

## Suspicious Evidence

by Michael Kobs

In November 2014 the journalist [Jeroen Akkerman discovered missile parts](#) allegedly found at the crash site of flight MH17. Among these missile parts he presented a bowtie (submunition) of a BUK missile.

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### MH17 shot down by BUK missile: The definitive proof

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**Flight MH17 was shot down by a Russian-made BUK missile. So far there were only strong indications, but RTL Nieuws in The Netherlands had international forensic experts in three different countries research pieces of ammunition found by correspondent Jeroen Akkermans, now there is proof.**

**More details concerning the proof a BUK downed MH17 in this article: [Evidence proving that flight MH-17 was taken down by a BUK missile](#)**

He obviously found that piece of evidence at the crash site close to the chicken farm (see right image below in the background) at 48.131829° 38.631337°.



The allegedly original position of that bowtie is shown in the image below:



In an article J. Akkerman wrote that his cameraman is also his witness and the bowtie and other missile parts were presented in a way that a reader must arrive at the impression that several experts seemingly confirmed the authenticity. Among those experts are HIS Jane's London and Schmucker Technologies Munich (image below).

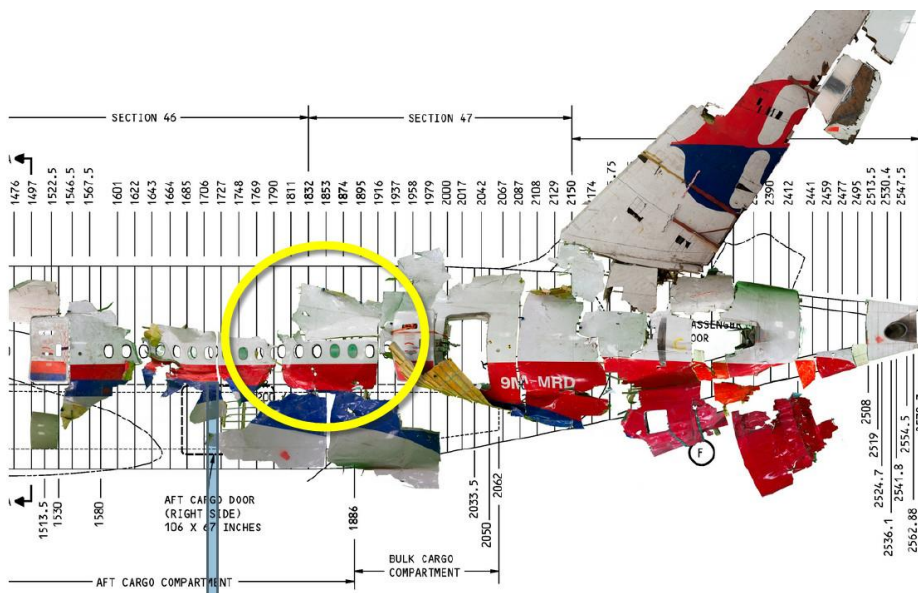


However, Marcel van den Berg pointed out that the piece of debris on which Akkerman allegedly found the bowtie was previously turned upside down. Earlier photographs of that piece of debris show the outside of the airplane pointing upwards.



Google Earth images show that it was turned between August the 1<sup>st</sup> and 4<sup>th</sup> and disappeared between November the 1<sup>st</sup> and 20<sup>th</sup>. So Akkerman probably was the last one who had the chance to examine that piece at the crash site.

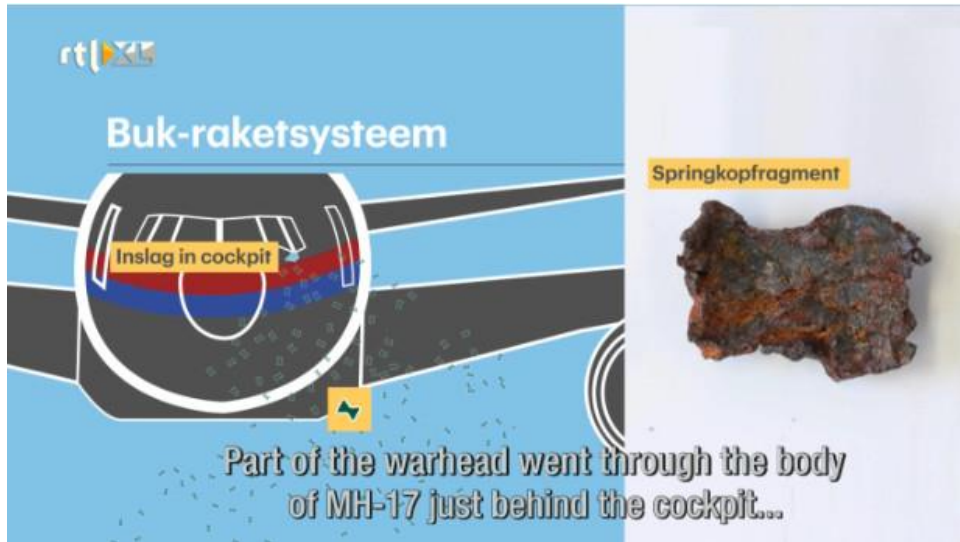
Furthermore, that piece of debris is part of the left side of the tail and includes the last windows far behind the wings. It neither shows any damage due to submunition impacts nor would the bowtie be able to enter the airplane at that distance and angle.



