## THE IMPOSSIBLE LAUNCH SITE by michael кobs

Part 1 (link to Part 2: http://docdro.id/7qAszdG)


At June 62016 the JIT published an e-zine showing them collecting soil samples at a field that was burnt in July 2014 and became the alleged launch site of a BUK missile that shot down flight MH-17.

This launch site became famous after the pro-Kiev info-warrior @Wowihay first twittered the alleged missile trail and MH17 plume photos and some hours later the geolocation of a launch spot close to that field. Allegedly he did the geolocation by the trail photos and the recollection of a still unknown witness. WowihaY himself had left the Donbass at that time.


Later RTL, the Telegraph and others found a part of a field close to that geolocation burnt. The "burnt patches" in combination with the photos of the missile trail became a very important "evidence" for a missile that was shot from a location south of Snizhne by so called pro-Russian "rebels".

While a burnt part of a field might be caused by dozens of different reasons, especially at harvest in a war zone, no one ever tried to connect the dots of the alleged evidence for that specific field as a launch spot.

A closer examination of that location in connection with the photographic evidence show that the narrative of the launch spot must be wrong just like the alleged launch spot. The alleged evidence for that launch spot prove the opposite.

## KNOWN FACTS

Fact 1: The wind direction was East.
\#MH17 smoke plume video 2 geolocated youtube.com/watch?v=AJ89bW...



На границе России и Украины разбился малазийский авиалайнер, 17.07.2014


Verorffentlicht am 17.07.2014
ПодПИЦИС. ra ноесет: http://goo.g//nHicDg
СТань ЛАЙК и ДЕПИСС вияео, нир допхен зяань ПРАВДУ

Fact 2: The photographer of the missile trail took the photos from position $48.048264^{\circ}$ $38.638962^{\circ}$.


Fact 3: The projection of the distance between P1 and P2 ${ }^{1}$ represents a length of 280 meters in the distance of the alleged launch spot.


Fact 4: A visible length of $\mathbf{2 8 0}$ meters corresponds to a length of 400 m in the direction of the wind.


If facts 1-4 are true, then a missile trail in the distance of the alleged launch spot travelled about 620 meters from the burnt field (black smoke) to the West prior to the zoomed shot DSC_9266.


[^0]During the 7 seconds between the cable shot and the zoomed shot the missile trail travelled about 70m to the West.

Fact 5: The cable shot DSC_9265 was taken about 7 seconds prior to the zoomed shot DSC_9266. The MH17 plume shot DSC_9267 was taken 265 seconds after the cable shot DSC_9265.

Timestamp according to the metadata:

- "Photo 1" - 07/17/2014 16: 25: 41.50
- "Photo 2" - 07/17/2014 16: 25: 48.30
- "Photo 3" - 07/17/2014 16: 30: 06.50

| DSC_9265.NEF | Тип: Файл "NEF" | Дата съемки: $17.07 .201416: 25$ |
| :--- | :--- | :--- |
| Размеры: $4928 \times 3264$ | Размер: 15,1 МБ |  |

Fact 6: The mushrooming vertical part of the MH17 plume above the chimney (48.064527 ${ }^{\circ}$, $38.632823^{\circ}$ ) and reaching half way to the mine ( $48.064879^{\circ}, 38.630899^{\circ}$ ) already travelled 2820 meters in the direction of the wind prior to shot DSC_9267 was taken.


Hence, the three known shots DSC_9265, DSC_9266 and DSC_9267 are connected by a rigid timeline: $0 \mathbf{~ s e c}, 7 \mathrm{sec}, 265 \mathrm{sec}$. At $\mathrm{t}=0 \mathrm{sec}$ the missile trail already travelled 620 m and at $\mathrm{t}=\mathbf{2 6 5} \mathrm{sec}$ the MH17 plume already travelled 2820 m . Both travelled in the same wind direction at the same speed of wind.


Fact 7: The reported wind speed for the time and area is $4 \mathrm{~m} / \mathrm{s}$.


## ESTIMATIONS:

flight time of the missile from the alleged launch spot to the last FDR of MH17 $=35 \mathrm{sec}$

The flight time of the missile might be some seconds shorter since DSB and Russian experts agree about an upwards trajectory of the missile at the moment the warhead exploded. A combination of two available diagrams - the first given by Almaz Antey, the second was found in a forum ${ }^{2}$ - would suggest a downward trajectory at the given distance and a resulting flight time of about 35 seconds.

[^1]
combined:


Another source gives a maximum speed of the missile type in question of $800 \mathrm{~m} / \mathrm{s}$.


