V. DÜSSELDORF PUBLIC PROSECUTOR'S OFFICE INQUIRY CASE FILES

V. 1. Preliminary Remarks

It is quite telling that the author of this report, by virtue of being a journalist, had access to a copy of the complete case files in electronic form **prior to** the Lubitz family, despite the assertion of the Düsseldorf public prosecutor's office that the case files had *'only been made available to a very limited group of people'*.

It should be noted here that the author did not obtain these files by illegal means or by paying fees. Rather, he obtained them directly from a source who also works in journalism. According to this source, a number of fellow employees in the editorial department had full access to the complete files in digital form.

It can be assumed that the source's editors obtained these files directly from lawyers involved in the proceedings on behalf of the relatives, who had previously submitted a request for access to the files.

Public prosecutor Christoph Kumpa orally informed G. Lubitz, who commissioned this report, that he assumed Christoph Wellens, the lawyer representing some of the families of the crash victims, had photographed excerpts from the files using his smartphone during a viewing of the files at the public prosecutor's office, and had then passed these excerpts to members of the tabloid press.[1]

In addition, in his letter of 05.07.2016, which responds to the G. Lubitz's complaint about the publication of elements from the files in the media, Kumpa states:

[1] See minutes of the meeting between G. Lubitz / Atty. Frank Palmer, 12.2016.

> *In addition, at the express request of the lawyer you appointed as your representative, amongst others, I granted advance access to inspect selected files; that is, I gave you and the legal representatives of other crash victims (namely Mr. W[redacted] and Ms S[redacted] B[redacted]) the opportunity to examine two remarks I had made regarding the analysis of the seized documents and the findings of the investigations carried out in Spain, Germany, and France. Access has been granted only to the exact excerpts from the case files which correspond to these two remarks.*[2]

It should be noted that the right to inspect files is set forth by § 147 of the CCP [German Code of Criminal Procedure, abbreviated StPO in German] for the accused and his or her attorney and by § 406e CCP for the plaintiffs and their attorneys as well as by §§ 475 et seq. CCP for individuals and other entities. Attorneys are granted access to the investigation files by the public prosecutor. It is also permissible for attorneys to make copies of these files. However, attorneys are not permitted to pass on copies to a third party.[3]

The author of this report made a request to be granted access to a copy of the files for his journalistic work about the crash in an email to the Düsseldorf public prosecutor's office dated 20.06.2016. However, this request was denied by Mr. Kumpa on 30 June 2016. Mr. Kumpa's response stressed that access to files would be granted only to the legal representatives of the parties to the proceedings who can assert a legitimate interest in inspecting the files.[4]

Given the circumstances, it seems strange that, of all people, the Public Prosecutor Christoph Kumpa is not willing to investigate such ethically questionable behavior coming from a lawyer – actions which appear to violate professional codes of conduct – but prefers to let such matters remain unexamined.

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[2] See letter from Public Prosecutor Christoph Kumpa to Günter Lubitz of the 05.07.2016, p. 2
[3] See § 149 CCP; § 406e CCP.
[4] See letter from Public Prosecutor Christoph Kumpa to TvB of 30.06.2016

The Lubitz family obtained a digital copy of the Düsseldorf inquiry case file for the first time on 22 June 2016 from their lawyer at that time, who was appointed by Lufthansa AG. When first examining the files, they discovered that the files contain a range of personal data, including:

- Names, addresses and telephone numbers of the family members, their relatives and Andreas Lubitz's entire circle of friends.

- Photographs of Andreas Lubitz's brother, his mother [redacted], and his father, in which faces are clearly identifiable.

- A complete address directory, with supplemental information about these addresses, taken from the GPS system in Andreas Lubitz's car.

- Photographs of all the rooms in the family home in Montabaur.

The family subsequently requested an explanation concerning the legal basis for Mr. Kumpa's decision to release these personal data.[5]

On 05.07.2016, Mr. Kumpa replied to the Lubitz family, citing a 'legitimate interest' in these details for the purposes of the investigation. He revealed that he had also granted the opportunity to inspect files to the attorneys Christoph W[redacted] and S[redacted]-B[redacted] as well as to the Lubitz family's lawyer. He said he saw no grounds for refusal.[6]

On 09.07.2016, the German tabloid newspaper BILD published an article in which photographs from the case file were shown.[7]

[5] See letter from Günter Lubitz to Public Prosecutor Christoph Kumpa of 28.06.2016
[6] See letter from Public Prosecutor Christoph Kumpa to Günter Lubitz of 05.07.2016
[7] See: http://www.bild.de/bild-plus/news/inland/flug-4u9525/letzte-notiz-enthuellt-46715266,view=conversionToLogin.bild.html

The family filed a complaint against the public prosecutor's office, requesting that the leak be investigated and that publication of further details be prevented.[8]

On the 22.07.2016, Mr. Kumpa's superior, the senior public prosecutor Mr. Kessel, confirmed that the complaint has been received, and announced that he would look into the matter.

