

TENTH ANNIVERSARY OF THE 'NORWAY SPIRAL' AND THE BIRTH OF AN INTERNET MYTHOLOGY

James Oberg // December 4, 2019

4500 words

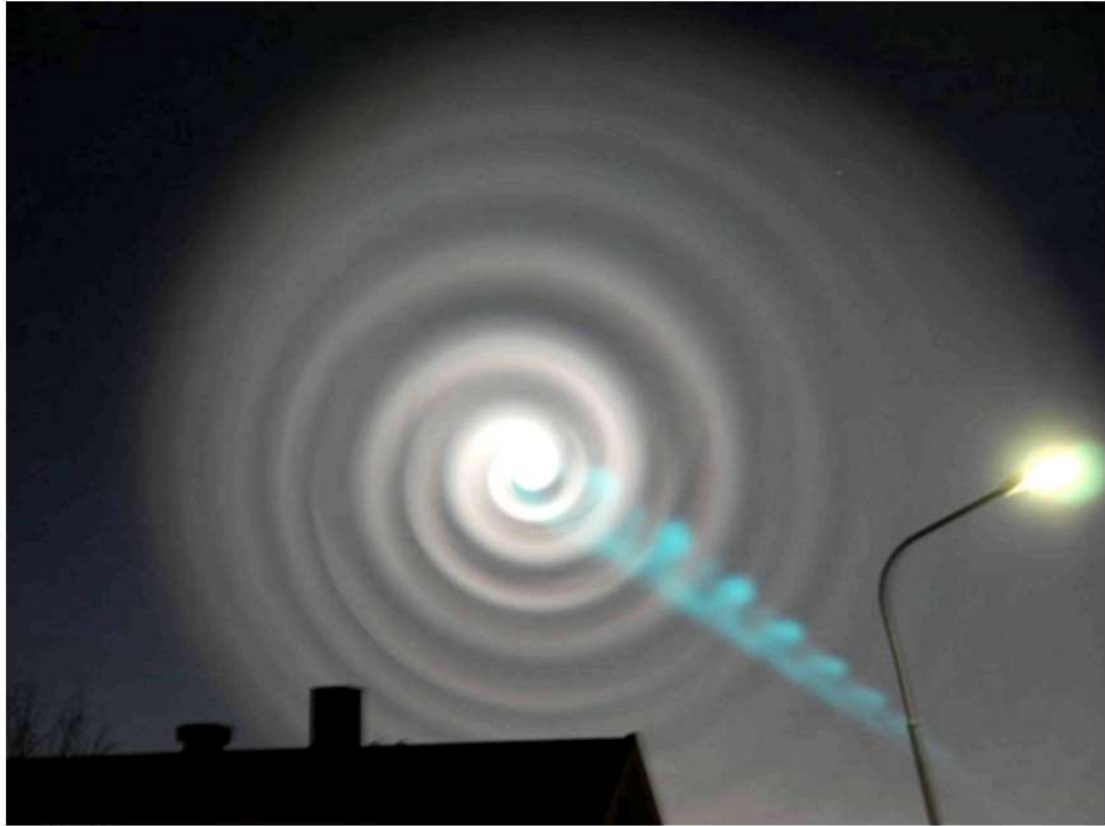
In northern Norway in December, the sun never rises. For a few hours around noon the southern sky glows with bright twilight of the hidden sun, passing just below the horizon.

But human activity remains fixed on artificial timekeeping technology, and on December 9, 2009, residents awoke 'on schedule' to prepare for work and school. Many were outside shortly before 8 AM, the sky still dark, when an amazing light rose into the eastern sky where the sun would have appeared in a different season. But it wasn't a single bright shining orb they saw, it was an amazing spinning spiral that left a blue trail and lingered a few dozen seconds and then was swallowed up by a totally black nothingness.

Many of the witnesses had grabbed their pocketcams or cell phones, then quickly raced for their Internet connections.

That's how the sensation of the 'Norway spiral' was born, ten years ago. Combined with some tantalizing terrestrial coincidences, and soon reinforced by similar subsequent "sky spiral sightings" in Russia and Australia, an entirely new folklore phenomenon sprang up. A dozen bizarre theories burst into life, spread across the internet. As search engines can demonstrate, they still thrive.

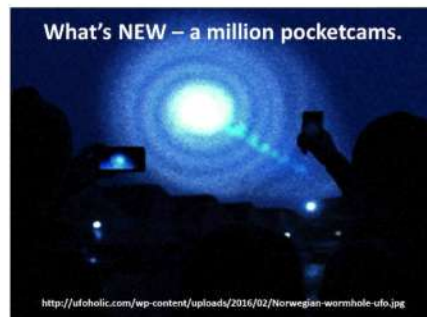
It soon turned out that it really "just" was a rocket, performing strangely to be sure under unusual illumination conditions, but entirely terrestrial in origin [as were all the others]. It was a military missile code-named 'Bulava', with three solid-fuel stages, designed for launch from submarines. But in the modern Internet culture, that prosaic [if 'Space Age'] explanation has been vehemently rejected in favor of more exciting theories, all of them mutually exclusive but all of them firmly based on the conviction that no human rocket could ever look like this [and subsequent] events.



Aside from the delightful story of how the mystery was correctly solved there is a less pleasant challenge. It's a sad realization that vast pockets of popular culture are not merely uninformed about the basics of 'rocket science', they are actively and enthusiastically misinformed. Worse, they are often cynically DISinformed by on-line media outlets which make their money by attracting credulous visitors. What can be done to remedy this remains as uncertain as any genuine outer space mystery.

Almost immediately, a dozen different explanations for the 'Norway spiral' sprang up on the Internet. Aside from the stock claim of UFO aliens, there were proponents of 'wormholes' [widely depicted in movies and video games], an ionospheric manipulation of a local research facility called 'HAARP', a similar secretive lab called 'EISCAT', or a mythical Pentagon secret weapon called 'Blue Beam', an upward projected hologram, or some other fictional device designed by Nikola Tesla, or some kind of supernatural manifestation such as a demon or an angel, or a magical warning [or congratulations] to the Nobel Committee which was about to grant Barack Obama a 'Peace Prize in Oslo, or another stab at space aliens.

Disbelief in the 'official explanation' was both instinctively distrustful and based on a number of serious questions. The apparition appeared very close, stopping dead still in the sky in Norwegian airspace, yet no advance warning had ever been given. It didn't look like any rocket most folks had ever seen before, and the weirdly glowing cloud implied an unknown energy source. It appeared to float and defy gravity by drifting horizontally. At the end of the perfect spiraling the apparition the plume was swallowed by an expanding 'black hole' that closely matched Hollywood SFX. And previously failing rockets as shown in videos always dropped in flaming zig-zags after exploding loudly, leaving wreckage falling to Earth.



Mass media sensation

The image shows a collage of news articles and social media posts. On the left is a MailOnline article titled "Spiral UFO puts Norway in a spin" with a sub-headline "Mystery as spiral blue light di above Norway". In the center is a photograph of a spiral light in the night sky. To the right is a Telegraph article titled "Strange light in Norway mystery" with a sub-headline "A eerie turquoise light spotted over Norway has s could be a missile test". Below these is a large headline: "Massive UFO event in Norway: possible first open alien contact, images" with a sub-headline "Fenomenet skapte mange overskrifter, både i Norge og utenlands.".

