UFO GROUND EFFECT CASES IN RUSSIA

by Dr. F. Zigel

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In foreign literature on UFOs, there are many reports about the physical influences of UFOs on ground objects. Eye-witnesses report that by the UFO's low flight or hovering above automobiles, the ignition system turns off for awhile. Sometimes masses of a jelly-shaped substance called "angel's hair" erupt from the UFO onto the earth's surface. There are hundreds of reports of UFO landings and even of their humanlike "pilots" (humanoids).

As far as I know, no one in the Soviet Union has ever observed either "pilot-humanoids" or landings of "saucers". However, even if you dismiss the extensive ground destruction caused by an explosion of a mysterious Tungus body in 1908, everyone knows that there are other cases which might be explained by UFOs. There are only a few that are at our disposal, but they are so interesting that without a doubt they merit the attention of the reader. Here, for example, is a report of the influence of a UFO on automobile engines:

"On July 31, 1969, my friends and I went by car to the town of Ysovo (in a district near Moscow). At the railroad crossing at the Worker's settlement (Kuntzevsky district), our cars were detained by a passing electric train. The weather was good; the sky was covered by thin clouds, behind one of which hid the sun.

It was about 8:00 pm when two silvery disk-shaped "instruments" with sharply outlined edges appeared in the sky. They swiftly flew above the crossing in a north-south direction and then quickly disappeared. At that moment the barrier at the crossing opened but for some reason for several minutes the engines of our cars would not start, but then managed to turn on without any difficulty. What the disks represented and why the engines died out because of them, remain beyond comprehension.

In April 1967, in the days when UFOs were sighted on the great territory of the European part of the USSR, on a thoroughfare several kilometers from the city Oktyabrsky Vash USSR, and not far from it, two deep (up to 10 meters in depth) strange pits were formed at night without witnesses. A candidate of physics-mathematics, A.V. Zolotov, examined one of them. The pit turned out to be unusual — a narrow "stem" and at a certain depth a sphere-shaped "chamber". Clay taken from this "chamber" turned out to be weakly radioactive. A.V. Zolotov made a report on the two pits to academician B.P. Konstantinov. It is proposed that research on the two pits continue in the near future. (Address of A.V. Zolotov: Komsomolsky Avenue, House #3, Apt. 45, Kalinin.)

In connection with the UFO problem, the incomprehensible destruction in the region close to Lake Onezhky provoked great interest. In the magazine "Smena" No. 6 from 1968 (pp. 44-46), V. Demidova, one of the researchers of the incomprehensible "ground effect" published an account. Here are several documents on this mysterious incident:

On April 28, 1961 around 8:00, forester Borsky Valentin Mikailovich discovered extensive damage on the northern shore of Lake N in the area of a former village, producing a by-pass of the dam. As a result of an examination, it is revealed:

1. According to the information provided by eye-witnesses, the falling of an object occurred during the period between 8:00 April 27 and 8:00 April 28, 1961, since the forester, having discovered the damage, walked through the stated locality at 8:00 April 27th and did not notice any changes in the shoreline.

2. The place where the object fell is the northern shore of Lake N., 40 meters from the building site of a former village. The steepness of the shore at that place is 60 degrees. The point of impact is proposed to be 10-12 meters from the water. The soil of the dam is vegetable. The upper stratum of the interior up to 40 centimeters is frozen. The springs and outlet of the subsoil waters at the place where the object fell were not discovered. Rain fell in region N prior to the group's examination of the area.

3. Lake N, with an area of 0.75 square kilometers when flowing, was covered with solid ice 40 centimeters thick when it was examined. The depth at the place where the object fell up to the enclosed edge of the ice is from 0.1 to 5 meters. The bottom at this place is gently sloping, covered with silt; the thickness of the layer containing silt, along with the soil which was pushed together in the lake by the

fallen object is greater than 1.2 meters.

4: The falling of the object resulted in the destruction of the shoreline, creating a geometrically irregular form with crudely broken edges. The length of the greatest broken crooked line is 27 meters, the greatest width — 15 meters. The greatest depth of the pit is 3 meters. The bottom of the pit is a shallow slope with an inclination of 10 degrees. Two filled-in strips with a distance between them of 5.5 meters can be discerned behind it at the outlet to the departure of the water. At the right (western) edge of the pit is a barely discernible hollow strip, leading out to the bottom of the lake and having a form created out of the peaks of cones with the greatest width of 40 centimeters, turning into the bottom of the lake at a level hollow strip having a width of 20 centimeters. No other traces of a regular form at the bottom of the pit were discovered.

