. EVENING/MORNING TWILIGHT

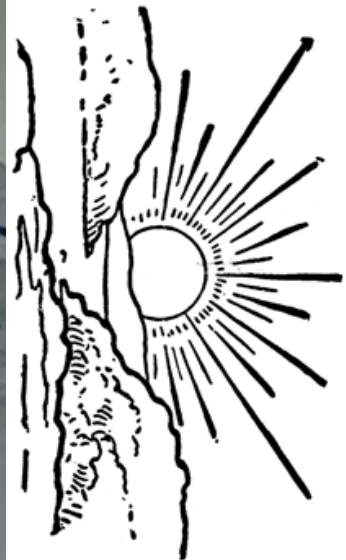
KYSS-15



Half of the first fourteen KYSST flights were launched in evening dusk, allowing observers to the east [with dark skies] to see the pluming backlit by the sun just below the western horizon [other half were launched in deep night; NONE in full daylight]. In such evening conditions any observers closer to sunset had skies too bright to show the plume.

Flight #15 [2017 Dec 26] was launched in dawn twilight so the ground observing context was a mirror-image of earlier launches. Traditional viewer locations had bright skies and saw nothing; new areas much farther to the west saw the plume for the first time ever.

BEST REGION  
FOR VIEWING



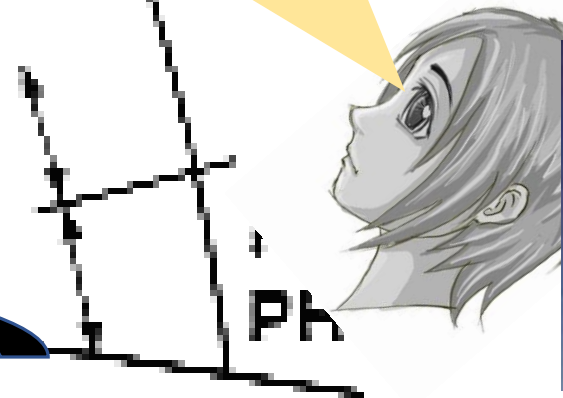
# Different aspect angle, from rear versus from front



**NEW 'DAWN' VIEWING FROM FAR BEHIND PLUME SHOWS ASPECT AT SHARP ANGLE TO FLIGHT PATH, SO PLUME APPEARS MUCH LONGER.**



**"TRADITIONAL" VIEWING [MOSTLY BUT BY NO MEANS EXCLUSIVELY FROM 'IN FRONT' OF PLUME] SHOWS ASPECT APPROXIMATELY IN LINE WITH FLIGHT PATH.**





# KYSST dive angle, and appearance from off-track viewers



TOP ROW, VIEWS OF 'CLASSIC'  
PLUME SPRAY FROM OBSERVING  
SITES MOSTLY DOWNRANGE FOR  
EVENING TWILIGHT LAUNCHES



[LEFT] VIEWS OF KYSS-15  
PLUME SPRAY FROM  
OBSERVING POINTS FAR  
TO THE REAR OF PATH  
[MORNING TWILIGHT]

PLUME VIEWS FROM SOUTH, SOUTHWEST, WEST, NORTHWEST, NORTH

Final stage fires 3 minutes after initial launch phase, dive angle  $\sim 30$  degrees

Burn time 65 seconds, plume extends to approx. 200 km length

Plume tapers due to significant acceleration during burn

Irregularities in tail shape are 'plume shadows' of booster structure

KYSS-15

# All-sky cameras and the puzzle of plume spray max altitude

- Several central European observatories with all-sky cameras caught the descent engine burn and its expanding plume spray.
- First-ever all-sky motion imagery of plume spray expansion/dispersal obtained
- Dramatic video show cloud with characteristic shadow markings expanding to cover much of the sky before fading
- Actual time history altitude/range distribution of plume spray particles begs a quantitative analysis



KYSS-15

ABOVE: FRONT VIEW FROM SPACE STATION [2013]

BELOW: REAR VIEW FROM GERMANY [2017]



PHOTO CREDIT  
Barbara Cvetko



# 26.12.2017 - start of a russian RS-12M Topol ICBM - seen from Switzerland

KYSS-15

OGVT - Observatoire géophysique, Val Terbi  
Published on Dec 27, 2017

**BACK END OF PLUME SPRAY  
VISIBLE JUST ON HORIZON  
[NEXT SLIDE], WITH CLASSIC  
'HOLE' AT CENTER OF TAIL.  
EXACT TIME OF THE  
OBSERVATION LOGGED  
AUTOMATICALLY BY  
CAMERA [at left].**



<https://www.youtube.com/watch?v=dITGP2ErNPA>

# Several videos from Hungary:

KYSS-15



[https://index.hu/tech/2017/12/26/titkos\\_orsz\\_raketakiserletet\\_lehette\\_tt\\_latni\\_hazankbol/?token=ba6009e110719338df0e744bdf19d799](https://index.hu/tech/2017/12/26/titkos_orsz_raketakiserletet_lehette_tt_latni_hazankbol/?token=ba6009e110719338df0e744bdf19d799)



PLAY GIF: <http://gph.is/2DSon2g>

KYSS-15



# HUNGARY – Structure into aft ‘hole’ visible

BRIGHTNESS AND  
CONTRAST ENHANCED



KYSS-15

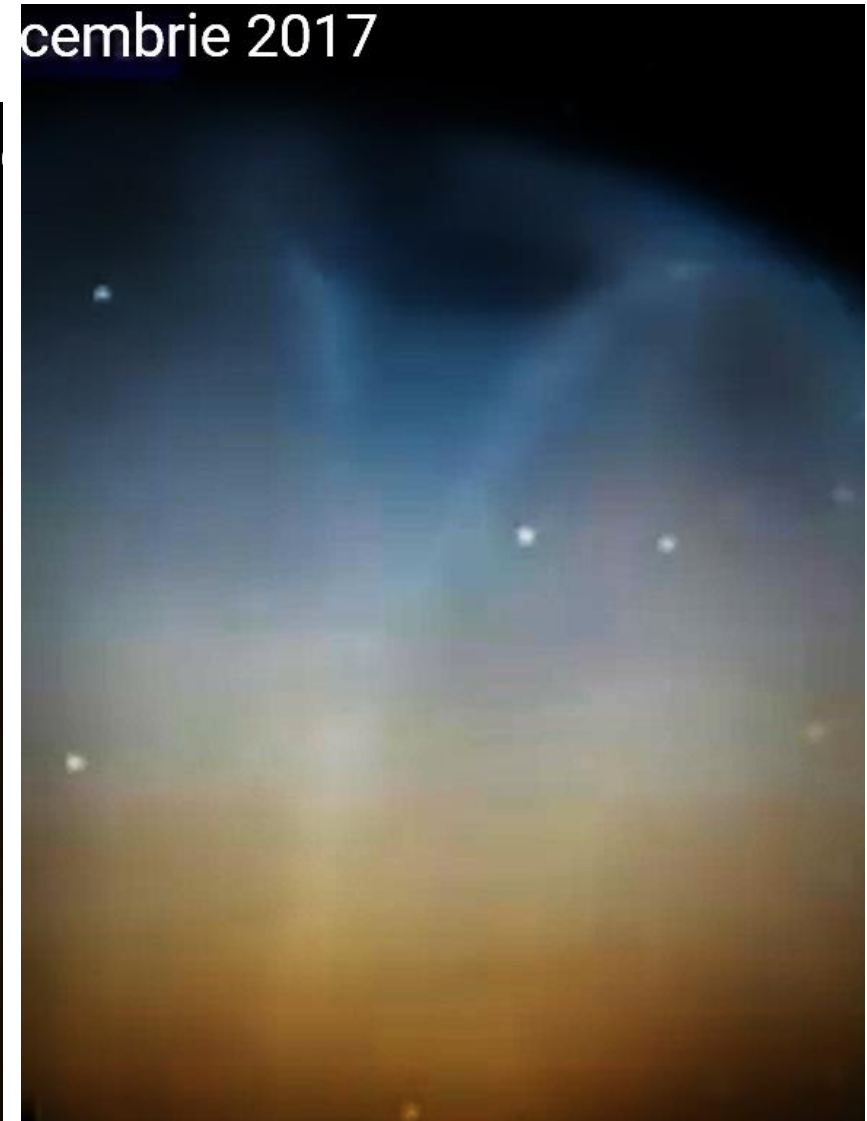
# Compare with Romania view

CONTRAST ENHANCED

AU - OZN sau meteorit - 26 decembrie 2017



decembrie 2017





WS BUZAU - OZN sau meteorit - 26 decembrie 2017



Problem to be solved – how much higher is the plume tail thrown? Back-of-the-envelope guesstimates suggest it is at least 200 km in 3 minutes, before falling back into the atmosphere. **Analytical work needed here.**

Pitch down  $\sim 30$  degrees

Plume width  $\sim 30$  degrees

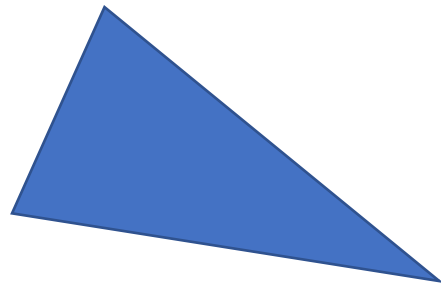
Max elev outer plume  $\sim 45$  deg

Plume velocity  $\sim 3000$  m/sec

Vertical component of plume upper edge  $\sim 2000$  m/sec

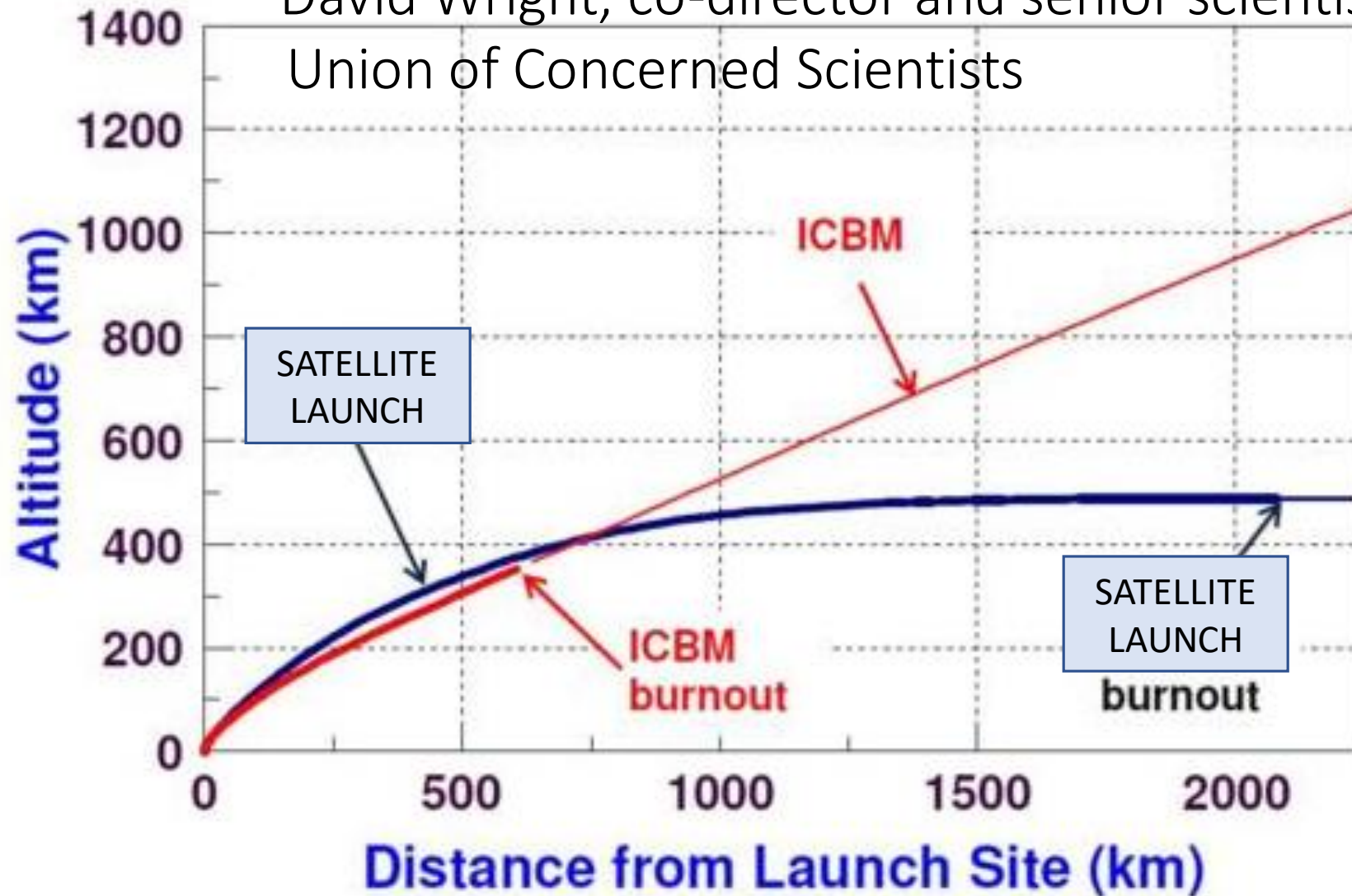
Rise time  $\sim 200$  sec

Rise altitude gain  $\sim 200$  km



# ASCENT PROFILE – ICBM vs SATELLITE

David Wright, co-director and senior scientist,  
Union of Concerned Scientists



<http://cdn.allthingsnuclear.org/wp-content/uploads/2016/02/slv-vs-missile-trajectories.png>

ANIMATION == TOPOL SECOND STAGE IGNITES; THIRD STAGE IGNITES  
[PRESUMPTION WITH KYSS FLIGHTS, THIRD STAGE IGNITION DELAYED 3 MINUTES]



[https://www.youtube.com/watch?v=3FaEFCfP\\_h8&t=268s](https://www.youtube.com/watch?v=3FaEFCfP_h8&t=268s)



SPACE LAUNCH SYSTEM

## START -1

**USER'S HANDBOOK VOLUME I:**  
SPACECRAFT & LAUNCH VEHICLE INTERFACES



TOPOL ICBM THREE STAGE PERFORMANCE IS DETAILED IN “USER’S GUIDE” TO COMMERCIAL SATELLITE LAUNCHER “START-1” SHOWN HERE – WITH ASCENT PROFILE SOMEWHAT STEEPER THAN FOR AN ORBITAL LAUNCH.

IT WOULD BE HELPFUL IF A BOOSTER DYNAMICS EXPERT COULD USE THIS DATA TO ESTIMATE THE ALTITUDE, VELOCITY, FLIGHT PATH ANGLE, AND DOWNRANGE DISTANCE OF THE ICBM VERSION OF THIS VEHICLE. WE COULD THEN ADD ON THE WELL-UNDERSTOOD PLUME SPRAY EJECTION VELOCITIES TO MAKE ESTIMATES OF SPRAY PARTICLE BALLISTIC MOTION FROM EJECTION TO ATMOSPHERIC IMPACT AND COMPARE TO ALL-SKY CAMERA TIMELINES AS OBSERVED.