However, the complaint was not subsequently resolved. In a letter dated 14.09.2015, Mr. Kessel informed the Lubitz family's legal representative that he was dismissing the complaint.[9]

[8] See complaint filed by Günter Lubitz against the Düsseldorf public prosecutor's office of 10.07.2016
[9] See letter from Senior Public Prosecutor Kessel to Attorney Frank Palmer of 14.09.2015

V. 2. The Structure of the Case Files / The Public Prosecutor's Documentation System

The digital record of files was assembled by Düsseldorf CID at the behest of the public prosecutor, Mr. Kumpa. However, this clearly did not take place until May 2016, i.e. more than a year after the crash and the opening of the investigation. Each page of the digital file is consecutively numbered. In total, it consists of 16,086 pages, many of which are replicated more than once, including French and Spanish original files alongside German translations. The file begins with the first page, number HA 00001 an *'Explanation of the File Structure'*, dated **11.05.2016**. It bears the seal of the Düsseldorf police force and is signed by Detective Chief Superintendents E[redacted] and R[redacted].

A table of contents follows, dated **02.06.2016** (HA 00002-00029). Next follows a document, which according to the title is an *'Order'* and *'Memorandum'*, dated **08.04.2015** (i.e. 15 days after the crash and the launch of the investigation) which covers pages HA 00030-00046, in which the public prosecutor leading the investigation in Germany, Mr. Kumpa, provides a summary of the investigation, including its activities and findings.

The Düsseldorf public prosecutor's office is bound by regulations governing documentation activities set forth in the *'Directive for the Administration of Written Materials at the Offices of the Courts and Public Prosecutor's Offices of the State of North Rhine-Westphalia'*. In accordance with § 3.3, line 2 *'File Structure'* (my emphasis) *'each volume is to be formatted with **continuous page numbering** and should typically consist of not more than 250 pages.'*[10]

Finally, elements of the case files from the (separate) inquiry in France, which the Düsseldorf public prosecutor obtained via a request to the French judicial and investigatory authorities – predominantly the Gendarmerie Nationale – were also included in the files. These files consist of 10 volumes, each titled 'Objective Findings', and, unlike the Düsseldorf public prosecutor's

[10] See PDF in the version of 01.01.2016 - Appendix 2

files, are numbered chronologically and continuously (pp. HA 00168 - HA 04292). The files in the French language have been fully translated into German (pp. HA 4293 - HA 8778).

Two volumes are dedicated to exhibits seized in the course of the investigation by the Düsseldorf CID (pp. HA 8779 - HA 9512).

Another file, entitled 'Sondenheimer-Lubitz', deals with the investigation into the two pilots (pp. HA 9513 - HA 9998).

There are 3 further volumes containing Andreas Lubitz's medical records (pp. HA 09999 - HA 11319). These are followed by the documents which make up the 'Main Case Files' of the inquiry, beginning with a letter dated 3.11.2015[11] and further correspondence between the public prosecutor, Mr. Kumpa, and the executors of Andreas Lubitz's estate, as well as relevant rulings by the Montabaur probate court.[12]

It is not until page HA 11330 that a letter dated 05.05.2015 is found; that is, a document dated close to the time of the crash and the start of the investigation. The letter consists of a request by the executors to the public prosecutor's office to be informed whether any documents potentially related to Andreas Lubitz's assets were amongst the evidence seized by the authorities. A negative reply dated 20th May 2015 can be found on page HA 11337 in the files. Strikingly, however, a letter then follows (p. HA 11338) which was clearly sent by Mr. Kumpa to a family member at an earlier date – namely, on 15.04.2015.

In the letter, Mr. Kumpa refers to media reports, in this case the information that 'the sick note for the day of the flight had not been handed in to his employers by the co-pilot'. This is totally improper and unusual behaviour for a public prosecutor in the course of an ongoing investigation.

[11] See HA 11320 - 11321
[12] See HA 11324 – 11329

The important fact, however, is that the dates and numbering of these particular documents quite simply fail to meet the requirements of normal and methodical file structuring procedure. There are numerous examples of documents from earlier dates being found at later points in the case files.[13]

The only really relevant documents are located at the end of this part of the files, namely pp. HA 11459 - HA 11476. In these documents, dated 08.04.2015 and 02-10.07.2015, Mr. Kumpa summarises what he sees as the findings of relevance to the investigation up to that point in time. There then follow 163 pages that Mr. Kumpa had already passed on to the Lubitz family's legal representative, Mr. Frank Palmer, in his letter of 11 January 2017. This includes the official closing statement of 11.08. to 15.12.2016, consisting of 14 pages.

In addition to these files from the Düsseldorf inquiry, there is also a special volume dedicated to the findings of investigations in Spain, including in particular the findings and analyses carried out by the Spanish authorities relating to the passengers, the check-in and security protocols, and interviews with the ground staff.

There are also three other special volumes, some with several sub-volumes, which are titled 'Germanwings-Lufthansa' (3 vols., pp. SB 001-00001 to SB 001-01482); 'BEA Final Report' (1 vol., pp. SB 002-00001 to SB 002-00128), which is the German version of the BEA crash investigation report; as well as six volumes of 'Other Notes' (pp. SB 003-00001 to SB 003-02214).