There are no discarded pieces of soil or craters beyond the edge line of the pit. A large quantity of soil is located at the bottom of the polynia (translator's note: an unfrozen path of water in the midst of an icebound river). There are no discarded pieces of soil or cracks on the ice of the lake beyond the edge of ice.

5. No change of temperature was discovered at the location of the fallen object. In the deepest riverbed, rocks and shale slabs are stratified and by displacement break up into individual plates. No similar stratification of the rocks within the pit and on its slope exists.

6. None of the local inhabitants observed light and sound effects (the distance to the nearest populated points is 10 kilometers.)

7. Part of the pieces of the ice located in the formed polynia acquired an intensive green coloring (a type of chrome oxide). The coloring is uniform and rectilinear. On one piece of ice from a strip of a section amidst a colorless part, an iridescent patch with a radium of up to 2 centimeters was detected. No visible fissures were discovered in this place.

Upon thawing of the ice, a green substance dropped as sediment, assuming the shape of elongated flakes. Qualitative and chemical analysis of this sample, carried out by department of analytic chemistry at the Leningrad Technological Institute showed: small quantities of silicon, magnesium, iron, aluminum, sodium, calcium, barium and boron were detected in filtered water from the opening. After tempering of the acid extract, the basic elements — silicon, magnesium, titanium, and sodium were found in the mineral sediment. In admixtures — calcium, aluminum and iron. The sediment has a metallic shine. Many organic substances of unknown composition were detected in the water and in the sediment. The results of the chemical analysis did not give way to an explanation for the uniform coloring of the ice.

In the middle of the pit, a plate of light brown film 1 millimeter thick (a type of scale) was found. Chemical and spectral analysis showed the basic elements — calcium, sodium, lithium, manganese, aluminum, and titanium in its composition. In admixtures — calcium, sodium, lithium, manganese, aluminum, titanium.

In the pit, plates were found made up of those very elements but with a greater sodium and lithium content. According to the data from the Institute of Chemistry, the silicates are similar to the formation of natural silicates characteristic of the region located close to Lake N.

In the water in the midst of spume, floating black grain having a regular geometric form was detected; upon examination under a different microscope — the characteristic metallic shine, hollow inside, fragile, well triturated. Upon tempering they change color without changing form, extremely acid-resistant. Upon examination of the infra-red spectrum, organic substances were not detected in them. In the opinion of the specialists, grains are recognized apparently as formations of **artificial** origin.

8. All substances contained in the samples are acid-resistant and heat-resistant.

9. All samples are checked for the presence of radioactive or poisonous substances. None of the indicated substances were found in the samples.

10. In a comparison of the results of examination of the place where the object fell with characteristic features of the falling of meteorites, Professor V.V. Sharonov of Leningrad State University does not speak in favor of a meteorite of the usual type since:

a) The extent of damage is characteristic of gigantic meteorites which at the moment of impact create light and sound effects, discernible at very great distances.

The size of the craters in all cases is not greater than two, a maximum five times greater than the same meteorite.

b) The chemical composition of the remnants of meteorites is different from the composition of the substances discovered at the place where the object fell.

Results of a Qualitative Analysis of the Samples

An analysis of the following samples is carried out:

1. Piece of rock
2. Scale
3. Grains
4. Water with silt taken from thawed ice

The 1st, 2nd and 3rd samples were analyzed by a spectral method. The 4th sample — by spectral and chemical methods. A spectral analysis carried out

on a quartz spectrograph of the mark ISP-23 on plates out of orthochrome with a sensitivity of 45 units GOST by a spectrum of iron.

Results of the analysis

Sample No. 1 (Piece of rock)
Basic elements: iron, silicon
Admixtures: calcium, sodium, lithium, manganese, aluminum, titanium

Sample No. 2 (scale)
Basic elements: iron, silicon
Admixtures: calcium, sodium, lithium, manganese, aluminum, titanium (lithium and sodium are in smaller quantity than in Sample No. 1)

Sample No. 3 (grains)
Basic elements: silicon, magnesium, aluminum
Admixtures: iron, titanium, calcium, manganese, sodium, barium.

