MALAYSIA AIRLINES FLIGHT MH17: SELECTED EVIDENCE

As of July 13, 2015

Malaysia Airlines Flight 17 (MH17) was an international passenger flight from Amsterdam to Kuala Lumpur that crashed near Hrabove, Ukraine in the separatist-controlled Donetsk Oblast on 17 July 2014 after being "penetrated by a large number of high-energy objects from outside the aircraft," according to the preliminary report on the incident by the Dutch Safety Board, and then breaking up in mid-air. All 298 people onboard were killed.

Following the crash, accusations as to who was responsible for causing the disaster, namely pro-Russian separatists or the Ukrainian government, quickly emerged with each side of the Ukraine conflict blaming the other. While the Ukrainian government and much of the Western world has maintained that pro-Russian separatists shot down the airliner using a BUK surface-to-air missile system most probably provided by the Russian military, Russia and the pro-Russian separatists in Ukraine have denied this.

This paper aims, without prejudice, to provide an inclusive compilation of the available open source fact-based and documentable evidence pointing to who and what caused the MH17 crash.

Official investigations

Following the downing of MH17, Ukraine delegated responsibility for the official investigation into the circumstances surrounding the crash to the Dutch Safety Board, in accordance with the standards and recommended practices of the International Civil Aviation Organization (ICAO). The Dutch Safety Board’s investigation is expected to be completed in the summer of 2015 with a full report to follow shortly thereafter.

A preliminary report from the Dutch Safety Board on its investigation into the crash was published on 9 September 2014. On the cause of the crash, the report states:

Based on the preliminary findings to date, no indication of any technical or operational issues were found with the aircraft or crew prior to the ending of the CVR and FDR recording at 13.20:03 hours. The damage observed in the forward section of the aircraft appears to indicate that the aircraft was penetrated by a large number of high-energy objects from outside the aircraft. It is likely that this damage resulted in a loss of structural integrity of the aircraft, leading to an in-flight break up.

In addition to the Dutch Safety Board’s investigation into the causes of the crash, an international joint investigation team headed by the Dutch National Police and consisting of Australia, Belgium, Malaysia, the Netherlands and Ukraine is conducting a criminal investigation into the MH17 disaster and focusing on a scenario in which the airliner was hit by a missile from a BUK system. In a call for witnesses published on YouTube on 30 March 2015, the joint investigation team provides evidence, including phone calls between pro-Russian separatists intercepted on 17 July, that points to the involvement of pro-Russian separatists in the downing of MH17.

**Ukrainian government**

The Ukrainian government has consistently maintained from the start that MH17 was shot down with a surface-to-air missile controlled by pro-Russian separatists operating in rebel-held territory in Ukraine. The Security Service of Ukraine (SBU) has collected and shared evidence connected to the crash.

- **17 July 2014**: Shortly after the crash of MH17, the SBU posted what is purported to be intercepts of conversations between different separatists discussing a plane that they shot down and later their surprise that the plane was a civilian passenger aircraft. In one of the conversations, a man (identified as separatist Igor “Bez” Bezler) reports to another (identified as Russian GRU colonel Vasyl Geranin) that “We have just shot down a plane.”

- **18 July 2014**: The day following the crash, the SBU shared more intercepted conversations of separatists on YouTube. In these conversations reported to have taken place on 14 July and 17 July, separatists discuss having received and being in control of a BUK-M system.

- **20 July 2014**: On 20 July, the SBU uploaded intercepted conversations said to have been held on 18 July between Vostok Battalion commander Alexander Khodakovsky and separatists identified as “Oleksiy” and “Andriy” in which Khodakovsky urges that flight MH17’s black boxes be found as soon as possible and be kept in separatists’ hands and away from the OSCE and others, in line with a request from Moscow.

- **25 July 2014**: In an additional intercepted conversation shared by the SBU, two minutes before MH17 was destroyed, one separatist (identified as “Naimanets”) reports to another (identified as Igor “Bez” Bezler) that a plane has been detected flying overhead.

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5 [https://www.politie.nl/themas/flight-mh17.html](https://www.politie.nl/themas/flight-mh17.html)
6 [https://www.youtube.com/watch?v=olQNpTxSnTo](https://www.youtube.com/watch?v=olQNpTxSnTo)
8 [https://www.youtube.com/watch?v=BbyZYgSXdyw](https://www.youtube.com/watch?v=BbyZYgSXdyw)
9 [https://www.youtube.com/watch?v=G2rmN7jeX8A](https://www.youtube.com/watch?v=G2rmN7jeX8A)
10 [https://www.youtube.com/watch?v=9ff_LT1ZI8](https://www.youtube.com/watch?v=9ff_LT1ZI8)
11 [https://www.youtube.com/watch?v=emfVpkBKoow](https://www.youtube.com/watch?v=emfVpkBKoow)
- **19 December 2014**: Vasily Vovk, Chief of the Investigation Department of the SBU and the co-chair of the international group investigating the crash of MH17 announced on 19 December that the bodies of some of the passengers of MH17 contained metal objects that were not part of the aircraft, adding that “One of the main theories being considered is that the plane was shot down by a Buk missile system from territory controlled by terrorist groups.”