A straight line flight of 26 km over ground from the alleged launch spot to the last FDR location at 10000 m altitude at constant maximum speed will result in a flight time of 34.8 seconds. Therefore, 35 seconds appear as a good estimate for a minimal flight time of the missile.
fall time of the debris $=90 \mathrm{sec}$
The free fall (without any air resistance) from an altitude of 10000 meters would take 45 seconds. Since huge parts of the fuselage including the wings and therefore the tanks fell as one piece a fall time of 90 seconds appears still as a minimum. Other sources estimated the fall time to be 3-5 minutes. ${ }^{3}$

In order to better understand how the tragic crash might have occurred, The Wire spoke with aviation expert Bruce Rodger, President of Aero Consulting Experts.

Of particular interest in this case is the timing. One separatist noted the crash on social media almost two hours before the event. However, a plane only takes minutes to crash. "The time for it to fall out of the sky from its altitude,
depending where it hits, the engine, the wing, it takes about three to five minutes," explains Rodger. "It all depends on the altitude and where the missile hits the plane. It could be the missile took out the airplane right away and it exploded right away."

The Rostov Radar video data ${ }^{4}$ however suggest a fall time of about 130 seconds.


Therefore, an estimate of 90 seconds fall time as a minimum means that a longer time between the launch of a missile and the start time of the rising plume from the crash site must be considered.

[^2]
## DISCUSSION:

wind speed $17 \mathrm{~m} / \mathrm{s}$ :


At a wind speed of $16.5 \mathrm{~m} / \mathrm{s}$ the MH 17 plume reaches the necessary distance of 2820 meters about 295 seconds after the missile launch.
The smoke trail in the zoomed shot DSC_9266 (taken 258 seconds earlier) would have reached about the right distance from the launch spot and would be taken 37.9 seconds after the launch. The cable shot would be taken 31 seconds after the launch.

A longer fall time of the debris would also cause the missile trail to travel further.
A shorter flight time of the missile would make it impossible for the photographer to react. The high wind speed causes the missile trail to travel 116 m during the 7 sec between DSC_9265 (cable shot) and DSC_9266 (zoomed shot). That's about twice the distance observed in the photos. The wind speed is more than 4 fold the reported wind speed at that time and can be excluded.
wind speed $12 \mathrm{~m} / \mathrm{s}$ :


At a wind speed of $12 \mathrm{~m} / \mathrm{s}$ the displacement of the missile trial between DSC_9265 (cable shot) and DSC_9266 (zoomed shot) is still too big. At the same time the missile trail must have travelled 1140 m
prior to the cable shot. This is about twice the distance (Fact 4) between the burnt field and the missile trail in the zoomed shot.

In this case the cable shot would be taken 95 seconds after the launch. A shorter flight time of the missile for max. 15 seconds would reduce the travel time of the missile trail to 70 seconds and the travelled distance to 840 meters. This distance still would be 220 meters too big while the travelled distance during the 7 sec between DSC_9265 (cable shot) and DSC_9266 (zoomed shot) is too big too. Hence, the wind speed is still too fast and indeed the 3fold of the reported wind speed.

A longer lasting fall of the debris would increase the travel time and distance for the missile trail prior to the cable shot rapidly. That distance already is too big even for a reduced flight time of the missile. Therefore, this case can be excluded also.
wind speed $8 \mathrm{~m} / \mathrm{s}$ :


This wind speed is still twice the reported wind speed (Fact 7) for the given time and area. While the travelled distance between DSC_9265 (cable shot) and DSC_9266 (zoomed shot) fits the images for the distance of the alleged launch spot the missile trail in the zoomed shot must have travelled more than 1750 meters prior to the shot. Even a shorter flight time of the missile (Min. 20 sec ) would shorten that distance for Max. 120 meters.


While this is the closest match to most of the known facts the alleged launch spot is out of reach and must be excluded. Furthermore, the cable shot would be taken 3.5 minutes after the launch and this time increases dramatically for a fall time of 3-5 minutes.
wind speed $4 \mathrm{~m} / \mathrm{s}$ :


At the reported wind speed for that time and area (Fact 7) the travelled distance of the missile trail during the 7 seconds between the images DSC_9265 (cable shot) and DSC_9266 (zoomed shot) is much too small. At the same time the missile trail must have travelled for 9.3 minutes and 2260 meters prior to the cable shot. This would place the launch spot in the center of Pervomais'kyi.


A shorter flight time of the missile wouldn't change much to the result while a fall time of the fuselage of 3-5 minutes would stretch that distance for additional 720 meters. Therefore, even for the reported wind speed of $4 \mathrm{~m} / \mathrm{s}$ (and any lower wind speed) the alleged launch spot must be excluded.

CONCLUSION
The timeline given by the photos DSC_9265, DSC_9266 and DSC_9267 excludes the alleged launch spot - the burnt field - south of Snizhne for any possible wind speed.

## RAMIFICATION

Previously it has been shown that the black smoke and the aligned missile trail must be unrelated and independent events.