Powder produced by grinding the grain does not dissolve in a saline acid. Upon heating it remains without visible change. It also does not change by heating under the influence of a saline acid with hydrogen peroxide with the exception of the fact that the opening darkens somewhat. Under the influence of aqua regia, it changes to a bright orange color. In a sulfuric acid concentrate, the particles of the substances remain intact and the solution turns black. Under the influence of a mixture of sulphuric and hydrofluoric acids, the particles of the substances are also not destroyed and the opening darkens somewhat. Upon examination of the grains under a metal-microscope a characteristic metallic shine is observed.

Sample No. 4 (water with silt)

1. Analysis of filtered water.

By chemical and spectral methods of analysis, small quantities of silicon, magnesium, aluminum, sodium, calcium, boron, and barium are detected.

2. Analysis of silt
a) acid extract: the basic elements — magnesium, iron are found
Admixtures — aluminum, titanium, silicon, manganese, sodium.
b) Mineral residue after acid extract: Basic elements: silicon magnesium, titanium, sodium
Admixtures — calcium, aluminum, iron.

The defined elements in the melted ice do not provide the possibility of explanation for the green coloring of the ice which sections of the expedition indicate.

An infra-red spectrum of powder was taken, obtained by grinding the seeds. A band of absorption, corresponding to vibrations of group S-N, characteristic for any organic compound, lying in the area from 3 to 4 — is absent.

The samples undergoing analysis are of interest. On the basis of the investigation of Sample No. 3, one can state the assumption that these grains are of an inorganic origin and apparently not naturally formed.

Note: In the summer of 1967 in the United Institute of nuclear research (in the city of Dubna), V.N. Mekedov examined all the samples for radio-activity and received negative results.

Extract from the text of the essay, "A Series of Riddles," intended for publication in the magazine "Znaniya Sila"

1. "As if a cyclone struck with a hoe.. The greatest width of the hollow along the shore is approximately 27 meters, the length is greater than 15 meters. Depth — 3 meters."

2. "First assumptions — I quickly rejected a landslide. The unusual form of the hollow, torn flanges — all indicate an instantaneous, rapid process."

"At the approach to the water, the bottom of the pit narrows. Close to the reduction of water, a trace of something heavy, leading to the lake is clearly discernible. At the shore is a big polynia. Some rare, disarranged blocks of ice float. Further on is a flat, already swelled piece of ice. No cracks, no discarded pieces"...(there are no discarded pieces of soil around the pit).

3. "At the leg float greyish pieces of spume, small black spheres"...

4. "The bottom near the pit is covered with disgarded earth, with lumps of congealed turf. In the polynia is some floating ice. It simply pressed toward the bottom. The whole mass of cast round earth lies by a narrow and long area. From the right and left of it — the bottom is clean and compact. (The lake is oblong)

5. "In the pit and alongside it and under the water, the needles (of a min-detector) deviate more often than in the region. But no matter how much we dug and sorted out the soil with our hands, we did not find the smallest particle of metal."

6. "A diver rose and inadvertently turned over a block of ice...Imagine a piece of ice about 30 centimeters thick. And all its lower part, the part which located in the water, has a bright emerald color. They turned over another block of ice, yet another — the result was the same. They dislodged a piece ot ice from a common ice field — usual, nothing remarkable about the ice. The entire solid ice of the lake did not undergo any changes, it sunk, pressed with soil, not subject to any kind of metamorphosis.

7. "He surfaced (master of sport) at the very edge of the ice and demanded a probe. He came out

of the water at the same shore.

Something fantastic... Up to that place where I took a probe (the edge of the polynia) there's a track. It's covered with silt, but a track. It's as if a huge pipe lay there. Then a cylinder about one and a half meters high. As if "it" pushed soil in front of itself and then stopped. Further on--nothing. About 100 meters went under ice. Level, absolutely level bottom. I also sensed a track (a narrow, shallow gully on the bottom).

8 "It tore out from the shore about a thousand cubic meters of earth, crawled through along the bottom approximately 20 meters and practically vertically whirled away into the sky... The edge of ice is absolutely clean."

9. "That night (in a settlement of lumbermen) no one heard anything. Many, especially the women, were convinced that without two days after this around 3:00 at night they heard in this area a strong...

...Our guide, having arrived with us at the pit after voices of "powerful motors," did not discover any kind of changes either in the excavation or in the vicinity. (The thawed green ice which 5 people saw was taken for analysis).