[http://snebulos.mit.edu/projects/reference/launch\\_vehicles/START/start-vl.pdf](http://snebulos.mit.edu/projects/reference/launch_vehicles/START/start-vl.pdf)

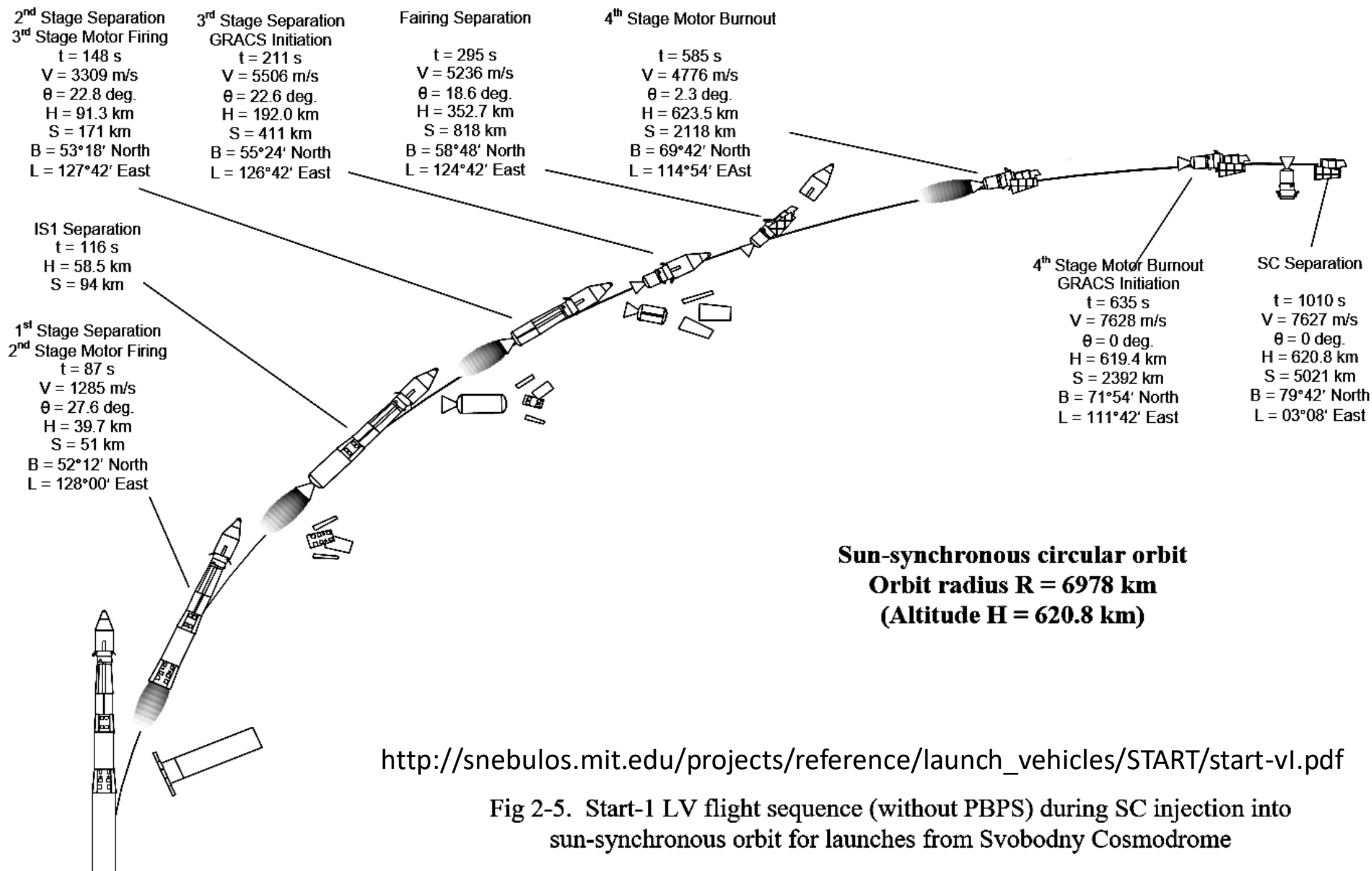


Fig 2-5. Start-1 LV flight sequence (without PBPS) during SC injection into sun-synchronous orbit for launches from Svobodny Cosmodrome



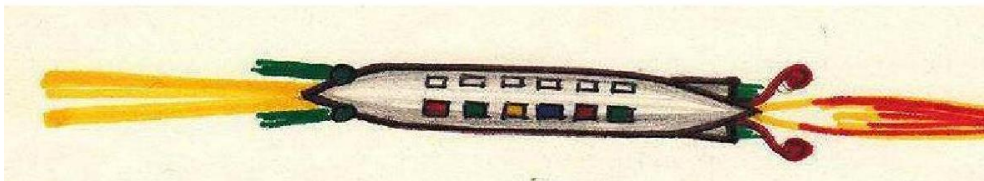
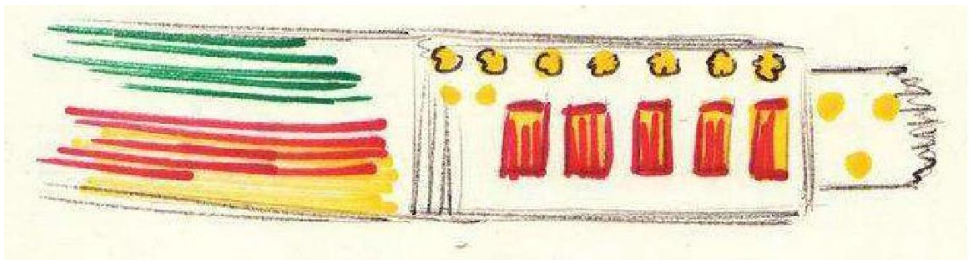
# WHY SHOW SO MANY DETAILED EYEWITNESS REPORTS?

- COLLECTING ALL AVAILABLE WITNESS REPORTS SERVES SEVERAL PURPOSES
- IF THEY SEEM TO BE TOO REPETITIVE OR UNINTERESTING, SKIP TO THE END OF THE SECTION
- BECAUSE THE APPARITION IS SO FAR BEYOND A WITNESS'S EVERYDAY EXPERIENCE BASE, THE DESCRIPTIONS MAY ONLY BE APPROXIMATE, AND ANALYSTS MUST APPRECIATE THE LIMITATION
- ANY POST-EVENT ATTEMPT TO CONDENSE OR EDIT DOWN THE VERBAL PASSAGES THREATENS TO UNINTENTIONALLY INTRODUCE THE BIASES AND EXPECTATIONS OF THE CHRONICLER
- WITHOUT PRESERVING THE FULL RANGE OF PERCEPTIONS AND INTERPRETATIONS, ANY FUTURE ATTEMPTS TO WALK-BACK NEW VISUAL REPORTS TO INTERPRET THE NATURE OF UNDOCUMENTED SPACE EVENTS WILL BE IMPEDED, IF NOT RENDERED TOTALLY UNACHIEVABLE
- RAPID THOROUGH COLLECTION OF ALL IMPRESSIONS IS CRITICAL TO AVOID IRRETRIEVABLE LOSS OF TEMPORARY STATEMENTS AND COMMENTS ACROSS THE INTERNET, ESPECIALLY AS THEY ARE USUALLY VERY POORLY KEYWORDED FOR ANY LATER SEARCH ENGINE APPLICATION
- IN MANY CASES, PSEUDONYMOUSLY POSTED COMMENTS CAN PROVIDE ACCESS TO ORIGINAL WITNESSES FOR FOLLOW-UP QUESTIONS BUT ONLY IF DONE PROMPTLY AND DIPLOMATICALLY

# Use and misuse of analogies

- THE EYEWITNESS REPORTS REFLECT THE STRUGGLE THAT STARTLED PEOPLE UNDERWENT TO FIND ANY EARTHSIDE TERMS OR ANALOGIES TO USE FOR A ONCE-IN-A-LIFETIME UNEARTHLY APPARITION
- “LOOKED LIKE” IS A COMMON PHRASE WITH REFERENCES TO MANY ORDINARY-LIFE OBJECTS == HEADLIGHTS, ZIG-ZAG CONTRAILS, SPIRAL TOYS, FIREWORKS, SPARKLERS, FRUITS AND VEGETABLES, PARACHUTES...
- COMPARING THE VISUAL STIMULUS TO PAST SIGHTINGS [THE NORMAL COGNITIVE PROCESS] OPENS THE POSSIBILITY THAT UNDER SUBSEQUENT RECOLLECTION, EXTRANEIOUS FEATURES OF THE COMPARED-TO MEMORIES CAN UNCONSCIOUSLY ATTACH THEMSELVES TO THE NEW EXPERIENCE
- THIS MAKES IT ALL THE MORE IMPORTANT TO OBTAIN AND PROVIDE FULL VERBALIZATIONS FROM WITNESSES, UNPROMPTED AND UN-SUGGESTED
- QUICK FOLLOW-UP QUESTIONING NEEDS TO OBTAIN USUALLY OMITTED DESCRIPTIONS SUCH AS DIRECTION OF SIGHTING AND MOTION, ANGULAR SIZE AND SPEED [ONE FIST AT ARM’S LENGTH = TEN DEGREES], DURATIONS

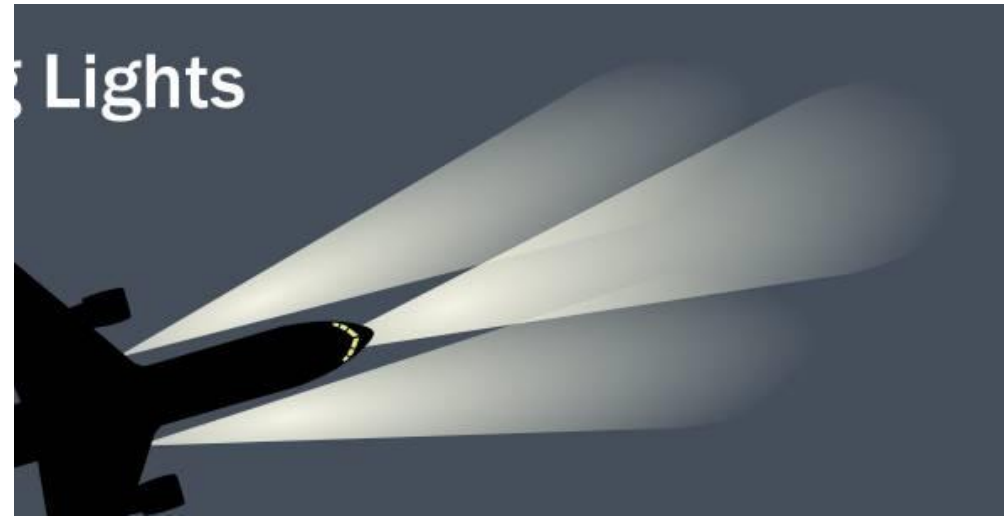
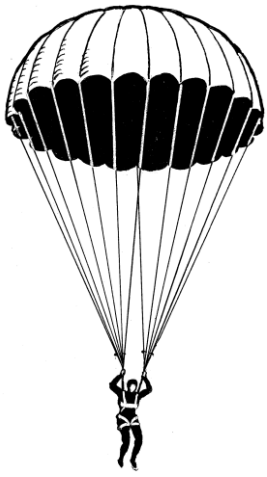




WITNESSES OFTEN GRASP FOR FAMILIAR SIGHTS TO COMPARE THE STARTLING AND NEVER-SEEN-BEFORE APPARITIONS CAUSED BY SPACEFLIGHT OPERATIONS. [LEFT] FIREBALL SWARMS IN FORMATION CAN BRING TO MIND LIT WINDOWS IN AIRPLANES AND AS RESULT MANY HUMAN WITNESSES ‘CARRY OVER’ ADDITIONAL STRUCTURAL ELEMENTS OF THE ORIGINAL MEMORY [KIEV USSR CASE, 1963]



“BUTTERFLY WINGS”



THRUSTER PLUMES, DEPENDING ON ORIENTATION, HAVE BEEN COMPARED TO PARACHUTES [LEFT] , OR LANDING LIGHTS AND HEADLIGHTS IN FOG [RIGHT]

Ganhe [Inner Mongolia]  
like “a red turnip with  
tilting tail”. Is this a clue  
of a nearby launch?



[above] Soyuz booster  
ascent plume  
[left] Chinese turnip



[right] LATE STAGE  
SOYUZ ASCENT



CHINESE WITNESSES  
CHOSE VEGETABLE  
ANALOGIES FOR SOME  
MISSILE EVENTS [LEFT,  
‘RED TURNIP’, RIGHT  
“shining gourd”]





# SPECTACULAR SPACEFLIGHT FAILURES WHERE CIVILIAN GROUND OBSERVATIONS CAN PROVIDE CLUES TO CAUSE



1. 'NORWAY SPIRAL == Dec 9, 2009 // RUSSIAN BULAVA ICBM seen from Norway

[http://satobs.org/seesat\\_ref/misc/Norway\\_Spiral\\_--\\_15\\_FAQS\\_final.pdf](http://satobs.org/seesat_ref/misc/Norway_Spiral_--_15_FAQS_final.pdf)

2. MERIDIAN Dec 23, 2011 " plesetsk satellite launch, 3<sup>rd</sup> stage explosion, nw russia

[http://satobs.org/seesat\\_ref/misc/meridian\\_crash\\_2011\\_draft.pdf](http://satobs.org/seesat_ref/misc/meridian_crash_2011_draft.pdf)

3, LONG MARCH 5 SECOND LAUNCH july 2, 2017 Engine anomaly seen from Philippines

<https://forum.nasaspaceflight.com/index.php?action=dlattach;topic=42798.0;attach=1469451;sess=1180>

4. MOLNIYA INSERTION, FEB 11, 1980 // 4<sup>th</sup> stage anomaly, seen from Chile

[http://satobs.org/seesat\\_ref/misc/molniya\\_clouds\\_over\\_south\\_america.pdf](http://satobs.org/seesat_ref/misc/molniya_clouds_over_south_america.pdf), p. 54



# KYSST-15 EYEWITNESS REPORTS -- CATALOG

Note KYSS 'western axis' – extension of missile flight path backwards

Topol warhead flight path from Kapustin Yar to Sary Shagan, extended great circle to the west. Viewers north of axis will see plume pointed down from right to left, but those south of axis will see it pointed down left to right.



COUNTRIES  
WILL BE  
VISITED  
COUNTER  
CLOCKWISE  
FROM  
NORTH

KYSS-15



НЛО над Балашовом

Balashov [Saratov region] –  
north of launch site



0:10 / 1:13

<https://www.youtube.com/watch?v=GtDm1dr9BH4>



# Lipetsk, Russia



**AT EXTREME MAGNIFICATION,  
BRIEF NOSE SPIRAL APPEARS AS  
PLUME SPRAY RAPIDLY IS  
EXPELLED BACKWARDS WITH  
ENGINE CUTOFF BOUNDARY  
CLEARLY VISIBLE BEHIND SPIRAL**

<https://youtu.be/Z3wYwmSqVew>

# UFO or Falcon 9? Ukraine, Zaporizhzhya, 26DEC2017/ НЛО или Falcon 9? Украина, Запорожье, 26.12.2017



Tibeliuss // Published on Dec 26, 2017

[translation on next page]

26 декабря 2017 года, 5:30 утра, яркое свечение на небе было зафиксировано со всех районов Запорожья. Очень похоже на то, что из космоса через атмосферу падал какой-то объект. Но что это было?... Вначале было яркое бело-синее свечение с острым окончанием внизу, выглядело, как парашют. Затем цвет постепенно изменился на ярко белый, а форма объекта стала больше напоминать торнадо. Все длилось не больше пары минут. Видео сделал мой коллега по работе из Космического микрорайона, я сделал только фото. Тоже самое наблюдали с Павло-Кичкаса и Хортицкого района.

[https://www.youtube.com/watch?v=2b\\_pXSYNWkE](https://www.youtube.com/watch?v=2b_pXSYNWkE)

# Zaporizhzhya, UKRAINE

26 December 2017, 5:30 am, a bright glow in the sky was stared at from all districts of Zaporozhye. It is very similar to that some object fell out of space through the atmosphere. But what was it?...

At first there was a bright white-blue glow with a sharp end at the bottom, **looked like a parachute**.

Then the color gradually changed to bright white, and the shape of the object began **to resemble a tornado**. It all lasted no more than a couple of minutes.

The video was made by my colleague from the Kosmicheskiy district, I made only a photo. The same was observed from Pavlo-Kichkas and Hortitskiy district.

[https://www.youtube.com/watch?v=2b\\_pXSYNWkE](https://www.youtube.com/watch?v=2b_pXSYNWkE)

# RUSSIAN WITNESS COMMENTS

KYSS-15

- Evgeny M == где это снято? я наблюдал это в саратовской области турковский район. смотрел другие источники- люди наблюдали это в воронежской обл. ( это примерно 300 км от меня) и в волгоградской тоже более 300 км значит эта светящаяся штука была очень высоко.
- [seen in Saratov region and Voronezh] “This **glowing thing** was very high.”
- Роман Пилипенко == Снято на юге Воронежской области. Богучарский район. [от Капустин Яр] До места съемки 400 км
- Виталья Ф == Я слышал эту версию, а есть другая версия метеослужбы. Они говорят, что запуск совпал с природным явлением, вроде как редкое аномальное явление в природе связанное с верхними слоями в атмосфере. По этому это чудо видело так много людей.
- Vitalya F. == I have heard this version, and there is another version from the weather service. They say that the launch coincided with a natural phenomenon, such as a rare abnormal phenomenon in nature associated with the upper layers in the atmosphere. So many people have seen this miracle.



# Неопознанный светящийся объект в небе над Запорожьем UNIDENTIFIED GLOWING OBJECT IN SKY OVER ZAPOREZH

KYSS-15

- НИКОЛАЙ Тютюкин == 15км от запорожья я его наблюдал ехал на авто тормознул чтоб снять уву не получилось но эта хрень не летела ,но когда погасла осталась дымка два шара правильной формы который даже ветерок не розгонял. Наверное всётаки вояки какуюто байдю запустили вот поетому официалка молчит. МОРОЗЯТСЯ. это если бы какойто колхан на тракторе с прожектором пёр то по всем каналам неделю трандели, а здесь????????и тишина!!!
- [help needed translating this above]
- Evgeniii Ryki == Это явление было видно и в Сальск Ростовская область, и в Одесса в районе морского вокзала есть видео .все происходит в тоже время : 26.12.17 в районе 5-6 утра – Seen in Rostov region and in Odessa at the train station about 5 or 6 AM.

