

RESPONSES RECEIVED ON DRAFT REPORT: 'LOSS OF CONTROL DUE TO OPENING OF CANOPY, NEAR KORNHORN'

Reading guide: The fourth and fifth columns provide the literal text of the responses of the parties. The last column contains an explanation from the Dutch Safety Board of the way the responses were processed.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
1	Manufacturer	General comment	The cause of a fatal air accident is the human factor - the pilot, insufficient performance of actions before take-off (closed & secured cabin and ignorance of emergency solutions when opening the cabin during flight). The unprofessional repair of the cabin's locking mechanism also contributes. Also, the maintenance and extension of the validity of the ARC was not according to the required standards (bulletin regarding the cabin was not incorporated) and subsequently the flight personnel were not informed about the possibility of opening the cabin in the event of a subsequent execution of the ARC before take-off and about the method of solving the situation during the flight.		No	Comment is noted. The different aspects of this general comment are covered in the report.
2	Relatives	Summary	Cardiologic – problem	The first part of this sentence contradicts the last part. According to the pathologist the pilot did not suffer from a heart attack or stroke at the time of the accident. Therefore this sentence 'may have played a role' is an assumption and not a fact. There is no causality between the opening of the canopy and cardiologic defects. To prevent misunderstanding by readers of the report, please remove the part "cardiologic ... however".	Partly	The pathological reports states that cardiac abnormalities may have played a role in the accident. The sentence in the summary is amended to clearer reflect this.
3	Relatives	Summary	The – accident	This sentence contradicts with other parts of the report. Here is stated the wreckage did not reveal any technical abnormalities. However, in chapter 1 is stated the aircraft was destroyed. In chapter 2.5.2 it is stated only very limited investigation was possible. It also stated that an unprofessional repair was found around one of the guiding pins in the canopy frame. What is correct?	Partly	The text had been amended to clarify that only a limited technical investigation was possible. Also the text referring to the repair had been amended.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
4	Relatives	Summary	It – off	This is an assumption, but not a fact and cannot be proven.	No	This is a conclusion resulting from the investigation. As stated in the report, the locking mechanism of the canopy was found undamaged. If the canopy is closed properly, it cannot open spontaneously later.
5	Relatives	Summary	who – manual	How come the manufacturer already knew since 2008 there were problems with the canopy, but not communicated this information actively with Aerospool Dynamic WT9 dealers and owners?	No	The manufacturer issued a Mandatory Service Bulletin in 2008 regarding inadvertent opening of the canopy. This bulletin was available to all operators of the aircraft. See Section 2.10.1 of the report.
6	Relatives	Summary	This - flight	How did the manufacturer come to the emergency procedures in various phases of the flight? Did they test these (dangerous) emergency procedures?	No	This was not a part of the investigation.
7	Relatives	Summary	Additionally - canopy	After several fatal and non-fatal accidents with the Aerospool Dynamic WT9, what is the reason the manufacturer chose to recommend the installation of the new canopy lock instead of make it a mandatory change?	No	If the checks as mentioned in the checklist are followed accordingly, the canopy will stay closed. Therefore it is not made mandatory but recommended as additional device.
8	Relatives	Summary	The - installed	This report does not give any reason why the recommended system was not installed in the PH-4E7. Please add.	Yes	The reason is stated in Section 2.10.1. The text is amended.
9	Relatives	Summary	The - system	This contradicts with chapter 3.4 in which is stated that the implementation of the recommended locking system was found not to be necessary by the board of the flying club. What is correct?	Yes	See comment 8.
10	Relatives	Summary	Regular - light	The information is still available on the website of the manufacturer. How come this was not seen at regular maintenance and (external) inspections?	No	This has not become clear. Section 3.4 gives as a possible explanation that at that time the tasks and responsibilities within the flying club were not adequately assigned.
11	Relatives	Summary	Previous - reporting	Here is spoken about incidents (plural) with the PH-4E7. Chapter 2.11.2 only tells about the incident on the 5th of December. How many incidents have there been with the PH-4E7 before this fatal incident and when did these take place? Please add this information to the report.	Yes	
12	Relatives	Summary	According - low	How can the ILT state that the risk is assumed to be low, as there have been many non-fatal and fatal accidents on a yearly basis? Only in June 2022 there have been 2 fatal MLA accidents (5 June near Rotterdam and 28 June at 'het zwarte meer'). If this crash was at the ice-rink nearby, where approximately 100 people were present at the moment of the crash, would their statement be the same?	No	ILT has determined this risk-level of MLA based on an ILT-wide risk assessment. In the two mentioned accidents no MLA were involved. See Section 2.10.2.
