

Introduction

This year's theme of the ISASI seminar is *Every link is important*. In this paper the Dutch Safety Board describes why and how the MH17 investigation was organised, the involved parties, agencies, including the co-operation with external institutions and experts. The paper starts with an introduction of the four different investigations related to the accident with flight MH17 that were carried out, followed by the Dutch Safety Board's working method and assessment of the findings.

Aviation disasters shock the world. In today's society an incredible amount of information regarding the circumstances, the possible causes and who could be responsible is shared immediately after a crash. This instantly reveals the extent and the impact of the crash to the world, but brings uncertainties with it as well. An important objective of the investigation was to provide the international community and the victims' relatives with an accurate and truthful picture of the causes of the crash of flight MH17 on 17 July 2014. Another objective of the Dutch Safety Board was to draw lessons for the future, based on the findings of the investigation.

The relatives of the victims have the right to know the answers to their questions within a reasonable time after the accident. What happened, why did the aeroplane fly over that area, were the passengers aware of anything and why did it take two to four days to confirm who were on board? Those were questions that arose immediately after the crash, but could only be answered after thorough investigation. In the meantime, the relatives of the victims were confronted with all kinds of stories in the media. A thorough investigation determines the causes of a crash, presents the facts and removes the distress of speculations. This provides clarity to the relatives of the victims and helps with the grieving process of the victim's relatives.

Right from the start, the Dutch Safety Board's investigation applied four principles: maintaining independence; aiming for high quality; focusing on determining the causes as accurately as possible in order to exclude other scenarios; and aiming to achieve as much international acknowledgment as possible for the investigation.

The investigation was carried out under exceptional circumstances. The Dutch Safety Board was not blind to the geopolitical implications of the crash but in the investigation deliberately kept its distance from international politics. The facts were leading in the investigation and the views of parties were evaluated against those facts, a proven protocol that is used worldwide for aircraft accident investigations under the guidelines of the International Civil Aviation Organization (ICAO) Annex 13 – Aircraft Accident and Incident Investigation.

The Dutch Safety Board has endeavoured to complete the investigation in the shortest possible time, without compromising on content quality. Within fifteen months, it has completed four different investigations regarding the accident with flight MH17: direct causes of the accident, the chosen flight route, the impact on the occupants, and the passenger information given to the next of kin.

The four different investigations were organised as four different projects, each project with its own project manager. For the investigations that were conducted in accordance with Annex 13, one investigator-in-charge was appointed, who worked together with the project managers.

Investigation into the causes of the crash of flight MH17

The investigation into the causes of the crash of flight MH17 was conducted in accordance with the provisions of Annex 13 to the Chicago Convention by an international investigation team in which, after the initial phase, the following states were represented by an accredited representative during progress meetings:

| | |
|----------------|---|
| Netherlands | State conducting the investigation |
| Ukraine | State of Occurrence |
| Malaysia | State of Registry/Operator |
| United Kingdom | State of Design/Manufacture (Engines) |
| United States | State of Design/Manufacture (Aeroplane) |

Australia State providing information (photos)
Russian Federation State providing information (radar data)

Also six other states having suffered fatalities were invited to view the wreckage parts, of these, representatives from Belgium and Germany were present. An observer of ICAO was present during different phases of the investigation.

Investigation into the flight route of flight MH17

The fact that two judicial regimes apply, namely the Kingdom Act Dutch Safety Board and Annex 13 to the Chicago Convention, was especially noticeable in the investigation into how the decision-making related to the flight route of flight MH17 was organised, and how decisions about flying over conflict areas are made in general. For the investigation into flying over conflict areas, the Dutch Safety Board approached various parties in and outside the Netherlands to request their cooperation in the investigation. It was not always clear to these parties whether the Dutch Safety Board requested them to cooperate on the basis of Annex 13 to the Chicago Convention, or on the basis of the Kingdom Act Dutch Safety Board. These parties, such as sister organisations and airlines, provided information to the Dutch Safety Board and cooperated with this part of the investigation anonymously and on a voluntary basis.