**Journalists / media outlets / independent researchers**

In the absence of an official and conclusive report on what and who caused the MH17 crash, a number of journalists, media outlets and independent researchers from around the world have collected evidence and conducted their own investigations into the crash. Their findings generally coincide with one another in pointing to a separatist-controlled BUK missile bringing down MH17.

- **17 July 2014**: RFE/RL’s Ukrainian Service describes a VKontakte post attributed to separatist leader Igor “Strelkov” Girkin published on VKontakte at 17:50 Moscow time (less than two hours after MH17 was destroyed and shortly before reports began surfacing that the downed airliner was in fact MH17) in which he writes: “In the vicinity of Torez, we just downed a plane, an AN-26. It is lying somewhere in the Progress Mine. We have issued warnings not to fly in our airspace. We have video confirming. The bird fell on a waste heap. Residential areas were not hit. Civilians were not injured.” The post was later removed from the VKontakte site.

- **23 July 2014**: In an exclusive interview with Reuters’ Anton Zverev, Alexander Khodakovsky, leader of the pro-Russian Vostok Battalion operating in eastern Ukraine, confirmed that pro-Russian separatists were in control of a BUK missile system headed to the town of Snezhnoye around the time MH17 was destroyed and “accused the Kiev authorities for provoking what may have been the missile strike that destroyed the doomed airliner.” Khodakovsky’s statement that separatists were in control of BUK missile systems was quickly disputed the following day by Alexander Borodai, who was at time self-proclaimed Prime Minister of the so-called Donetsk People’s Republic. Likewise, in an interview with RT the day after his interview with Reuters was published, Khodakovsky “denied having told Reuters that militia forces possessed Buk missiles when the Malaysia airliner crashed in the region.”

- **8 November 2014**: In its report “Origins of the Separatists’ Buk: A Bellingcat Investigation,” Bellingcat, a group of citizen journalists that investigates current events using open source information such as videos, maps and pictures, attempts

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13 http://www.rferl.org/content/ukraine-separatist-leader-boasts-downing-plane/25460930.html
16 http://sputniknews.com/world/20140724/191172688.html
to determine who (i.e. pro-Russian separatists, the Ukrainian military or others) was in control of the particular BUK system believed to have destroyed MH17. Bellingcat’s MH17 investigation team finds that “there is undeniable evidence that separatists in Ukraine were in control of a Buk missile launcher on July 17th and transported it from Donetsk [Russia] to Snizhne on a transporter. The Buk missile launcher was unloaded in Snizhne approximately three hours before the downing of MH17 and was later filmed minus one missile driving through separatist-controlled Luhansk.”

- 12 March 2015: Reuters’ Anton Zverev spoke with residents of the eastern Ukrainian rebel-controlled village of Chervonyi Zhovten who said a missile battery was positioned in a field not far from the village on 17 July. The villagers reported experiencing an explosion – possibly the missile launch – and then seeing a missile hit what was later known to be the MH17 airliner. Weeks later, RT spoke with one of the Chervonyi Zhovten residents reportedly interviewed by Reuters, Pyotr Fedotov, who said that Zverev was “less than accurate” with his testimony.

- 19 March 2015: Jeroen Akkermans, a correspondent for RTL News, visited the open MH17 crash site in November 2014 and collected metal fragments that were determined to belong to the payload of a 9M317 BUK missile. The ammunition fragments were turned over to the Dutch Safety Board for use in its own ongoing investigation into the cause of the MH17 crash.

- 13 May 2015: InformNapalm, a volunteer initiative to inform Ukrainian citizens and the foreign public about the crisis in Ukraine, was able to pinpoint at least one Russian soldier serving on the truck unit of the 147th Automotive Logistic Support Battalion of the General Staff of the Russian Armed Forces that was involved in the transport of Russian military equipment (including BUK systems) near the Russia-Ukraine border in late June 2014. While the soldier himself was discharged from the military on 2 July 2014, his same military unit was involved with the transport from Russia into Ukraine of BUK systems, one of which likely was used to bring down MH17.