V. Demidov, in his article (in the Journal-**Znaniye Sila**) writes in particular:

"Critiques and hypotheses concerning flying objects do not hold. We had conversations about unidentified satellites. Regarding ideas about an instrument coming down and again taking off, experienced engineers strongly doubt the possibility of the existence of a mechanism capable of withstanding such a colossal impact on frozen earth without losing all its components to the screw... At the present time I can't manage to interest the scientists."

In commentaries of the editorial staff to V. Demidov's article, the journal unconditionally rejects a connection between the described events and a UFO, since any hypothesis concerning UFOs contradicts "the opinion of three Soviet scientists," published in "Pravda" February 29, 1968. Unfortunately, up to this time "The Onezhsky Wonder," as we conventionally called the described event, remains unsolved.

Vague reports came to me (3rd person) about finding of a substance similar to "angel's hair".

In particular, in December 1974, A.N. Kopakin (from the Tambovsky region) reported that his friend A.T. Zaikin in the steppes in 1968, found lumps of a substance remotely resembling shreds of glass-wadding. The substance was composed of an interlacing of metallic needles 5-8 centimeters in length and 0.5 millimeters thick. The needles were made out of a brittle gray metal. Unfortunately, samples of this substance were not collected.

In 1967, the writer B.V. Lyapunov received from local researchers of UFOs in New Zealand a small quantity of "angel's hair" and at my request handed over this substance for examination by a member of the Action Group, to physicist L.V. Kirichenko. Below a document is cited, put together and passed on to me in 1968:

Results of examination of physico-chemical properties of a sample with the purpose of identifying it with some kind of well-known natural or artificially created substance.

1. Origin of the sample.

The sample was given 11/3/67 to the writer B.V. Lyapunov m.n.s. IPG GUGMs L.V. Kirichenko. Presented as "angel's hair," brought from New Zealand. No details with regard to falling out or terms of selection of the sample reported.

2. Characteristics of the "angel's hair"

From Max Frankel's article, "UFO - The Greatest Mystery of Our Time," printed in the magazine "Der Flieger" GDR No. 15-17 from 1957; No. 1-5 from 1958 in translation p/a 577: "angel's hair" — a cobweb-shaped jelly-like mass which often falls after the flight of the UFO and in some instances in great quantities covers a locality, but then within several hours disappears without a trace (sublimates). Upon contact with hands, it turns into a badly smelling lump. The mass is somewhat radioactive.

Example of a report:

On October 27, 1954, during a soccer match, a UFO appeared above Florence. A thousand people observed it; the game was interrupted. After the UFO disappeared, a large quantity of the above-described material fell from the sky and covered everything around. The director of Florence University, Professor Giovanne Conniori, investigated and performed a chemical analysis of this material which proved to consist chiefly of a compound of boron and silicon and also discovered that the flakes after themal processing showed an appreciable mechanical resistance.

Results of the examination

The substance, greyish, with a volume of less than 0.1 cm 3, was preserved in a plastic unsealed case. It was suspended on analytic weights 11/4/67 and 11/24/67. For 20 days the mass of the examined sample did not change and was equal to 28 meters 2.

Conclusion -- the substance is stable, specific gravity less than 0.03 g/cm3.

a) Upon external (visual) inspection (with the naked eye), the substance appears as a tangled-fibrous aggregate of thin threads, outwardly resembling thin-fibred frayed asbestos.
b) Under the microscope (by magnification 500 times in reflected light) the presented substance reveals a thin fibrous structure with thick individual fibers of less than 0.1 mk making up the basic mass. The basic mass of fibers is tangled in balls or individual "threads" up to 20 microns thick.
Fibers are white, semi-transparent.
The analyzed material is not an analogue of some well-know mineral formation.
By that same magnification under the microscope, a comparison of the analyzed substance with thin wool (a woman's downy jacket) was carried out and with scrap of an analytic fiber FPP-15 (band NEL). Thickness of fibers — substance several ten times thinner than the woolen material and similar to the thickness of the fibers of filter FPP-15 where it is torn.
Basic distinction: fibers of the substance more elastic, brighter and approximately 2-3 times thinner.
c) Among the described material under the microscope, thin irregular mineral grains (quartz) are discerned, the size of which reaches 0.1 - 0.15 mm. This is probably the result of contamination of the sample by ground admixtures (sand).

Radioactivity of the sample.