The narrative of a burning field (causing the black smoke) ignited by the launch of a missile (causing the white trail) was spread by Bellingcat. Nevertheless, both types of smoke are exposed to the very same wind at the very same time.
While the missile trail reaches its full height within less than 5 seconds the wheat field might be ignited at the same time (even if not probable due to the very short time of exposure to heat). It would take a while for the wheat field to develop enough smoke to be visible from a distance of 12300 meters. Once enough smoke rises that smoke will travel in the same wind at the same speed like the missile trail that allegedly ignited the field.
Hence, for the black smoke it would be physically impossible to overcome the missile trail in the lateral movement. It would be even more impossible to rise at an altitude of 200 meters at the very same time.
Therefore, there is no way imaginable that black smoke and missile trail are connected events in the way Bellingcat suggested.

Furthermore, the image of the missile trail was layered by a scale consisting from cubes ( $100 \mathrm{~m} x$ $100 \mathrm{~m} \times 100 \mathrm{~m}$ ) built as a 3D model. The 3D model was scaled by the poles P1, P2 and P3 according to the geolocation of the RTL Rapport Rookpluim analyse v1.0.


This way it becomes obvious that the missile trail disappears at an altitude of about 1000 meters while the altostratus (AS) cloud cover had a base at 3000 meters according to the DSB report.

The image demonstrates also that the missile trail at this point in time and at the alleged distance would have a diameter of about 100 meters.

Comparable trails of a BUK missile suggest that the lower part of a BUK missile trail dilutes and almost disappears within less than 40 seconds.

## Example 1 enhanced for better visibility of the missile trail:



Example 2 enhanced for better visibility of the missile trail:


For the appearance of the alleged $\mathrm{MH}-17$ missile trail a time of more than 60 seconds after the launch appears highly improbable. But this precondition would exclude all wind speeds less than 14 $\mathrm{m} / \mathrm{s}$ at the very same time.


Since $14 \mathrm{~m} / \mathrm{s}$ wind speed is a "moderate gale" according to Beaufort Number 7 and no wind of that magnitude (shaking trees, hard to walk) was observed in any video taken in the minutes after the crash this case can be excluded either.

| Beaufort number | Wind Speed (mph) | Seaman's term |  | Effects on Land |
| :---: | :---: | :---: | :---: | :---: |
| 0 | Under 1 | Calm |  | Calm; smoke rises vertically. |
| 1 | 1-3 | Light Air |  | Smoke drift indicates wind direction; vanes do not move. |
| 2 | 4-7 | Light Breeze |  | Wind felt on face; leaves rustle: vanes begin to move. |
| 3 | 8-12 | Gentle Breeze |  | Leaves, small twigs in constant motion; light flags extended. |
| 4 | 13-18 | Moderate Breeze | $1$ | Dust, leaves and loose paper raised up; small branches move. |
| 5 | 19-24 | Fresh Breeze | $y$ | Small trees begin to sway. |
| 6 | 25-31 | Strong Breeze | K | Large branches of trees in motion: whistling heard in wires. |
| 7 | 32-38 | Moderate Gale |  | Whole trees in motion; resistance felt in walking against the wind. |
| 8 | 39-46 | Fresh Gale | $9$ | Twigs and small branches broken off trees. |
| 9 | 47-54 | Strong Gale |  | Slight structural damage occurs; slate blown from roofs. |
| 10 | 55-63 | Whole Gale |  | Seldom experienced on land; trees broken; structural damage occurs. |
| 11 | 64-72 | Storm |  | Very rareiy experienced on land; usually with widespread damage. |
| 12 | 73 or higher | Hurricane Force |  | Violence and destruction. |

Finally it should be mentioned that all the „unique" features of that part of a field can be found in the very same way some kilometers south of the alleged launch site. A similar corner of a wheat field obviously used by the ukranian military shows the same earthwork, shows similar tracks, was unburnt on July 16 and burnt on July 23. And just like the alleged launch spot this field corner also is in the dark blue zone for a probable missile launch.


Hence, none of the features of the alleged launch site is "unique" or cannot be explained by other causes such as field burning.
Max van der Werff already has proven the black smoke allegedly from the ignited and burning field still rises from the very same spot.


Even the burning of the field is not very "unique". In the days before and after July 17 a lot of fields all around the alleged launch spot burnt for several other reasons than a BUK missile launch.



[^0]:    ${ }^{1}$ RTL Rapport_Rookpluim_analyse_v1.0

[^1]:    ${ }^{2}$ https://www.metabunk.org/does-damage-to-mh17-indicate-or-exclude-a-particular-buk-launch-location.t6345/page-16

[^2]:    ${ }^{3}$ http://www.thewire.com/global/2014/07/interview-with-an-aviation-expert-about-the-mh17-crash/374640/
    ${ }^{4}$ http://www.whathappenedtoflightmh17.com/mh17-speed-and-altitude-unchanged-for-44-seconds-after-fdr-and-cvrstopped/