- 13 May 2015: Responding to InformNapalm’s findings (mentioned above) in an article published by RFE/RL on 13 May, Bellingcat founder Eliot Higgins told RFE/RL that “InformNapalm has found one piece, one profile. We’ve found much, much more additional material.” Bellingcat then on the same day published an expansive report “Routes, Destinations, and Involvement of the 2nd and 147th Automobile Battalions in the June and July 2014 Buk Convoys” detailing the findings of its investigation team into the transport of Russian military equipment

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18 http://www.reuters.com/article/2015/03/12/us-ukraine-crisis-airliner-idUSKBN0M81XF20150312
20 http://www.rtlnieuws.nl/nieuws/buitenland/evidence-proving-flight-mh-17-was-taken-down-buk-missile
22 http://www.rferl.org/content/russia-buk-missiles-ukraine-mh17-vkontakte-evidence/27014165.html
to the Russia-Ukraine border and then into Ukrainian territory. Among other conclusions, Bellingcat’s investigation finds that “The [Russian] 2nd Automobile Battalion (Unit 11385) and/or the 147th Automobile Battalion (Unit 83466) were/was involved in transporting the Buk related to the downing of MH17, Buk 3x2 (in the 23-25 June convoy).” The Bellingcat team identified four individuals who could have served as the driver of the particular transport vehicle (part of the aforementioned 23-25 June convoy) that brought the BUK system used to bring down MH17 (identified by Bellingcat as “Buk 3x2”) to the Russian Millerovo airbase near the Russia-Ukraine border. From Millerovo airbase, “Buk 3x2 was transported via the M4 highway to Donetsk, Russia and subsequently crossed the border through a field south of Severniy during the night of 16 to 17 July. After the downing of MH17, the same Buk missile launcher crossed the border again at the same location in the early morning of 18 July 2014.”

- **16 May 2015**: Dutch NOS national TV and leading daily De Volkskrant jointly published their findings on the probable route the Buk installation traveled in Ukraine on the day of the downing of MH17 (17 July 2014). The NOS website story includes an interactive feature describing in detail the route followed by the trailer carrying Buk, as well as the route followed by the Buk itself (after it was unloaded from the trailer) to the location from where the fatal missile was fired (a hilltop called Saoer Mogila, near Pervomajsk). On the news show Nieuwsuur on 16 May, NOS correspondent Gert-Jan Dennekamp said that all info is pointing to the conclusion that the Buk missile was supplied by Russia and was fired from rebel-held territory southeast of the crash site.

- **17 May 2015**: Following up on the work carried out by Bellingcat, reporter Michael Usher of Australia’s *60 Minutes* program traveled to separatist-controlled eastern Ukraine to conduct an investigation into who is responsible for the downing of MH17, coming to the conclusion that Russian soldiers transported the BUK used to shoot down the airliner.

**Russian alternative narratives**

Four days after the downing of MH17, on 21 July 2014, the Russian Ministry of Defense held a press conference during which it outlined the data that had been reportedly collected on the MH17 crash and made four claims based on it, using a number of images as evidence:

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25 [http://nos.nl/uitzending/5617-uitzending.html](http://nos.nl/uitzending/5617-uitzending.html)
1. MH17 deviated from its original flight plan right before it was destroyed.
2. Another aircraft was in the vicinity of MH17 at the time that it was brought down, according to radar images.
3. A video presented by the Ukrainian Ministry of the Interior showing a BUK missile launcher being transported through rebel-controlled Luhansk was actually filmed in government-controlled Krasnoarmeisk.
4. Ukrainian BUK missile systems were situated within range of MH17 when it crashed, according to satellite images.\(^{27}\)

The four claims made by the Russian Ministry of Defense were eventually shown to be false or misleading:

1. 9 September 2014: According to the Dutch Safety Board’s preliminary report on the MH17 crash, radar showed that the airliner was 3.6 nautical miles (NM) north of its route seconds before it was destroyed.\(^{28}\)

7 January 2015: A comparison done by Bellingcat showed that MH17 did not, however, follow the flight route depicted in the image presented by the Russian Ministry of Defense in its 21 July press conference.\(^{29}\)

2. 16 April 2015: Experts in the field of radar technology determined that the presence of another aircraft in MH17’s vicinity could not be claimed on the basis of Russia’s radar images and concluded that what the Russian Ministry of Defense said was another aircraft was most likely debris from MH17.\(^{30}\)

3. 29 May 2015: Bellingcat confirmed that the disputed video of the BUK missile launcher had in fact been filmed in rebel-controlled Luhansk as initially claimed by the Ukrainian Ministry of the Interior and not in Ukrainian government-controlled Krasnoarmeisk as claimed by the Russian Ministry of Defense.\(^{31}\)

4. 6 May 2015: A Dutch satellite expert compared the satellite images presented by the Russian Ministry of Defense at its press conference with images of the same area on the same day as well as the day after that had been taken by seven other satellites and concluded that what was presented by the Russian MoD was untrue.\(^{32}\)