The image shows a Google search results page for the query "norway spiral ufo". The search bar at the top shows the query and a search icon. Below the search bar, there are tabs for "All", "Videos", "News", "Images", "Shopping", and "More". The search results show "About 49,800 results (0.57 seconds)". The first result is a YouTube video titled "09 Dec 2009 - Norway Spiral UFO - YouTube" with a URL and a thumbnail. The second result is "The Norway spiral" with a URL and a thumbnail. The third result is "Strange Spiral light phenomena over Norway coincides with Obama ..." with a URL and a thumbnail. The fourth result is "Amazing UFO opening Stargate Portal in the Sky (Norwegian Spiral ..." with a URL and a thumbnail. A large red text box is overlaid on the search results, containing the text: "TENS OF THOUSANDS OF 'HITS' ON INTERNET SEARCH ENGINES".

The event was quickly identified as a Soviet missile test, an explanation just as quickly rejected by dubious netizens. The 'missile explanation' united all the different theory promoters into harmonious derision. Here's a selection of typical comments on youtube videos [[https://www.youtube.com/watch?v=1hrW\]kn_DHs](https://www.youtube.com/watch?v=1hrW]kn_DHs)]

Agumonkk -- if it was a rocket, then how is it that the "exhaust trails" are in a PERFECT spiral? that thing has to be pretty far away, and that would mean that the spiral is HUGE. how can the exhaust from a rocket stay in a perfect spiral for that long? the wind surely would have dispersed it.

phuckoff mmkay -- Bright blue circular light from a failed missile? They usually explode and fall down in a flaming fireball, wouldnt you say?

Vladolenin --A missle? L.O.L. They DO think we're stupid. Missles dont grow into dark spheres that CONSUME LIGHT. \

Sxr5a -- a Russian missile flies DIRECTLY over Norway, violating their airspace, and the Norwegians do not make a peep about it? Does this make sense?

Poopdome56 -- its sad that there are still ignorant people out there that actually believe this is a rocket.

The.PhantomPain -- that is not a missile i don't care what anyone says. the large hadron collider created a wormhole. it even behaves like a wormhole. it doesn't behave like a missile

NassimHaramainVedas -- ANYONE who thinks this was caused by a "failed missile launch" is beyond brainwashed and retarded. Missiles have been launched since the 50's ok . . . and we've NEVER seen anything like this or heard about it.

Hirmis -- if that was a missile, they had to hear some explosion.

Sylph Viper -- That UFO was seen during NIGHT HOURS. And rocket fumes or exhaust DO NOT GLOW OR EMIT LIGHT. The missile theory is by far the most idiotic thing presented yet.

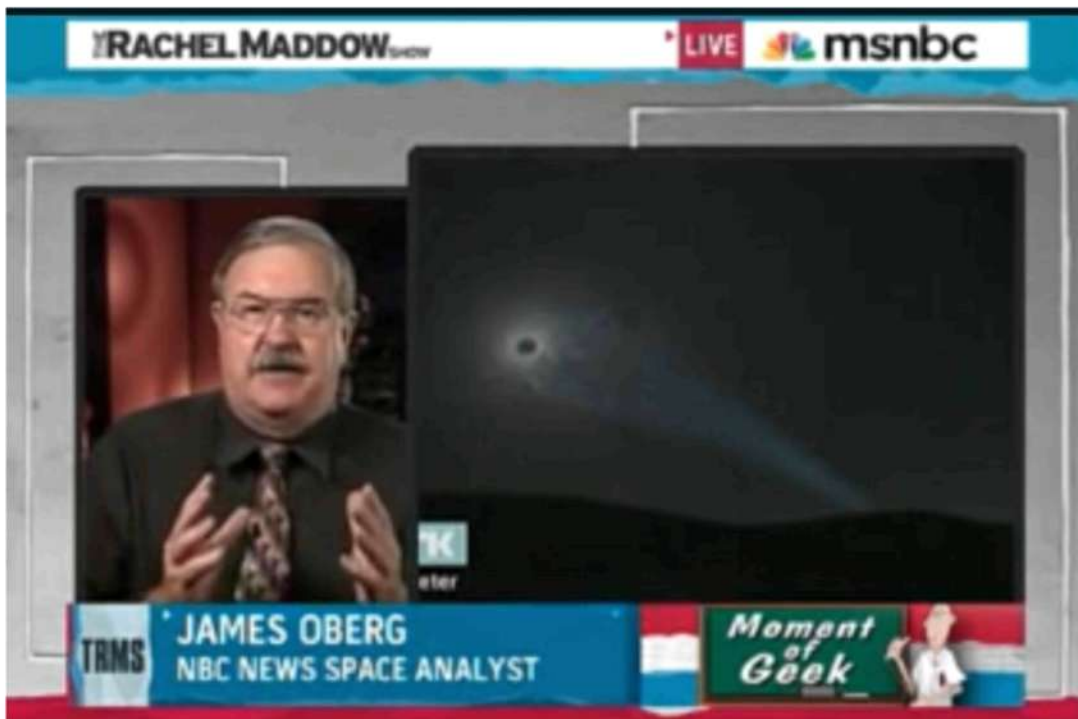
WinduChi6 -- The other major problem for this being a rocket is, a rocket normally will be traveling at velocities in range of 1,000s mph. For anybody having knowledge of the dynamics of motion; a slight change in trajectory angle of a object traveling at several 1,000mph will generate enormous g-forces or centrifugal forces that will tear a rocket in to pieces, that will generate a, with combustive fuel on board, a explosive fire ball of bright orange-yellow-red color. So, the ICBM missile story is a LIE!

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Finding an acceptable explanation to persuade the persuadable required answering a number of questions. Why did it look like Russia had tested a missile over Norway? Why wasn't a warning issued? Why did the Russians at first seem to deny it? Why was it so visible in one area, but not closer to northwestern Russia if it had been launched there? If it was a missile, why hadn't previous tests been similarly seen and recorded?

Questions proliferated. How could a 'missile failure' create a perfect double spiral? And then how could a missile create a 'black hole'? How could it appear again the next day over Russia? And why were such apparitions suddenly appearing all around the world?

As the 'spaceflight consultant' to NBC News, I tried to explain the unearthly aspects of 'rocket science' that made such views look so literally 'unearthly' for accidental witnesses. There usually wasn't enough air time to do more than a superficial survey, which admittedly wasn't detailed enough to be really convincing to the doubters.