During the investigation it became increasingly clear that parties all over the world attach great value to improving the safety of civil aviation regarding flying over conflict areas. This was demonstrated, for example, by a joint declaration (on 29 July 2014) from ICAO, the branches from air transport (IATA), airports (ACI) and air navigation service providers (CANSO). Following the crash, various international initiatives were taken with the aim of reducing the chance of an accident, such as that involving flight MH17, occurring in the future. In August 2014, ICAO set up a task force to advise on adapting roles and procedures focused on limiting risks that conflict areas pose to civil aviation. On 27 October 2014, ICAO also adopted a resolution advocating for the investigation into the crash of flight MH17 to be used to improve international standards and to share best practices for the safety of civil air traffic flying over conflict areas. The subject was also on the agenda of the ICAO High Level Safety Conference in Montreal in February 2015. Flying over conflict areas and MH17's flight above the eastern part of Ukraine was a recurring theme in the media too.

In the investigation into the decision-making related to flight routes, the Dutch Safety Board attempted to do justice to these international developments and included them in its investigation where possible. The Dutch Safety Board involved representatives of sister organisations where possible and when necessary for the investigation. The investigation into the general decision-making related to flying over conflict areas made it possible to place the outcomes of the investigation into flight MH17's route in an international perspective and created the opportunity to learn deeper and broader lessons from this tragic accident.

Investigation of the occupants of flight MH17

According to Annex 13 to the Chicago Convention the investigation should include the injuries suffered by the victims, medical and pathological information and their chances of survival, depending on the circumstances of the accident. The provisions of Annex 13 do not primarily focus on answering questions that relatives may have about what the occupants may have experienced of the accident. The Dutch Safety Board decided to conduct a more thorough investigation into the consequences of the crash for the occupants than is customary on the basis of Annex 13. Apart from the aspects listed there, the Dutch Safety Board attempted to answer the question as to what conditions the occupants were exposed to during the crash and what the influence of this was on their bodies, consciousness and awareness. In addition, the Dutch Safety Board has investigated how the human remains were handled following the crash. The investigation into these questions was conducted on the basis of the authority provided by the Kingdom Act Dutch Safety Board.

Investigation of the passenger information about flight MH17

The investigation into passenger information looked into the time needed to provide the relatives of the Dutch victims of flight MH17 with official confirmation that their loved ones were on board the aeroplane. This investigation was conducted fully within the authority granted to the Dutch Safety Board by the Kingdom Act Dutch Safety Board. On the basis of this authority, the Dutch Safety Board can conduct an investigation into the way the Netherlands has managed the consequences of accidents abroad of which the impact extends to the territory of the Netherlands.

Conducting the investigations

The Dutch Safety Board conducts its investigations within the applicable legal framework respecting its core values: *independent - professional - transparent*. In this section, the Dutch Safety Board explains how these terms in general are put into practice and what this meant for the investigation into the crash of flight MH17.

Independence

The Dutch Safety Board's objective in conducting its investigations is to provide a definite answer about what happened and how, and to draw authoritative conclusions and lessons from this. From that objective, it is important that the Dutch Safety Board is able to formulate its own autonomous opinion about the facts and their interpretation. In this respect, the legal framework offers several guarantees.

In the context of an accident investigation, independence is not absolute. Firstly, there is always a certain interdependency between the investigator and the subject of the investigation, because parties directly involved have knowledge of unique facts and circumstances that are necessary for understanding the accident. Although the Dutch Safety Board benefits from legal powers it can use to enforce cooperation with its investigation, that does not totally eliminate the type of dependency referred to above. Secondly, due to the scope of its field of work, the Dutch Safety Board will always depend on the expertise of others to effectively conduct its investigations. Thirdly, to be able to arrive at authoritative conclusions it is important that the Dutch Safety Board also takes account of the views and interests of others.

The Dutch Safety Board therefore cannot and does not wish to wholly isolate itself in conducting its investigation. It is rather a matter of the Dutch Safety Board guarding its conclusions against the disproportionate influencing by other parties while ensuring observance of the aforementioned dependencies. The Dutch Safety Board must at all times be able to formulate an autonomous and impartial perspective, fed by the perspectives of others.