31 May 2015: In a report produced by Bellingcat, it was concluded that Ukrainian BUK systems were not situated within range of MH17 when it was destroyed as suggested by satellite images shared by the Russian Ministry of Defense. The MoD’s satellite images were shown to have been altered and misdated.\(^{33}\)

\(^{27}\) [http://www.mid.ru/brp_4.nsf/newsline/F6C3BBDB89AC2532D44257D1D00203CCF]
\(^{29}\) [https://www.youtube.com/watch?v=oLKOpZycXnQ]
\(^{32}\) [http://nos.nl/artikel/2034300-mh17-rapport-is-ommekeer-in-russisch-standpunt.html]
\(^{33}\) [https://www.bellingcat.com/wp-content/uploads/2015/05/Forensic_analysis_of_satellite_images_EN.pdf]; [https://www.youtube.com/watch?v=Ut1JExQKV-0&oref=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DUt1JExQKV-0&has_verified=1]
Stemming from the Russian Ministry of Defense’s 21 July press conference, created in parallel to it or conceived independently from it, a number of alternative narratives on the cause of the MH17 disaster have been offered in the Russian media.\(^34\) Two of the more widely circulated theories suggest that:

1. A Ukrainian SU-25 fighter jet shot down MH17 with an air-to-air missile and/or cannon fire.
2. The Ukrainian military shot down MH17 using a BUK surface-to-air missile.\(^35\)

The SU-25 narrative was criticized by many as implausible almost immediately after it was put forward.\(^36\) It was effectively debunked in a report by the Bellingcat group published online on 10 January 2015.\(^37\)

- **3 June 2015:** Despite this, the SU-25 narrative continues to be advanced in the Russian media, as shown by a 3 June report by RT in which a Ukrainian air force mechanic and alleged witness who had been described in earlier reports in the Russian media but kept anonymous is finally identified by name.\(^38\)

As evidence continues to mount pointing to a BUK missile fired by pro-Russian separatists as the most likely cause of the MH17 disaster, the Russian narrative has shifted its focus more toward the idea that MH17 was destroyed by a BUK missile fired by the Ukrainian military in Ukrainian government-controlled territory.\(^39\)

- **13 May 2015:** To this end, a “leaked” report allegedly written by engineers from the Russian Military Industrial Sector (MIS) was published by Novaya Gazeta on 13 May 2015. It concluded that MH17 was destroyed by a BUK missile likely fired from the Zaroschenskoe settlement in Ukraine (where a Ukrainian anti-air unit was supposedly located on 17 July 2014, according to Russian satellite images shared by the Ministry of Defense during their 21 July 2014 press conference).\(^40\) However, the Russian Ministry of Defense satellite images on which the conclusions of the “leaked” MIS report were partially based were (as mentioned above) proven to have been altered and misdated.\(^41\)

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\(^34\) [http://www.theguardian.com/commentisfree/2014/jul/22/mh17-five-bizarre-conspiracy-theories-zionist-plots-illuminati-russian-tv](http://www.theguardian.com/commentisfree/2014/jul/22/mh17-five-bizarre-conspiracy-theories-zionist-plots-illuminati-russian-tv);

\(^35\) [http://www.mid.ru/brp_4.nsf/newsline/F6C3BBDB89AC2532D44257D1D00203CCF](http://www.mid.ru/brp_4.nsf/newsline/F6C3BBDB89AC2532D44257D1D00203CCF)


\(^37\) [http://www.chathamhouse.org/expert/comment/15236](http://www.chathamhouse.org/expert/comment/15236)


\(^40\) [http://en.novayagazeta.ru/politics/68386.html](http://en.novayagazeta.ru/politics/68386.html)

\(^41\) [http://nos.nl/artikel/2034300-mh17-rapport-is-ommenboer-in-russisch-standpunt.html](http://nos.nl/artikel/2034300-mh17-rapport-is-ommenboer-in-russisch-standpunt.html);

- 2 June 2015: Following on the Russian MIS report published by Novaya Gazeta, on 2 June, Almaz-Antey, Russia’s largest defense contractor and the producer of the BUK missile system, held a press conference as an appeal to the EU sanctions placed against the firm. In the press conference, representatives from Almaz-Antey largely corroborated the Russian MIS report on MH17 in concluding that the airliner was brought down by a BUK missile fired from south of the Zaroshchenskoye township. They stressed that the type of BUK missile (9M38-M1) that was likely used to shoot down MH17 was discontinued in 1999 and is no longer used by the Russian military, adding that Ukraine, however, was a large buyer of the weapons.42

Conclusion

This paper does not attempt to independently conclude who is responsible for the downing of MH17 or preempt the forthcoming findings of the as yet unfinished official investigation into the incident. This paper only aims to provide an inclusive compilation of the available open source fact-based and documentable evidence and will be updated in accordance with the new evidence available.