<https://www.youtube.com/watch?v=uV8OX7ptRol&feature=youtu.be&t=1>

НЛО над Морвокзалом, Одесса, 26.12.17



**RARE IMAGE WITH  
RECOGNIZABLE 3-D  
LANDMARKS [ODESSA  
PORT TRAIN STATION]  
GIVES OPPORTUNITY  
TO OBTAIN VIEWING  
AZIMUTH TO PLUME**



0:10 / 1:15



ЛО над Морвокзалом, Одесса, 26.12.17

[https://www.youtube.com/watch?v=\\_paHD1\\_GUAs](https://www.youtube.com/watch?v=_paHD1_GUAs)



VIDEO FROM TRAIN STATION VERSUS  
STOCK PHOTO OF NEIGHBORHOOD HAS  
ENOUGH PERSPECTIVE INFORMATION  
TO PINPOINT LOCATION OF VIEWER

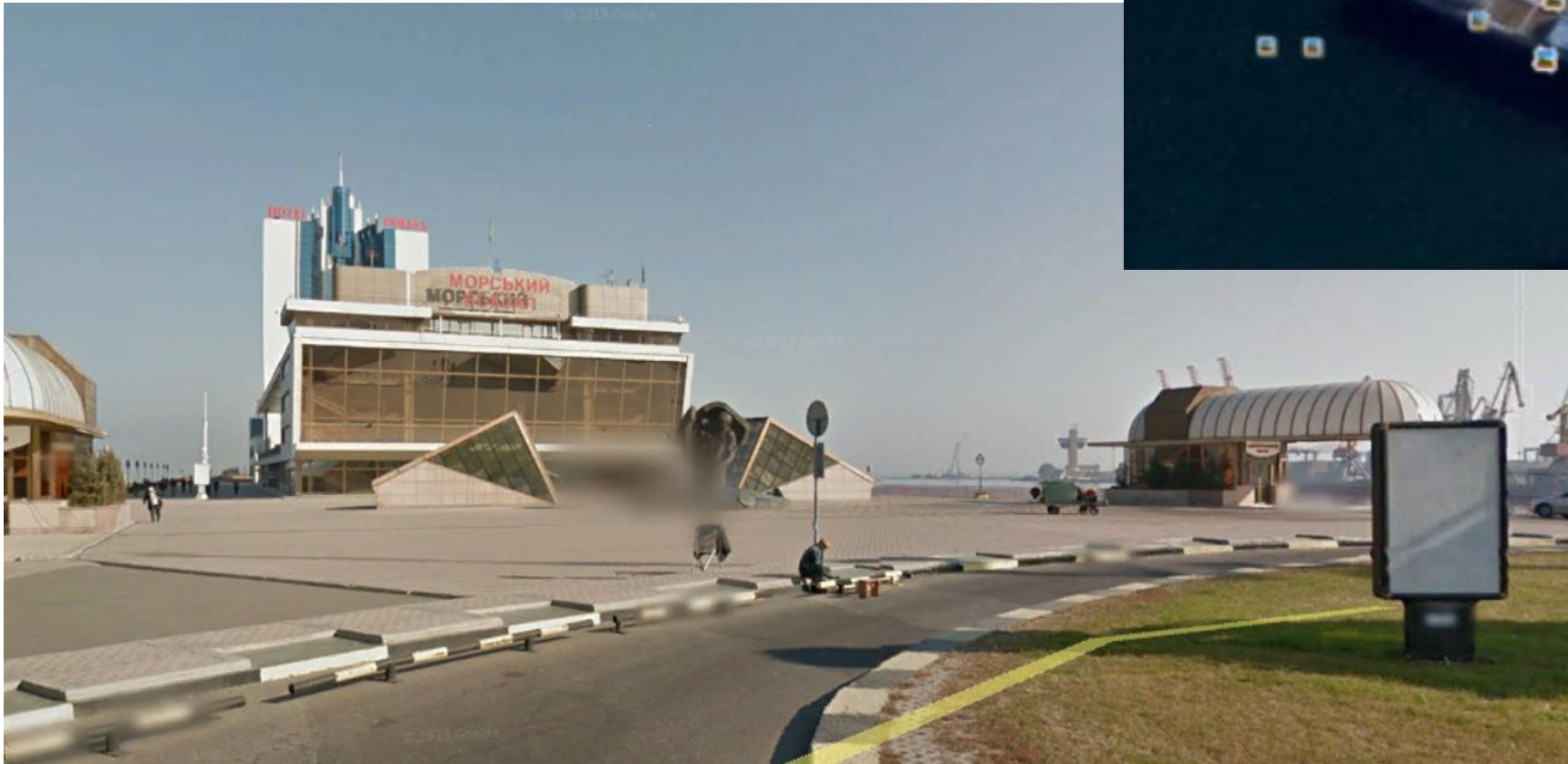
KYSS-15



[http://webuserblog.com/wp-content/uploads/2014/11/odessa\\_morvokzal.jpg](http://webuserblog.com/wp-content/uploads/2014/11/odessa_morvokzal.jpg)



‘STREET VIEW’ on Google-Earth provides azimuth  $\sim 70$  deg [almost as good as having celestial sphere reference marks like moon or stars]



KYSS-15

[YELLOW LINES, ABOVE]  
ESTIMATED POSITION OF  
OBSERVER [LEFT LINE]  
AND NEAREST POINT ON  
‘STREET-VIEW’ CLIP [RT]

AZIMUTH 70 deg OUT OF ODESSA PASSES DIRECTLY CROSS KAPUSTIN YAR LAUNCH SITE AND RUNS NEAR-PARALLEL TO MISSILE PATH [SO NO WORTHWHILE TRIANGULATION TO DETERMINE CLOUD LOCATION]



ODESSA VIEW "RIGHT UP THE TAIL" OF DIVING ROCKET, SO PLUME IS NEAR-VERTICAL



OTHER VIEWS OF PREVIOUS LAUNCHES FROM NORTH AND SOUTH OF TRACK PROVIDE MUCH BETTER TRIANGULATION



# Odessa comments related to time of event

- Reports ranged from 5 am to 6 am with most at 5:30 am
- Евгений кос == у нас у Вінниці в 5-30 ранку теж те саме було
- Bender Rodriguez == Над Хмельницком ета хрень тоже пролетала около 6 утра
- bonniya77 == Марьяновка Ширяевский район вчера в 5,30 утра но иначе формы)
- ihor timochuk == В житомирській області було таке саме 27.12.17 о 5:30
- vitaliyartstudi0 == Видел такое же над Каменцем-Подольским в 5 утра 26.12.2017
- **NOTE: ESTIMATES RANGE OVER A PERIOD OF ABOUT ONE HOUR**

# Odessa slang

KYSS-15

- Cotus == Над ростовом спиралило. Очевидцы пишут шопопало. Из комментов возникает ощущение, что на востоке в Ростове видели трек второй ступени, а потом над головами ростовчан пукнула третья. Я подозреваю, что стреляли в сторону ЕС, так как полёт видели даже в австрии, что невозможно, если бы стреляли в сторону казахстана
- Over Rostov it spiralled. Eyewitnesses write “шопопало”. From comments there is a feeling that to the east, in Rostov, they saw the track of the second stage, and then over the heads of Rostovites the third [stage] farted. I suspect that they shot in the direction of the EU [European Union]], as the flight was seen even in Austria, which is impossible if they shot in the direction of Kazakhstan
- “шопопало”. A Russian linguist advised: “This is purposely corrupted Russian language, thanks mostly to Americans, experimenting with the English language in commercial advertising, like I'm lovin' it for McDonalds commercial. In Russia even a term appeared to denote this phenomenon - the so called Albanian Russian, so much corrupted the language can be. Шопопало means что попало... With a strong Odessa origin accent where что would be pronounced as шо.”
- что попало... What's horrible



# НЛО? В небе над Россией и Крымом заметили загадочное явление. Фотофакт

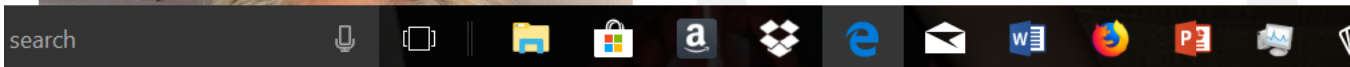
26 декабря 2017, 15:19 10.7т фото Читать новость на украинском



Жители сразу нескольких областей России, а также временно оккупированного Крыма стали очевидцами загадочного небесного явления утром 26 декабря 2017 года.

Об этом сообщается на Telegram-канале НТВ.

Так, необычное свечение было замечено в Ростове, Волгограде, Воронеже, Саратове и Севастополе.



KYSS-15

UFO?

IN THE SKY OVER RUSSIA AND CRIMEA THEY SEE A PUZZLING APPARITION. FOTO-FACT.

“Residents of several regions of Russia, and also *temporarily-occupied Crimea [JEO: SIC!]* were witnesses to a puzzling event in the morning of Dec 26. “

<https://www.obozrevatel.com/abroad/nlo-v-nebe-nad-rossiej-i-kryimom-zametili-zagadochnoe-yavlenie-fotofakt.htm>

# COMMENTS [IN UKRAINIAN & RUSSIAN]

KYSS-15

- Ruslan Chornyî == В Чернівцях і Львові також хлопці бачили, є фото і відео, дивно що в подібний час
- In Chernivtsi and Lviv, the guys also saw there is a photo and video, which is strange at that time
- Лаванда Ефремова == Видела в центре Запорожья. в 5.30 утра. Исчезло НЛО через пять минут. Яркая вспышка и всё. И сразу рассеялся туманная дымка
- I saw it in the center of Zaporozhye. At 5.30 am. UFO disappeared in five minutes. Bright Flash and everything. And the foggy haze immediately dissipated
- dimonchik 3 == Я уже даже и не знаю. Я живу в Запорожской области, я вышел на автобус в 5.30 и видел где-то метров в 200 от меня что-то чего я ещё не видел, оно очень светило в низ и просвечивало пол улицы. Форма его была овальная, потом этот свет оно перевело на меня, от испуга я побежал домой, было ощущение что оно летело за мной, но когда я забежал во двор сзади было много белого дыма который быстро разошёлся. Потом когда я вышел через 5 минут где-то в 5.38 было то же что и на видео.
- I don't even know anymore. I live in Zaporizhzhya region, I got on the bus at 5.30 and saw something I had not seen before, **somewhere about 200 meters from me**, it was shining a lot at the bottom and **lit up the whole street**. Its shape was oval, then this light it **passed over me**, I ran home from fright, there was **a feeling that it flew after me**, but when I ran into the backyard behind there was a lot of white smoke that quickly [dissipated?] Then when I went out in five minutes, around 5.38 it was the same as on the video.

# Привіт із космосу: НЛО налякав українців у кількох областях

Головна Суспільство // Дивне світло у небі з'явилося над ранок // 30.12 22:00

KYSS-15

- "Сьогодні орієнтовно в 5.30 ранку в небі над Калушем цікавий феномен. Напрямок – північний схід. Фото сильно розмите, бо робилось поспіхом. Зліва внизу – ощадбанк на проспекті. У відміченому колі невеличка туманність трикутної форми, у нижній вершині якої яскравий циліндр-світлячок. Через дві-три хвилини світлячок зник а туманність не розвіялась як хмарка, а збільшувалась, зберігаючи трикутну форму. Зазначу, що небо цього ранку чисте і зоряне, без жожних хмар. Що це? Метеорит?", - пише користувач.
- Today, approximately at 5.30 am in the sky over Kalusha, an interesting phenomenon. The direction was north-east. Photos are heavily blurred because they were made in a hurry. Bottom left – Sberbank Avenue. Noted by a small circle in the cloud, triangular in shape, the lower top of which was a striking cylinder-firefly. In two-three minutes the firefly disappeared and the cloud is not [unclear – help!!], and has been increasing, while retaining the triangular shape. Note that the sky this morning was starry, without žožnih [??] clouds.
- <https://znaj.ua/society/pryvrit-iz-kosmosu-nlo-nalyakav-ukrayinciv-u-kilkoh-oblastyah>



# More comments from Ukraine

KYSS-15

- Жителі Калуша, Івано-Франківська, а також Тернополя стверджують, що 26 грудня, бачили дивне світло в небі, орієнтовно в 5.30 ранку, інформує WestNews. The inhabitants of Kalush, Ivano-Frankivsk and Ternopil also claimed that on 26 December, they saw a strange light in the sky approximately at 5.30 am
- Українці почали обговорювати побачене. Дехто припустив, що це може бути космічне сміття, а інші впевнені, що це інопланетний корабель. Ukrainians began discussing what they can see. Some have speculated that it could be space debris, while others are sure that this is the alien craft.
- Ще деякі українці написали, що це могли бути всього лише дрони, що стежать за оновленим тролейбусом Івано-Франківська. Yet some Ukrainians wrote that it could be only the drones that follow the updated Ivano-Frankivsk bus.
- Як раніше повідомляв портал "Знай.ua", урологи заявляють, що до Міжнародної космічної станції наблизився корабель інопланетян. As previously reported by the website "Know", urologists [JEO: sic! In the original] say that a ship of aliens has reached the international space station.
- See also <https://www.youtube.com/watch?v=9P8ULCYrMDU>

- Marcin == w Polsce też o tym media pisały ruscy testują rakiety topol  
<https://www.tvp.info/35360714/biala-poswiata-nad-europa-rosjanie-testuja-rakiety-odpowiedz-na-patrioty>
- <https://www.youtube.com/watch?v=0VF2jo2xpEE>
- All sky cam
- <https://www.youtube.com/watch?v=fVnaqw6qxiw>
- Ukraine reports
- <https://www.youtube.com/watch?v=GkJ5b4Uf9wI>
- MOLDAVA [no details] [Sandu Caisîn 3 weeks ago](#)
- Тоже самое было вчера утром над Молдовы, Резина, не успели сфотографировать. Не знаем что это такое.
- <https://www.youtube.com/watch?v=pbKJgx7AO68>

KYSS-15

POLAND: "obłok  
rakietowy  
widziany na  
polskim niebie"

"The rocket  
cloud seen in  
the Polish Sky"



<https://www.youtube.com/watch?v=yiHH7uGMq74>

26.12.2017 - start of a russian RS-12M Topol ICBM - seen from Switzerland



**Switzerland – All-sky cam, low on horizon  
[back of cloud and 'hole' very clearly visible]**

2017/12/26 03:40:29.335(UTC) 0068 00025 00000.027 | www.ogvt.org | VTE-2 | East

# Soboth, Austria

KYSS-15



**Gerald Reczek** added 6 new photos

Yesterday at 4:18am · Soboth, Austria · 🌐

EDIT: Mehrere Quellen berichten, dass es sich um eine Interkontinentalrakete der Russen gehandelt hat, die zu Testzwecken abgeschossen wurde -

[https://de.wikipedia.org/wiki/RS-12M\\_\(Rakete\)](https://de.wikipedia.org/wiki/RS-12M_(Rakete)) 🟢 - hier mehr Infos:

<http://tass.com/defense/983101> 🟢

Eine Bestätigung steht aber noch wie vor aus...

Dabei wollt i nur den Hund reinlassen, weil er an der Tür kratzt hat... aber was dann Richtung Osten sichtbar wurde, hab i nie gesehn... Kam hinterm Horizont hervor und bedeckte dann innerhalb von 15 Minuten den halben Himmel. Fotos sind leider net perfekt, weils draußen ziemlich windig war und kein Punkt zum Fokussieren... (das 1. Bild ist sehr unscharf, da noch freihand mit 2 Sekunden Belichtungsdauer gemacht)

Aufnahmen zwischen 04:30 und 04:45 MEZ, Blickrichtung Osten /  
26.12.2017

EDIT: Sichtung gibt es auch aus Rumänien!

I just went to let the dog in because he scratched at the door... and what was then visible to the east, I had not seen ever... It came out behind the horizon and then covered half the sky within 15 minutes. Photos are unfortunately not perfect. Because it was quite windy outside and no point for focusing, the first image is very fuzzy, because it was made freehand with 2 seconds exposure time.

TBS link



Wangenitztal / Feldkopf - Blick über den Wangenitzsee nach Osten  
26.12.17 04:40 0.3°C 29% 14km/h SW Böe 25km/h 12.7V



Посмотреть изображение в Твиттере



**Marcus Wadsak**

@MarcusWadsak



spannende und noch nicht geklärte Lichterscheinung letzte Nacht!  
zu sehen nicht nur bei uns in Österreich.

8:49 - 26 дек. 2017 г.