The investigation into the crash of flight MH17 took place in an extraordinary context. The large number of victims, the considerable media attention and the public involvement in the crash, the simultaneous occurrence of an international criminal investigation and the geopolitical interests involved, made it even more important for the Dutch Safety Board to safeguard its independence. To this end measures were taken in the investigation process, which are explored in more detail in the following section.

The Dutch Safety Board would like to state that neither the Dutch cabinet, nor the judicial authorities nor other parts of the Dutch (central) government at any time attempted to influence the investigation into the crash of flight MH17. Naturally, the central government, as well as other interested parties, put forward its requests and expectations with regard to the subjects to be investigated. The central government was occasionally informed about the schedule of the publishing of the investigation reports.

Reflection meetings

From the very beginning of the investigation into the crash of flight MH17, the Dutch Safety Board was aware that the risk of political influence could be higher than usual, given the tense international relations. To effectively identify and manage this risk, the Dutch Safety Board held two reflection meetings with experts that have extensive experience in conducting

investigations in a political playing field. These meetings focused on obtaining advice about the right strategy for working and interacting with parties in this context. The meetings also aimed to explore what the Dutch Safety Board could do to ensure that the results and recommendations of the investigation optimally matched the expectations of the outside world. The Dutch Safety Board used the results of these meetings in its decision-making processes throughout the investigation.

Stakeholder analysis

To arrive at independent and authoritative conclusions in a complex array of forces, it is important that the investigative body has an effective understanding of these forces: what interests do the various parties have, how could they influence the course of the investigation and how can the investigative body best deal with those forces? A stakeholder analysis was performed to systematically answer these questions.

International collaboration in aviation accident investigation

Annex 13 to the Chicago Convention provides for the participation of states having a special interest in the investigation into a civil aviation accident. Depending on the nature of their involvement in the occurrence, states can participate in the investigation through an accredited representative or an expert. The rationale behind involving various states in the investigation is that parties with potentially conflicting interests have the opportunity to take note of the facts first-hand and present their views in the investigation. The fact that the interests of the states most involved in the investigation are represented in this manner enables the state that conducts the investigation to formulate autonomous conclusions based on the various views.

In international aviation accident investigation, it is customary for the state that is conducting the investigation to organise progress meetings with the participating states. The objective is to share relevant information within the team. Holding such meetings is not required, nor is the number of meetings or their frequency set. The investigator-in-charge (IIC) invites the accredited representatives and their advisors. In the investigation into the causes of the crash of flight MH17, this was done on three occasions. During these meetings, the Dutch Safety Board, explained the state of affairs of the investigation. The meetings were held in the Netherlands. Due to the circumstances in the eastern part of Ukraine it was impossible to arrange for a joint visit to the crash site to examine the wreckage in its original position.

Relationships with knowledge institutions and experts

During the investigation the Dutch Safety Board made use of knowledge and information from third parties. The basic principle consistently adopted was that the Dutch Safety Board be provided with sufficient information to enable the Board to form a picture of the reliability of the expert assessment obtained. The Dutch Safety Board used the expert assessment to arrive at its own and autonomous conclusions.

Guidance committee

To be able to form autonomous conclusions, the Dutch Safety Board obtains advice about the weighting of the findings drawn up by the investigation team. For this it employs a Guidance committee. A separate Guidance committee was set up for each of the four different investigations regarding the accident with flight MH17. For this organised critique, the Dutch Safety Board attempted to incorporate all the required expertise in the committees.

The members of the guidance committees have relevant expertise and are appointed in a personal capacity. Each committee convenes several times in the course of an investigation, and advises the Dutch Safety Board on the focus and the findings of the investigation, the comments from the parties concerned on the draft Final Report, the conclusions to be formulated, and the recommendations, insofar applicable. On occasion guidance committees met jointly when this was helpful to the investigation.

Bringing the outside world inside

During the course of the investigation, the Dutch Safety Board consistently tried to keep an open eye to facts, information, investigations, suspicions and theories presented by 'outsiders'

pertaining to the crash of flight MH17. It did so with the conviction that the quality of its conclusions would be improved if all kinds of perspectives were incorporated in its formulation. The perspectives of parties other than the States and parties already involved and their experts, can add great value to the process.