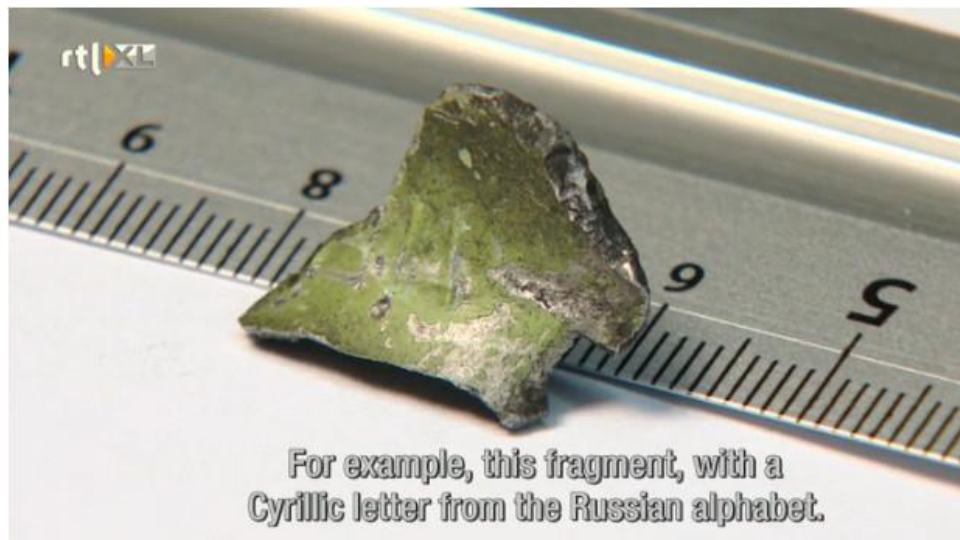
Akkerman considers, "The 'bow tie' may have shifted during the turn around, who knows?" The chance for a "shifted" bowtie sticking upside down at the left side of the tail waiting to be released by a turn of the debris is close to zero. The interior trim of that piece of airplane skin was completely ripped away. The bowtie would have to bounce several times inside of the passenger deck from the cockpit through the 1<sup>st</sup> class to the last 5 rows to penetrate through the interior trim and end up sticking at the naked metal tight enough to survive the fall and the impact to the ground. There it must sticking head over heels for 2 more weeks until someone turned that piece of airplane skin. Finally, the bowtie would have to wait 3 more month on top of the turned debris to be found by J.

Akkerman. Keep in mind that this bowtie is not one of dozens or hundreds but one out of two allegedly found in the debris.

Obviously RTL Nieuws knew the small probability and simply stated that Akkerman's bowtie entered the plane close to the cockpit.



Nevertheless, Akkerman had more suspicious to show. He also found not only a piece of the missile but a piece of the serial number allegedly of the BUK missile:



The 2cm piece is bent in a radius much too small for the outer shell of a BUK missile but the main interest of the presentation was the number itself because it includes the Cyrillic letter "ц". Once again RTL Nieuws arrived at the same conclusion:



RTL Nieuws shows that piece of "evidence" from a slightly different perspective. Look at the Cyrillic letter "ц" again.

The Cyrillic letter ц is always written on the baseline. Hence, 2ц share the same baseline. Therefore, the piece of the serial number most likely says 24 using a font like Elite 12pt used by the [IBM Selectric advocate Typewriter](#) produced between 1975 and 1977:

@#%&\*() + : " , . ?  
 234567890 - = ; ' , . /



Since JIT obtained a BUK missile it would be an easy task to show the part and typography of a real BUK serial number, wouldn't it?

Still we don't believe in a deliberate fraud or planted evidence in a major war crime case but in a series of highly improbable coincidences and misunderstandings and even omissions. We just must admit that the presentation of these highly suspicious pieces of metal shaped the public opinion as if indeed hard evidence confirmed by international respected experts were presented. [By the way, for a magician the presentation is the most important act of every trick.](#)

In the context of the above it seems plausible that the JIT doesn't mention a single piece of Akkermans metal. Nevertheless, even the JIT presented missile pieces.



The most convincing part is a piece of the tail of the missile embedded in the window frame of the left side of the cockpit.

JIT: "A ball of twisted metal was found in the groove of one of the cockpit windows. This ball of twisted metal appears to be part of the missile of the 9M38 type. The shape, dimensions and milling traces on the metal match exactly the same part of the BUK missile that had been dismantled by the investigation team."

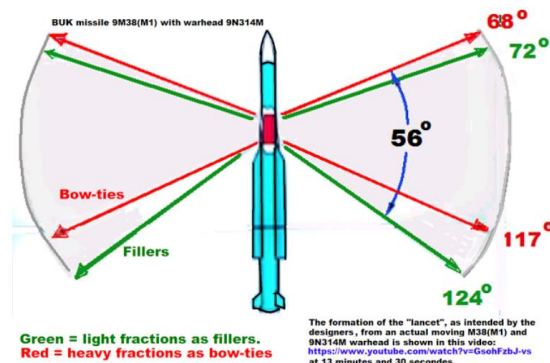


Obviously not the entire part of the missile body behind the warhead impacted the airplane. Such an almost frontal impact at  $730\text{m/s}$  (missile) +  $250\text{m/s}$  (plane) =  $1000\text{m/s}$  might have sliced through the airframe like a knife. Instead just some small shrapnel – seemingly a part of the lid in the upper right picture (picture in picture) – impacted the cockpit window frame.