13	Relatives	Recommendations	In - recommended	How come it took the manufacturer 2 years after the first fatal crash, when they knew there were problems for almost a decade, to develop a locking system to prevent the canopy from opening in-flight? Who decided the installation of the system was not mandatory but only recommended?	No	Opening of the canopy during flight is an operational issue and not a technical failure of the locking system, according to the manufacturer. The final safety recommendation is determined by the Dutch Safety Board.
14	Relatives	Recommendations	In - recommended	Are there any other canopy problem notifications known by the manufacturer or government between 2008 and 2022 which are not mentioned in this report? Please add a list of all known incidents with canopy opening during flights of Dynamic WT9 airplanes.	No	The listing of known occurrences in Section 2.11.2 is based on information of the manufacturer, interviews and other investigation authorities.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
15	Relatives	Recommendations	Make - regulations	The recommendation to the minister of Infrastructure and Water Management is restricted to increase making awareness of aviation safety. Why is there no recommendation to increase (active) oversight?	No	Noted. This was already recommended in an earlier report of the DSB (See Section 2.10.2). The final safety recommendation is determined by the Dutch Safety Board.
16	Relatives	Recommendations		Why is there no recommendation to the flying club for the unprofessional repair on the plane and for not reporting important information such as the incident on 5-12-2020? Especially when pilots are legally obliged to report these kind of issues.	No	Noted. The recommendation to the minister of Infrastructure and Water Management has effect on all MLA users instead of on only one flying club. The final safety recommendation is determined by the Dutch Safety Board.
17	Manufacturer	Introduction	"Initial investigation into the accident revealed that the canopy of the aircraft had opened during the flight". The author claims this only on the basis that "one witness stated the canopy of the aircraft appeared to be open".	So using the word "revealed" is not correct in our opinion.	No	The opening of the canopy is stated by several witnesses and confirmed by items flying out of the cockpit which were found on the ground under the flight path.
18	Manufacturer	2.1	Page 11 in Line 13 it is stated that one of the members of the aero club (the pilot who performed the previous flight) "witnessed the pilot of the accident flight perform a complete preflight inspection". Questions that are not answered in the draft: - on what basis does the witness, who was outside the cockpit of the plane, claim that the pilot performed a "complete preflight inspection" (I emphasize the word complete)? - Did the witness observe the performance of the preflight inspection by accident or intentionally? - If intentional, for what reason - did the aero club or the witness have any doubt as to whether the pilot would perform the preflight inspection completely and correctly? - If the witness saw the execution of the "complete preflight inspection", can he also confirm whether the pilot checked the complete latching and locking of the cabin?		Partly	This sentence refers to the outside inspection, the 'walk around'. Text has been amended to clarify this.
19	Relatives	2.1	At 15.05 - 70 kts	As the Dutch Aviation Police stated the pilot performed a so called 'nose up'. Therefore it can be proven the pilot was still conscious during that time. Please add this to the report.	No	This Section is a factual description of the flight path based on data retrieved from two devices.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
20	Manufacturer	2.1	it is stated: "The aircraft flew in a northeasterly direction towards the pilot's residence. Around 15.04 hrs, the aircraft descended slowly, reaching an altitude of around 700 ft". Nowhere in the report is the influence of an altitude of less than 1000 ft AGL on the occurrence and course of the accident addressed.		No	This Section is a factual description of the flight path based on data retrieved from two devices. The flight profile is analysed in Section 3.1.
21	Relatives	2.1	Several - ground	This confirms the 'nose up' procedure.	No	This Section is a factual description of witness statements.
22	Relatives	2.1	Slightly - view	As the Dutch Aviation Police stated the slighter decrease which can be seen on this film recording is proof the pilot must have tried to recover from the descent. And therefore the pilot must have been conscious until he hit the ground. Please add this to the report.	No	This Section is a factual description of the film recording. As stated in Section 3.1, it is not known whether the movement was caused by pilot input or a result of the increase of airspeed.
23	Relatives	2.4	A Dynamic WT9	Addition: the Dynamic WT9: PH4E7	Yes	
24	Relatives	2.4	He - time	The pilot was well known with flying the PH-4E7 he logged over 170 flight hours on this airplane. Therefore it is unlikely he forgot to lock properly.	No	Section 2.4 contains a factual description of the pilot's experience.