Reading through the full file, it is notable that many individual documents and files recur several times in an identical form, or in part, with no immediately obvious justification or necessity. It is the author's opinion that this can be explained by the fact that even during the

[13] See for example HA 11366, dated 01.04.2015; HA 11387, (24.04.2015) followed by HA 11388 (11.05.2015); HA11399 (12.10.2015) followed by HA 11400 (04.09.2015) followed by HA 11401 (17.06.2015) etc.

course of the investigation, organised record-keeping in line with the relevant requirements simply did not occur. If the case file had been built up methodically and continuously, as is customary, the final version would have had to simply refer to documents already in place.

Conclusions No. 21-24:

21. Apart from the extracts from the French Gendarmerie case files, the files are numbered, but are not organised chronologically as official standards require. If this were the case, the earliest-written document in the file, 'The Circumstances of the Case', dated 24.03.2015 and signed by D.C.S Brusdeilins, which bears the file number HA 00047, would be the first document, i.e. HA 00001. The current digital file does not allow any reliable and verifiable conclusions to be drawn about exactly when any page of the file was added or when it was created. This prevents readers from tracing exactly when findings or conclusions were actually reached. Also, it is not clear or determinable whether the digital files are complete and really contain all documents in their order of addition at the public prosecutor's office.

22. Even an individual 'loose leaf file' would normally be numbered consecutively.

23. It is also not clear or determinable whether any more complete 'second file' exists, containing any further findings or possibly even exculpatory evidence concerning Andreas Lubitz.

24. According to Mr. Kumpa, he has other documents relating to the investigation in his office 'available for inspection if appropriate', which, however, he has not included in the digital files. The family and their legal representatives were allowed to examine these files for the first time on 29.12.2016. They included a complete printout of Andreas Lubitz's Facebook pages.

V. 3. 'The Launch of the Inquiry'

The memorandum HA00030 et seq., written by Public Prosecutor Christoph Kumpa contains some illuminating details, including an explanation concerning why the then **'Deputy Spokesman'** for the Düsseldorf public prosecutor's office was also appointed the **'Investigating Prosecutor'** responsible for this inquiry.

The Head of Department, who according to the public prosecutor's office's own operating procedure ought to have taken charge of the investigation, was *'absent due to meeting*', and Mr. Kumpa acted as his *'permanent representative'*.[14] That evening, at the Düsseldorf CID's request, he contacted Germanwings (specifically, Mr. F[redacted]) for the first time to request the passenger list.

Aside from this inquiry, Mr. Kumpa evidently obtained the majority of his information from the media in the early days of the investigation. He first learned about the crash from news reporting, on the morning of the 25.03.2015, he also learned from media reports that a group of schoolchildren from Haltern were amongst the victims.

Having sent a memo by email on 25.03.2015 to all public prosecutor's offices in the state of North Rhine-Westphalia, he was able to ascertain that no other public prosecutor had initiated their own proceedings and any other investigations were inactive. Mr. Kumpa then proceeded to widen this inquiry to include other German states. Such an action makes sense if the aim is to avoid concurrent investigations running in several different jurisdictions. However, there is a need to examine whether such a decision, if indeed necessary, ought not to have been taken by a superior authority, such as the Chief Public Prosecutor's Office, the Federal Prosecutor's Office, the Minister of Justice for the state of North Rhine-Westphalia, or even the Federal Ministry of Justice. In any case, in the author's opinion, events were set into motion that made

[14] See p. H 00030/00031

it difficult to change course at a later date.

The question also needs to be asked why, of all people, Mr. Kumpa was quite obviously so 'keen' to lead this inquest. The official jurisdiction at this time did not arise under § 159 CCP [the German Code of Criminal Procedure, abbreviated StPO in German], but at most under § 143 of the Judicature Act.

If we assume a criminal offence with an aeroplane had been committed, the Düsseldorf public prosecutor's office's jurisdiction could arise from the general conditions for application of § 10 CCP,[15] as the crash involves a German registered aircraft (D-AIPX).

However, the Düsseldorf public prosecutor's office did not have 'automatic' jurisdiction over the case. Automatic jurisdiction could arise in some circumstances, e.g. if the first bodies had been brought to Düsseldorf by plane, as corpses within the geographical limits of Düsseldorf would grant the Düsseldorf public prosecutor the right to investigate, and more specifically to launch an inquest into the deaths.

According to the standard legal interpretation, the jurisdiction of the German Criminal Code or Procedure (CCP) corresponds exactly to the sovereign territory of the Federal Republic of Germany. However, aircraft – unlike ships – must in principle be the exclusive property of a German natural or legal person, or be property of natural or legal persons from EU member states.[16]

There could be grounds for the involvement of other authorities (not just in the Düsseldorf inquiry, but also with regard to the civil air crash investigation conducted by the BEA), because the D-AIPX registration belongs to Lufthansa Flight Leasing, a shell company based

[15] See Karl-Peter Julius, Björn Gercke, Hans-Joachim Kurth, Michael Lemke, Helmut Pollähne, Erardo C. Rautenberg: *§ 10 StPO – Allgemeine Anwendungsvoraussetzungen.* In: *Strafprozessordnung* Hüthig Jehle Rehm, 2009, p. 71

[16] See § 2 para. 5 Air Traffic Act

in Salzburg, Austria. As far as the author is aware, however, Austria was not involved in the civil air crash investigation.