<https://www.youtube.com/watch?v=DWuKE4H81rw&t=208s>

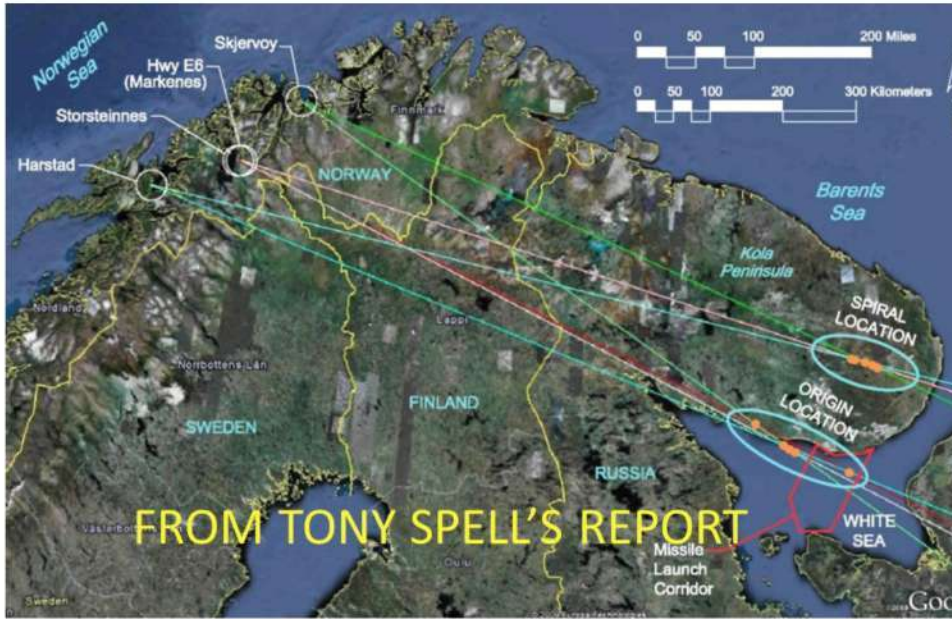
More was soon to come. With the baffling Norwegian event only hours old, the very next day [Dec 10, 2009], another sky spiral was reported far to the east, over the Russia/Kazakhstan border. Unlike the Norway event which seemed to stretch up from the ground and was taped spiraling for about 30 seconds [and which did turn out to have had numerous similar-appearing precedents in previous years] this brief new spiral seemed genuinely unique: it appeared in midair, extending a conical plume behind it which then detached as the apex burst into a spiral lasting only a few seconds. Such behavior had never been reported before, anywhere on Earth [it really WAS the first of its kind].



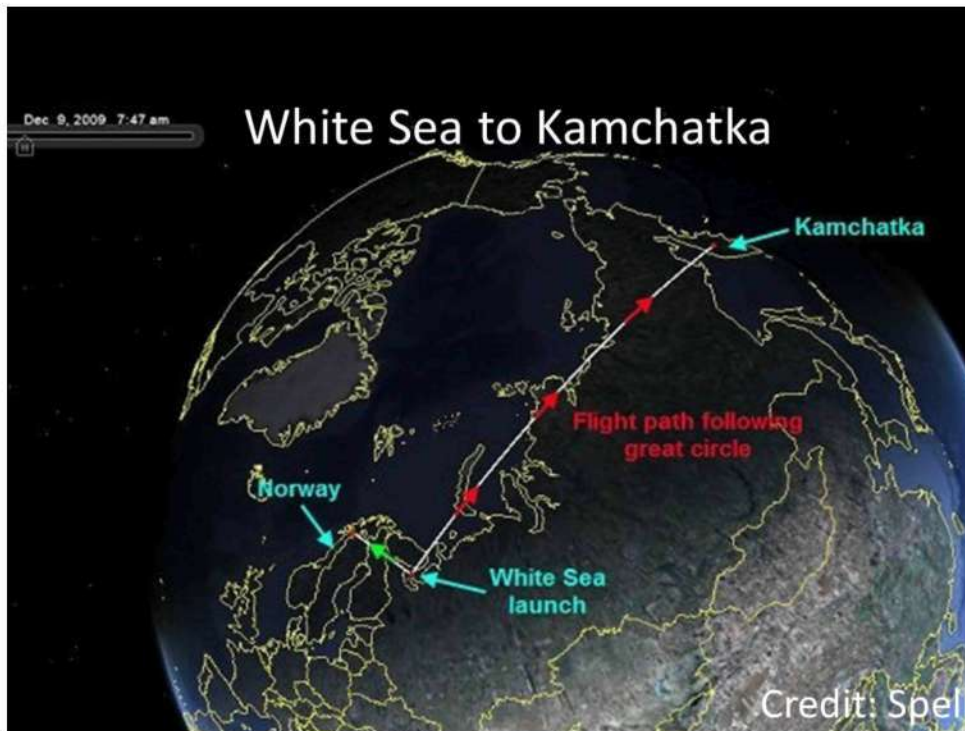
It would turn out that missile and space activity could [and had been] creating various forms of sky spirals for many years. The key feature which made them unusual [‘once in a lifetime’ for most observers] was the requirement for a narrow range of illumination conditions that rarely coincided. The rocket had to engage in plume-forming activity, either thrusting or dumping leftover fuel. The sky had to be dark [and clear], but to illuminate the plume, the sun had to be only slightly below the horizon, preferably lighting the plume from behind [as seen by observers]. Calculations with Internet-based astronomy tools showed this was exactly the situation in these two December 2009 spiral events.

Mathematics also helped solve the initial mystery: WHERE exactly was the source of the apparition? How far away was it, really, since judging distance to an unknown-sized out-of-focus blob in the night sky is notoriously prone to random guesswork. That’s especially true for objects near the horizon, which based on analogies with familiar objects such as aircraft lights, can be imagined to be nearby, perhaps within tens of meters, perhaps a few tens of kilometers at most.

Trigonometry came to the rescue, aided by old-fashioned ‘orienteeing’ [finding true direction]. Accurate line-of-sight azimuths could be derived from the photos, which showed recognizable silhouettes of nearby mountains [and star backgrounds]. Combined with exact knowledge of the observer locations this gave quite accurate angles. Because such azimuths could be derived from several sites along the northern Norwegian coast, they allowed triangulation of the geographic location of the object forming the spectacle. It was far to the east, over Russian territorial waters. This was fully consistent with the explanation that a military missile test aimed at the normal impact zone in Siberia was the cause of the sightings.



- http://www.spellconsulting.com/reality/Norway_Spiral.html



An entirely reasonable follow-on question is to ask why, if the rocket was over Russian coastal waters, it was only seen from Norway and Sweden, but not from Russian cities in the northwest corner of that country that were much closer. The valid explanation involves timing and the round shape of the Earth.

Over northern Norway [the only part of the country that wasn't cloud-covered, as weather satellite images show] the skies were still dark. At the same time, regions farther southeast would be experiencing pre-dawn sky brightening, when stars become invisible behind the sky glare. Meanwhile, any object at very high altitude [such as an artificial satellite or long-range missile] would be fully lit by the still-not-risen sun [as indeed the missile plume was].

So even if the skies were cloudless over Murmansk and Arkhangelsk and nearby regions, the dawn sunlight would have masked any space objects passing nearby. Numerous websites [such as heavens-above.com, or wolframalpha.com] offer programs to determine exact solar illumination conditions for any site at any date/time. One can also obtain the sun's "depression angle" for a nighttime location, and from it then approximate the altitude required to be in sunlight ["Grahm's Law" states that the altitude of the overhead shadowed region boundary in kilometers is close to the square of the depression angle in degrees].