33



36



165

KYSS-15

Exciting and  
not yet cleared  
up light-shining  
last night!  
Wasn't just  
seen in Austria.

# Nächtliche Leuchterscheinung Raketenstart SS25 Russland Nocturnal light-shining rocket launch SS25 Russia

## Nächtliche Leuchterscheinung Raketenstart SS25 Russland

📷 von Hermann Koberger » 26. Dez 2017, 13:22

Hallo,

meine Meteorkamera hat letzte Nacht diese Leuchterscheinung aufgenommen.

Mir fallen dazu nur Stichwörter ein (ähnliche Abgaswolken bei Raketenstarts, Flugzeugtreibstoff, floureszierende Partikel) aber definitiv hab ich keine Ahnung.

Sicher ist, dass es keine normale Wolke ist.

Vielleicht weiß dazu jemand mehr, oder auch andere Möglichkeiten...

Aufgenommen mit einem 10 mm Objektiv Richtung Osten.

Beginn der Erscheinung am 26.12.2017 um 04:35 MEZ - Dauer etwa 20 min.




KYSS-15

Hermann Koberger

Beiträge: 336

Registriert: 8. Jan 2011, 20:58

Wohnort: Fornach, Österreich

Kontaktdaten: 

I HAVE NO IDEA. IT CERTAINLY  
IS NOT A NORMAL CLOUD.

Meteor camera caught it at  
04:35, lasted about 20 minutes

<http://forum.meteoros.de/viewtopic.php?f=2&t=57804>

# Austria [Reczek]



Credit image: Gerald Reczek.

<https://www.facebook.com/gerald.reczek/posts/10210861877039936>



# Köflach [south central Austria]

KYSS-15

- [Manuel Wiedner](#)  
Hab es auch fotografiert um 4:38 Uhr Ortszeit beim Bahnhof von Köflach !
- Got it also photographed at 4:38 am local time at the station of Köflach



# Dresden, Germany



- Mario Scholz ==
- Letzte Nacht in der Nähe von Dresden
- **LAST NIGHT NEAR DRESDEN**
- [https://scontent.fhou1-2.fna.fbcdn.net/v/t1.0-9/25659327\\_965698813587609\\_8901320283144007991\\_n.jpg?oh=d8de1239132cf6a1c7ab8d4585720a08&oe=5AC6B6F6](https://scontent.fhou1-2.fna.fbcdn.net/v/t1.0-9/25659327_965698813587609_8901320283144007991_n.jpg?oh=d8de1239132cf6a1c7ab8d4585720a08&oe=5AC6B6F6)

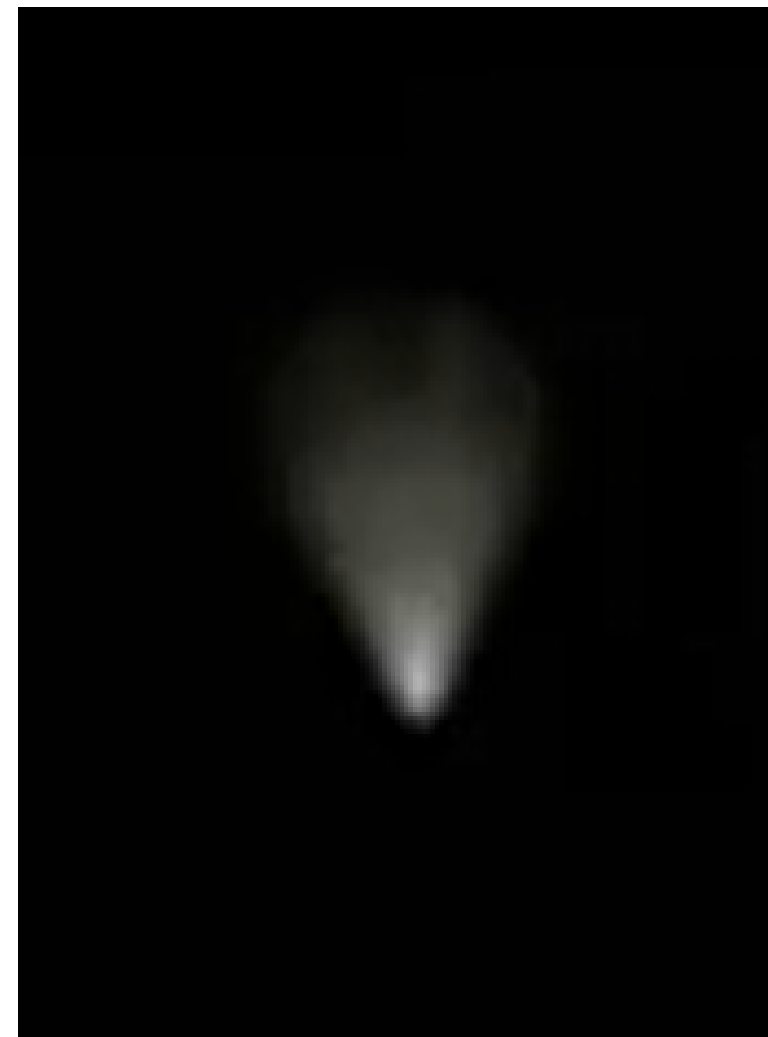


Romania 04:30 www.newsbuzzau.ro

KYSS-15

NEWS BUZAU - OZN sau meteorit - 26 decembrie 2017

Obiect Zburator Neidentificat



<https://www.youtube.com/watch?v=bG5oB6zbb4g>

WS BUZAU - OZN sau meteorit - 26 decembrie 2017

ROMANIA

# FENOMEN CIUDAT PE CER

KYSS-15

## Strange phenomenon in the sky



Link tbs

romania



KYSS-15



# romania

- <https://www.youtube.com/watch?v=9HWtyQYbx8g>
- Mar 14, 2016
- <https://www.youtube.com/watch?v=BOIXqqmBBRc>



# UFO over Bulgaria Turns out to Be a Russian Missile

Sofia, Bulgaria - A UFO sighting over Eastern Bulgaria turned out to be a Russian missile. The lights show over Eastern Europe was captured by many people in Russia, Turkey, Poland, and Romania. According to BTV News, the “UFO” is actually a Russian Intercontinental Ballistic Missile. The cloud surrounding the giant projectile was caused by its massive speed. In reality, the witnesses probably never saw the “UFO” itself, but only the clouds and light surrounding it.



<https://www.euscoop.com/en/2017/12/28/ufo-turns-out-to-be-a-simple-missile>

<https://www.euscoop.com/user-uploads/59a69bdc23a9493b937a94cc/a33c5840-b0c0-4596-b6f3-d7a88d67d174.jpeg>

# BULGARIA ===== Заснеха НЛО над България

KYSS-15

сайт марица == Published on Dec 26, 2017 // 11,858 views



**“They snap UFOs  
over Bulgaria”**



<https://www.youtube.com/watch?v=DW-d3ZK6-pl>

# Other claims.....

- Ari Ben ze'ev dec 28 1400 utc
- i've seen it from israel in the same date- around 5 am!
- “seen it in Israel around 5:30 am (israel time)”
- [in contact – more details expected -- cinderelasprince@gmail.com]
- <https://www.youtube.com/watch?v=ntOmJvrbQUg>

- petar stevanovic == I SEE IN SERBIA! 26.11.2017  
<https://www.youtube.com/watch?v=O836cyP490s>

[video removed by user]

Did you report the UFO on December 27?

Да ли сте пријавили НЛО на 27 децембра?

# Mysterious lights observed in Turkey's sky might be due to Russian ballistic missile test: Expert

KYSS-15

ISTANBUL – Doğan News Agency



Turkish ballistic missile expert said on Dec. 26 that mysterious lights observed in the Turkish sky could be caused by the Russian ballistic missile test.

Discussion TBS

<http://www.hurriyetdailynews.com/mysterious-lights-observed-in-turkeys-sky-might-be-due-to-russian-ballistic-missile-test-expert-124814>

# Mysterious lights observed in Turkey's sky might be due to Russian ballistic missile test: Expert

KYSS-15

- Istanbul *Hurriyet Daily News Online* in English 13:35 UTC Dec 27, 2017
- **ISTANBUL – Dogan News Agency** [<http://www.hurriyetdailynews.com/> ]
- A Turkish ballistic missile expert said on Dec. 26 that mysterious lights observed in the Turkish sky could be caused by the Russian ballistic missile test.
- Some mysterious lights in the sky had been observed across Turkey on the night of Dec. 25, as some Turkish social media users had commented on the spectacle, stating the lights could be UFOs.
- On Dec. 27, the Russian Defense Ministry announced they had tested a ballistic missile, Russian TASS News Agency reported.
- Turkish ballistic missile and defense expert Hakan Kılıç said the missile could be observed from a very wide geographical area due to its 13,000 kilometer range.
- Russia's Strategic Missile Force has tested perspective armament for the RS-12M Topol intercontinental ballistic missile (ICBM) at the Kapustin Yar practice range in the southern Astrakhan Region, the ministry said....



# UFO Sanılan Nesne Rus Füzesi Çıktı...!

KYSS-15

UFO Sanılan Nesne Rus Füzesi Çıktı...!



**UFO DEĞİL FÜZEYİMİŞ**

19:18 0542 800 80 80 0538 546 07 07 Sosyal Medya Haber

Abone OL

<https://www.youtube.com/watch?v=OlNJgrKp6w4>

# İSTANBULU AYAĞA KALDIRAN UFO GÖRÜNTÜSÜ - 2017

## UFO image that rouses the Istanbulites

KYSS-15



<https://www.youtube.com/watch?v=Nu2ac37T3U8>

# İstanbulda Ufo Görüldü! İstanbul Semalarındaki Ufo Panik Yarattı

## UFO spotted in Istanbul! The UFO in Istanbul neighbourhood created panic...

KYSS-15



<https://www.youtube.com/watch?v=IfRfISe5rvw>

# Uykucu Gergedan // Published on Dec 26, 2017

İstanbul semalarında görüntülenen ilginç ışıkların birçok ilde de görüldüğü öğrenildi.

**The interesting lights displayed in the skies of Istanbul have been seen in many provinces.**

Bugün saat 06.30 sıralarında Sabiha Gökçen Havalimanı üzerinde ilginç görüntüler çekildi. Terminal binası tarafında gökyüzünde oluşan ışıklar dikkat çekti. Ajanslara düşen son dakika bilgisine göre bugün saat 06.30 sıralarında gökyüzünde oluşan ışık İstanbul'un yanı sıra Şırnak, Ankara Çubuk ve Tokat Turhal'da da görüntülendi.

**Interesting images were taken at Sabiha Gokcen airport at 06.30 hours today. The lights on the side of the Terminal building pointed to the sky. According to the last-minute information of the agencies, the light formed in the sky today at 06.30, as well as in Istanbul, Sirnak, Ankara Bar and Tokat Turhal was also displayed.**

Semih Kurt'un cep telefonu ile çektiği fotoğraf ve videoda, terminal binası tarafında oluşan ışıklar dikkat çekti. Bu arada Pendik-Ataşehir ve Tuzla 'da vatandaşlar aynı ışık hüzmelerini çekerek sosyal medyadan paylaştı. Sosyal medyada bunun bir uçağa ait olduğu öne sürülürken bazı paylaşımcılar UFO olduğunu iddia etti.

**The photo and video taken by Semih Kurt's cell phone drew attention to the lights that occurred on the terminal building side. Meanwhile, the citizens of Pendik-Ataşehir and Tuzla shared the same light of the social media. Social media claimed that it belonged to a plane, while some of the share was a UFO.**

# Part 2

KYSS-15

2 DAKİKA BOYUNCA GÖZLE TAKİP EDİLDİ

followed by the eye throughout a minute

Sabiha Gökçen 'de Kuzey yönünden güneye doğru görülen ve arka arkaya gelen ışık kümeleri, yaklaşık 2 dakika boyunca net olarak gözle takip edildi. Daha sonra da kayboldu.

**In Sabiha Gökçen, the light clusters, which were seen in the north direction South, were monitored clearly for about 2 minutes. And then he disappeared.**

AYNI IŞIK BİRÇOK İLDE GÖRÜLDÜ The same light was seen in many provinces

Bugün saat 06.30 sıralarında gökyüzünde oluşan ışık İstanbul'un yanı sıra Şırnak, Ankara Çubuk ve Tokat Turhal'da da görüntülendi. Işığı gören vatandaşlar cep telefonu ile ışığın fotoğraflar ve videosunu çekti. Ankara Çubuk'ta yaşayan Çetin Durmaz, "Aynı bir deniz anası gibiydi ışık. Işık bir çemberin içindeydi. Sonra görüntüdeki gibi yavaş yavaş toz gibi genişleyerek dağıldı." dedi. Arka arkaya gelen ışık kümeleri, yaklaşık 2 dakika boyunca net olarak gözle takip edildi. Daha sonra da kayboldu.

**Today, the light formed in the sky during 06.30 hours in Istanbul as well as Sirnak, Ankara Bar and Tokat Turhal was also displayed. The people who saw the light took pictures and video of the light with their mobile phone. Çetin Durmaz living in Ankara bar, "the same as a jellyfish light. The light was in a circle. Then, as in the image gradually dispersed as the dust expanded. "he said. The light clusters in succession were clearly monitored for about 2 minutes. And then he disappeared.**



# İSTANBUL'DA UFO ŞOKU SİZCE GERÇEKMİ ! (REAL UFO )

KYSS-15

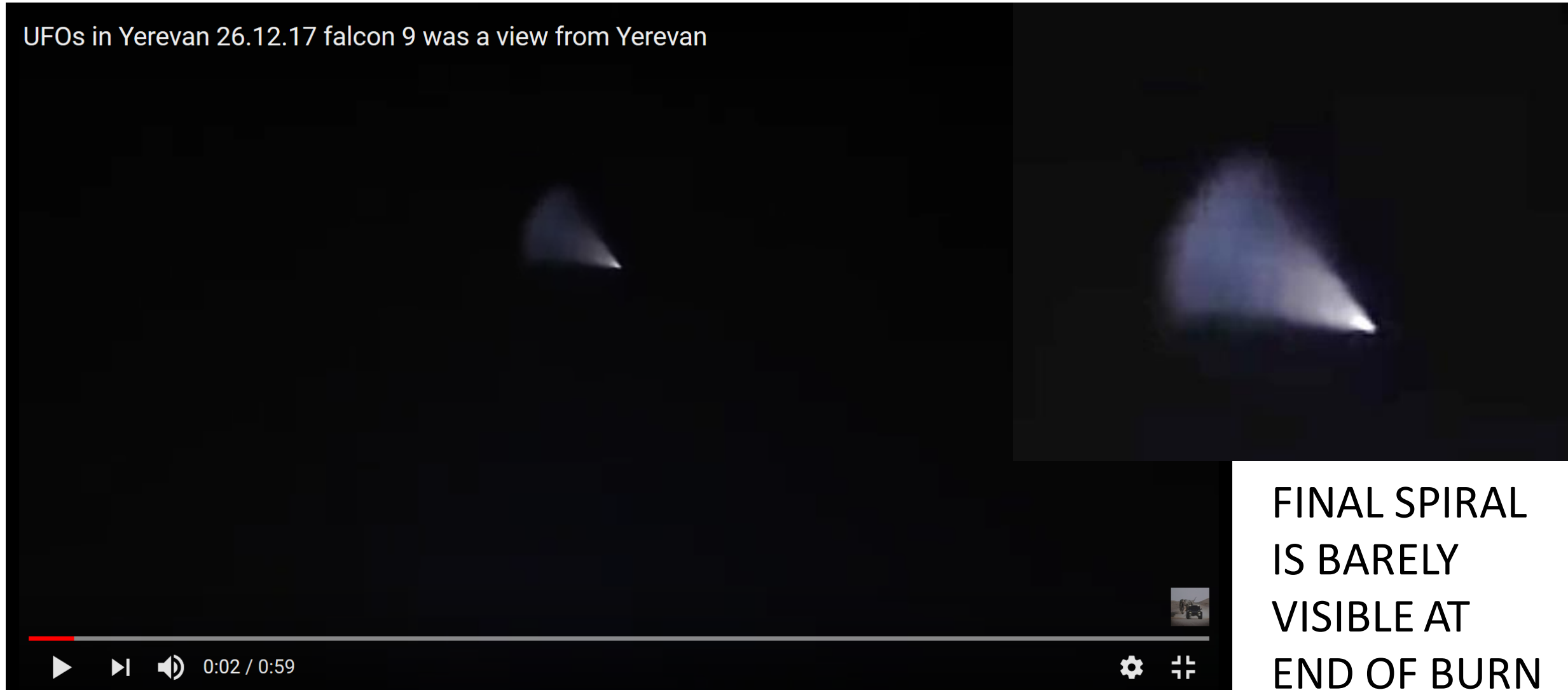


<https://www.youtube.com/watch?v=hDWf7ZlGGml>

<https://www.youtube.com/watch?v=IfRfISe5rvw>

<https://www.youtube.com/watch?v=Nu2ac37T3U8>

# UFOs in Yerevan 26.12.17 falcon 9 was a view from Yerevan



HA Prodaction // <https://www.youtube.com/watch?v=OriMOE2EwWE>

# В Азербайджане на камеру был заснят НЛО

KYSS-15

- В Азербайджане случайными свидетелями на камеру был зафиксирован НЛО. Очевидцы предполагают, что они заметили не что иное, как космический корабль гостей с другой звездной системы или даже Галактики. Об этом сообщают СМИ Азербайджана
- In Azerbaijan, a UFO was registered on camera by accidental witnesses. Eyewitnesses suggest that they have noticed nothing but a spaceship of guests from another star system or even a galaxy. This is reported by the media of Azerbaijan
- Свидетели заявляют, что они видели внезапно появившееся на небосводе странное свечение. Объект перемещался в пространстве, после чего внезапно исчез. Очевидцы не смогли понять природу данного явления, поэтому начали выдвигать самые разнообразные гипотезы на этот счет - от инопланетян и до экспериментальных запусков новых технологий США.
- Witnesses claim that they saw a strange glow suddenly appearing on Sky. The object moved in space, and then suddenly disappeared. Eyewitnesses could not understand the nature of this phenomenon, so began to put forward a variety of hypotheses on this account-from the aliens and to the experimental launches of new technologies in the United States.
- <http://oane.ws/2017/12/28/v-azerbaydzhane-na-kameru-bylo-zasnyato-nlo.html>