The area of jurisdiction for criminal offences involving aircraft is, according to § 10 para. 1 of the CCP, the place at which the aircraft is permanently stationed for the purpose of its operation, or the place at which it first lands after the offence. In the case of an emergency landing, then the court of the district in which the emergency landing takes place has jurisdiction.[17]

In this connection, Düsseldorf cannot be considered the 'first port of call' after the offence, since the aeroplane was completely destroyed in the crash in France.

With regard to D-AIPX aircraft, it is also doubtful to say the least whether the aircraft was permanently stationed in Düsseldorf or whether the Düsseldorf public prosecutor's office could really derive their jurisdiction over the matter on such grounds. The aircraft in the Germanwings fleet do not have a strictly defined 'base airport' due to their flexible and diverse deployment planning, unlike, for example, Lufthansa's Airbus A380 fleet, which is based at Frankfurt airport in Frankfurt am Main.

[17]See: Julius, K.P. (2009). Strafprozessordnung, p. 76 et seq.

V. 4. Questions Regarding Ambiguities

- **Are there perhaps other aspects in play?**
- **What connections did the public prosecutor, Mr. Kumpa, have with Germanwings or Lufthansa?**
- **Are there any special interests on his part – for example, due to an acquaintance or relationships with victims or their relatives?**
- **Was the investigation perhaps subject to a political order to protect the economic interests of Lufthansa and its subsidiary Germanwings?**

While these questions remain unanswered, they highlight the numerous potential sources of bias which may have influenced the actions of the prosecutor leading the investigation.

In this way, there is a need to examine Kumpa's former role as 'Deputy Spokesman for the Public Prosecutor's Office', as well the proceedings carried out thus far under his direction.

The author of this report closely followed Public Prosecutor Christoph Kumpa's media appearances in the period immediately after the crash. In the author's completely subjective opinion, it appeared that Mr. Kumpa had attained a significant boost to his perceived sense of personal importance from the enormous media interest, and what is most important, that he visibly enjoyed playing this role, particularly as it related to appearing on camera.

<u>Addendum, 30.03.2017</u>:

Mr. Christoph Kumpa's public reaction to the media coverage of the press conference held by the Lubitz family on 24.03.2017 is insightful against the backdrop of this point.

Public Prosecutor Christoph Kumpa / photograph: Rolf Vennenbernd/German Press Agency

First of all, it is highly notable that public prosecutor Kumpa took it upon himself to reply directly when confronted with the contradiction between his own statements made when closing the inquiry and the more widespread external narrative of pilot suicide as well as his previous statements made in 2015 with regard to the assertion that 'Andreas Lubitz was depressed'. He now argues that neither he nor the Düsseldorf public prosecutor's office ever made such a claim.[18]

Furthermore, Kumpa even passed on a request submitted by a journalist working for the weekly newspaper 'Die Zeit' to the tabloid BILD. BILD's digital editor-in-chief Julian

18[202] Cf. http://www.n-tv.de/panorama/Staatsanwalt-weist-Lubitz-Vorwuerfe-zurueck-article19761936.html

Reichelt subsequently exploited this letter in a tweet.[19]

His motives for such conduct are completely unclear, although they betray an increasing 'nervousness' on the part of the Deputy Spokesman for the Düsseldorf Public Prosecutor's Office.

When certain information from the internal workings of the investigation were actually 'leaked' to the media at an earlier stage in the proceedings, Mr. Kumpa was not so easily rattled. In light of the behaviour Mr. Kumpa displayed in media coverage – particularly on and after the 24.03.2017 – it is very clear that he is very eager to be on 'good terms' with the media, to say the least, and perhaps sought to make use of this rapport to 'cover up' his own failings and misjudgements over the course of the inquiry. Here he benefited from the restricted information to which he was privy as public prosecutor. Thanks to Mr. Kumpa's official position, journalists did not feel compelled to carefully vet and validate statements and information they received from him.

The questions surrounding the propriety of Mr. Kumpa's actions would surely be an appropriate subject for a committee of inquiry in the Düsseldorf state parliament, and/or disciplinary action within the Düsseldorf public prosecutor's office.

[19]See https://twitter.com/jreichelt/status/845606313468055554

V. 5. 'The Justification for Launching the Düsseldorf Inquiry'

According to his own statements, Mr. Kumpa learned from the media of the 'alleged findings made by the BEA accident investigators from the voice recorder'. His records contain no evidence or documents explaining whether and, if so, how he verified this information from the media with the relevant foreign authorities.

He was then, according to his own explicit account, later requested by the French Gendarmerie, who were in the midst of their own investigation, to carry out a 'quick-freeze' in the apartments of **both pilots**, i.e. to secure all possible evidence within them.

It is striking that the file also contains no memoranda or documents which, for example, detail with whom from the French authorities Mr. Kumpa communicated or corresponded. He himself has also volunteered no information on this matter. That is shocking, particularly as the French authorities are legally required to obtain a judicial search warrant in the proper manner should they wish to carry out such an action. In this way, the illicit search represented an attack on the basic rights guaranteed by the German constitution.