The TIMING of this launch near dawn at launch site meant that while observers to the west still had a dark sky, the plume was high enough to be in sunlight. So it was visible from regions to the west but not in sky-brightened regions east of the launch site.

Some skeptics of the missile explanation suggested that a missile test would have been announced in advance, and the "missile explanation" would not then have appeared until only AFTER the event, as a made-up ad hoc excuse.

But the missile test launch was indeed openly discussed ahead of time. Moscow's "Kommersant" newspaper reported on November 3, 2009, that the launch would occur in a few weeks. Closer to launch, official warnings [called NOTAMS] were released for the period in early December where the test had been delayed to. An article by Vladimir Voronov, "Bulava Stupidity", in Moscow's 'Sobesednik'

newspaper, reported on November 17: "The Bulava missile complex with which it is intended to equip our submarines is terminally unfortunate: either it doesn't fly, or it flies -- but off course, or it completely explodes. The next tests have been officially announced for 24 November, but there are major doubts that these, too, will be successful." A few days later, Moscow Interfax-AVN news agency reported on November 24, "The next test launch of a Bulava sea-based intercontinental ballistic missile is expected to be carried out in early December, a missile industry spokesman told Interfax on Tuesday."

As already stated, all worldwide activities that are hazardous to air and sea traffic are announced in advance in a system called 'Notice to Airmen and Mariners' or NOTAMS. The USSR and China did it, too. There are standard public-accessible data bases containing all such notices that sea and air traffic controllers consult regularly. The notice contains the locations, altitude ranges, and the time intervals that traffic is warned to avoid. True, the messages are written in technical formats that must be used for interpreting them, but the coding is straightforward. News agencies rarely if ever note or publicize such routine information

All these precursor warnings in both the Russian news media and on world air/sea travel websites effectively answered the 'not-a-missile' claim that an absence of such warnings prove it was not a missile. Just the opposite is true.

Prelaunch alert message, 'Norway spiral'

ZCZC FA79

031230 UTC DEC 09

= DATE DEC 03, [20]09 AT 1230 GMT

COASTAL WARNING ARKHANGELSK 94

ACTUAL LAUNCH

SOUTHERN PART WHITE SEA

09 DEC 0645 GMT

1. ROCKET LAUNCHING ~~2300 07 DEC TO 0600 08 DEC~~

09 DEC 0200 TO 0900 10 DEC 0100 TO 0900

NAVIGATION PROHIBITED IN AREA 65-12.6N 036-37.0E

65-37.2N 036-26.0E 66-12.3N 037-19.0E 66-04.0N 037-47.0E

66-03.0N 038-38.0E 66-06.5N 038-55.0E

65-11.0N 037-28.0E 65-12.1N 036-49.5E

THEN COASTAL LINE 65-12.2N 036-47.6E

2. CANCEL THIS MESSAGE 101000 DEC=

NNNN

<https://web.archive.org/web/20100318000903/http://forum.flot.su/showthread.php?p=102072>

REVISED MESSAGE

THREE DAYS LATER

ZCZC FA80

071400 UTC DEC 09

= DATE DEC 07, [20]09 AT 1400 GMT

COASTAL WARNING ARKHANGELSK 95

SOUTHERN PART WHITE SEA

1. ROCKET LAUNCHING 2300 10 DEC TO 0800 11 DEC

0900 TO 1700 11 DEC 2100 11 DEC TO 0600 12 DEC

1000 TO 1700 12 DEC 2200 12 DEC TO 1000 13 DEC

1100 TO 1700 13 DEC 0100 TO 1400 14 DEC

0100 TO 0700 AND 1600 TO 2200 15 DEC

NAVIGATION PROHIBITED IN AREA 65-12.6N 036-37.0E

65-37.2N 036-26.0E 66-12.3N 037-19.0E 66-04.0N 037-47.0E

66-03.0N 038-38.0E 66-06.5N 038-55.0E

65-11.0N 037-28.0E 65-12.1N 036-49.5E

THEN COASTAL LINE 65-12.2N 036-47.6E

2. CANCEL THIS MESSAGE 152300 DEC=

NNNN

Did the Russians initially deny the launch was theirs? Suspicious skeptics of the missile story suggested they only changed their story after a 'coverup' was instigated.

But to assess 'answers', one needs to know what had been the original questions. Initial inquiries seem to have specifically been concerning a possible 'missile test' directly over Norway, and Russian officials could honestly answer they had no information since no test of that description had actually taken place [the real missile had flown across the Arctic Ocean north of Russia]. And it's unclear from press reports exactly WHICH various Russian officials WERE asked about it.

Ostensibly a Russian clerk at a West European embassy was asked, and said he had no information – truthfully. The Norway newspaper "VG Nett" quoted an unnamed spokesperson for the Russian Northern Fleet as saying "We have no information about such a thing, and have never seen anything like what you describe". Again, this would have been a clearly correct answer to the question as presumably posed.

Throughout that first day after the morning launch, while official sources in Moscow were mum [standard Russian procedure for embarrassing news], independent elements of the Russian news media buzzed with rumors about the launch and another embarrassing failure in the trouble-plagued program [as had been widely predicted in previous weeks]. Finally, late in the day, officials in Moscow confirmed the Bulava failure and admitted the sighting in Norway was caused by the Soviet missile test. They briefly described the failure as due to a malfunction in the third stage.

Some 'rocket science' may cast more light on the nature of the apparition, and of the failure.

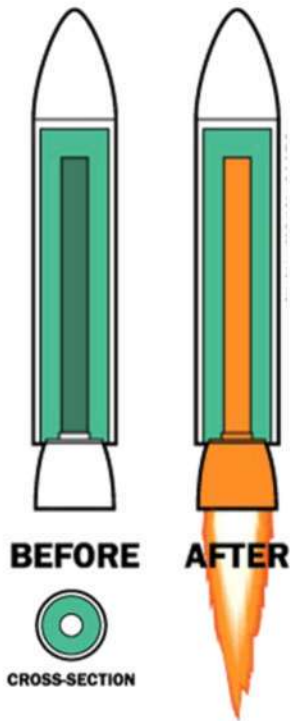
The frequency of spiral effects for Russian missile tests, and their rarity during US military missile tests from Florida and California, may merely be due to a difference in geography. The central issue is the distance to the target zone and how this influences the missile's ascent performance. The US has entire wide oceans to shoot missiles to full range, but although Russia is a wide country, even the farthest part of eastern Siberia is still well short of matching the range

needed to reach North American targets, which determines the maximum operational capability of any ICBM. Full-range Russian tests [which do occur occasionally] would impact in mid-Pacific, near Hawaii. They are rare because they are easily tracked by US surveillance systems and may leave top secret hardware where it can be retrieved by US devices.

This range limitation means that to avoid overshooting the far end of the in-country test range, Soviet missiles had to restrain their final velocity well below the maximum. They had to cut off thrusting earlier than what they were designed for.