- Некоторые свидетели порекомендовали остальным не делать поспешных выводов, а дождаться мнения экспертов на этот счет. Странное свечение было зафиксировано в Гарадагском районе Баку. Это событие вызвало настоящий резонанс в общественности.
- Some witnesses suggested that the others should not make hasty conclusions, but would await the expert opinion on this matter. A strange glow was recorded in the Garadagh district of Baku. This event caused a real resonance in the public.
- Ученые Шамахинской обсерватории имени Насреддина Туси прокомментировали данный инцидент, дабы развеять невежественные слухи среди населения. Они заявили, что на небосводе в тот момент сияло не НЛО, а всего-лишь след от спутника, который был запущен каким-либо государством.
- Scientists of the Shamakhi Observatory named Nasreddin Tusi commented on this incident in order to dispel the ignorant rumors among the population. They said that the sky at that moment was not a UFO, but only a trace of a satellite, which was launched by a country.
- <http://oane.ws/2017/12/28/v-azerbaydzhane-na-kameru-bylo-zasnyato-nlo.html>
- Reworded in <http://www.vladtime.ru/allworld/628310>

# Азербайджан посетили пришельцы

## Azerbaijan visited by aliens

KYSS-15

- Dec 26, 04:30 \\ Мозаика \\ В двух районах Азербайджана люди смогли заснять на камеру НЛО.
- **In two districts of Azerbaijan people were able to shoot UFOs on the camera.**
- Исходя из увиденного необыкновенного свечения, жители двух районов Азербайджана предположили что они видели пришельцев. Свет внезапно появился, но после непродолжительного полета, также внезапно исчез. Обитатели Гарадагского района, даже успели зафиксировать светящийся объект и выложить свои видеосюжеты в сеть, тем самым вызвав массу противоречий и со стороны уфологов, и со стороны скептиков.
- Based on the unusual glow seen, the residents of the two districts of Azerbaijan assumed that they had seen aliens. The light suddenly appeared, but after a short flight, also suddenly disappeared. The inhabitants of the Garadagh district, even managed to get the glowing object and post their videos on the internet, thereby causing a lot of arguments between the ufologists and the skeptics.
- Специалисты из Шамахинской обсерватории имени Насреддина Туси, предположили, что сияние исходило не от корабля пришельцев, это был всего лишь след спутника. Кому принадлежит спутник - пока не ясно, его могла запустить любая страна.
- Experts from the Nasreddin Tusi Shamakhi Observatory suggested that the radiance did not come from an alien ship, it was just a trace of a satellite. Who owns the satellite-it is not clear, any country could launch it.

<https://versiya.info/mozaika/52456>





<https://youtu.be/imjA0c019T8>



# AZERBAIJAN --

KYSS-15

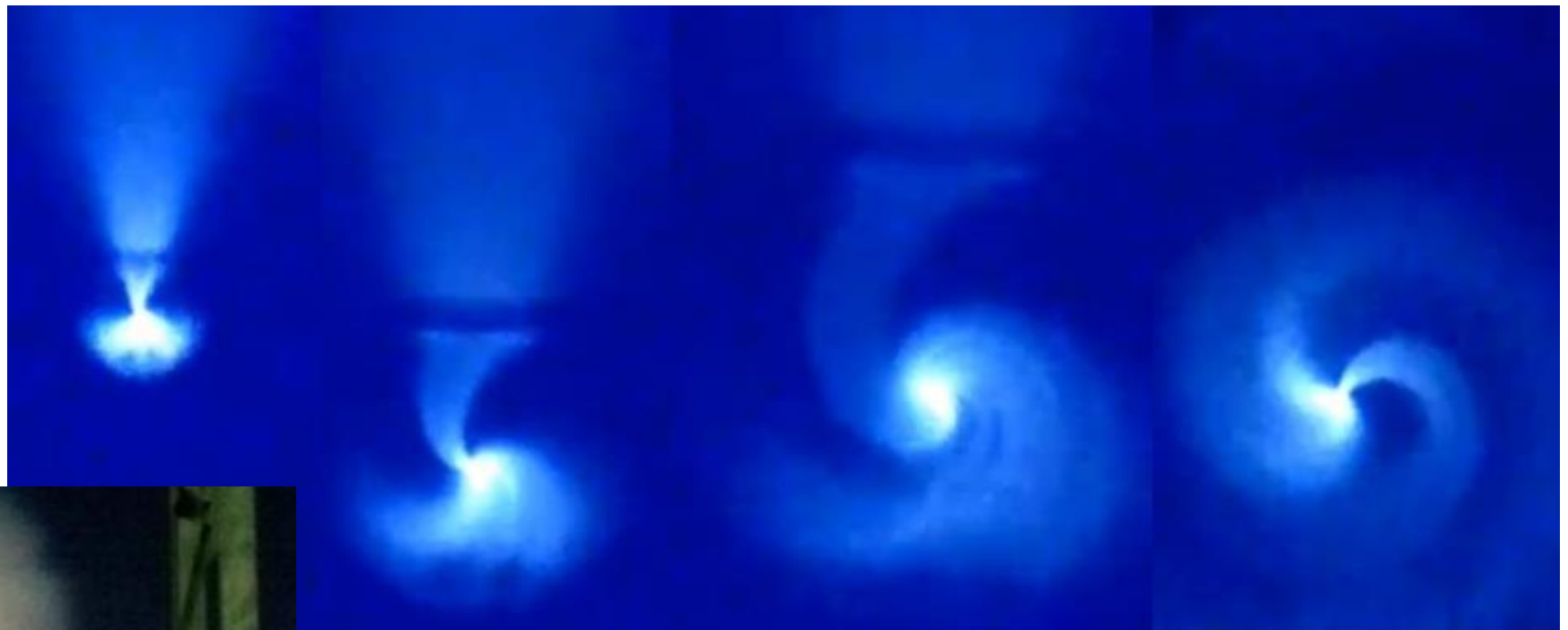


<https://youtu.be/imjA0c019T8?t=72>

# FINAL BRIEF SPIRAL

- FINAL SPIRAL – spectacular feature at end of last stage firing, it's a several-seconds-long spin-up burn by opposing thrusters on the warhead bus

**[RIGHT] June 2012  
mission observed  
from below track  
[note front of third  
stage plume dropping  
away from warhead]**



PREVIOUS FINAL SPIRALS  
images – most spectacular  
feature of mission, spiral  
swells into expanding ring

НЛО в Волгограде 26 декабря 2017

KYSS-15

# UFO in Volgograd НЛО в Волгограде 26 декабря 2017

ЗНАЮ ВСЁ

Published Dec 26, 2017

Spiral barely visible

[enhanced on next page]

НЛО  
в Волгограде?



0:40 / 1:59



<https://www.youtube.com/watch?v=uLEkOrgyVpM>



## BRIGHTNESS ENHANCED

NARRATOR [from transcript, translated by J. Oberg]

сегодня 26 декабря 2017 года над спящим городом волгоградом был замечен неопознанный летающий объект посреди темного неба. объект в начале поднимался вверх затем начал движения по спирали и следы растянулись по всему небу.

Today, December 26, 2017, an unidentified flying object was seen in the middle of the dark sky over the sleeping city of Volgograd. In the beginning the object rose up, then the spiral motion began and traces stretched across the whole sky.

# Volgograd comments

KYSS-15

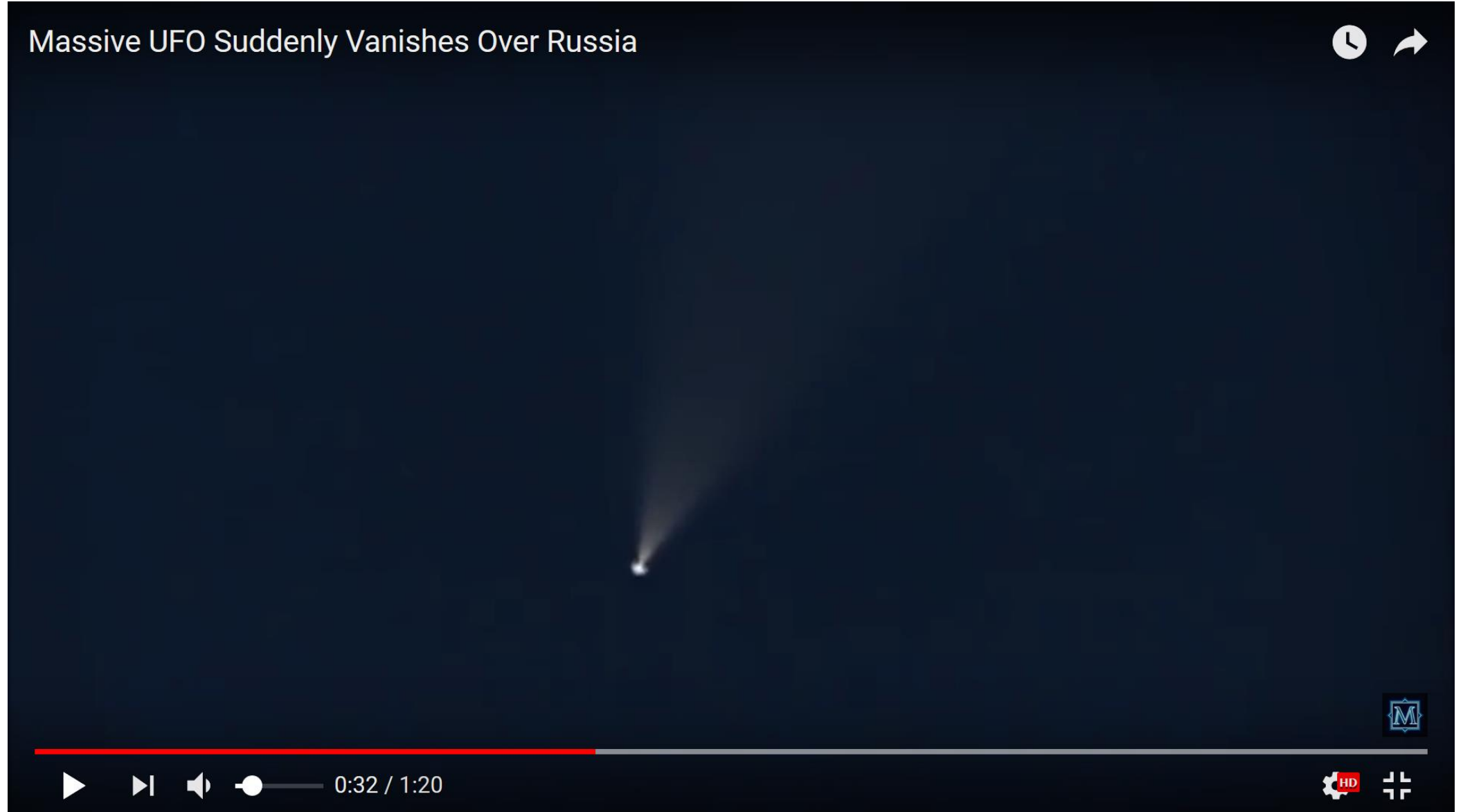
6e3 a1ma == Это не только в Волгограде а и в Украине и Турции!!!  
Так же такая же хрень была 2 месяца назад тоже 26! Совпадение?  
Не думаю! It is not only in Volgograd but also in Ukraine and Turkey!!!  
The same crap 2 months ago, also the 26th! Coincidence? I don't think  
so! [JO == Good point, that was KYSS-14 launch]

rjak rjaks == Тоже самое в этот же день было над Тамбовом.

6e3 a1ma == ЗНАЮ ВСЁ зделай пожалуйста об етом видео, что би  
люди не волновались. I know, please do all all about this video so that  
people didn't get worried

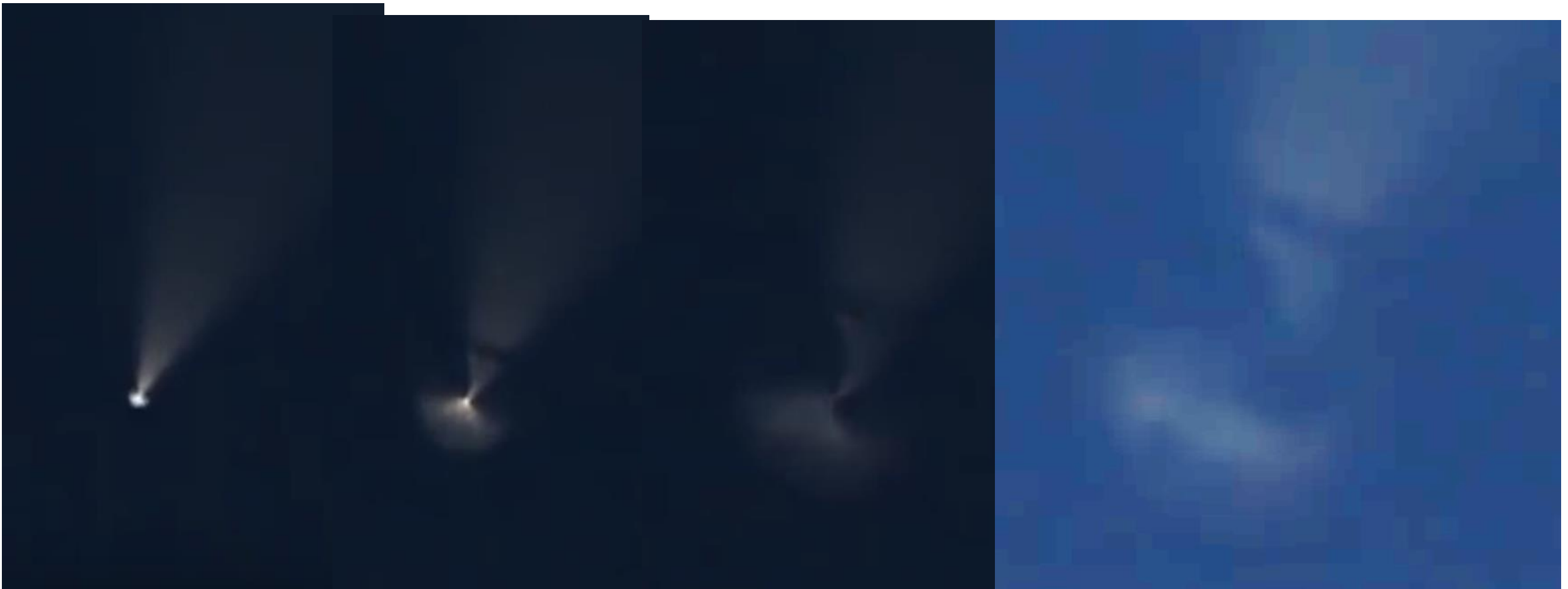
Lipetsk view does not show spiral  
<https://youtu.be/Z3wYwmSqVew>

Clear spiral from ModernGalaxy // Published on Dec 27, 2017 KYSS-15??



<https://www.youtube.com/watch?v=ScngKkTK4iA&t=18s>

NO LOCATION DATA, NO GUARANTY WASN'T OLDER VIDEO  
[abbreviated spiral phase is not consistent with other KYSST-15 imagery]





AZERBAIJAN PHOTO

<https://versiya.info/mozaika/52456>



**BRIGHTNESS ENHANCED**

KYSS-15

NUMBER OF  
SPIRAL LOOPS  
DIFFERENT IN  
PREVIOUS  
VIDEO - WHY?