Photographs of the substance were taken under an electron microscope with a magnification of 2000x and 31000x. The thickness of individual fibers is less than 0.2 microns. Thinner structures are also visible (photographs attached). Attempts to reveal a crystalline structure, using the effect of diffraction, are not justified. The sample is amorphous.
a) The sample was measured 11/4/67 on a small background mounting with a detector NaY (T1) - FZU - 13 (background - 2 imp/min).
Under a 30 min. exposure, excess intensity count above the background is not discovered.
Conclusion: The sample does not contain radioactive isotopes.

Analysis on stable chemical elements.

a) The substance of the sample was examined on a Japanese microanalyser.
An x-ray spectrum of the substance was analyzed, formed by irradiation of the sample with a bundle of electrons. Under the electron bundle, the sample shines — the substance of the sample is fusible.
Traces of silicon were not discovered.
The sample consists of elements with an atomic number less than 12.
Elements with an atomic lower Mg with application method are not defined.
To determine the organic nature of the sample it was exposed to burning in the colorless flame of a gas burner. A sample less than 0.3 mg. was placed on a sterilized stainless (EA-105) palette-knife and heated up in the flame to a red incandescence of the palette-knife. The sample charred and a distinct smell of burning feathers was sensed. The change of volume of the mass is negligible. Additional heating did not change the state of the substance. The remaining light cream-colored sediment after combustion is soldered in a glass capillary.
Conclusion: The sample partially consists of organic matter.
It is necessary to explain the chemical composition of the non-combustible sediment. If this is metal, then it is possible that the substance is related to a class of metal-organic compounds.
If the sediment is caused by a mineral contamination -- (cf. point 2 "c"), it is necessary to evaluate the ratio of the mass of mineral and organic origin in the sample.
For further analysis it is expedient to bring the sample to the institute of Chemistry of Natural Compounds AN (director academician Shemykin).
Institute of Organic Chemistry AN USSR
k.x.n. V.A. Smith,
k.x.n. B.A. Rudenko,
k.t.n. M.I. Yanezovski.
Geologist-Petrographer
V.N. Vacilenko
IPG GUGMC
c) Analysis of the sediment in a capillary.
In the capillary, various sizes of mineral grains are soldered (apparently quartz).
The grains are semi-transparent, yellowish or brownish in color, in places white. There are 12 grains. Maximum size 0.4 x 0.24 x 0.04 mm. Mimimum size - several microns. Aside from the mineral grains, grey microscopic opague disseminations of amorphous "mass" are present. Proceeding from the measures of the observed particles and the assumption

that mineral grains are quartz, an approximate weight of the mineral part of the mineral soldered in ampoule was evaluated. 0.02 mg. Quartz particles are soldered in a capillary — grains of sand. For absolute identification of the ash sediment with quartz it is advisable to conduct x-ray diagnostics of the structure of the ash sediment and of the basic mass (Institute of Minerology and Geochemistry of Rare Elements IMGPE. Director L.C. Ovchinikov). The fibrous matter of the sample does not have analogues among thin-fibrous mineral structures (asbestos, basaltic threads of Pelle's hairs", organo-calcium compounds).

General conclusion: the substance is stable, not radioactive, contaminated with mineral dust. Thin-fibred substance of organic origin. If the sample is really unique, it is possible to do a mass-spectrometer on the elements with small atomic numbers.

From literary references on the composition of "angel's hair" the determination of is of interest since natural compounds of boron are not present in the earth's atmosphere. Traces of silicon may be caused by contamination with atmospheric dust.

The sample is very small. With such quantities it is possible only to conduct attempts at determining cosmogonical origin, in the event that traces of iron are found in the sample.

A mass of less than 2 mg. presumably of an organic substance, does not allow for a quantitative analysis of the composition of elements.

Unfortunately, in the course of experiments, the mysterious substance was completely consumed. In this connection, further examinations were forced to discontinue.

It is quite possible that in the USSR, ground effects of UFOs often occur, but because of the discrediting of the problem, eye-witnesses do not want to report about it. An example of this is a letter written to me by the former member of the Action Committee M.C. Volkova, where she reports that, "In 1972 in Volgograd, when cars stopped on the highway, passengers coming out of their cars saw some kind of huge metallic mass flying over them. They sat down from fear, as it seemed that the mass would brush against them. After it flew past, the motors in the cars turned off. I asked the eye-witnesses to describe all this, but they were afraid they would find themselves in some kind of unpleasant incident."

How many timid eye-witnesses hide interesting information about UFOs?