25	Manufacturer	2.4	There is no data on how many hours flown and how many landings the pilot had on the Dynamic WT9 in total, how many in the last 90 days, how many in the last 6 months or how many in the last year. Furthermore, the report does not state when the pilot completed the last check flight with the instructor or examiner, no matter what type it was on. The author of the report does not pay attention to the fact that 82 days have passed since the pilot's previous flight (at the age of 75). The state of health is mentioned only on Page 19, chapter 2.8 "The pathology report states that there were long-standing pathological heart defects that may have played a role in the cause of the accident", the author of the report does not address it further.		Partly	The pilot's logbook was unreadable due to fire. The overview of flight hours has been updated after more information was received on this subject. The cardiac abnormalities and possible role are already mentioned in the analysis and conclusions.
26	Manufacturer	2.5	Page 15 Line 24 is an incorrect serial number of the aircraft. It should be DY-318/2009		Yes	Corrected.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
27	Relatives	2.5.1	The - kilograms	The difference between empty weight and maximum takeoff weight is just 162 kilograms. How can this be monitored? Is investigated if previous flights that day with two persons on board could have had influence on the state of the plane, in particular the closing system of the canopy? Please add this information.	No	This is not investigated. It is the responsibility of each crew to meet the weight and balance requirements.
28	Relatives	2.5.1	The - 2021	How many flights were there after the airworthiness of the 7th of January? Were there any particularities noticed? Please add this information.	Yes	The text has been amended.
29	Relatives	2.5.1	the - condition	Who signed for the airworthy condition and who did the technical check for the PH-4E7 for 2021?	No	The form was signed by a staff member of the flying club. The technical check was done by a certified aircraft technician as mentioned in the report.
30	Relatives	2.5.1	The - 2009	What is the exact date of purchase? Of whom did the flying club purchase the plane? And when was the delivery date at Flying Club Fryslân? Please add this information in table 1.	Partly	The text has been amended to clarify this. On 27 October 2009, the flying club was registered as holder of PH-4E7.
31	Relatives	2.5.1	The - 2007	How can it be possible the manufacturer hands out an old pilot operation handbook when there is a new version available before production?	No	This Section is a factual description of findings. Results of investigation and the analyses on this subject are mentioned in Section 3.4.
32	Manufacturer	2.5.1 and 3.3 and Conclusions	"It is possible that the illusion is created that the canopy is closed properly when this is not the case", which is not possible.	Note: if the author of the report claims such untruths (lies, stupidity, nonsense ... do not delete the inappropriate ones), I dare to express the opinion that the author of the draft did not sit in the Dynamic WT9 aircraft during the investigation of the accident, did not familiarize himself with and try the procedure for closing the cabin and did not see how looks right or improperly closed/secured cabin.	Partly	The text has been amended. The investigators examined another Dynamic WT9 several times. Other remarks are noted.
33	Manufacturer	2.5.1	"it is possible that the canopy is not tightly closed at all, whereby the locking pin is extended but is not placed in the socket but rests on the fuselage itself. In this situation, the red ring seems to be in the right position but a small gap between the canopy and the fuselage remains".	This statement is false (lie, stupidity, nonsense ... delete what is not appropriate). What the author calls a "small gap" is actually a gap of 15 mm around the entire circumference of the cabin - I am attaching photos as proof. Similarly, the photo is also listed in POH and the author took it from there into the draft - see Page 17 Line 20-30 on the far right - "Clearly locked but unlatched". Even in that photo, you can clearly see how "small" the gap is between the cabin frame and the fuselage frame. Such a gap would certainly have been noticed not only by the pilot, but also by the witness who, according to Page 11 Line 13, "witnessed the pilot of the accident flight perform a complete preflight inspection".	Yes	The text has been amended with the information as stated in the POH (a gap of around 8-12 mm).
34	Manufacturer	2.5.1 and 3.3	"The closing system (handle and indication) is positioned above and behind the pilot's head. The pilot must make some effort to check that the handle is in the correct position; he has to look up and back". Similarly, Page 27 Line 3-5 states: "due to the positioning of this ring, above and behind the pilot's head, the pilot must make some effort to properly assess the correct position of the red indication ring".	After reading these statements, the reader may get the impression that checking the correct closing (latching = closing) and securing (locking) of the cabin is laborious and requires an extraordinary, almost gymnastic effort from the pilot. In fact, the pilot only has to turn around and look into the space where he reaches with his right hand when closing the cabin when checking the safety of the cabin. I am attaching a photo of how such an inspection takes place. I am in the photo, I will be 60 years old this year, I have problems with my spine, however, I do not consider checking the safety of the cabin to be a gymnastic feat. Note: a much greater gymnastic "effort" must be expended by the pilot to get on and off the plane, as it is a low-wing aircraft	Partly	'Some effort' is indicating that the pilot must look up and backwards to see the handle and the indication. The text is amended.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
35	Relatives	2.5.1	Furthermore - remains	There should never be any doubt of a good locking system of the canopy. On Dynamic WT9-models however there is. The manufacturer in Slovakia was well aware of the prone canopy errors with this type of aircraft for at least 13 years. Why did they not follow (for example) Tesla who in December 2021 had a recall action (119.009 cars) in the USA because one type of car had issues with the front trunk latch that could result in unexpectedly hood opening. Tesla fixed these problems and actively communicated with owners.	No	The manufacturer has taken action by issuing a mandatory service bulletin in 2008 and a recommendation on 2019.