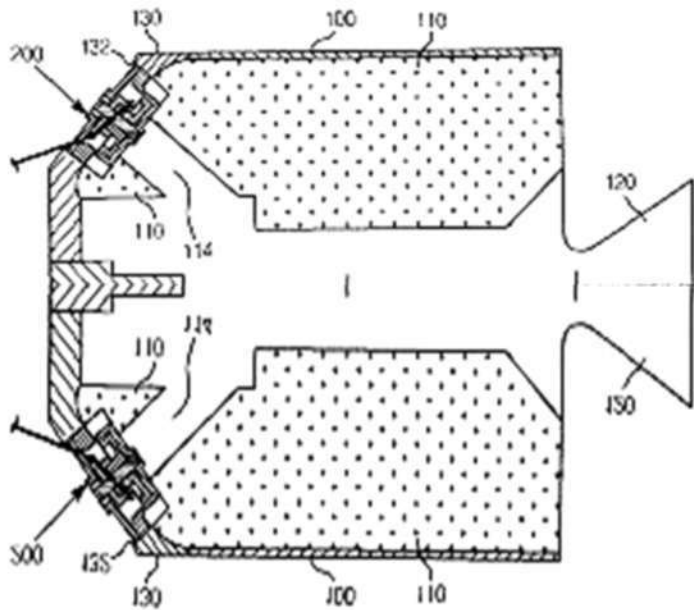
Rocket engines that use liquid fuels could accomplish this easily, by just closing the fuel flow valves. But solid rocket motors, burning not from the hind end but from a length-wise central cavity, were next to impossible to extinguish on demand. So a design was developed [both in the US and the USSR] to allow the engines to continue burning to fuel exhaustion, but while doing so, just stop thrusting forward during this terminal phase.

This was accomplished by installing openable windows [“thrust ports”] near the nose of the booster, to enable venting exhaust gasses forward so as to null out the continuing [but much reduced] backwards flow. Since usually there was a nuclear warhead sitting directly atop this stage, the thrusting had to be accomplished with twin opposite-side vents facing sideways but canted forward, like a letter ‘Y’. As a result, at the moment chosen by the control program, it could cut off pushing forward while continuing to burn harmlessly until all fuel was consumed.



Thrust termination for solid-fuelled engines

To cut off forward acceleration, panels are jettisoned to allow plume to exit from the front and symmetrically off to the sides

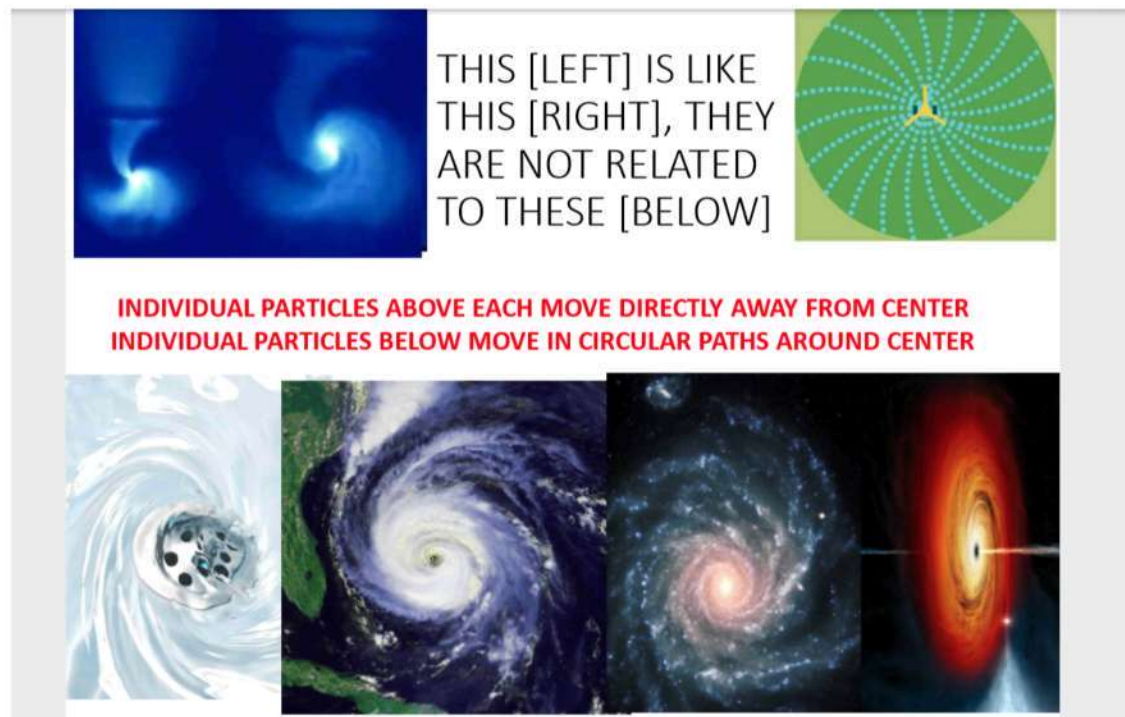


Solid-rocket builder THIOKOL discusses this on its website: “Thrust Termination Port. == A port provided in the rocket motor case to vent combustion gases so that rocket operation can be terminated. The port usually is provided for in the

head end of the motor so that gas flow is effectively diverted from the nozzle. The port is formed by firing a shaped charge of explosive placed against the outside of the forward end of the motor.”

As an additional flight technique, the last stage also usually also rotates rapidly, both for stability and also as countermeasure to the effects of anti-missile energy weapons. This rotary motion creates strikingly regular double-spiral patterns similar to rotating twin-nozzle lawn sprinkler. As with the lawn sprinkler, nothing is spinning AROUND the central point, every particle is moving directly AWAY from the origin, but each subsequent particle is ejected in a slightly different direction, creating the visual impression of a solid, moving ring.

This is worth repeating. A spiral form can be created by linear expulsion of material from a spinning object. Nothing is actually MOVING in a spiral AROUND the central object.



'Spiral' was actually two nested spirals



Rotary lawn sprinkler



DESCRIPTION of droplet motion – parade of individual particles each flying straight outwards from central dispenser

Compared to the water, rocket exhaust is hypersonic. The plume's exhaust velocity is usually 8000-9000 ft/sec perpendicular, depending on the exact type of fuel. Over a 30 second burn period the outer edges of the spiral would be up to sixty miles away from the center – similar to the size of the Norway spiral when its true distance was taken into account.

This correct explanation of the particle motion explains why, at burnout, all ejected particles continue away. The coiled exhaust spirals quickly expand away from point of origin, leaving the original background sky clearly visible. Against a dark sky, a departing plume cloud will leave a growing 'black hole.'