# INITIAL ASCENT PLUME

STANDARD TWO-MINUTE CLIMB INTO VACUUM ALTITUDE [ $> 100$  km]. MISSILE LEFT NARROW TRAIL THAT HUNG FOR ALMOST AN HOUR WHILE CROSSWINDS KINKED IT HORIZONTALLY. FOR KYSS-15 DAWN LAUNCH THIS FEATURE WAS MAINLY SEEN NORTH [URALS] AND SOUTH [ASTRAKHAN, AZERBAIJAN, ARMENIA] OF THE LAUNCH SITE. TO THE EAST IT WAS ALREADY DAYLIGHT AND TO THE WEST IT WAS BELOW THE HORIZON.



Роман Пилипенко  
Published on Dec 26, 2017

KYSS-15



[https://www.youtube.com/watch?v=gb\\_guOqNOcY](https://www.youtube.com/watch?v=gb_guOqNOcY)

# Ascent contrail

- [Ответ пользователю @666\\_mancer](#)
- Оно же в Луганске [UTC + 2], Волгограде и Миллерово [#нло](#)
- 6:16 [cloud still hanging there 7:08]
- [6:16 - 26 дек. 2017 г.](#)
- <https://ria.ru/world/20171227/1511783365.html>
- [https://twitter.com/666\\_mancer/status/945629438921895936?ref\\_src=twsrc%5Etfw&ref\\_url=https%3A%2F%2Fria.ru%2Fworld%2F20171227%2F1511783365.html](https://twitter.com/666_mancer/status/945629438921895936?ref_src=twsrc%5Etfw&ref_url=https%3A%2F%2Fria.ru%2Fworld%2F20171227%2F1511783365.html)

# Необычное явление 26 декабря 2017 года.

16,107 views // Александр Сухоносков [Aleksandr Sukhonosov]

Необычное явление 26 декабря 2017 года.



## DEC 26 - UNUSUAL PHENOMENON

REMARKABLY DETAILED ACCOUNTS FROM MANY INTELLIGENT OBSERVERS INCLUDING WEATHER, TIME DURATIONS, COMPASS DIRECTIONS, ELEVATION, ETC – OH, WOULD THAT WE COULD GET SUCH DETAILS FROM WITNESSES MORE OFTEN [NEXT SEVERAL PAGES]

2:07

0:19 / 3:40



<https://www.youtube.com/watch?v=pbKJgx7AO68>

# EYEWITNESSES [Aleksandr Sukhonosov & Aleksandr Zaytsev]

KYSS-15

Ночь перед рассветом 2017 год 26 декабря. Павловский район Воронежской области. Без пятнадцати семь звёздное небо и только лёгкий зигзаг дымки на восточной части неба. Ближе к семи появилось лёгкое светло красное пятнышко на восточной части неба. Начало потихоньку расплываться и увеличиваться. Интересный рисунок в небе красочней чем смогла передать камера. Съёмку вёл периодически с 7 до 7.40 примерно. Рассвет в дальнейшем был обычный для этого времени года. День бал пасмурный слегка шел снег потом чутка дождь. Утром -9 днём 0

**Voronezh province. Only a light zigzag of haze on the eastern part of the sky. Closer to seven there was a light red speck on the eastern part of the sky. The beginning slowly blurred and increase. Interesting picture in the sky colorful than could pass the camera. Shooting led periodically from 7 to 7.40 approximately. The dawn in the hereafter was normal for this time of year. The day of the ball cloudy lightly snowed then sensitive rain. Morning temp -9. daytime 0.**

Александр Зайцев -- Это не явление природы! Я живу в Ростове и видел как образовалось это облако. Летел какой то объект на вид как салют и дымился а потом завивался в спираль и исчез. А через 5 минут чуть южнее начал падать какой-то другой объект и начал выпускать какой то белый газ, облако этого газа быстро улетело на запад, а первый след так и висел в небе!

**It is not a phenomenon of nature! I live in Rostov and saw how this cloud was formed. Flew some object to look like a firework and cauldron and then expanded [?] into a spiral and disappeared. And in 5 minutes some other object began to fall a bit further south and began to produce some kind of white gas, the cloud of this gas quickly flew to the west, and the first trace just hung in the sky!**



# COMMENTS

KYSS-15

- ника морозова [Nika Morozova] == Ещё это было в Волгоградской обл. Сначала был фиолетовый шар он начал немного шевелиться и внутри этого шара была наверное звезда и она тоже немного шевелилась потом начала появляться какая-то линия белая. **It was also in Volgograd region. At first there was a purple ball, it began to move a little and inside of this ball was probably a star and it too moved a little, then began to appear some kind of white line.**
- Татьяна Гаврилова [Tatyana Gavrilova] == спиральное завихрение это характерное явление при запуске ракет и спутников. Давно Я видела похожее явление, была не одна мы все были в ступоре тогда еще мало знали об запуске в космос.... **A spiral swirl is a characteristic manifestation of the launch of missiles and satellites. Long ago I saw a similar phenomenon, was not alone, we were all in a stupor then, we still little knew about a launch into space....**
- Olena Pohrebnyak == Это на ракету никак не похоже. **It doesn't look like a rocket.**
- Rubik Kubik == Первый я не видел только облако. Зато второй практически на домной раскрылся и облако в виде конуса оставил. И странно то что не было взрыва или хлопка. **First I have not seen only the cloud. But the second practically on top of me opened and the cloud in the form of a cone went away. And it's strange that there was no explosion or puff.**

Андрей Сотник [Andrey Sotnik] == С той точки, что я смотрел, север Краснодарского края, обратила на себя яркая точка, как яркая звезда. Она стояла на месте, примерно 40-50 градусов от горизонта, на востоке, а затем с неё начал исходить почти белый конус в сторону запада. Яркая точка по мере распространения конуса тускнела, а затем исчезла. Конус распространялся очень быстро и почти над моей головой был уже виден овальный круг с неровными, как будто клубился дым, краями. При этом верх конуса стоял на месте и не было слышно ни какого звука. А облака, показанные в ролике появились минут через 7 на абсолютно черном небе, над восточным горизонтом. Перед этим на небе были очень высокие полупрозрачные перистые облака. Всё это действие происходило ниже облаков. А после него они очень быстро исчезли со всего неба.

**From the point that I looked, the north of Krasnodar region, turned on a bright point, as a bright star. She stood on the spot, about 40-50 degrees from the horizon, to the east, and then began to emanate almost a white cone towards the west. Bright point as the cone spread falling, and then vanished. Cone spread very quickly and almost over my head. The oval circle with uneven, as if swirled smoke, edges was already visible. Thus the top of a cone stood on a place. And it was not audible any sound. And the clouds shown in the clip appeared minutes after 7 on the absolutely black sky, above the eastern horizon. Before that, there were very high translucent cirrus clouds in the sky. All this action took place below the clouds. And after it they quickly disappeared from all the sky.**

# EYEWITNESS "DARKFLAME"

KYSS-15

DarkFlame == Это происходило у меня над головой, в 6:30 по мск, было два объекта, совершали похожие действия но разница в 5 минут между ними. Объект не газ выпускал, а газ или дым это уже последствие, с начало с этого объекта было яркое свечение, напоминающее как будто прожектор светит и очень ярко, контуры света были видны в темноте отчетливо, светил на запад, потом яркий свет исчез и где были "лучи" этого "прожектора", там образовалось белое облако, которое рассеялось в небе. А на видео это уже спустя пол часа, когда это облако уже совсем рассеялось. Что это могло быть не знаю, одни слухи. От Тополь-М до чего угодно... Такое наблюдалось во многих городах, если посмотреть в интернете можно найти много таких явлений, Прибалтика, Румыния, Украина, РФ. Конкретно я наблюдал это над Донбассом.

**It took place over my head, in 6:30 at MSC, there were two objects, did similar actions but the difference in minutes between them. The object is not gas released, and gas or smoke is already a consequence, with the beginning of this object was a bright glow, reminiscent as if the spotlight shines and very bright, the contours of light were visible in the dark distinctly, shone on the west, then the bright light disappeared and where there were "rays " of this "spotlight ", there was formed a white cloud, which dissipated in the sky. And in the video it is already half an hour, when this cloud has completely dissipated. That it might not be known, some rumors. From Topol-M to anything... This was observed in many cities, if you look on the Internet you can find many such phenomena, the Baltics, Romania, Ukraine, Russia. Specifically, I watched it over Donbass.**

Максим Максимов [Maksim Maksimov] == я видел эту картину в дороге. Но за 20-30 минут когда было ещё темно было свечение чем-то похоже на ядерный взрыв. Это свечение в космосе распространялось с очень большой скоростью и по этому я и предположил, что был взрыв. Рядом был извивающийся светящийся хвост. Затем появилась точка, которая за 3-4 секунды достигла своей максимальной яркости, что мой грёбанный айфон смог сфотографировать ночное небо. Так вот через 4-7 секунды эта точка стала похоже на комету или источник направленного взрыва в одну сторону или полураскрытый веер с последующим увеличением на небе. СКОРОСТЬ РАСПРОСТРАНЕНИЯ БЫЛА ВЫСОКАЯ. Потом появилась картинка довольно красивая на заре которую вы выложили в ютубе с более чётким хвостом. Предполагаю, что я видел две ракеты и последняя самая красивая в лучах солнца.

**I saw this picture on the road. But in 20-30 minutes when it was still dark the glow was something like a nuclear explosion. This glow in space spread at a very high speed and that's what I assumed was the explosion. Nearby was a twisting glowing tail. Then there was a point, which in 3-4 seconds reached its maximum brightness, that my bloody iphone was able to photograph the night sky. So in 4-7 seconds this point became similar to a comet or source of directional explosion in one direction or half-opened fan with subsequent increase on the sky. The rate of expansion was high. Then there was a pretty beautiful picture at the dawn which you laid out in a YouTube with a sharper tail. I suppose I saw two rockets and the last one was the most beautiful in the rays of the sun..**

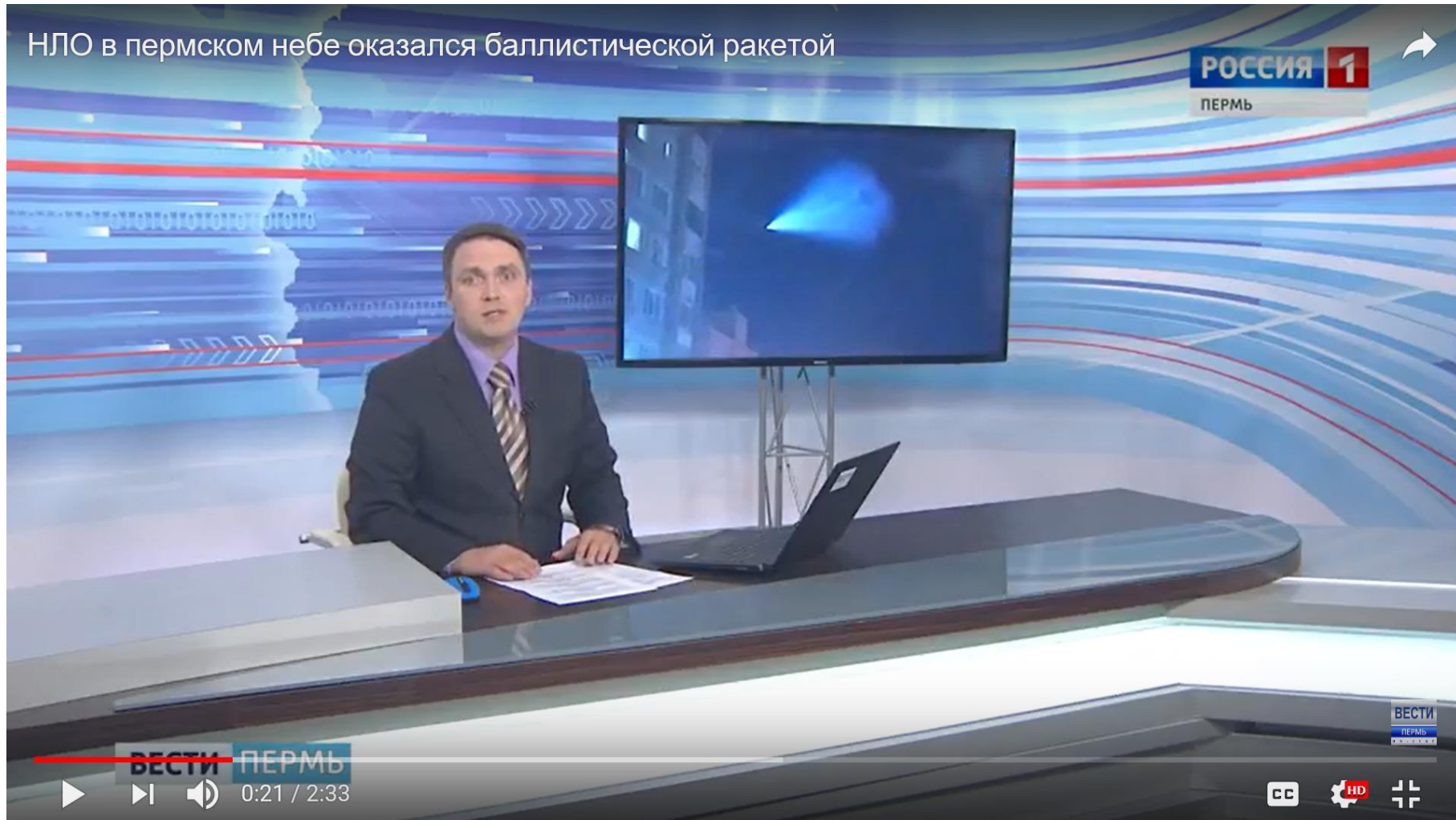
# PREVIOUS MISSION -- Kysst-14 [sep 27, 2017]

- Fourteenth test flight was 'classic' observable mission, widely seen in Russia, Turkey, and Iran
- Only obvious peculiarity was the omission of exact launch time.
- The peculiarity became more intriguing when I realized the launch time estimated from witness reports would have allowed observation from the International Space Station [to be discussed later].



НЛО в пермском небе оказался баллистической ракетой  
UFO IN PERM SKY TURNED OUT TO BE BALLISTIC ROCKET  
Sept 27, 2017

KYSS-14



<https://www.youtube.com/watch?v=0Ug-Ckemjcw>

# September 2017

KYSS-14



<https://www.youtube.com/watch?v=qsSQwcYmeol>

tbs

KYSS-14

This UFO Is An ICBM, According To The Russian Ministry Of Defense

vocativ  

**...OR  
WAS IT?**

   1:03 / 1:30

  
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## Russia's new ballistic missile mistaken for alien invasion after 'UFO' is fired close to homes in dramatic footage

The weapon was fired into a remote area in Kazakhstan as tensions heighten over North Korea



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COMMENTS

BY WILL STEWART, DAVE BURKE  
13:50, 27 SEP 2017

NEWS



# By Will Stewart & Dave Burke // 13:50, 27 SEP 2017

- A new intercontinental missile being tested by Vladimir Putin's Russia has been mistaken for an alien invasion.
- Confused witnesses thought the bright object in the sky - which had a 'wiggly tail' - was an extraterrestrial ship .
- "If anybody asks me to describe an UFO, this is exactly how I would have pictured it," one baffled witness said.
- Another posted online: "I was horrified, and all my friends saw it, nobody knew what it was."
- One observer feared a black hole had arrived, and another said: "I'm scared of aliens, I heard they kidnap people."
- And another wrote: "It was an alien spacecraft with a wiggly tail."
- Locals were told by the Defence Ministry that the strike was "not an act of invasion or breaking through state borders" by Russia.
- The missile was described as appearing like a brightly illuminated ball with several halos.
- Some said they saw a "wiggly tail", while other witnesses said it "changed shape" and "suddenly disappeared".



# [continued]

- "Many Russians witnessed the bright and strange object in the night sky - people in Rostov, Cheboksary, Kazan, Samara and other cities photographed and filmed it commenting that it might be a UFO," said one report.
- The test sparked anger among people living nearby, who were furious that Russia was carrying out the test so close to their homes.
- One man wrote: "Why are they launching these missiles right above my district?"
- A student wrote: "What was it?? Do you trust this missile story? It was so close, right above our hostel."
- And another said: "I thought about missile but why at night? And it was so bright. Poor retirees with heart problems."
- In Kyrgyzstan an eyewitness told of an "an unknown object floating in the sky over Bishkek" - the capital city.
- The object then "exploded in the sky", it was claimed.
- Russian defence chiefs said the warhead hit the designated target at the Sary-Shagan testing range in Kazakhstan with the "desired accuracy".