36	Relatives	2.5.1	Figure 11	The difference between the correct latching and locking photo is almost the same as the "clearly locked (1) but unlatched" photo. How many millimetres contains the gap of correct latching?	Yes	When the canopy is clearly locked but unlatched, the gap is around 8-12 mm. See comment 33.
37	Relatives	2.5.1	Figure 11	There are at least three possible ways in which the canopy could be not correctly closed. How can it be that a plane has plural possibilities of unsafe locking?	No	The comment is not related to factual inaccuracies of the report.
38	Relatives	2.5.1	Figure 11 and 12	Please add which version of the POH has been used.	Yes	Issue dates have been added.
39	Manufacturer	2.5.2 and 3.1	"Investigation revealed that the locking/latching system was undamaged and functioned without problems" On Page 25 Lines 37 and 38 it is stated: "The locking system of the canopy was found undamaged and functioned without problems. Due to the construction of the closing and locking system, the canopy cannot open on its own when properly closed".	Note: it is necessary to explain that before the flight it is necessary to perform "closing = latching" of the cabin and, in addition, "locking". This means that the pilot must perform two actions - in Slovak - "cabin closed and secured". I mention it only because the author of the draft uses these terms relatively freely. But it had no effect on the occurrence of the accident, because the system of closing and securing the cabin was familiar to the pilot, as he had already used the plane repeatedly in the past. If the spontaneous opening of the cabin really occurred during the flight, this is not evidence of a failure of the cabin closing and securing mechanism. It grounds the suspicion that the pre-flight procedures were not done consistently and the cabin was not secured (not properly locked). If the cabin was "properly closed" (closed = latched, which means that the cabin frame rested all the way around on the fuselage frame), but it was not "properly locked" (= secured with locking pin), then it looks like in the left or middle photo in draft on Page 17 Line 20-30. In this case, it may be partially opened during the flight. By creeping, we mean that the gap between the cabin frame and the fuselage frame increases, including on the sides of the cabin, which the pilot should notice. Such a situation can be handled safely, the procedure is described in the current POH, or was described in Mandatory Service Bulletin ZBWT9 10A/2008, which is also mentioned in the draft. A larger opening, which can already affect the flight characteristics, will only occur in the case of a slip or slip, or in case of incorrect coordination during turn flight.	No	Noted and the text has been amended when appropriate.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
40	Manufacturer	2.5.2 and 3.2	<p>"An unprofessional repair was found around one of the guiding pins in the canopy frame. It turned out that the repair was carried out by a member on his own initiative and without consultation of the responsible persons. This repair was not included in the technical administration of the PH-4E7". On Page 26 Lines 27-28 it is also stated:</p> <p>"The repair around one of the guiding pins in the canopy frame had no influence on the cause of the accident".</p>	<p>In addition, I consider it necessary to emphasize that the incorrect method of repair could have caused increased resistance when closing (closing = latching) the cabin, which could have made it difficult to handle it. The pilot who died in the accident flew the PH-4E7 aircraft for the last time on November 23, 2019. The guiding pins were damaged on December 5, 2020. This means that the flight in which he died was his first after the guiding pins were unprofessionally repaired. There is no mention in the draft of whether the investigator checked with the members of the aero club whether there was any change (increased resistance) when closing the cabin after the mentioned unprofessional repair.</p>	Partly	The text of the factual information and of the analysis has been amended.
41	Relatives	2.5.2	The - problems	This seems contradictory. Damaged and still undamaged. Please clarify.	No	Although the canopy frame was damaged, the locking handle, the pin and the socket were found undamaged after the crash.
42	Relatives	2.5.2	An - frame	What exactly is meant by an 'unprofessional repair'? Which exact part has been repaired? Was this the repair of the incident of the 5th of December 2020? Please clarify and add a photo of this repair.	Partly	The text of the factual information and of the analyses has been amended.