STILLS FROM VIDEO SHOW SHARP CUTOFF OFF PLUME FLOW AS OUTER LOOPS CONTINUE EXPANDING

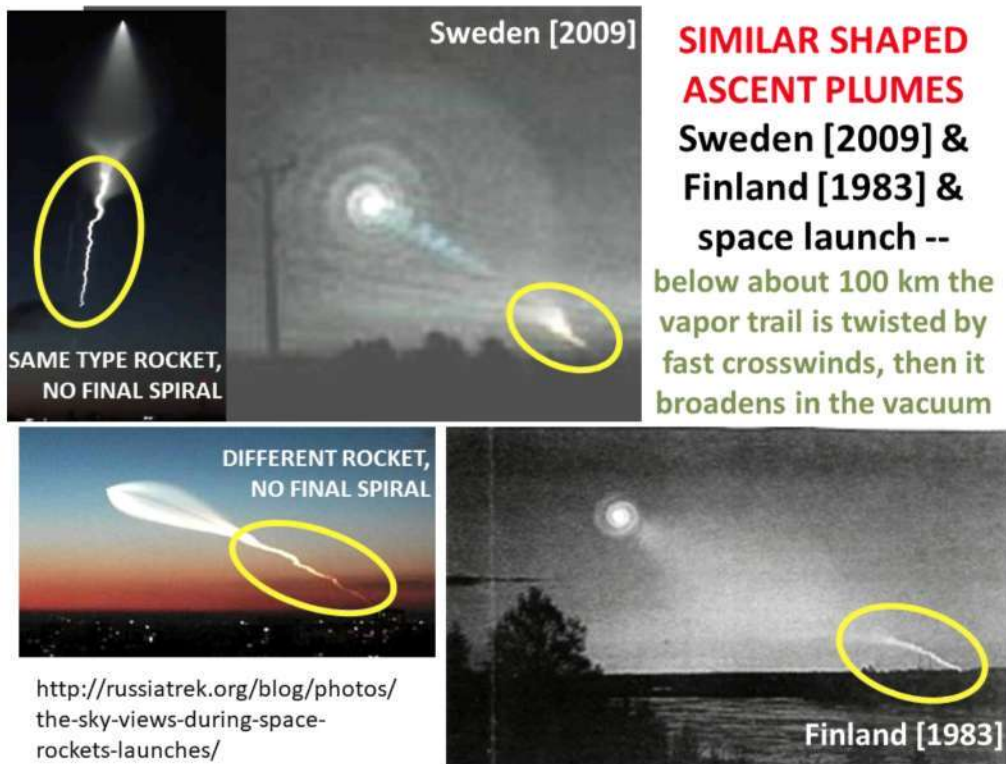


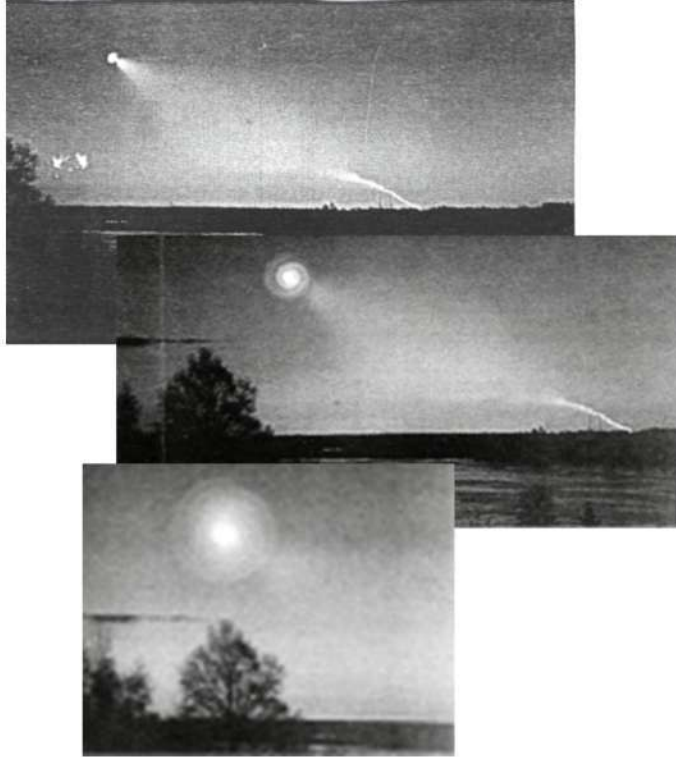
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If the spiral form was the result of a particular cartographic feature of the Russian missile test range and of a particular design feature of one type of Soviet-era missiles, this bring us back to one of the central objections to the missile theory, from the doubters. Why hasn't such a phenomenon been seen before, especially in Russia? And the answer is as obvious as the original question. It HAS been seen before [and since], from time to time [remember, very narrow solar illumination conditions are required. There just hadn't been any pocketcams to capture it.

Although the first Soviet intercontinental ballistic missiles were, like their American counterparts, liquid-fueled, the Soviets were slow to transition to the safer, more reliable solid-fuel designs. One of their earliest submarine-based designs, the “SS-N-20” Sturgeon began testing in 1979, and initial deployment was in 1983. Arguably not by coincidence, the early 1980s were when the first recorded sightings of ‘spiral UFOs’ from Scandinavia began.

One particular set of photographs from Finland in 1983 has an uncanny resemblance to photos of the 2009 ‘Norway spiral’ taken from east of the coastal mountain range, so the images have a view down to the level eastern horizon. In both, the original ascent smoke trail, kinked by high-altitude crosswinds, is clearly visible.





Soviet
missile
test
from
Finland,
1983

Local relief can occult critical portions of trail

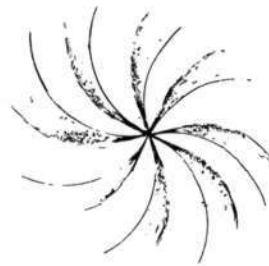
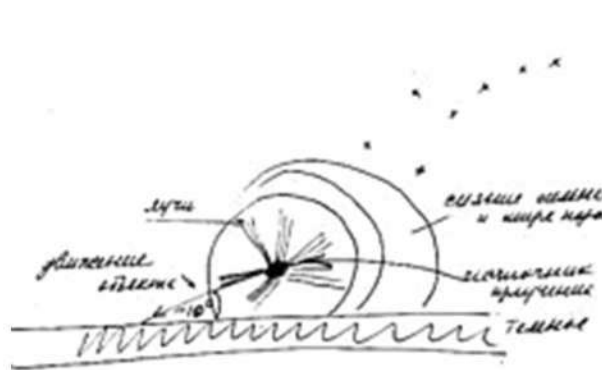


Puoltsa, Sweden, clear eastern horizon [no mountains]

It's obvious why similar photographs are rare before ubiquitous pocketcams, dashcams, and cell phones appeared in recent years. But eyewitness sketches from observers in northwestern Russia consistently show spirals or nested rings in those early years.

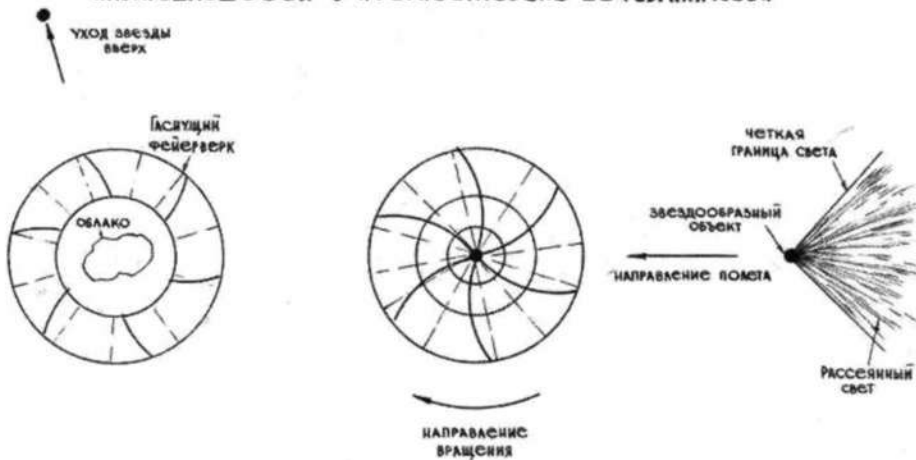


2 октября 1991 года: «Люди в ужасе смотрели в небо, откуда спирально низвергалось пламя».