In order to identify what statements were circulating about the causes of the accident and the flight route, the Dutch Safety Board asked Publistat (an organisation that monitors media) to analyse the reports in international (social) media. This analysis served as the basis for the hypotheses that the Dutch Safety Board included in the investigation.

Regarding the results of investigations into the accident conducted by other parties, the Dutch Safety Board examined the sources that formed the basis of these investigations, for as much as possible. If the sources were accessible, the Dutch Safety Board assessed whether it was useful to incorporate the findings of the other parties in its investigation.

Professionalism

The Dutch Safety Board's objective in conducting its investigations is to provide a definite answer about what happened and how this happened, and to draw authoritative conclusions and lessons from its findings. From that objective, it is important that the Dutch Safety Board's investigations are conducted in such a way that the findings and conclusions are valid and reliable. This implies that the Dutch Safety Board guarantees that the investigation is conducted by persons who have relevant and up-to-date expertise in both content and methods.

The next part of this section describes how the Dutch Safety Board guaranteed the professional execution of the investigation into the crash of flight MH17. In this context it should be noted once more that dependence on expertise forms a risk to the Dutch Safety Board's autonomous conclusions. The previous paragraph described how the Dutch Safety Board approached this issue.

Composition of the investigation teams

The Dutch Safety Board strives to have all the necessary knowledge and skills among its own personnel and tries to realise this through recruitment, selection and training. The investigation teams for each project are multidisciplinary and consist of investigators that possess the knowledge and skills required for the investigation at hand. For the investigation into flight MH17 the Dutch Safety Board called upon investigators having expertise on the subject of aviation, defence, health, crisis management, administrative processes and risk management.

The investigation into flight MH17 was an exceptionally large and complex project for the Dutch Safety Board. The project took up a great deal of the available resources: approximately three-quarters of the 72 staff members were at some point assigned to the investigation or to activities in support of it.

Involving external investigators and support

The Dutch Safety Board is an organisation with a broad scope of activity. Thus bringing in specific external expertise is unavoidable, especially for extensive investigations such as that into the crash of flight MH17. The most relevant selection criteria when involving external staff are relevant expertise, proven quality and impartiality of the external employee. The Dutch Safety Board prefers to use its own network in the sector related to an investigation, contacts in sister organisations and independent knowledge institutions such as universities when recruiting external investigators.

Third party investigations

Regularly, the Dutch Safety Board outsources parts of an investigation to third parties, such as when the Dutch Safety Board does not have the resources or knowledge to conduct that particular part of the investigation. Such investigation assignments are conducted under the responsibility of the Dutch Safety Board by renowned research agencies and bodies that guarantee quality. The results of sub-investigations outsourced by the Dutch Safety Board are

treated as recommendations. The Dutch Safety Board assesses the results in terms of their reliability, in some cases by asking a different organisation to assess the results of an outsourced investigation. The outcomes of the outsourced sub-investigations form part of the Dutch Safety Board's investigation. The Dutch Safety Board will only make their results public in the Final Report or its appendices. When the reports of the outsourced sub-investigations are integrally included in the appendices, they are so in their original state and have not been edited by the Dutch Safety Board.

Parts of the investigation into the crash of flight MH17 were outsourced. This applied to the following sub-investigations:

| <i>Sub-investigation</i> | <i>Conducted by</i> |
|--|--|
| Forensic investigation and material analysis of the fragments recovered | NFI; NLR; Element Materials Technology |
| Investigation of the fracture lines in relation to the failure analysis | NLR; TU Delft |
| Weapon simulations | NLR, TNO |
| Blast damage simulations | TNO |
| Possible trajectories of the missile | NLR |
| List of publicly available information related to the threats and reduced safety of the airspace above the eastern part of Ukraine | HCSS |
| Role of the Dutch intelligence services AIVD and MIVD in the decision-making related to the safety of flight routes | CTIVD |

CTIVD: Dutch Review Committee on the Intelligence and Security Services

HCSS: Hage Centre for Strategic Studies

NFI: Netherlands Forensic Institute

NLR: Netherlands Aerospace Laboratory

TNO: Netherlands Organisation for Applied Scientific Research

TU Delft: Technical University Delft

Transparency

The Dutch Safety Board attaches great value to conducting its investigation in a way that is comprehensible to others, so that in turn they can form their own opinion on the investigation's validity and reliability. Moreover, it is important that the Dutch Safety Board informs the different stakeholders (relatives, other parties involved, the general public) about the investigation and its findings in such a way and at such times that they are not unnecessarily obstructed from coming to terms with their grief or drawing lessons from the event.