43	Relatives	2.5.2	It - PH-4E7	What is the reason this member carried this out on his own initiative? Why was this not included into the administration of the PH-4E7?	No	This was not further investigated.
44	Relatives	2.6		In general: have there been any tests done by the manufacturer in what way temperature and air condition can influence an opening of the canopy during a flight?	No	This was not a part of the investigation.
45	Relatives	2.8	The - accident	There is no causality between the opening of the canopy and long-standing pathological heart defects. Therefore this part of the sentence 'may have played a role' is not clear and contradicts with the next sentence. Please remove this part 'that may have played a role in the cause of the accident'.	Partly	The text has been amended to clarify this. See also comment 2.
46	Relatives	2.10.1	After - 2008	In chapter 2.11.2 (r.27) and 3.5 (r.13) is stated the crash in Slovakia was a non fatal crash. However the Aviation Safety Network (https://aviation-safety.net/wikibase/48782) has another statement regarding this accident. They state 2 people died on the scene. How come this is different from the information within this report? Or were there several crashes in Slovakia in 2008?	No	The accident in Slovakia mentioned in the report occurred in 2008 on the airfield Prievidza during landing and was non-fatal. Another, fatal, accident happened on 16 December 2008 in flight near Cerova.
47	Manufacturer	2.10.1	"Manufacturer Recommendation DV WT9 10B / 2019 was issued on 4 April 2019. This recommendation applies to all WT9 Dynamic aircraft (MLAs and LSAs)".	This statement is only partially true. The aforementioned Bulletin was issued in response to an air accident in which a fatal accident occurred in Austria due to the loss of control after the cabin was opened in flight. Despite the fact that it was a UL (MLA) aircraft, EASA was also informed about the accident at the time. WT9 Dynamic LSA aircraft certified under EASA have the same system of closing and securing the cabin as was on the PH-4E7 aircraft. After consultation, EASA considered that no change to the cabin closing and locking mechanism is necessary on WT9 Dynamic LSA certified aircraft. Therefore, the aforementioned Bulletin was exclusively related to UL (MLAs) of aircraft. For WT9 Dynamic LSA aircraft, this modification of the cabin locking and locking mechanism is not approved.	Yes	Footnote added to clarify this.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
48	Relatives	2.10.1	This - club	The information is still available on the website of the manufacturer. How come this was not seen at regular maintenance and (external) inspections?	No	This is analyzed in Section 3.4.
49	Relatives	2.10.1	It - latch	What were/are the costs of this implementation? Have there been no canopy opening incidents after implementation of this new canopy lock with an additional safety latch and sensor?	No	The costs of the implementation are not part of the investigation. However, according to the manufacturer the price of the device is around € 300, without additional costs. Section 2.11.2 contains a listing of known occurrences involving canopy openings.
50	Relatives	2.10.1	The - necessary	Did the staff discuss this matter with the pilot? What was the reason the staff did not insert the new locking system into the PH-4E7? This sentence contradicts with another part of the report where is stated the staff of the flying club was not aware of this recommendation (summary r.35-36).	Partly	See comment 9.
51	Relatives	2.10.2	In - exist	How come there are no airworthiness requirements in the Netherlands?	No	The regulatory framework for MLA is explained in Section 2.10.2.
52	Relatives	2.10.2	oversight - yet	How come the oversight of MLA's has not been a priority to the Dutch CAA in the past? On the other hand the Dutch ministry expressed it would be in favour to include MLA's in the European regulatory framework. However there are no positive negotiations yet?	No	ILT has determined the risk-level based on an ILT-wide risk assessment. The negotiations on the European regulatory framework take place on European level and require agreement from other member states as well.
53	Relatives	2.10.2	the Dutch - 600 kg	What is the reason the Dutch ministry expressed it is in favour to extend MLA's into European regulatory framework and later on decides to increase weight limits for MLA's from 450 to 600kg and thereby increasing the number of aircraft which do not apply the European regulation? These statements contradict each other.	No	This is noted in the report.
54	Relatives	2.10.2	It - kg	What is the reason the ILT, Dutch CAA and the Minister of Infrastructure and Water Management did not implement the recommendations of the Dutch Safety Board? Instead, the ministry increased the group of MLA from 450 kg to 600 kg and therefore, the oversight on MLA has been further decreased.	No	See comment 53.
55	Relatives	2.10.2	there - this	The Dutch ministry states there is no intention to amend or intensify regulations. How many future fatal accidents need to take place before the Dutch ministry takes action? As quoted earlier only in June 2022, 4 people in The Netherlands died because of MLA aircraft crashes.	No	Comment noted.