Notice that the lid is bolted to the last tail section of the missile:

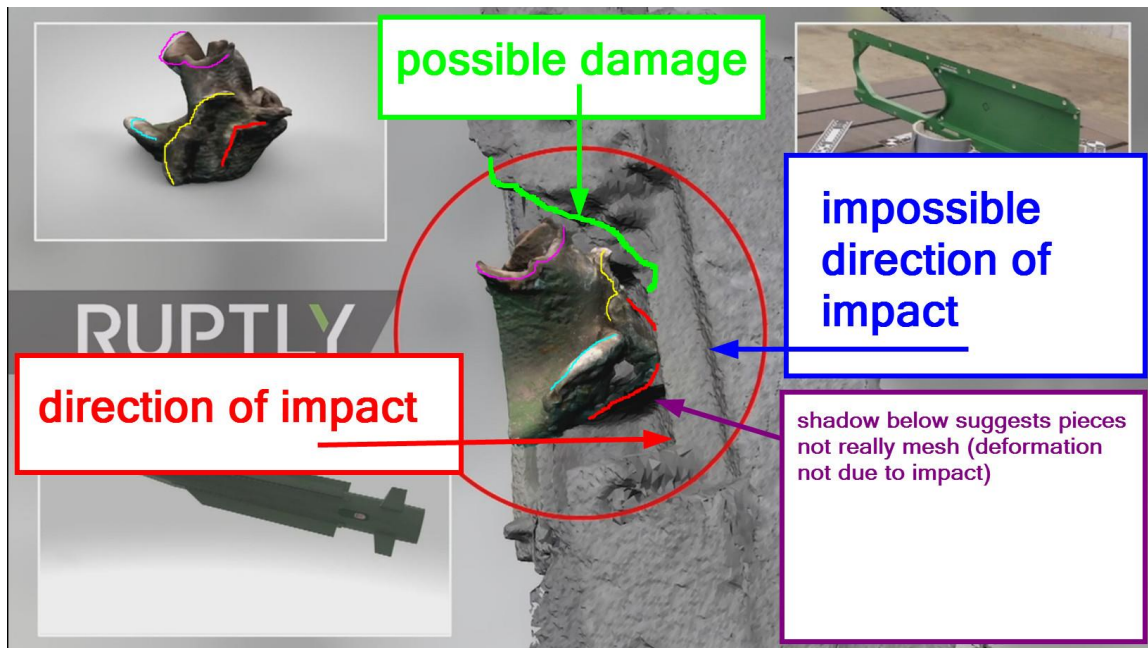


So either the entire body of the missile disintegrated into small pieces or the last section of the body just lost the lid. Even if the body of the missile was never found, it seems to be unlikely that the entire body virtually vaporized due to the explosion of the warhead. The warhead is constructed in a way that directs most of the pressure almost perpendicular to the sides.



However, the experts may decide if a still solid body might possibly lose a bolted lid due to the warhead explosion while the pressure twists that metal to the shape of a ball prior to the impact. At least the website [air defense today](http://airdefense.today) suggests that the body of the missile should be found and therefore not completely disintegrated into tiny pieces.

According to the JIT presentation (see below) that embedded piece of the lid apparently impacted from left to right (red arrow). Notice that the higher profile of the undamaged side of the window frame do not allow an impact from the right side (blue arrow).



According to the image the red marked edge of the alleged missile part sticks below the undamaged edge of the window frame. The shadow below that folded piece of metal suggests that the impact at about 1000 m/s (without any additional force) didn't deform the shrapnel in a way that it matches (or embeds into) the surface of the groove along the window frame. Furthermore, there is no edge that possibly could have bent the lower edge of the shrapnel (bright blue) upwards. Therefore, the deformation appears not to be caused by the impact - or more precise by the impact to this window frame.

But there is a much bigger problem. The [JIT presentation](#) shows the location of the impacted window frame this way:

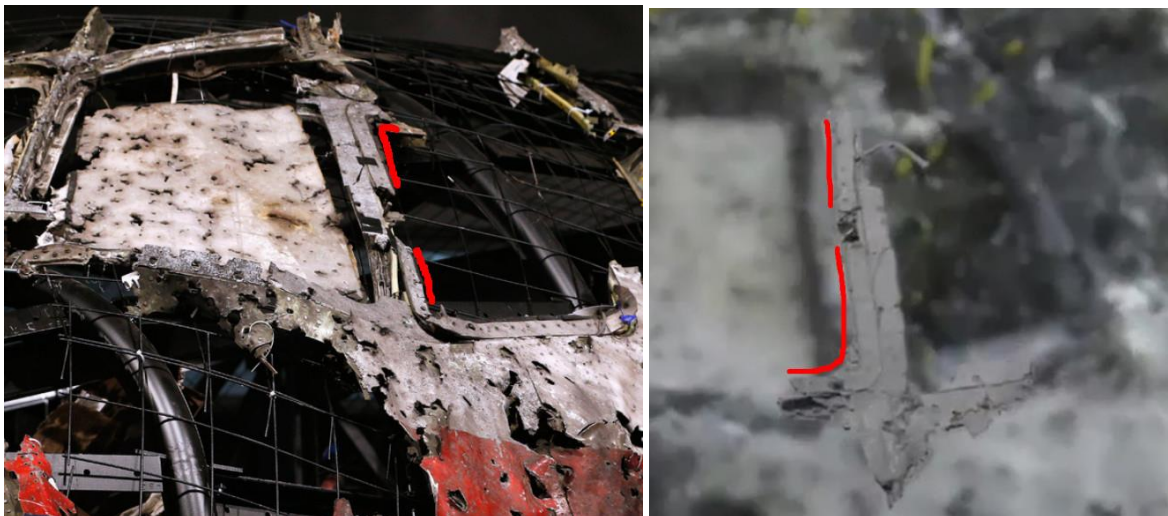






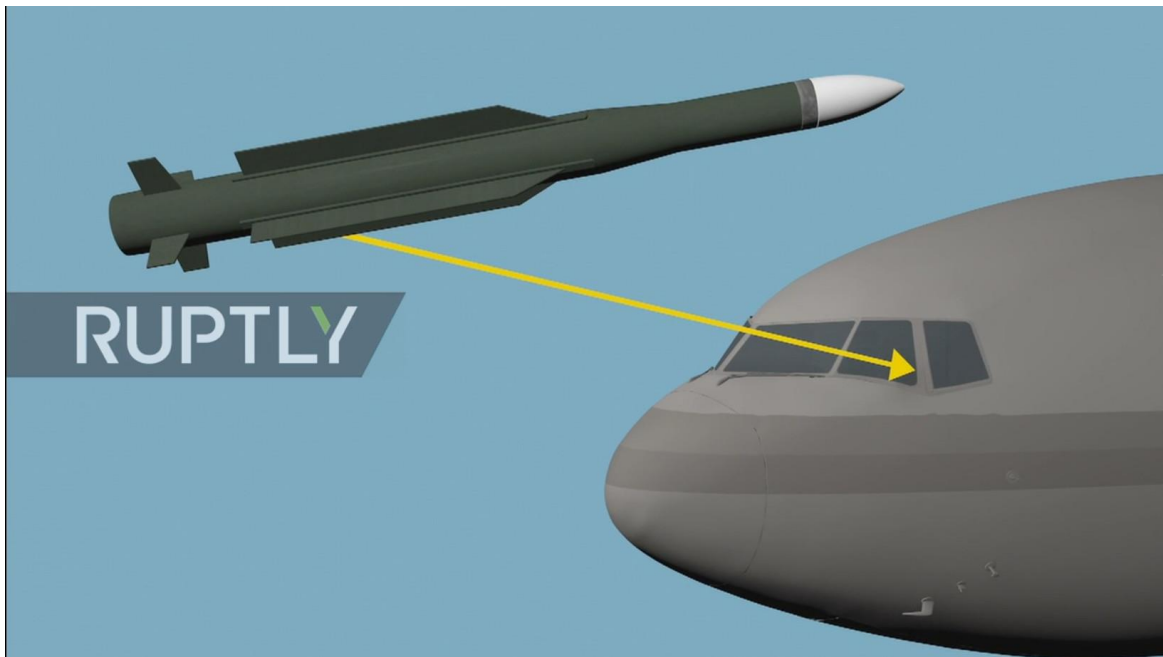
Notice that the debris of the window frame has the shape of a cross pointing downwards.

If we now compare the JIT presentation to the reconstructed airframe, then we realize the JIT turned that piece of the window frame upside down:

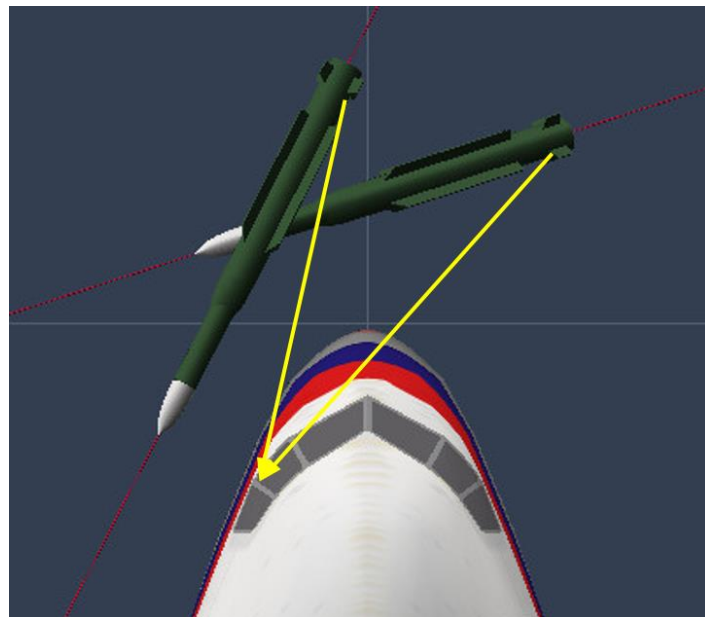


In other words, the embedded metal ball either impacted the window frame from behind the airplane or maybe slightly from the side and behind. An impact from the front of the airplane can be excluded. Therefore, the JIT illustration of the impact describes an impossible event that apparently became possible by a 180° rotation of that piece of the window frame.