The extent to which the Dutch Safety Board can practise transparency is limited due to the legal obligation to protect its sources. Other than the information in the Final Report, the Dutch Safety Board does not release any underlying source information related to the investigation, except in exceptional cases. The purpose of this source protection is to enable those involved in an accident to give the Dutch Safety Board full disclosure without fearing any disciplinary measures or (criminal) prosecution. This means that the Dutch Safety Board is in an optimal position for discovering the true causes of an accident and for drawing lessons from it.

The following part of this section describes how the Dutch Safety Board, taking into account the limitation mentioned above, achieved transparency in the investigation into the crash of flight MH17.

Preliminary report

Given the scope of the accident and its impact on Dutch society and on other nations that suffered victims, the Dutch Safety Board chose to publish the Preliminary Report after a consultation period. In publishing the Preliminary Report, the Dutch Safety Board aimed to

provide the relatives of the victims, while the investigation was still in progress, with factual information about the crash and the findings up until that time.

Dutch relatives received the Preliminary Report an hour before it was published on 9 September 2014 under embargo via the family liaison officers deployed by the National Police. This allowed the relatives to become acquainted with the report's content before it was released by the media.

Consultation and review

Both Annex 13 to the Chicago Convention and the Kingdom Act Dutch Safety Board include provisions concerning to which parties and in what manner the draft Final Report must be presented for consultation, as well as the way in which the resulting comments are to be processed. The objective of these provisions is to ensure that the Final Report does not contain any factual inaccuracies and to be informed of interested parties' views on the findings and conclusions that the Dutch Safety Board has drawn on the basis of the facts investigated.

Communication policy

The needs, expectations and perceptions in the outside world have influenced the choices the Dutch Safety Board made concerning the type and scope of its reporting. During the investigation, the Dutch Safety Board publicised information about the investigation process more than had been customary. The Dutch Safety Board also published a number of relevant documents on its website to provide clarity about some of the agreements that were made. This concerns the agreements between the Dutch Safety Board and other parties with regard to taking charge of the investigation into the crash of flight MH17 and with regard to the recovery of the wreckage.

On several occasions members of the House of Representatives of the Dutch Parliament asked the involved members of cabinet questions about the investigation. Since the members of cabinet do not have access to the Dutch Safety Board's work and have no insight into its progress, the Dutch Safety Board supplied them with information to enable them to answer these questions. This information was limited to the investigation process and was not related to the investigation's approach or findings.

The press and news reports published by the Dutch Safety Board were not shared with other parties in advance, leaving aside some exceptions. In certain cases, the Dutch Safety Board believed it was necessary to supply parties with the information that it was going to publish prior to the moment of publication. In particular, in cases where information was directly related to a (joint) mission carried out by (or with) another party, the content of the news report was shared in advance with the party concerned. Visiting the crash site to recover wreckage pieces, for example, was carried out in a joint operation with the Ministry of Defence. For this reason the Dutch Safety Board shared the related news reports with this Ministry in advance.

Informing the relatives

The Dutch Safety Board wanted to keep the relatives of the victims informed of the progress of the investigation as effectively as possible. Never before did the Dutch Safety Board have to deal with such a large group of relatives originating from so many different countries during an investigation. The Dutch central government organised information meetings for the relatives and the Dutch Safety Board attended these meetings to provide information about the process of the investigation and to answer the questions of relatives.

During the investigation, the Dutch Safety Board maintained contact with the MH17 Aviation Disaster Foundation (Stichting Vliegcrash MH17), Victim Support the Netherlands (Slachtofferhulp Nederland) and the family liaison officers and sought their advice prior to having meetings, publicising reports or other kinds of communications. The relatives of the victims received information via a special forum before it was shared with the media. Where possible, questions asked to the Dutch Safety Board by relatives via a dedicated forum, family liaison officers or via Victim Support the Netherlands were answered immediately.