56	Relatives	2.10.2	The - inspection	What is the added value of a S-CofA if there is no supervision of the responsible government/inspection?	No	For the registration purposes, a valid certificate of airworthiness is required. The Special Certificate of Airworthiness (S-CofA) is issued and renewed by ILT based on the declaration of the holder. The added value of an S-CofA is stated in Section 3.5.
57	Relatives	2.11.1	Interviews - members	Are there any regulations according safety instructions within flying clubs in The Netherlands? In yes, could they be added into this report.	No	This was not a part of the investigation.
58	Relatives	2.11.1	The - arranged	What was the situation at 13-02-2021? How were responsibilities and maintenance organized at that time?	Partly	This Section refers to the situation before 2018. The situation in 2021 is amended.
59	Relatives	2.11.1	Unsafe - reported	What are the reasons the interviewed people did not report unsafe situations (especially since they are legally obliged to report unsafe situations)? And which unsafe situations were revealed during these interviews? How many incidents have been taken place (with the PH-4E7)? Please insert this information.	No	The comment does not relate to factual inaccuracies. This Section refers to the situation before 2018.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
60	Relatives	2.11.1	two - SMS	What reasons did the 2 instructors gave for not acknowledging the importance of an SMS?	No	This was not investigated.
61	Relatives	2.11.1	the - aircraft	Which situation was applicable on 13-02-2021? Please clarify.	Yes	
62	Relatives	2.11.2	In - landing	The Safety Aviation Network quotes on it's website (https://aviation-safety.net/wikibase/48782) that 2 people died from the accident at 16 December 2008 with an Aerospool Dynamic WT9. What information is correct? Or is there another accident in that year? In this report it is stated it is a non fatal crash.	No	See comment 46.
63	Relatives	2.11.2	Information - events	Please add all relevant information into this report.	Yes	See also comment 11.
64	Relatives	2.11.2	During the flight	This should be: during another flight. The way this has been written assumes the holder was in the plane during the crash flight.	Yes	
65	Manufacturer	2.11.2	"Information from other investigative bodies showed that there were probably more similar events".	Specifically, 2 fatal accidents are listed - 17.05.2017 in France and 18.07.2018 in Austria (the correct date of the accident is 14.06.2018). In addition, information from France is mentioned	Yes	Section 2.11.2 has been re-written.
66	Manufacturer	2.11.2	The BEA identified eighteen accidents that occurred between 2005 and 2018 whereby the canopy of aircraft opened inadvertently. Three of these accidents were fatal, all three concerned MLA's. These MLA's were not of the make of Aerospool Dynamic WT9".	One of these incidents involved the UL (MLA) of a Dynamic WT9 aircraft registered in France, for the others the type of aircraft is not listed (if it was a Dynamic WT9, it would probably be listed in the draft).	No	Noted.
67	Manufacturer	2.11.2	Austro Control GmbH identified six other Aerospool Dynamic WT9 inadvertent canopy opening occurrences between 2016 and 2018. One of these occurrences was a fatal accident.	The last sentence refers to the accident already mentioned above. The way it is written, it gives the impression that there were two fatal accidents in Austria	Yes	See also comment 65.
68	Relatives	2.11.2	Austro - 2018	Not only Austro Control GmbH identified other canopy opening incidents. Also the Dutch Aviation Police stated they spoke to several owners of an Aerospool Dynamic WT9 in The Netherlands. Several owners stated they also have experienced canopy openings. However they did not notify the manufacturer nor the CAA or Dutch Safety Board. Is it possible to also request these owners to still hand in their statements on their canopy opening incidents?	Yes	See also comment 65.
69	Relatives	2.11.2	Not - manufacturer	How many occurrences where not reported to the manufacturer? And can they be requested to still report these matters to the manufacturer? Are there any sanctions when pilots do not report safety issues?	Yes	See also comment 65.
70	Relatives	2.11.2	The - yet	What was the reason this meeting was not organized directly after the incident and before using the PH-E47 again?	Yes	The text has been amended.
71	Relatives	2.11.2	The - manufacturer	What is the reason the pilot (who is one of the head instructors of the flying club) did not officially report the canopy incident on the 5th of December? Why didn't this head instructor give the right example to his flying club?	No	This was not investigated.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
72	Relatives	3.1	It - pilot	The Dutch Aviation Police stated the decreasing which can be seen on the film recording can only be influenced by the pilot. Please clarify why there are 2 different statements.	No	The analysis of the Dutch Safety Board is presented in section 3.1.
73	Relatives	3.1	The - problems	This was only a part of the total closing system. How about the unprofessional repair and the damage of the airplane?	No	The analysis of the repair is addressed in Section 3.2.