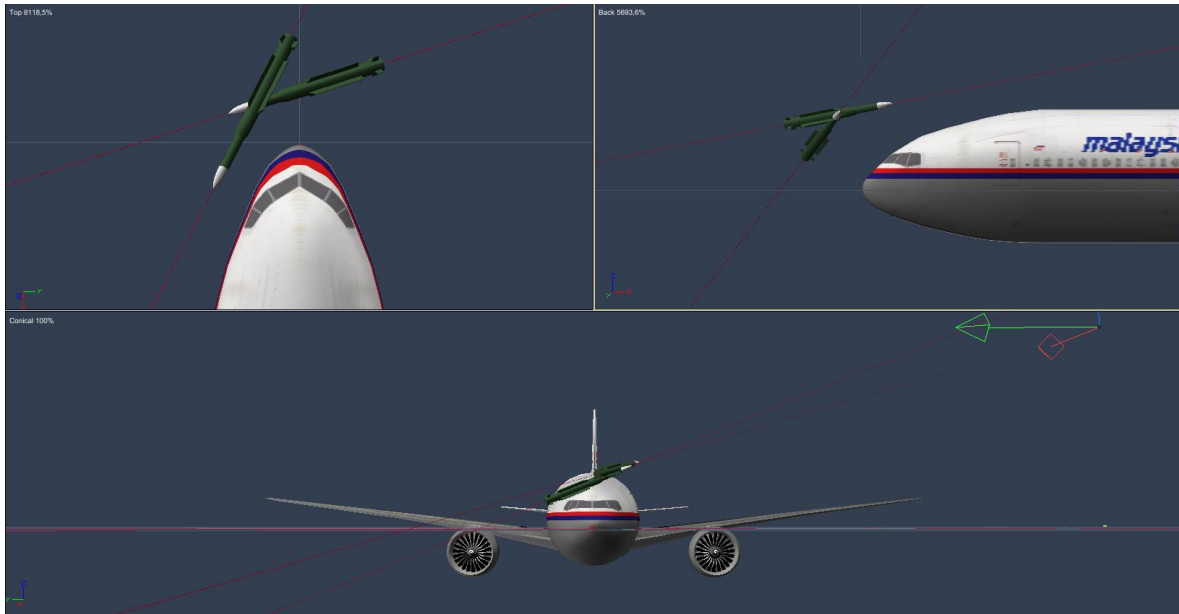
To complete the image burnt into the mind of the listeners, JIT made it very clear:



Keep in mind that the last tail section of the missile (either from Snizhne or from Zaroschenskoye) and the bolted lid is located some meters behind the warhead and was still in front of the cockpit when the warhead exploded.

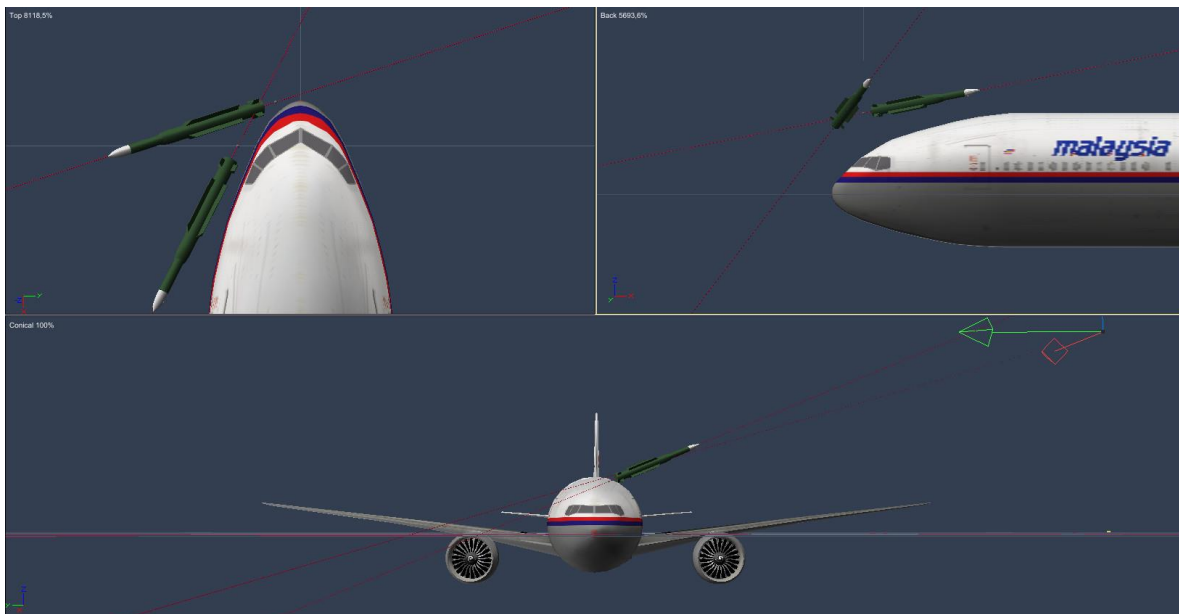


A disintegrated missile body or a shrapnel from that tail section must have entered the cockpit from the front.



Six milliseconds later the tail of a missile from the direction of Snizhne would pass the cockpit window but would be too high to embed a shrapnel from the side or from behind that window frame. Furthermore, some kind of post-explosion-explosion would have to accelerate that ball of twisted metal in the opposite direction. At minus 1000 m/s it just would reach the same speed like the window frame. So it needs some additional acceleration to finally embed that piece of metal deep enough in the groove to withstand the impact at the ground without being detached.

That reverse acceleration appears much harder to believe when that plate of the lid wasn't deformed to a ball by some delayed additional explosion because of the much higher air resistance of the plate at more than cruising speed of an airliner.



No need to say that the trajectory of a missile fired from Zaroschenskoye appears impossible as a source of that backwards embedded metal ball.