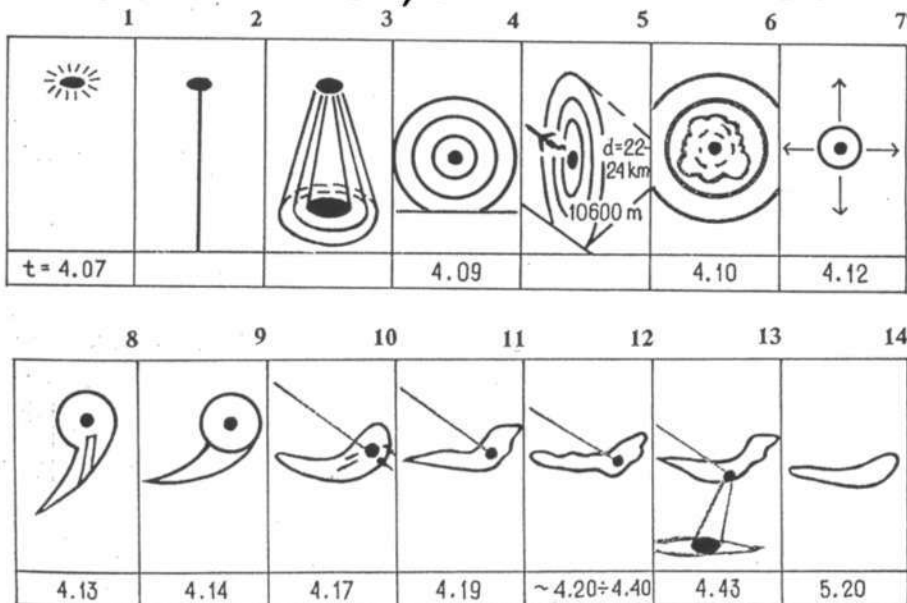


V. Одна из форм наблюдавшегося шлейфа. В полете ракета вращается вокруг собственной оси.

Аномальное атмосферное (космическое) явление, наблюдавшееся в г. Борисоглебске 28 февраля 1980г.

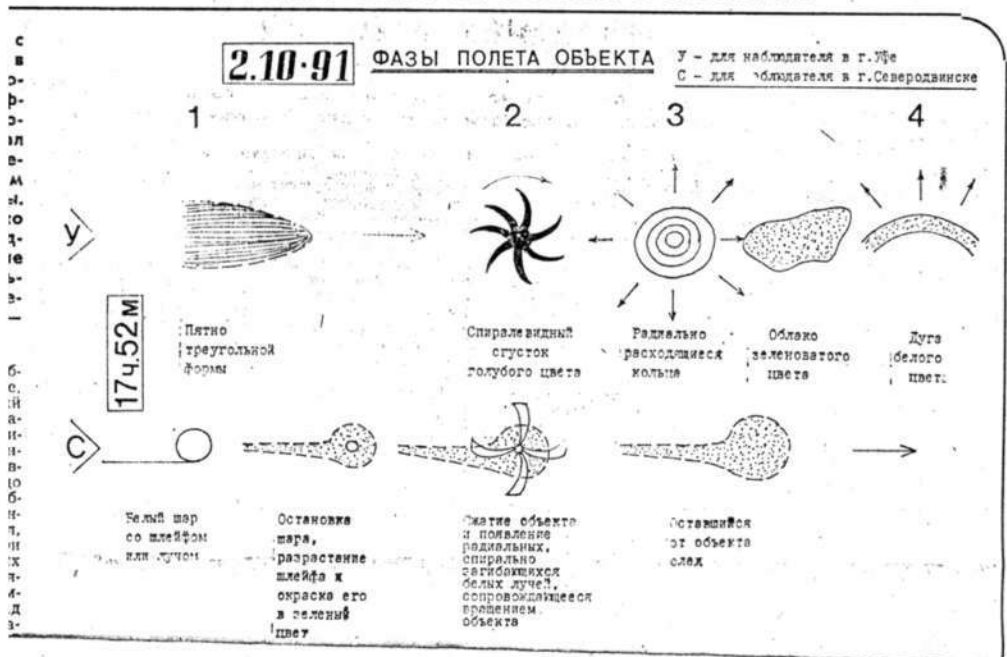


AIRLINER COPILOT'S LOGBOOK OVER MINSK, SEPTEMBER 1984



http://www.jamesoberg.com/oberg_minsk%20pages.pdf

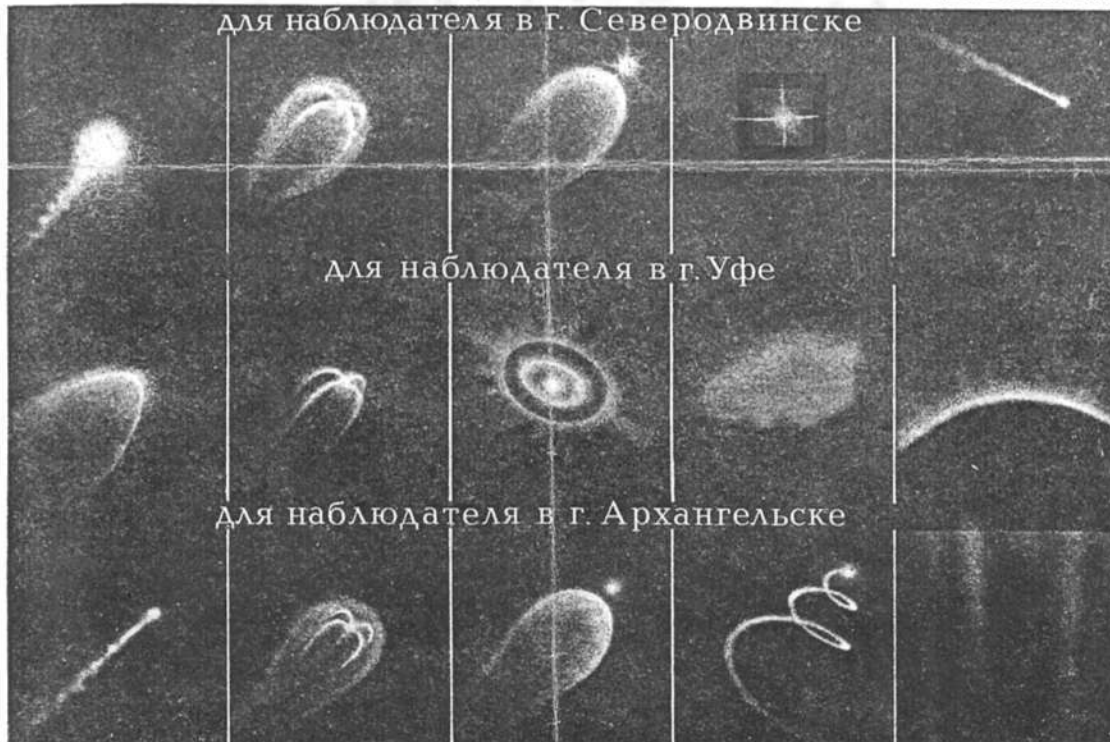
Missile launch of Oct 2, 1991 observed from Ufa & Severodvinsk



Oct 2, 1991 – Severodvinsk, Ufa, Arkhangelsk views of missile launch

Фазы «НЛО-эффекта» во время запуска баллистической ракеты 2 октября 1991 года

Рисунок В. ВОЙТЮКА



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Interlude == Rocket-deniers' rationales

Odin Thor -- no ufo no missile, lookup failed missil launches it goes BOOM not creating a spiral and then a black hole vanishing how stupid can people be?