74	Relatives	3.1	Due - closed	Is this a proven statement which has been tested as not possible? If not, this is an assumption and not a fact.	No	The statement in the analysis is based on investigation.
75	Relatives	3.1	Therefore - off	One of the pictures of the crash site shows the position of the red ring was correctly in place. The airplane was destroyed, that's why the situation of the latch is unclear.	No	As stated in the report, when the canopy is closed and latched properly, the locking pin is spring loaded pushed into the fuselage socket. When the pin is in the socket, the canopy cannot open. Because the pin is spring loaded, the red ring is always in place when it is free to move, as it was after crash.
76	Relatives	3.2	The - accident	Please explain why this repair had no influence? Was this the repair around the guiding pins of the incident on the 5th of December?	Yes	The text has been amended.
77	Manufacturer	3.3	The same incorrect statement, supplemented by other falsehoods, is stated on Page 27 Line 5-8: "It is also possible that the indication ring is in the correct position while the canopy is not properly closed. The small gap between the canopy and the fuselage can easily be overlooked because it is a small gap that is also located above and behind the pilot's head".	As I mentioned above, in such a case the gap would be not only behind the pilot's head, but around the entire perimeter of the cabin and not "small", but 15 mm wide (measured in the space under the sliding window).	Partly	The text is amended conform the statement in the POH. See also comment 33.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
78	Manufacturer	3.3	<p>Page 27 highlighted block between lines 31-32: "Inadvertent opening of the canopy during flight has led to multiple incidents and fatal accidents with this type of aircraft".</p> <p>Page 31 Line 17-18: "The risk of inadvertent opening of the canopy during flight, which has led to multiple fatal accidents, was known to the aircraft manufacturer"</p>	<p>To summarize - before the PH-4E7 accident, 2 fatal accidents are known and documented, the author for some reason tries to create the impression that there were dozens of them. Likewise, less than 10 specific documented incidents with the Dynamic WT9 aircraft, when the cabin was opened without consequences for the crew, are mentioned in the report.</p> <p>Nevertheless, on Page 6 and repeatedly on Page 33 Line 2-4 he claims: "The investigation shows that the closing procedure of the canopy of the Dynamic WT9 is prone to errors, which may result in the opening of the canopy in flight. This has led to loss-of-control occurrences in the past, a number of which with fatal consequences". I repeat once again that before the PH-4E7 accident, 2 fatal accidents are known and documented, so the expression "number of which with fatal consequences" is grossly misleading.</p> <p>I also consider the expression "prone to errors" to be misleading. In my opinion, it is more correct to use the expression "The system is not foolproof against shortcomings and mistakes or errors of the pilot"</p> <p>In the parts I mention above, he states that "prone to errors" is a "closing procedure". In some places he "toughened up" when he claims: Page 27 Line 15-16: "The design of the original closing and locking system of the canopy is prone to errors".</p> <p>Page 31 Line 14: "The design of the original closing and locking system of the canopy is prone to errors".</p> <p>"The original closing and locking system of the canopy" has never been found to fail in any incident or accident. As mentioned on Page 25 Line 37, also in the case of the PH-4E7 accident: "The locking system of the canopy was found undamaged and functioned without problems".</p> <p>So to claim that a system that has never failed is prone to error is grossly misleading.</p>	Partly	<p>The text in the argumentation is not correctly quoted from the report. The report states: 'several incidents and accidents'. Twelve occurrences became known, amongst others two fatal accidents.</p> <p>The fact that at least twelve occurrences happened where the canopy opened in flight, makes it reasonable that the system is prone to (human) errors.</p> <p>The text has been amended.</p>
79	Relatives	3.3	The - handle	<p>Is this 'only effective way' described in the POH? One member of the Flying Club Fryslân stated the canopy lock of the PH-4E7 needed a push from the outside of the airplane to close properly. The interpretation of proper closing differs.</p>	Partly	The text has been amended.
80	Relatives	3.3	From - cases	<p>In addition to this statement also the Aviation Safety Network quotes on its website (https://aviation-safety.net/wikibase/type/WT9) that between 2004 and 2022 there have been listed 54 accidents with this type of aircraft (Aerospool WT9 Dynamic). From these 54 accidents 20 people died. The accidents had several reasons, but there were also accidents where the cause was unknown or vague. Could the cause be the opening of the canopy?</p>	No	Section 2.11.2 contains information regarding known occurrences involving the opening of the canopy during flight.
81	Relatives	3.4	The - aircraft	<p>Did the local dealership communicate correctly with every update during 2009 until 2022 to Flying Club Fryslân? Can this information be added to the report?</p>	Partly	Text in Section 3.4 has been clarified.