# KYSS-14 observed in Iran

[ВСЕ НОВОСТИ](#)[В РОССИИ](#)[В МИРЕ](#)[ПОЛИТИКА](#)[ДЕНЬГИ](#)[СПОРТ](#)[КРИМИНАЛ](#)[ШОУ-БИЗНЕС](#)[ЗД](#)

18:40, 27 сентября 2017  8961 [Иран](#) [Тополь](#) [НЛО](#) [местные жители](#) [военные](#)

## Видео: Полет российского "Тополя", принятого за НЛО, был виден из Ирана

Военнослужащие Ирана и мирные жители могли наблюдать за "светящимся объектом".



4



54



Отправить



Распечатать



В закладки

Иранцы заметили светящийся объект в небе в день пуска российской межконтинентальной баллистической ракеты "Тополь". Многие приняли объект за НЛО.

<http://ren.tv/novosti/2017-09-27/video-polet-rossiyskogo-topolya-prinyatogo-za-nlo-bylo-vidno-iz-irana>

KYSS-14



# Teheran [south of track]



<https://www.youtube.com/watch?v=VbnNygrrYol>



## Bright Light in Sky Seen in Iran Was Russian Missile: Commander

News ID: 1531868 Serv  
© September, 27, 2017 - 16



A bright light that streaked across the sky on Tuesday evening and was seen in many Iranian cities was a Russian ballistic missile, a top Iranian Air Defense commander said.

The bright light that captured the attention of residents in a number of Iranian cities on Tuesday evening was a Russian RS-12M ballistic missile launched from an area north of the Caspian Sea, Lieutenant Commander of Khatam al-Anbia Air Defense Base General Alireza Elhami explained on Wednesday.

The commander noted that trajectory of the missile did not include the Iranian airspace, but the high altitude it reached and the launch time made it visible to the naked eye in the Iranian cities of Birjand, Tabas, Yazd, Arak, Tehran and Shiraz.

<https://www.tasnimnews.com/en/news/2017/09/27/1531868/bright-light-in-sky-seen-in-iran-was-russian-missile-commander>

# Iranian official: Iran's luminous object in the sky was ballistic missile of Russia

فهرست ورود BBC

فارسی

صفحه اول | پخش زنده | ویدیو | تلویزیون | رادیو | ایران | افغانستان | جهان | هنر | ورزش | اقتصاد | دانش

## مقام ایرانی: شیء نورانی در آسمان ایران موشک بالستیک روسیه بود

همرسانی

27 سپتامبر 2017 - 05 مهر 1396

This luminous object was seen in some parts of Iran such as Yazd-Tabas, Birjand, Qazvin, Shiraz, Tehran, and Arak.

<http://www.bbc.com/persian/iran-41415173>



# Commander: Luminous Object in Iranian Sky Russian Ballistic Missile

*Tehran Fars News Agency in English [2017 Sep 27 1423 GMT]*

Khatam ol-Anbia Air Defense Base Lieutenant Commander General Alireza Elhami said on Wednesday that the luminous object witnessed in a number of Iranian cities was a Russian ballistic missile being test-fired from the Northern parts of the Caspian Sea.

"Yesterday (Tuesday) at 19:00 local time, reports were received from the Air Defense network's outposts and people of witnessing a luminous object in the country's sky and the Air Defense Base prepared itself for confrontation and even clashes with the luminous object based on its mission," General Elhami said.

Noting that the missile's direction was not Iran's airspace, General Elhami said that given its high altitude and the time of its firing, the missile was witnessed in certain parts of Iran, including Birjand, Tabas, Yazd, Arak, Shiraz and Tehran.

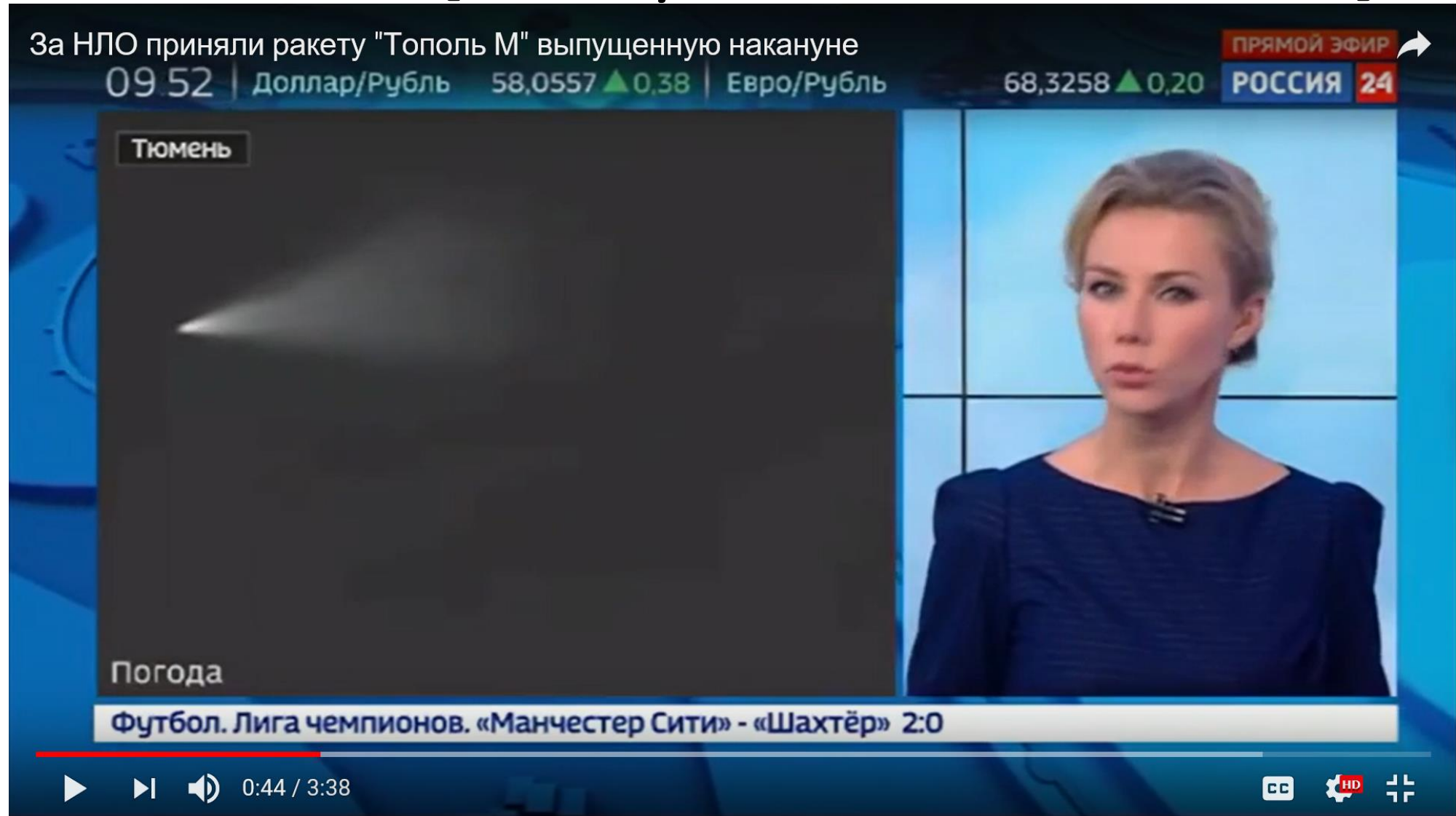


FROM IRAN NEWS SITE, NO DESCRIPTION



KYSS-14

# Россия 24 НЛО -- UFO [over Tyumen – north of track]



<https://www.youtube.com/watch?v=hhgZk6DCGEI>

KYSS-14



# Alien Invasion Feared As Mysterious Portal Opens Up Over Russia



<https://www.youtube.com/watch?v=Yvy8VfaX8wM>



0:32 / 2:54





# НЛО В Волгоградской области 26.09.2017

## UFO IN VOLGOGRAD REGION



<https://www.youtube.com/watch?v=PLbpzx7ei6A>

KYSS-14

# Mysterious 'UFO' above Armenia turns out to be a Russian missile



September 27, 2017 - 11:04 AMT

**PanARMENIAN.Net** - Footage and photos showing a mysterious object hovering above the **Armenian** capital of **Yerevan** surfaced on Tuesday, September 26.

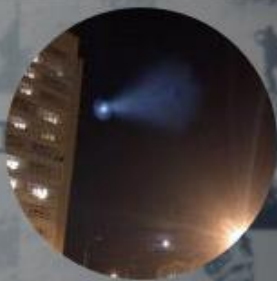
What was first thought by social media users to be a UFO turned out to be a test of Russian **RS-12M Topol** intercontinental ballistic missile.

The 'UFO' was also spotted in Kazan, Samara, Rostov, with some residents likening it to a burning comet.

# BLOW-UP OF ARMENIA PHOTO







В Уфе очевидцы сняли в небе таинственный портал в другое измерение: НЛО, астероид или баллистическая ракета?

От Редактора

Что скрыто от человеческих глаз?

Сюжеты : запретят" собакам лаять по ночам

Жители Омска рассказали о появившейся в городе «пьяной» дороге

Главная страница | От Редактора | В Уфе очевидцы сняли в небе таинственный портал в другое измерение: НЛО, астероид

# В Уфе очевидцы сняли в небе таинственный портал в другое измерение: НЛО, астероид или баллистическая ракета?

вчера, 21:40

Комментариев: 0



Версия для печати



Что скрыто от человеческих глаз? Стоит ли верить тому, что предоставлено нам для обозрения? Инопланетный портал, НЛО или астероид? Попробуем разобраться.

**Eyewitnesses in Ufa perceived in the sky a mysterious portal to another dimension: UFO, asteroid or a ballistic missile?**

Что скрыто от человеческих глаз? Стоит ли верить тому, что предоставлено нам для обозрения? Инопланетный портал, НЛО или астероид? Попробуем разобраться.

Liliya Dyl

*What is hidden from human eyes? Whether to believe what is granted to us for review? Alien UFO portal or an asteroid? We try to understand.*

# “Yandex.ru” search for articles

KYSS-14

## Жители Ростова перепутали НЛО с ракетой «Тополь»



Регион online 26 сентября в 23:45

### Жители Ростова перепутали **НЛО** с ракетой «Тополь»

Большинство приняла неизвестный объект в вечернем небе за **НЛО**. - Только что (18:35) с Мадояна в сторону Центра в небе наблюдали **НЛО**.



REN TV 10:37

### Фото: Жители Дагестана перепутали ракету «Тополь» с **НЛО**

Жители Махачкалы перепутали межконтинентальную баллистическую ракету "Тополь" с **НЛО** и кометой, сообщает портал "Махачкалинские известия".



Комсомольская правда в Казани 27 сентября в 03:45

### В Татарстане ракету «Тополь» перепутали с **НЛО**

К тому же, такое «**НЛО**» в это же время было видно и в других регионах России.

[Ещё 69 сообщений](#)

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<https://news.yandex.ru/yandsearch?rpt=nnews2&grhow=clutop&text=%D0%9D%D0%9B%D0%9E>





KYSS-14

TBS

## UFO SPOTTED OVER RUSSIA 26 SEPTEMBER 2017

145 views

 LIKE  DISLIKE  SHARE  ...

<https://www.youtube.com/watch?v=-RNfDsmKTbo>



**vaultteam6**

Published on Sep 26, 2017

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# Своящийся шар над Уралом вызвал переполох в соцсетях - Россия 24

## A glowing ball over the Urals caused a stir in social networks

Published on Sep 27, 2017      27,000+ views in 3 days

Жители Урала приняли испытание "Тополя" за НЛО или метеор. Яркая вспышка в ночном небе вызвала массу домыслов у людей. Рассматривались даже самые невероятные версии: от инопланетного корабля до ракетной атаки Северной Кореи. Подпишитесь на канал Россия24:

[https://www.youtube.com/c/russia24tv?sub\\_confirmation=1](https://www.youtube.com/c/russia24tv?sub_confirmation=1)

A bright flash in the night sky caused a lot of speculation in people. Even the most incredible versions were considered: from an alien ship to a North Korean missile attack.

<https://www.youtube.com/watch?v=GhkFSkgDcSo>

## SKEPTICAL OF OFFICIAL EXPLANATION !!

Семен Семеныч [9/28/2017] -- Ракеты так не светятся. Правительство обманывает своих граждан. Придумали гнилую и лживую версию про Тополь-м. Все видели НЛО причем записи видео были и днем и ночью. Это получается Тополь-м СТРЕЛЯЛ 24 часа в сутки и по всей стране??? В истории России Такого еще не было чтобы один запуск видела вся страна и главное что и ДНЕМ И НОЧЬЮ. Тополь-м стреляет регулярно но кто хоть раз такое видел???? вы просто подумайте как вас обманывают СМИ. Это были настоящие НЛО. Нам дают знаки. Пора уже просыпаться Люди...

Rockets do not shine so. The Government of deceiving its citizens. They come up with a rotten and false version of the Topol-M. All saw the UFO with video recordings both night and day. It turns out Topol-m WAS FIRED 24 hours a day throughout the country? In Russian history, this has not happened where the whole country saw one launch and the main thing both day and night. Topol-m shoots regularly but who ever has seen? you just think as the media deceives you. It was a real UFO. They give us signs. It is already time to wake up the People.



## Kars'a düşen göktaşı bakın ne çıktı?..

Kars'ın Kağızman İlçesi'ne bağlı Karabağ Köyü, Akyayla ve Günindi Yaylası civarlarına düştüğü iddia edilen göktaşının Rusya'nın balistik füzesi olduğu ortaya çıktı.

29 EYLÜL 2017 05:03 | GÜNCELLEME :29 EYLÜL 2017 15:08 | KATEGORİ: YAŞAM



Kars'a düşen göktaşı  
bakın ne çıktı?..

Did you see the falling  
Meteor over Kars?..

Kars'ın Kağızman İlçesi'ne bağlı Karabağ Köyü, Akyayla ve Günindi Yaylası civarlarına düştüğü iddia edilen göktaşının Rusya'nın balistik füzesi olduğu ortaya çıktı.

The supposed meteor that fell over Kars, Kagizman district surrounding Nagorno-Karabakh turns out to be a Russian ballistic missile.

KYSS-14

<http://www.birlesikbasin.com/article/kars-a-dusen-goktasi-bakin-ne-cikti-819.html>

Dünyayı gizemli cisim korkusu sardı! - 27 Eylül 2017



BiP ihbar hattı:  0532 063 20 20


# BELİRDİ... YAKLAŞTI... KAYBOLDU...

aBONE  
OL



19:44

0:50 / 2:42

WhatsApp  0505 165 88 88





# Dünyayı gizemli cisim korkusu sardı! - 27 Eylül 2017

The world has lost fear of the mysterious body! -  
September 27, 2017

- <https://www.youtube.com/watch?v=wDgypHrK0RM&t=9s>

# DID COSMONAUTS ON ISS OBSERVE KYSS-14?

- Sep 27, 2017 -- First-ever KYSS mission where launch time not disclosed
- Analysis of reports from Russia and Turkey established approximate time of launch as 15:28 UTC
- Position relative to missile and sun were strikingly similar to KYSS-6 event four years earlier when missile was accidentally observed by US crew. Luca Parmitano by chance was in the observation cupola taking auroral photos, and called Mike Hopkins and Karen Nyberg to join him. [[http://www.jamesoberg.com/Topol\\_Test\\_with\\_images.pdf](http://www.jamesoberg.com/Topol_Test_with_images.pdf)]
- This time, there were NO US crewmembers in the cupola because they were all in the airlock [no windows] preparing for a spacewalk.
- This was scheduled days in advance so the Russians knew it.