The same can be said about a missile from anywhere near Snizhne.

A final comparison with the Almaz Antey full scale test reveals some deeper insight (source: [Натурный эксперимент концерна ПВО "Алмаз-Антей"](#)).

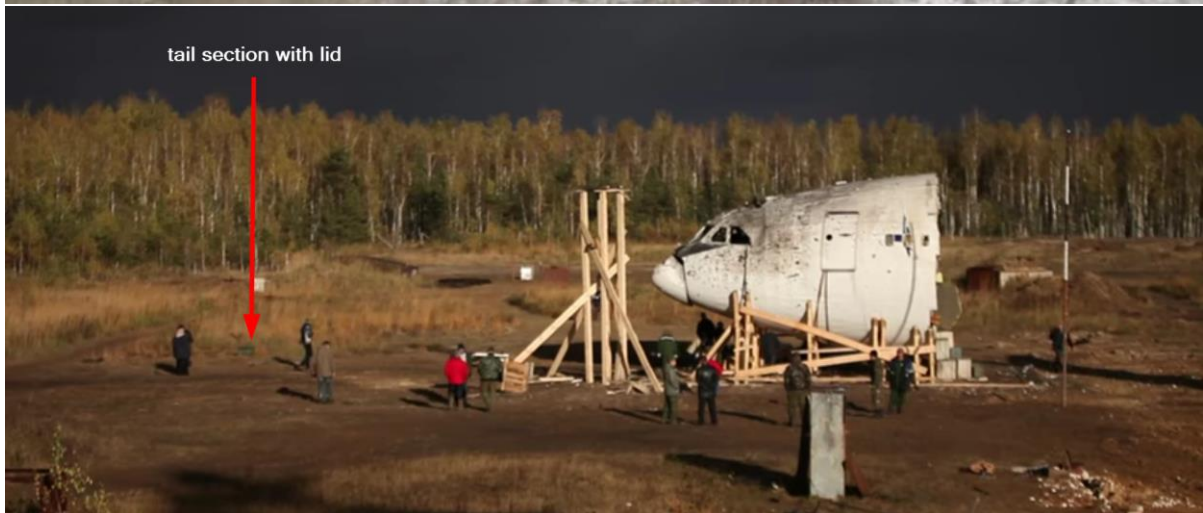
1) the slow motion of the explosion shows a piece that looks like a fin of the missile that was pushed over the cockpit and fell on the opposite side. Hence, the fin section appears to be disintegrated but the fin itself has hardly enough energy e.g. to deform into a ball due to an impact especially from behind the plane at a relative speed of  $-1000\text{m/s}$ .



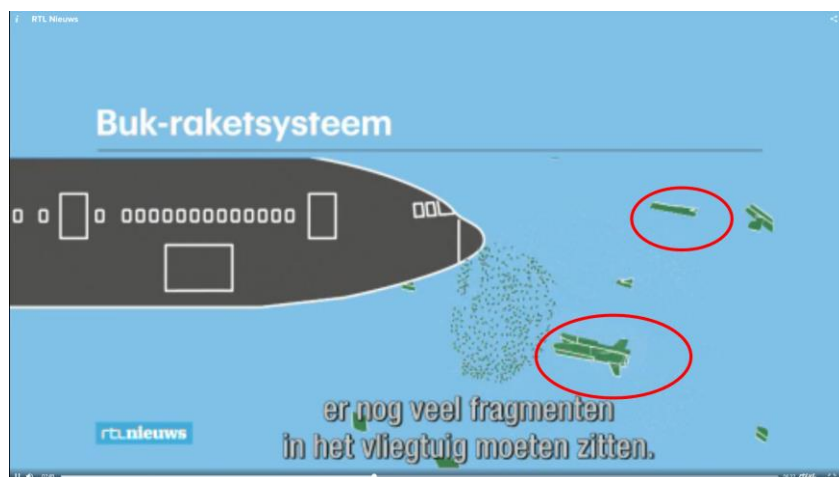
2) the wooden construction that carried the missile below the fin section survived the explosion virtually undamaged



3) several missile parts dropped close to the wooden construction to the ground. The last section with the lid appears undamaged and pushed backwards.



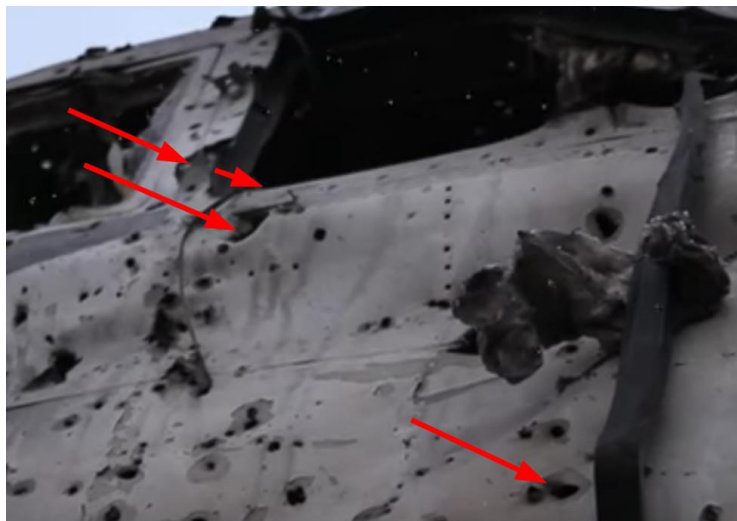
The other two bigger pieces might be the fin section split in two parts. It seems RTL nieuws depicted at least this part of the story pretty accurate:



4) The IL-86 cockpit shows a very similar damage pattern along the windows frame.