It is also revealing that Mr. Kumpa obviously had to be informed by members of the special task force (BAO)[20] called 'Alpen' that police officers had been deployed on security details to shield against press intrusion at the Lubitz family home in Montabaur, the shared home of Andreas Lubitz and Kathrin G[redacted] in Düsseldorf, and the home of Patrick Sondenheimer.[21]

Once again, Mr. Kumpa apparently first learned from the media (!) that the leading public prosecutor in Marseille, Bierce Robin, had stated in a press conference that the co-pilot had been alone in the cockpit. When questioned, a liaison officer for the French Gendarmerie,

[20] BAO: Special Structural Support Organisation
[21] See p. HA 00032

whose identity is unknown, clarified that investigators **'were not yet sure which person was sitting in the cockpit.'**[22] He went on to mention 'significant reasons to doubt that it was the co-pilot'. On hearing this, for incomprehensible reasons, Mr. Kumpa ordered that enforcement of the resolutions issued concerning the Sondenheimer house be suspended.

Conclusion No. 25-26:

25. As a consequence of this order, the investigation was conducted in a completely one-sided manner from this moment on.

26. According to the public prosecutor Christoph Kumpa's own statements,[23] the proceedings do not amount to a criminal investigation against Andreas Lubitz, Germanwings, Lufthansa AG or any other party. The inquiry is an investigation into the deaths of the victims of the crash.

According to statements made by the Gendarmes investigating this case on behalf of the French Air Transport Police (GTA), no definitive statement could be made at this time as to whether Andreas Lubitz was even conscious when the aeroplane crashed. **The Gendarmerie records of the 25.03.2015** contain the following statement:

'Sounds of breathing can be heard throughout the entire audio recording up

[22] See p. HA 00032
[23] See pp. HA 11338 and HA 11341

to the moment of impact.[24]'

Over the days and weeks that followed, the French Gendarmerie's experts were similarly unable to make a definitive statement as to whether the breathing sounds made by Andreas Lubitz indicated he was wide awake or unconscious. On this matter, the summary of the preliminary investigation contained in the Gendarmerie records **dated 23.05.2015** reads:

> ***'Playback of the various recordings revealed sounds of breathing in the headset mic, which indicates that he was alive, but it could not be ascertained whether he was also conscious.[25]***

Conclusion 27:

In light of the uncertainty clearly documented in these files – which according to the files themselves lasted until the 25.05.2015, two whole months after the first examination of the evidence from the cockpit voice recorder – the French public prosecutor Brice Robin's decision to announce to the world as early as the 25.03.2015 that a fully conscious Andreas Lubitz had purposefully crashed the aeroplane with the intent to commit suicide is inexplicable.

The same applies to the findings of the Düsseldorf public prosecutor's inquiry, which build on the French investigation's conclusions.

It is also unclear exactly when and what official requests for assistance were made by the

[24] See pp. HA 05130-1. CVR recording of 25.03.2015, 10:45 CET
[25] See HA 04310 – Summary of Preliminary Investigation, 23.05.2015

French authorities – in this case the public prosecutors at the Tribunal de Grande Instance in Marseille – as well as the manner and form in which these requests were communicated to the German authorities. A document addressed to the Spanish authorities, issued by Deputy Public Prosecutor Ludovic L[redacted] and dated 26 March 2015[26], does not contain dedicated information regarding the inquiry's conclusions about the facts of the incident. However, it includes an explicit request for thorough scrutiny of the cockpit crew, taking into account the following criteria (my emphasis):

> *(medical history, personality, professional skills, behaviour in the days and hours leading up to the flight,* ***possible state of depression****...)*[27].

A further document drawn up by Deputy Public Prosecutor Sylvie M[redacted] is dated 15.04.2015[28] . Further back (chronologically) in the file is a copy of the request for assistance also issued by Ms M[redacted], dated 02.04.2015. On the basis of the preceding correspondence by email, it can be safely assumed that this is the actual request for assistance presented to the German authorities.

Notably, despite not having sufficient evidence to support such a hypothesis, this request once again states in the section 'I. Facts of the Case':

> *' ...that the captain left* the cockpit and was unable to return because the co-pilot had locked the door using the manual switch. *Technical investigations have concluded that a conscious action alone initiated the descent of the aircraft and caused the crash. The investigation established that Andreas LUBITZ suffered from depression and had repeatedly been on medical leave...'*[29]

[26] See pp. RH 001-00327 et seq.; HA 00134 et seq.
[27] See HA 00139
[28] See pp. RH 001-00396 et seq.
[29] See pp. HA 001-00501

However, this claim is clearly not part of the original statement of the confirmed facts of the case delivered by Mr. Brice Robin on 26.03.2015 at a press conference in Marseille – the same date as the searches in Düsseldorf and Montabaur – not least because these alleged 'findings' (depression) had not been confirmed with any certainty at that time.

A letter sent by Mr. Kumpa to the Employers' Liability Insurance Association for Trade and Logistics (BGHW) dated 16.04.2015[30] makes clear that the Düsseldorf public prosecutor intends to make an official request for assistance from the Spanish authorities. The letter describes this request as 'currently in progress'.