The relatives were offered the opportunity of being present when the wreckage pieces arrived at the Gilze-Rijen Air Base. About 40 relatives were present at that time. Some time later, the relatives were also invited to view the wreckage themselves (2 - 6 March 2015). This opportunity was used by 533 relatives of 151 of the victims. They were allowed to leave flowers in the hangar with the wreckage pieces. Among them were a number of relatives of victims from other countries. The Dutch Safety Board produced a video recording of the wreckage pieces to provide relatives who were not able to visit Gilze-Rijen with an impression. Other interested parties, such as the media and those involved in the investigation into the crash of flight MH17, were also invited to view the wreckage pieces.

Other reports

Part of the transparency policy of the Dutch Safety Board is to include information how the investigation is conducted. Normally one appendix in the Final Report contains this information. For the MH17 investigations the Dutch Safety Board dedicated a separate report to this purpose.

The Dutch Safety Board is obliged to publish the comments from the consultation phase of the investigation that were not adopted provided with counter arguments. The parties concerned are informed of this procedure during the consultation. These comments are presented in a table and contain the literal text of the comments, plus the sections they apply to, the parties who provided them and the Dutch Safety Board's response. The table is appended to the Final Report.

The Dutch Safety Board also published a book *MH17 Investigation, facts, stories* – with the stories behind the investigations into the crash of flight MH17. For this purpose an investigative journalist and writer was commissioned to record these stories from inside; from the perspective of the Board members and some of the investigators – to disclose the manner in which the investigation was conducted, the choices that were made and how the investigation was experienced, both as an organisation and as human beings. This book is an 'answer' to the long time the investigation was going on without releasing information to the families of the victims.

Cooperation with other authorities

During the recovery missions the Dutch Safety Board worked in close cooperation with other Dutch authorities. This was done for security reasons and because the missions for recovering human remains, personal belongings and wreckage pieces were combined. That is why the Dutch Safety Board joined the operational meetings concerning the missions for as long as deemed necessary to carry out the recovery work. These meetings were organised by the Dutch Ministry of Defence and were attended by the Dutch authorities that took part in the recovery missions, namely the Ministry of Defence, the Royal Netherlands Marechaussee, the National Police, the Ministry of Foreign Affairs, the Dutch intelligence services MIVD, the AIVD, and the NCTV. For the purpose of coordinating the activities there were also bilateral consultations between the Dutch Safety Board and the involved public bodies.

Concurrence with the criminal investigation

Following the crash of flight MH17, an international criminal investigation started on 7 August 2014. This investigation is conducted by a Joint Investigation Team (JIT), in which police and judicial authorities from the Netherlands, Australia, Malaysia, Belgium and Ukraine cooperate. The Netherlands coordinates the investigation. The objective of the criminal investigation differs from that of the investigation conducted by the Dutch Safety Board. The Dutch Safety Board focused on the question of what happened and what can be learned, and not on the question of who is to blame. The Joint Investigation Team, on the other hand, focuses on the causes of the crash in response to the question of whether punishable offences have been committed and who can be held responsible in terms of criminal law.

Since both investigations considered the same events, they partly relied on the same evidence - each from their own perspective. This situation required coordination between the crash investigation and the criminal investigation to prevent both investigations, each responding to a legitimate social need, from frustrating each other. This necessary alignment was achieved through agreements between the Dutch Safety Board, being the accident investigation authority, and the Dutch Public Prosecution Service as coordinator of the Joint Investigation Team.

The agreements constitute a detailed elaboration of the existing Dutch Safety Board - Dutch Public Prosecution Service Coordination Protocol (*Afstemmingsprotocol Onderzoeksraad voor Veiligheid - Openbaar Ministerie*). This protocol regulates the coordination between both organisations in general sense if a criminal investigation and an investigation by the Dutch Safety Board into an occurrence are conducted simultaneously. Additional agreements were required given the complexity of both investigations, their concurrence and the international context in which these investigations took place. These agreements related to the reciprocal exchange of investigative information, the seizure of physical evidence and documents, the examination of the pieces of wreckage and the fragments and periodical coordination consultation.