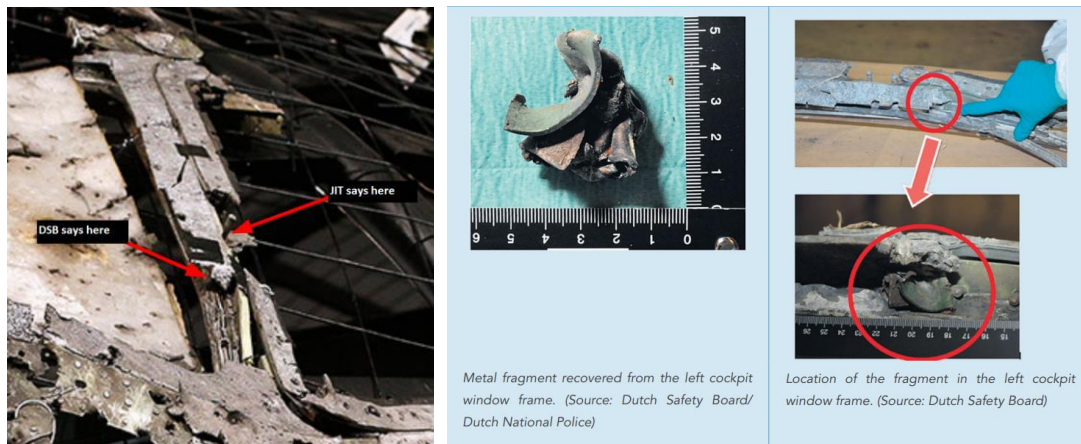


5) the edges of the damaged window frame are bowed outwards. This might be caused by a shrapnel that went through the aluminum skin and was deflected by the material (may be steel) below.



## Additional chapter

The DSB report Figure 40 provides a different location for the embedded metal ball in the front side of the same column.



Notice, that the window is punctured by the submunition but has no larger hole close to the DSB location. One possible sequence might be that first the submunition punctured the glass. Next the pressure pushed out the window and finally the lid slammed into the column of the frame.

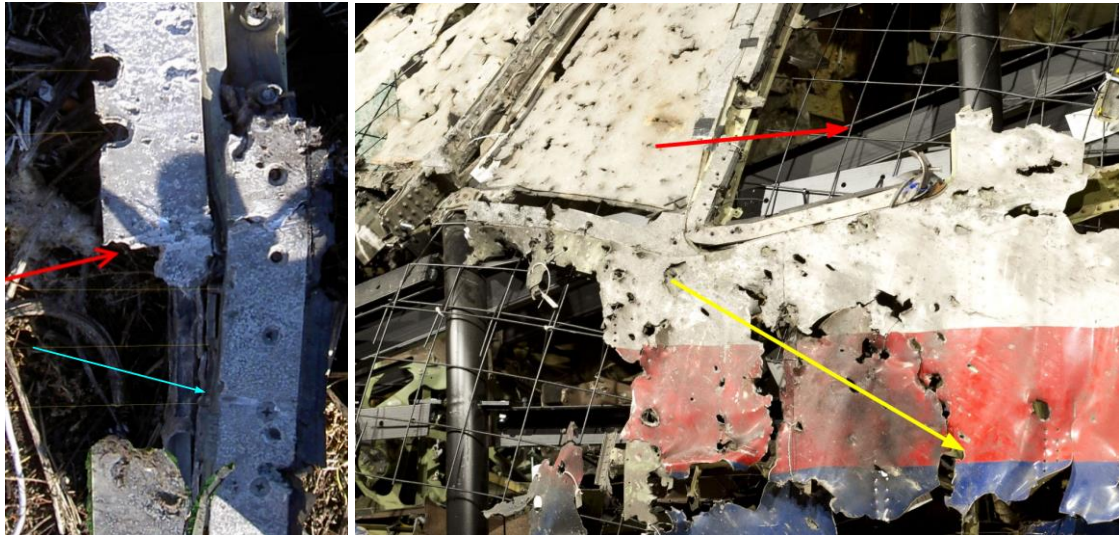
Images of the column apparently at the crash site can be found on the internet.

The following image shows the metal ball embedded behind some heavily corroded piece of metal sticking in the rubber. The rusty piece apparently neither belongs to the window frame nor is mentioned as part of the missile but fixes the missile part next to an extensive circular damage (red line) to the silver angle.

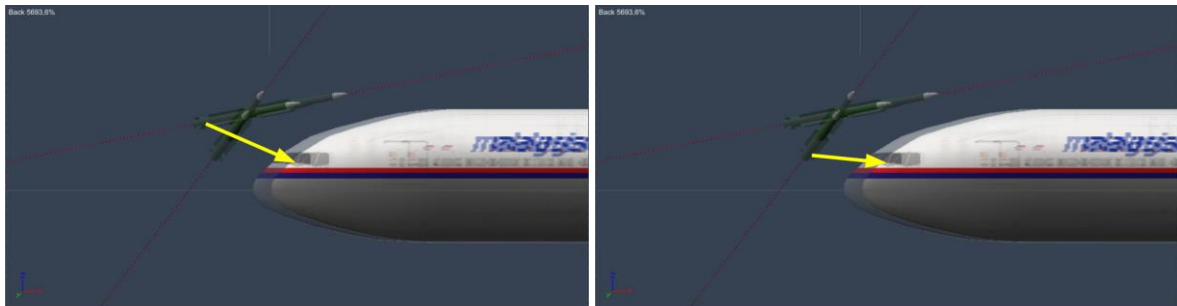


Possibly the lid from the tail of the missile slammed into column and broke that lost circular piece from the aluminum frame. Next to that damage are two holes looking like failed drill holes (red arrows). The top view reveals that both holes are obviously caused by high energy impacts at a different angle and therefore at a certain angle to the trajectory of the missile part.