On the 24.04.2015 the lawyer representing a surviving dependent of one of the victims[31] is informed that 'in the meantime, requests for assistance have been sent to various foreign judicial authorities...including the French authorities, among others'.

Another of Mr. Kumpa's letters to a surviving dependant's lawyer, dated 03.11.2015,[32] makes clear that the Düsseldorf public prosecutor's office has sent a request for assistance to the French judicial authorities which had yet to be complied with at that time.

[30] See HA 11365
[31] See HA 11383
[32] See HA 11320

V. 6. 'Execution of the Search Warrants'

The search warrants were executed almost simultaneously on the afternoon of the 26.03.2015. The events on this date are covered in more detail in the records contained towards the end of the case files. Mr. D[redacted], the public prosecutor, was flown in to Montabaur by helicopter by the Düsseldorf public prosecutor's office to lead the search there. According to page H 00032, D[redacted], with Mr. Kumpa's agreement, decided that the search should focus on Andreas Lubitz's childhood bedroom after Mr. D[redacted] had determined that *'no relevant evidence'* was to be found in the rest of the family home.

Conclusion No. 28:

It is therefore incomprehensible why, despite this determination, police photographs taken by DSI Tanja L[redacted] of the Montabaur Criminal Investigation Department clearly depict all rooms and were later included in the case files.[33] These photographs were later published by the BILD tabloid and consequently by other media outlets.

Notably, the question of how and by whom these photographs from the public prosecutor's confidential case files were leaked to the media has not been investigated by the public prosecutor's office.

Page HA 00032 contains statements made by Mr. Kumpa regarding letters and cards

[33] See Sondenheimer-Lubitz pp. 9513-9996, HA 09642-09719

belonging to Andreas Lubitz that were seized as evidence. He singles out an undated card written in a feminine hand, which amongst other things bears the message:

'I don't know why they make you cry... I will kiss away your tears.'

It is immediately obvious that this document relates to complaints made by Andreas Lubitz at the beginning of his training in Bremen in 2008. Mr. Kumpa draws the following conclusion from this evidence, however (my emphasis):

*'from which we can conclude there were **existing problems** which Andreas Lubitz **clearly was not prepared to openly discuss**.'*

Conclusion No. 29:

This conclusion is unfounded and mistaken. It is based on papers dating from a totally different period. In 2008 Andreas Lubitz was very clearly already actively discussing these issues with others. It is clear to the author, however, that the public prosecutor, Mr. Kumpa, succumbs to a severe *confirmation bias*[34] in making this statement, i.e. incorrectly endorses a conjecture which then goes uncorrected throughout the rest of the proceedings.

V. 7. Medical Confidentiality

[34] See statement and footnotes in **'Abstract'**, p. 9

V. 7.1. Fundamental Principles

Doctors in the Federal Republic of Germany are obliged to keep information entrusted to them by their patients confidential. **§ 203, para. 1 of the Criminal Code (StGB)** states that a person who without permission discloses confidential information, that is, information relating to personal life or professional or business dealings, which was entrusted to them or otherwise became known to them in their role as a doctor may be punished with a fine or a sentence of up to one year's imprisonment. § 203, para. 1 StGB applies equally to professional assistants and persons in training who are active in the medical field.[35]

Safeguarding medical confidentiality in relation to doctors is regulated by the criminal offence detailed in § 203 StGB in addition to the codes of conduct laid down by the medical councils of the federal states.

In addition to doctors, members of other healthcare-related professions regulated by the state, e.g. non-physician psychotherapists (in accordance with the Psychotherapy Act), medical assistants, nurses and orderlies, midwives, masseurs, physiotherapists, medical laboratory assistants etc. are also legally bound by medical confidentiality.

Medical confidentiality applies to facts and circumstances that are known to only a limited group of persons, and which the interested party has a legitimate interest, substantiated by examination of their personal situation, in keeping confidential.

A **legitimate interest in confidentiality** has been overwhelmingly established in case law (Karlsruhe Higher Regional Court (OLG) of 11.08. 2006, 14 U 45/04) and literature for patients' names and for the fact that a person has in fact consulted a doctor. The Karlsruhe OLG ruled that a doctor not must share the name of another patient with a patient, even if this patient was injured by the other in a collision during a dance therapy session (Karlsruhe OLG

[35] See § 203 para. 3 Criminal Code (StGB)

of 11.08.2006, VersR 2007, 245).

Medical confidentiality is also to be observed **towards other doctors.**

A doctor's duty of confidentiality also extends to **patients' family members** as well as to **the doctor's own family**.

The duty of medical confidentiality remains in force even **after the death of the patient**. After the death of the patient, relatives cannot effectively release the doctor from the duty of confidentiality. Provision of information to heirs, relatives, or third parties, or the release of medical records of deceased patients thus violates doctor-patient confidentiality, unless the doctor comes to the conclusion that revealing the patient's confidential information is in the so-called 'presumed interest of the deceased'. 'This interest, which is to be determined on a case-by-case basis, can be characterised as replacing the patient's interest [present during their lifetime] in confidentiality, which has now lapsed' (OLG Naumburg, 09.12.2004. VersR 2005, 817).