Sharing information related to investigations

In order to determine the causes of an accident or crash, it is of great importance that those involved can speak freely and are able to provide the Dutch Safety Board with information without having to fear prosecution under criminal law. Both Annex 13 to the Chicago Convention and the Kingdom Act Dutch Safety Board include various provisions on the subject of maintaining the confidentiality of information related to the investigation. Insofar as these provisions offered this possibility, information that was also needed for the success of the international criminal investigation was shared with the Dutch Public Prosecution Service. The idea was not to withhold information if that would hinder the progress of the criminal investigation. Thus the Dutch Safety Board continually considered whether sharing information could in any way be detrimental to its own investigation. Vice versa, the Dutch Public Prosecution Service also shared information pro-actively if it was relevant to the accident investigation.

Examination of the wreckage

The Dutch Safety Board was responsible for recovering the wreckage pieces and their transport to the Netherlands. The recovered material was inspected and sorted at Gilze-Rijen Air Base in the presence of the Dutch Public Prosecution Service, who indicated which pieces could be relevant to the criminal investigation. These pieces were marked.

After this, the material became available for examination to both parties simultaneously. Destructive examination (meaning: an examination of an irreversible nature) could only take place once both parties had investigated the relevant material for damage patterns and traces, and after both parties consented. All pieces of wreckage, parts or secured evidence were only to leave the hangar in Gilze-Rijen for investigation after the Dutch Safety Board and the Dutch Public Prosecution Service had agreed. This applied, for example, to material analyses that were performed by external agencies.

Examination of the human remains

The Dutch Public Prosecution Service seized the human remains when they arrived in the Netherlands, after which the injuries and the fragments that were found in the bodies were forensically examined. The Dutch Safety Board was informed of the results of these examinations, and used these for its own investigation. The Dutch Safety Board did not perform its own examination of the human remains.

Recorders from flight MH17

During the investigation, the Dutch Safety Board provided the Dutch Public Prosecution Service with the data files from the flight data recorder and some of the data from the cockpit voice recorder. The Dutch Safety Board was very cautious with providing the recordings in

order to guarantee the cockpit crew's privacy. In the presence of the Dutch Safety Board and the Public Prosecution Service, specialised staff listened to the sound recordings on the Dutch Safety Board's premises, with the objective of determining what information could be essential to the criminal investigation. The entire 30-minute recording was found not to be relevant in that respect, with the exception of the final milliseconds, the moment when the aeroplane was hit. After consultation with the Dutch Public Prosecution Service it was decided, for the abovementioned reasons, to hand over only the recording of this short period of time. The data carriers themselves were not handed over. These remained in the hands of the Dutch Safety Board.

Examination of the fragments

Both the Dutch Public Prosecution Service and the Dutch Safety Board arranged for the fragments found in and on victims' bodies and in and on the pieces of wreckage to be analysed. Both parties outsourced this process separately to external agencies, but jointly coordinated this process, since the outcomes constituted a substantial source of information for both the criminal investigation and the Dutch Safety Board's investigation.

With regard to the fragments found in the victims' bodies, a selection of human remains was made of which scans revealed that they contained 'foreign' fragments. The selection included the human remains of the crew in the cockpit. The fragments were removed from the bodies by forensic investigators commissioned by the Dutch Public Prosecution Service. The fragments were removed from the wreckage pieces by the Dutch Safety Board and the Dutch Public Prosecution Service. The Dutch Public Prosecution Service and the Dutch Safety Board shared the results of the different analyses that they had arranged.

Other evidence

In addition to the aforementioned information, the Dutch Safety Board provided the Dutch Public Prosecution Service with the following information: photographs of the wreckage area, lists of the parts of the aeroplane that had been seized and information about the damage patterns on the wreckage pieces. Statements from individuals as well as medical and private information collected by the Dutch Safety Board were not shared with the Dutch Public Prosecution Service. In addition to the results of the forensic analyses of the fragments, the Dutch Public Prosecution Service shared other information with the Dutch Safety Board, such as the autopsy and inspection reports of the victims, photographic and video material and the results of the analyses concerning the found objects that probably originate from a missile.