Firestrings272 -- The excuse of a rocket test is laughable, the reason being they cite no reference to any type of rocket capable of creating that effect and the Russian military itself didn't say it, in fact they've said nothing.

Gordon1201 -- If this was a failed missile, and it self destroyed, wouldnt there have been some kind of flash at the end instead of a dark patch appearing in the spiral? also wouldnt there be some kind of wreck/debris left over however small it may be after self destruction?

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Nor have Russian missile test launch spirals stopped appearing. Here's an example from late-2017, right down to the smaller blue axial trail familiar from the 'Norway spiral' in 2009. . .



http://data1.ibtimes.co.in/cache-img-0-450/en/full/666806/1509186339_ufo-bizarre-light-siberia-russia.jpg

That blue trail is another indicator the 'Norway spiral' was a solid-fuel missile. The identical coloration has been seen in many other images of solid-fuel ICBM flights.

Compare secondary blue plume on Norway spiral [left] and on Trident SLBM on Nov 7, 2015 [right]



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What exactly HAD gone wrong is still a deeply guarded military secret in Moscow. The Bulava ICBM program was most troubled Russian missile development effort in half a century. Officially, this failure occurred late in ascent during the third stage performance. Its exact nature has never been disclosed, but it might have been loss of attitude control and tumbling, or partial rupture of propellant casing wall, or [my preference] the premature activation of thrust venting. But in any case, the malfunction was high enough for its consequences to remain visible for a minute or so.

The second Russian test may not have been pure coincidence, but merely reflect practical operational limits. Sometimes, different missile tests that rely on common tracking facilities are timed close together to keep special deployed teams on station. The December 10 launch [announced in Moscow] was part of a new program to test maneuverable warheads to evade US missile defense system [ten years later, the test program continues, it most recently launched on November 29, setting off new UFO panics in Russia and central Asia]. Launch of a surplus 'Topol' missile from Kapustin Yar [on the lower Volga] to Sary Shagan [in Kazakhstan] was right over ground observation points just after sunset, on purpose, presumably to enable high-precision optical tracking.

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To sum up, the technological puzzle was straightforward in its iron-clad solution, but the sociological/cultural puzzle is more amorphous and daunting.

The spectacular apparition observed in Norway on December 9, 2009 was created by a Russian sub-launched ICBM, called 'Bulava'. The missile was following a standard test profile into Kamchatka. Weather was clear and plume was backlit by the pre-dawn sun. Some anomaly during third stage caused the object to eject plumes laterally. This spiral-forming phase lasted unusually long but there had been a few earlier precedents. Because of its great distance, it was easy to misinterpret speed and location.

These kinds of events will be occurring more frequently [and video recordings will be spread even wider] in years to come. Only by recognizing these 'new-normal'

prosaic stimuli will people be able to identify and isolate any truly anomalous aerial phenomena.

The final words belong to the representatives of the most serious issue uncovered by this and similar events: public misinterpretation. Let the skeptics of the missile explanation have the final say, read over their objections, and decide for yourself if any of them remain valid.

ParkourSyah -- missile? it's impossible because missiles can't just spinning like that at the same spot and create a clean spiral, and how come the missile's smoke turns white into blue?

ETPeace1 -- TruthSpreader1111 is right. this is obviously not a bulava missile. it's a ridiculous explanation. a missile spinning out of control could never make such perfect circles. also the circles stay in one place, they are not moving across the sky as a missile would. the black hole that emerges from the center cannot be explained by a missile. the cone of blue light cannot be explained by a missile. so it is clearly not a missile. the russians are lying on behalf of someone.

Neo Lyssia -- rockets don't make perfectly symmetrical patterns and stay in a perfect circle and then magically vanish tell me where did the rocket fall down at and explode ? how is the rocket glowing like an aura spiral ?

350ztech -- How stupid do they think people are? how can a perfect circle spinning in mid air be a failed missile?

TruthFeature -- That is NOT a rocket. It doesn't take a genius to realize that.

ProwlaMan -- What kind of failed missile launch would create such a well defined & well contained pattern such as a spiral????? These "Experts" really don't give the public much credit.

Morbian13 -- it doesn't really make sense to me that a missile would cause a peculiar shape of beamed light such as a spiral, if it were wouldn't we see more of this occurrence?

Steffyweffy777 -- not a missile. The spiralling theory would be correct if one was looking straight up the path of the missile, but from any other angle you would see a wavy line, not a spiral, and everyone who has taken video from far away at

diverse angles, always gets the same perfect 2D looking spiral. The leading blue spiral doesn't line up with the missile trajectory either....this is a cover story...

Agumonkk -- Failed rocket my a\$\$\$. how stupid do they think we are? -- Its funny how all of a sudden we have so many apparant "rocket engineers" commenting on this video. I think if any type of rocket could produce this type of effect then I would have learned about it in higschool or college during science class. And I'm dead serious, such a strange looking phenomenon would have been taught in some type of science class most high schoolers or even junior high students

Marcus Christensen -- Also the spirals simply dont look like a spiraled out of control rocket. IF it had speed before it spiraled how then can it stop still, also why is the smoke trails lit up as if it was glowing.

Mattbellmay -- A rocket. thats a bit far fetched isnt it? I know that when something wierd like this happens and no explanation, that there are people who "create" explanations, but come on, couldnt they come up with something better then a failed rocket launch. To me a failed launch looks like a crazy rocket flying mindlessly in the sky then BOOM. Not a constantly perfect spiral that continues for a few minutes then fades away in some wierd black cloud thing. That is no "Out of control" failed rocket.

Orrome -- the light was spiraling from the center - this could not possibly have been from a rocket as there are obvious spiral arms. If it was a rocket trail there would have been only one trail and it would not have been steadily moving outwards as this video shows. Your all fools.

Treni217 -- If it really was a destructing rocket, wouldn't there be a fiery explosion? A real rocket blow up and there would be a ball of fire for at least a minute, but this particular thing turned into something like a black void. A real rocket wouldn't do that, and how WOULD it do that? Unless i'm stupid, I've NEVER seen a rocket "self-destruct" like this..... I think it WAS an UFO

... and thousands of similar comments across hundreds of websites.

END