The **clearly established** interest of the deceased in the continuing confidentiality of information entrusted to the doctor is the decisive in determining the presumed interest of the patient. Listed below are some examples from case law:

The Federal Court of Justice (BGH) has already ruled that the interest of a decedent does not signify that his **lack** of testamentary capability remains confidential; rather, the interest consists therein that the general provisions protecting of a person without testamentary capacity are not circumvented by medical confidentiality (BGH, ruling of the 04.07.1984, NJW 1984, 2893 et seq.).

According to the Göttingen Regional Court (LG), medical confidentiality does not usually preclude the release of the autopsy report to close relatives.

Because either it may allow a person to be able to hold another responsible for the death of the deceased, or it may help family members to accept a suicide where applicable (LG Göttingen, ruling of 25.09.2003, MeDr. 2004, 504 et seq.).

Finally, the Naumburg Higher Regional Court (OLG) has ruled that a person may, for example, have an interest that their diagnosed alcoholism is kept confidential while they are alive, yet after their death, this interest in confidentiality may cease to be valid in, for example, a case involving matters of insurance, such as determining the legal capacity of the deceased due to their alcohol-related condition and the obligations of the insurer. In the case which led to the ruling, it was disputed whether the insurer was required to pay out as a result of the house fire set by the deceased policyholder. If the event of damage upon which the claim was made was brought about intentionally, the insurer be under no obligation to pay out, but this would not be the case if the damage was caused in a state of diminished responsibility due to alcoholism (OLG Naumburg, ruling of 09.12.2004. VersR 2005, 817).

In all of these cases a doctor has a certain scope for discretion which the courts have only limited power to examine.

It is only prohibited to reveal confidential patient information **without authorisation**. In accordance with § 203, para. 1 StGB, breaking medical confidentiality with authorisation is not punishable by law. In case law and literature, **four forms of authorisation for disclosure** have so far been identified, which allow the doctor to reveal a patient's confidential information legally:

1. The doctor is not bound by doctor-patient confidentiality, if the patient gives express or implied consent to the disclosure of the information, i.e. the patient has granted **permission** to disclose the confidential information.

(...)

Patients with mental illnesses can effectively release the doctor from confidentiality requirements so long as they have the cognitive faculty to understand their actions. Should the mentally ill patient lack this faculty, the decision falls to the patient's court-appointed guardian.

2. The doctor is granted further powers to disclose confidential information if this disclosure is found to be in accordance with the so-called **presumed consent** of the patient. The distinction can be made here between two possible situations: Should the patient be unable to give consent due to unconsciousness, yet the doctor is able to assume on the basis of other indications that the patient would give consent if able to do so, the doctor is free to disclose information. A case of presumed consent can also occur if the doctor has no need to obtain consent because it can be assumed that the patient places no value on the question.

   Examples:

   a) The doctor informs the relatives of an unconscious patient who was injured in an accident.

   b) After delivering a health report for a life insurance policy, another question is asked, which the doctor answers without again obtaining the patient's consent.

3. A doctor can also be authorised to disclose information due to legal **disclosure obligations or rights**. A doctor is **obliged** to disclose information, for example, under the legal obligation to disclose contained in the Infection Protection Act. An Authorisation to disclose information on the basis of legal regulations without establishing a duty or obligation to disclose arises, for example, from the authorisation to disclose information in accordance with § 3, para. 2, of the Federal Cancer Registry Data Act.

4. Finally, authorisation to disclose information can arise from the so-called **principle of balancing interests**. According to the so-called justifying state of emergency in accordance with § 34 StGB, the doctor may always reveal confidential information, where the interest underlying the legal requirement for medical confidentiality, namely the confidence of the patient in the doctor's non-disclosure, is of lesser importance than another legal interest.

   For example:
   Against the wishes of the patient, the doctor refers the patient to the road traffic authority because the patient continues to drive, despite the fact that they endanger themself and others due to their medication or a condition such as epilepsy.

   It is a requirement in cases where authorisation to disclose is based on the principle of balancing interests that the doctor has previously unsuccessfully attempted to persuade the patient to take the necessary measures themself.

   In general, **there is no higher legal interest than the state's interest in law enforcement.**

   (...)

   The doctor therefore is authorised to disclose information in cases involving particularly severe crimes associated with lasting damage or disruption to law and order and/or high risk of reoffending (Saenz/Schröder, Strafgesetzbuch. Commentary, 27th edition, 2005, § 203 recital 32).

   This is the case, for example, if the public prosecutor's office and police force are investigating a terrorist attack. The doctor **may** in this case inform the police about the

treatment of a suspect or give the names of the patients seen over the last week.

V. 7.2 Medical Confidentiality and the Judicial Authorities

'There are no special obligations to disclose information to the **police** or the **public prosecutor**. Should the doctor become aware of crimes being planned, they are obliged to inform the law enforcement authorities (§138 StGB). Where especially serious crimes associated with lasting disruption to law and order or high risk of reoffending are concerned, the doctor is authorised to break medical confidentiality.'[36]

Corresponding requirements for medical confidentiality are also enshrined in many other statutes within German law. Examples include §§ 1, 2 Basic Law, § 134 Civil Code, § 823 Civil Code as well as § 1 Consumer Protection Act.