Periodic consultation

Throughout the investigation frequent consultations took place between the Dutch Public Prosecution Service and the Dutch Safety Board, during which they discussed the progress of the investigation activities and matters related to this.

Classified information

All the Dutch Safety Board's investigation material is of a confidential nature. However, in the investigation into the crash of flight MH17, confidential information was used that the Dutch authorities had categorised as 'classified' and which the Dutch Safety Board was not able to access at all times or could not include in its reports. The central government of the Netherlands adopts different levels of classification, from 'Departmentally confidential' to 'Top State Secret'. It is unusual for the Dutch Safety Board to work with this type of material and to not have all the source material in its possession. This is why additional explanation of the working methods concerning classified information is given in the report.

The Kingdom Act Dutch Safety Board stipulates that the Minister of the Interior and Kingdom Relations, the Minister of Defence and the Minister of Security and Justice, or persons under their jurisdiction, may provide confidential information to the Dutch Safety Board. The provision of information on a confidential basis to the Dutch Safety Board takes place by applying Article 57 of the Kingdom Act Dutch Safety Board. This article describes situations in which the Dutch

Safety Board does not include information in its report, such as information that might endanger the unity of the Crown or might harm the security of the Kingdom of the Netherlands.

How to handle classified information in the investigation into flight MH17 was determined in consultation with the organisations that were owner of the information. The central question in this consideration was whether use of this information could endanger the security of the Netherlands. An additional consideration was the extent to which the information was necessary for arriving at a conclusion or whether the information could also be used in a supporting capacity.

In the investigation into the crash of flight MH17, classified information was used in several ways. Firstly, there were classified documents that the Dutch Safety Board had requested in the context of the investigation and of which it kept copies at its The Hague office. Internal agreements applied to consulting, storing and archiving these documents, with special guarantees for the protection of and access to the information.

Secondly, it concerned classified information that was available for the Dutch Safety Board for inspection only. The Dutch Safety Board was able to see into relevant classified information regarding flight MH17 that was in the possession of the MIVD and the AIVD. This concerned information from the MIVD and the AIVD themselves and from intelligence services of other countries. This classified information included the results of the application of intelligence-gathering methods. The Dutch Safety Board used this classified information to verify its findings. The findings of the Dutch Safety Board as described in the report about the crash of flight MH17 agree with this classified information. The classified information confirms the findings about the causes of the crash described in de investigation report. Because of national security reasons, this classified information could not be publicised.

Since it is unusual for the Dutch Safety Board to make use of classified military information, an agreement was concluded between the Dutch Safety Board and the MIVD for this specific investigation. This agreement stipulates that both organisations may provide the other with the information it needs to perform its legal tasks, either or not on request. The Dutch Safety Board was allowed to consult classified information under strict confidentiality. Consultation of the secret information was limited to Board members and a small number of Dutch Safety Board employees who had undergone an extensive security screening for handling secret information.

Lastly, classified information was included in the investigation which the Dutch Safety Board neither had access to nor was able to see into. This concerned information from the Dutch Intelligence and Security Services (AIVD and MIVD) related to the armed conflict in the eastern part of Ukraine. At the Dutch Safety Board's request, the Minister of the Interior and Kingdom Relations and the Minister of Defence asked the Dutch Review Committee on the Intelligence and Security Services (CTIVD) in their letter dated 21 November 2014 to examine this information. The Ministers asked the CTIVD to report the findings directly to the Board members of the Dutch Safety Board. The letter also mentions the agreement that the Dutch Safety Board shall first submit the CTIVD report to both Ministers to check it for any state secrets prior to the Dutch Safety Board making it public. Before finalising its report, the CTIVD submitted it with references to underlying classified sources to the AIVD and the MIVD for verification of the facts. Both intelligence services made only a few minor comments and on 10 April 2015, the CTIVD handed over the still classified report to the Dutch Safety Board members without any references to classified sources. In conformity with the letter of 21 November 2014, the Dutch Safety Board subsequently submitted the report to both Ministers to have it checked for potentially classified information. The Ministers did not find any state secrets in the report, which was then declassified.