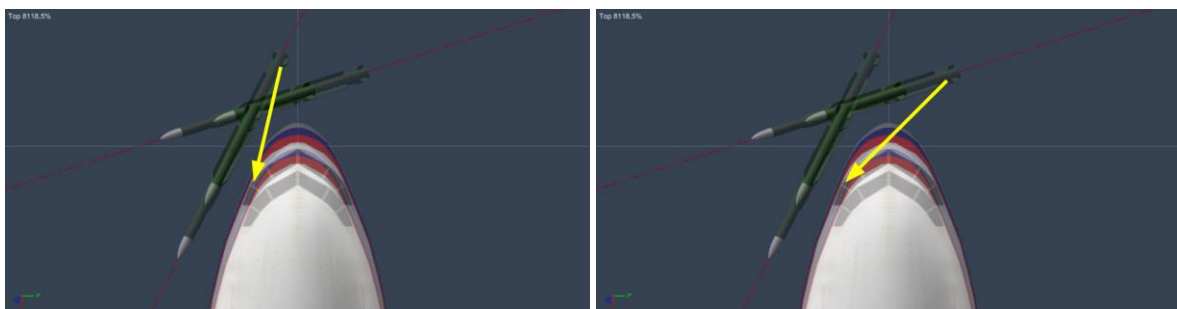
The collision of an object – presumably the lid - against the column left telling scratches on the outer surface. According to these scratches, the object must have been on an upward trajectory relative to the airplane.



Some scratches (bright blue arrow) confirm the direction of the spray but the presumed missile part behind that rusty piece of metal obviously impacted the window frame from the front or a slightly lower angle.



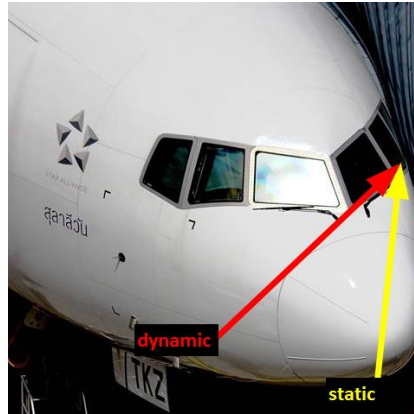
Due to the dynamics of both objects moving towards each other, the calculated position of a missile from south of Snizhne appears unlikely as a source of any fragment on a horizontal or slightly upwards path.



On the other hand, a fragment from the tail of a missile from south of Zaroschenskoye would have to pass the next column to the left of the impacted one.

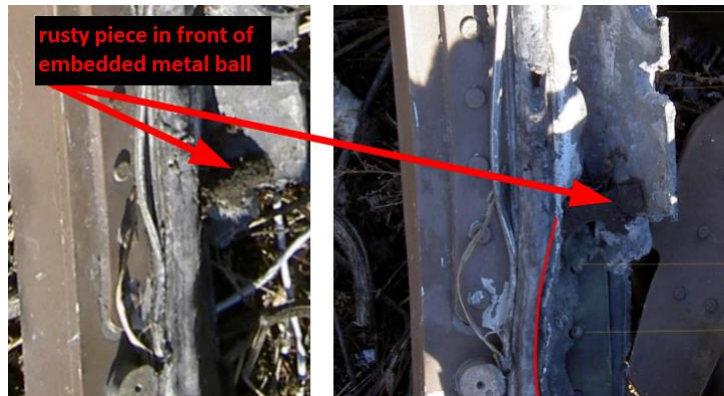
While the static case described in the presentations might appear somehow possible for both missile trajectories, the dynamics of this impact shortens the distance between both objects at about 1000m/s for the Snizhne launch spot and at about the half that speed for a launch spot south of Zaroschenskoye. The movement towards each other “squeezes” the space in the direction of the heading of the airplane and increases all involved angles that are not pointing exactly in that direction. The higher the relative speed the more that space will be “squeezed”.





In other words, the lid from the tail of a missile at the calculated detonation point for a launch from south of Snizhne would be (in any case) on a downwards trajectory relative to the airplane.

Since the official statements of DSB and JIT do not allow any other angle of the missile, that piece of evidence must appear suspicious too just like the rusty piece in front of it.



## Conclusion

A metal ball from the lid of the tail section of a BUK missile embedded backwards into the groove of the window frame (as suggested by the JIT presentation) can be excluded. The same metal ball embedded in a different location given by DSB appears very unlikely at least for the missile position suggested by the same report.

A heavily corroded metal piece embedded in the rubber in front of the metal ball seemingly was neither investigated nor mentioned.

In the context of Jeroen Akkermans missile parts (allegedly examined by well-known experts to mantle the dubious circumstances of their discovery and the deliberate misreading of a number 4 as a Cyrillic letter) the metal ball appears highly suspicious too.