International Space Station  
(spacecraft)

3:28 pm UTC | Tuesday,  
September 26, 2017

location current geoIP location

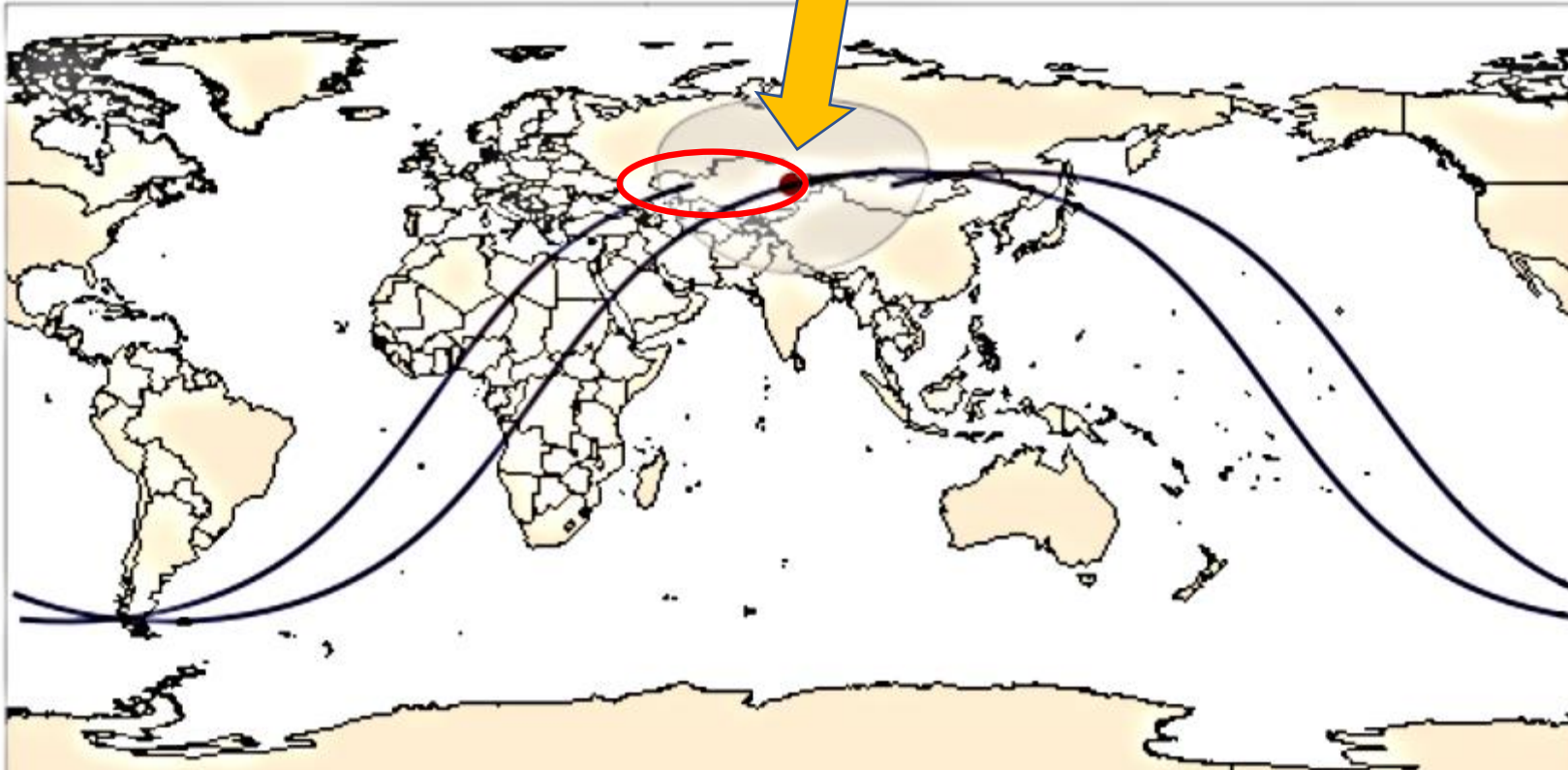
Position at 3:28 pm September 26:

ISS

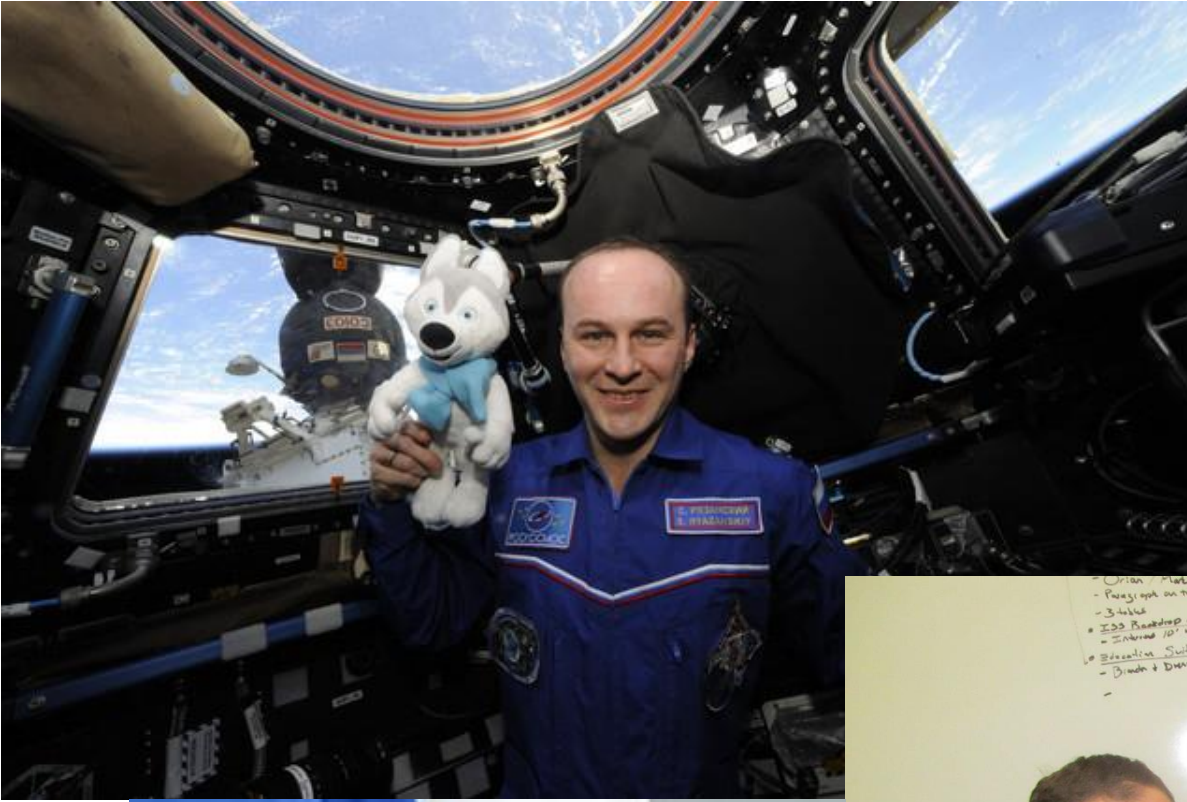
Show DMS

Show 3D

Orthographic pr



ISS LOCATION AT  
LAUNCH WAS EAST OF  
MISSILE TRACK,  
PROVIDING PERFECT  
BACKLIGHTING FOR  
OBSERVATION OF  
MISSILE REENTRY AT  
TARGET ZONE



Are there any indications that cosmonauts observed the KYSS-14 flight? Sergey Ryazanskiy was on board, but there was never any mention of seeing launch.





During a 2017 interview, cosmonaut Ryazanskiy [who had been aboard ISS during KYSS-6 in 2013] revealed he had seen that launch from an observation window in the Russian segment but could take no pictures because he had no camera with him. Oberg routinely asks flown ISS crewmembers about any observations of rocket launches that they made in flight. The notebook on the table has photo of KYSS-6 by Luca Parmitano on ISS.







Сергей Рязанский ✓

@SergeyISS

Follow



On Kazakhstan territory there is one of the world's largest inland drainless water bodies - Lake #Balkhash.



Curiously, just a few days after the KYSS-14 launch, Ryazanskiy tweeted a unique photo of Lake Balkhash in Kazakhstan, the site of the Sary Shagan test range that was the impact point of the missile

11:41 AM - 30 Sep 2017

<https://twitter.com/SergeyISS/status/914198455836381190>



# Sary Shagan range at west end of Lake Balkhash





Balkhash –IS- an attractive sight-seeing object  
[eg, Tim Kopra 2:27 PM - 27 Apr 2016]



<https://pbs.twimg.com/media/ChFEbq3WgAAzKAV.jpg>

# CIRCUMSTANTIAL CASE FOR OBSERVATION

- Timing of KYSS-14 launch was conducive, and very rare [only maybe 10 minutes out of every day, or 1% of clock]
- Opportunity even more rare if twilight visibility factored in [perhaps only 10% of every 60-day precession cycle]
- First-ever non-disclosure of launch time [that would have made coincidence obvious]
- Same cosmonaut on board as in previous confirmed observation
- Cosmonaut tweeted photo of impact zone only days after event
- US crew scheduled with full-time event away from cupola windows guaranteeing they would not accidentally observe another launch
- Cosmonauts have long history of observing military missile launches  
<http://www.jamesoberg.com/cosmonauts-see-launches.pdf>

# Significance of potential Russian observations

- No apparent violations of partnership agreements, even if activity supported development of nuclear weapons for use against the US
- Further evidence that it is difficult to conceal [or camouflage] space and missile activity in the age of pocketcams and the Internet
- Underscores value of 'data mining' in superficially unlikely places such as UFO websites
- KYSS-15 [Dec 26] was not in viewing range [would have required 04:20 UTC launch, actual was about an hour earlier]



# KYSS-14 & -15 DISCUSSION

- New variation of illumination profile underscores still-unexplained lighting constraints on half the flights [and 5 of the 6 most recent successful launches]
- 9 of 15 [60%] launches in Nov-Dec [16% of year] – longest nights?
- Resumption after one-year lull signals new push for deployment
- Distant on-horizon images of plume open opportunity to quantify plume particle max altitude and flight duration until hitting air
- Active flight program expected in 2018
- Coordination with ISS observation opportunities -- unknown

# APPENDIX 1 – Oberg reports on ground observations of missile/space plume/venting events

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# CONTEXT OF THIS REPORT AMONG OTHER SIMILAR EVENTS

## **Accidental observation of KYSS-6 from US segment of ISS [Oct 2013]**

- [http://satobs.org/seesat\\_ref/misc/Russian\\_Missile\\_Launch\\_Viewed\\_from\\_ISS\\_2013.pdf](http://satobs.org/seesat_ref/misc/Russian_Missile_Launch_Viewed_from_ISS_2013.pdf)
- [http://www.jamesoberg.com/Topol\\_Test\\_with\\_images.pdf](http://www.jamesoberg.com/Topol_Test_with_images.pdf)

## **Observation of Plesetsk launch accidentally seen from ISS [june 15, 2014]**

- [http://www.jamesoberg.com/ISS\\_crew\\_spots\\_second\\_russian\\_rocket\\_rev\\_c.pdf](http://www.jamesoberg.com/ISS_crew_spots_second_russian_rocket_rev_c.pdf)

## **Manned Soyuz launch observed from ground, air, and space [dec 2015]**

- [http://satobs.org/seesat\\_ref/misc/Soyuz\\_launch\\_4.pdf](http://satobs.org/seesat_ref/misc/Soyuz_launch_4.pdf)

## **Long March-5 [launch #2] failure observed from Philippines [July 2017]**

- <https://forum.nasaspaceflight.com/index.php?action=dlattach;topic=42798.0;attach=1469451;sess=1180>

## **Falcon-9 second stage deorbit burn/ fuel dump over Saudi Arabia [Feb 2017]**

- <https://forum.nasaspaceflight.com/index.php?action=dlattach;topic=43976.0;attach=1469348;sess=1180>

## **Meridian-5 launch failure and subsequent downrange observations [Dec 2011]**

- [http://satobs.org/seesat\\_ref/misc/meridian\\_crash\\_2011\\_draft.pdf](http://satobs.org/seesat_ref/misc/meridian_crash_2011_draft.pdf)

## **Mass panic in California over SLBM test [Nov 7, 2015]**

- [http://satobs.org/seesat\\_ref/misc/misperceiving\\_missiles.pdf](http://satobs.org/seesat_ref/misc/misperceiving_missiles.pdf)

## **“Norway Spiral” Bulava test [Dec 2009]**

- [http://satobs.org/seesat\\_ref/misc/Norway\\_Spiral\\_-\\_15\\_FAQS\\_final.pdf](http://satobs.org/seesat_ref/misc/Norway_Spiral_-_15_FAQS_final.pdf)

# Other KYSST launch reports

KYSST-12 [2015] [http://satobs.org/seesat\\_ref/misc/KYSS-12.pdf](http://satobs.org/seesat_ref/misc/KYSS-12.pdf)

KYSST-11 [Aug 2015] <http://www.jamesoberg.com/KYSS-9.pdf>

KYSST-8 [May 2014] <http://www.jamesoberg.com/140520-topol-ky.pdf>

[Oct 2013] <https://www.nbcnews.com/science/space/ufo-astro-ghost-find-out-what-spooky-space-cloud-really-f8C11390533>

KYSST-4 [June 2012]  
<http://www.jamesoberg.com/Unusual Russian missile test sparks mideast UFO flap.pdf>

And <https://www.livescience.com/20862-spiral-ufo-russian-missile.html>

And <http://lists.friends-partners.org/pipermail/fpspace/2012-June/030907.html>

KYSST-3 [Dec 2009] <http://blogs.discovermagazine.com/badastronomy/2009/12/12/another-russian-rocket-spiral-lights-up-the-sky/#.WmePBudG1PY>

# Other reentry swarm reports

- Bahamas, Jan 1985 [http://satobs.org/seesat\\_ref/Oberg/850111-Bahamas\\_spaceship.pdf](http://satobs.org/seesat_ref/Oberg/850111-Bahamas_spaceship.pdf)
- Eastern US, March 1968 [http://satobs.org/seesat\\_ref/Oberg/680304-Eastern-US.pdf](http://satobs.org/seesat_ref/Oberg/680304-Eastern-US.pdf)
- Baltic, Feb 1976 [http://satobs.org/seesat\\_ref/Oberg/760211-baltic\\_bolide.pdf](http://satobs.org/seesat_ref/Oberg/760211-baltic_bolide.pdf)
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- Chile-Argentina Apr 2013  
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- France, Nov 1990, [http://satobs.org/seesat\\_ref/Oberg/901105-French\\_wave.pdf](http://satobs.org/seesat_ref/Oberg/901105-French_wave.pdf)
- Yukon, Dec 1996 <http://badufos.blogspot.com/2012/04/top-ten-ufo-case-yukon-canada-1996.html>

Satobs 'memorable decays' <http://www.satobs.org/decay.html#pastdecays>



Seven decades of worldwide observations of spacecraft fuel dumps and engine plumes  
[http://satobs.org/seesat\\_ref/misc/Space\\_clouds-Strange\\_Spinoff\\_of\\_the\\_Space\\_Age.pdf](http://satobs.org/seesat_ref/misc/Space_clouds-Strange_Spinoff_of_the_Space_Age.pdf)

'Space spirals' as normal Soyuz payload separation burns  
[http://satobs.org/seesat\\_ref/misc/tomsk\\_spiral\\_ufo\\_2006.pdf](http://satobs.org/seesat_ref/misc/tomsk_spiral_ufo_2006.pdf)

Falcon-9 second stage Australia 'spiral' [June 2010]  
<https://forum.nasaspaceflight.com/index.php?action=dlattach;topic=43976.0;attach=1469335;sess=1180>

Soviet 'Space War Games' Spark UFO panics across eastern Asia [june 18, 1982]  
<http://www.jamesoberg.com/china-em-ufo-1982-draft-2.pdf>

Soviet SLBM test seen from civilian airliners and Finland [sep 7, 1984]  
<http://www.nbcnews.com/id/24636796/#.WmKpxExFxN4> and  
[www.jamesoberg.com/oberg\\_minsk%20pages.pdf](http://www.jamesoberg.com/oberg_minsk%20pages.pdf) and  
[http://www.jamesoberg.com/oberg\\_minsk%20pages.pdf](http://www.jamesoberg.com/oberg_minsk%20pages.pdf)

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<http://www.jamesoberg.com/ufoosm-petrozavodsk.PDF>

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: [http://satobs.org/seesat\\_ref/misc/soviet\\_1967\\_wave.pdf](http://satobs.org/seesat_ref/misc/soviet_1967_wave.pdf)

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[http://satobs.org/seesat\\_ref/misc/molniya\\_clouds\\_over\\_south\\_america.pdf](http://satobs.org/seesat_ref/misc/molniya_clouds_over_south_america.pdf)

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[http://www.jamesoberg.com/1963\\_kiev-fireball-swarm-rev-B.pdf](http://www.jamesoberg.com/1963_kiev-fireball-swarm-rev-B.pdf)

Historical  
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# Earlier published articles on observations

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- 1983 [FATE] – Soviet rockets spark S. American UFOs [http://www.debunker.com/texts/giant\\_ufo.html](http://www.debunker.com/texts/giant_ufo.html)
- 1986 [Skeptical Inquirer] – Sighting of Japanese fuel dump over US east coast.  
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- 1994 [OMNI] – Soviet ufologists help disguise military missile/space events  
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- Zuma and SpaceX
- “Space clouds” miscellany part 2
- 2017 Soyuz launch spectacular
- July 23, 2017 --- Sinkiang ABM from commercial airliner
- May 5, 1981 – Israeli missile seen from Salyut SE of South Africa?  
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