82	Relatives	3.4	the board - club	<p>When exactly did the board of Flying Club Fryslân become aware of the canopy issues of the Aerospool WT9 Dynamic? This sentence contradicts with another part of the report (summary r.34-36)</p>	Yes	The text has been amended.
83	Relatives	3.5	As - noticed	<p>What is the added value of a S-CofA if there is no supervision of the responsible government/inspection?</p>	No	See comment 56
84	Relatives	3.5	This - process	<p>By giving an unjustified S-CofA, isn't the ILT (partly) responsible for accident(s)?</p>	No	The issuance of an S-CofA is based on a declaration signed by the owner.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
85	Relatives	3.5	Despite - place	Why does a manufacturer keeps selling this type of aircraft which is 'famous' for giving people extra risks'? Until today the manufacturer only took care of the consequences, but did not take care of the cause. How many people must die before the manufacturer takes action and responsibility?		The manufacturer has taken safety actions in response to accidents. As indicated in the report, the regulatory framework for MLA is based on proportionality and falls outside the European regulatory framework for aviation.
86	Manufacturer	3.5	"Aerospool does not have a requirement to comply with a demonstrated safety level under European aviation regulations, as is the case for certified aircraft".	As I mentioned, the WT9 Dynamic LSA aircraft are certified with the exact same cabin closing and locking system that was on the PH-4E7 aircraft.	Yes	The text in the report has been amended.
87	Manufacturer	Conclusion		<p>Conclusion</p> <p>We know of a case where the pilot started the engine even though there were protective sleeves on the propeller. I know of cases when the pilot taxied to the runway and took off with the hangar tiller on the front landing gear, or with the elevator or ailerons stuck with adhesive tape. I know of several cases where the pilot took off with the cover on the pitot. Despite this, no one even thought that it would be necessary to make a new design of the propeller covers, hangar tiller, rudders or pitotka, or solve some kind of electronic signaling.</p> <p>Dynamic WT9 aircraft with closing landing gear have electronic signaling that warns the pilot before landing. Despite this, up to 20 pilots landed on their stomachs (one of them already twice).</p> <p>No technical measure can completely rule out pilot error, omission or neglect of mandatory actions.</p> <p>We started using the new design of the closing system from the DY 668/2019 aircraft. If we add to the 667 the planes that their owners built from construction companies and also LSA planes, it was used on almost 800 planes. If the cabin is properly closed and secured, it has never opened by itself.</p> <p>If the pilot performs all mandatory actions before take-off, there is no risk. Pilots are intelligent beings who are able to assess the level of risk. If any of them decide that they want to increase the level of safety, or have doubts about whether they remember to properly close and secure the cabin, they can find Recommendations Bulletin DVWT9_10B on our website</p> <p>As we mentioned above, after consultation with EASA, the cabin closing and locking system on WT9 Dynamic LSA aircraft has not been changed until today. This is also one of the reasons why, as a manufacturer, we see no reason to force all existing owners of UL aircraft to make a technical change to the cabin closing system.</p>	No	Noted.
88	Relatives	Conclusion	It - off	This is an assumption but not a fact and therefore can not be proven. The pilot was well known with flying the PH-4E7. A lot of his flying lessons he flew on the PH-4E7. He logged over 170 hours / 220 flights in total on this airplane. Therefore it is unlikely he forgot to lock properly.	No	This is a conclusion of the Safety Board following the investigation.
89	Relatives	Conclusion	Cardiologic - role	The first part of this sentence contradicts the last part. According to the pathologist the pilot did not suffer from a heart attack or stroke at the time of the accident. Therefore this sentence 'may have played a role' is an assumption and not a fact. There is no causality between the opening of the canopy and cardiologic defects. To prevent misunderstanding by readers of the report, please remove the part "cardiologic ... role".	Partly	The text has been amended to make clear that there are no indications that the loss of control was primarily caused by a physical problem of the pilot.

No	Organisation	Section	Text to be corrected (first ... last word)	Argumentation for response	Adopted?	Dutch Safety Board response
90	Relatives	Conclusion	Oversight - holder	To get a pilot licence the exams and regulations are really hard. On the other hand there is no oversight on MLA's. The responsibility of an aircraft rests entirely with the owner, which does not seem logical.	No	The regulatory framework for MLAs and the risk-based approach taken by ILT is explained in the report.
91	Relatives	Recommendations	a - consequences	Please add the exact number of fatal incidents including dates and countries into this report.	Yes	The text in the report has been amended.