According to legal experts consulted in the course of this research, including practising lawyers and professors of law at German universities, both the Düsseldorf public prosecutor's office and the district court presiding over the inquiry have gravely violated these legally protected rights by searching doctors' surgeries and seizing Andreas Lubitz's confidential medical records. The doctor who formerly treated Andreas Lubitz was well within his rights to refuse to disclose or hand over these documents and data, which enjoy special legal protection. The legal experts consulted consider the Düsseldorf district court's rulings on this matter highly questionable and it is unlikely they would withstand legal scrutiny by higher courts, particularly given that the relevant petitions made by the public prosecutor contain untrue allegations and claims.

The psychiatrist who last treated Andreas Lubitz, R[redacted] S[redacted] of Montabaur, also initially refused to hand over medical records. The Düsseldorf public prosecutor's office then (as in all

[36] From: LANDESÄRZTEKAMMER BADEN-WÜRTTEMBERG, 'Merkblatt zur ärztlichen Schweige-pflicht' [Baden-Württemberg Medical Board, 'Fact Sheet on Medical Confidentiality'], issued October 2009

other cases in which medical professionals and institutions initially refused to hand over medical records) obtained a court order demanding the release of the files on the basis of substantially false claims. Whether these claims were made intentionally or through negligence remains to be seen, as the public prosecutor's office was obliged to have carefully fact-checked the petitions, as was the judge who issued the court orders. To be clear: the public prosecutor's office's petition (of the 31.03 2015, made by senior public prosecutor Mr. Kessel) reads:

> ***'The interview of the co-pilot's partner revealed that since 2008, he [Andreas Lubitz] had been continuously undergoing psychotherapy and taking prescribed medication for the same purpose. '***

This is incorrect in two respects: firstly, Kathrin G[redacted] claims never to have made any such statement when questioned by the Düsseldorf CID, and no such statement is contained in any of the transcripts of the interviews she signed; and secondly, Andreas Lubitz was not *'in psychotherapy and taking prescribed medication continuously from 2008 onwards'*. By 2009, he had fully recovered from the depressive episode he suffered in 2008; this was confirmed by two medical specialists, who signed him off as fit to continue his pilot training.

Given these circumstances, it would even have been unlawful not to have certified him as medically fit to fly. This is the conclusion that even the public prosecutor himself, Christoph Kumpa, eventually arrives at in his statement of the 15.11.2016, made in response to a request for evidence submitted by the lawyers of the bereaved Klaus R[redacted]. This reads:

> *'Hence, when the certificate of medical fitness was issued on 28.07.2009, one month after discontinuing Cipralex medication, there were no sufficient evidence to indicate that Andreas Lubitz was still mentally ill or under the influence of any disqualifying psychiatric medications at that time.*

Given these circumstances, ***Andreas Lubitz was entitled to be re-issued with a certificate of medical fitness*** *and there were also no legal grounds or reasons whatsoever for the supervisory authority, the Federal Aviation Authority, to object to the issuance of a certificate of medical fitness.'*

On page HA 00033, Mr. Kumpa goes on to write that 'during the search of the home' of the co-pilot, officers encountered his partner Kathrin G[redacted], who declared that she was prepared 'to be interviewed as a witness by police officials at the Düsseldorf police headquarters'.

This statement again fails to accurately represent the actual facts. Kathrin G[redacted] was not present at the search of the apartment she shared with Andreas Lubitz on the 26.03.2015 at 16:55[37]; in fact, she had handed over the keys to the lawyer representing her (Dr. Mathias S[redacted] of the law firm Feigen & Graf in Cologne) who had been appointed by Lufthansa. Dr. S[redacted] arrived at the apartment at 16:45, let the police officers into the apartment and was present during the search[38] (see also further statements below under **'Searches'** and under **'Conflicts of Interest'**). She had met her lawyer at a car park near Lake Unterbacher and handed over the keys to the apartment. She was not present during the search. The record of the search was signed by her lawyer, **Dr. S[redacted].**

In any case, on the basis of the interview with Kathrin G[redacted], Mr. Kumpa states that Andreas Lubitz had been misdiagnosed by an ophthalmologist in December, leading him to believe he was at risk of going blind.

[37] See Sondenheimer-Lubitz p. HA 9538
[38] See Sondenheimer-Lubitz p. HA 9537

V. 7.3. Patient Records and Medical History, Including Doctors, Psychiatrists, and Psychologists

As stated above, court orders and rulings demanding the disclosure of confidential patient records were obtained on the basis of on false information. One example is the ruling obtained by the senior public prosecutor, Mr. Kessel, from the Düsseldorf regional court on the 10.4.2015[39]. This reads:

> ***'The interview with the co-pilot's partner revealed, that since 2008, he [Andreas Lubitz] had been continuously undergoing psychotherapy and taking prescribed medication for the same purpose.'***

This resulted in the ruling by Judge Nick Düsseldorf district court.[40] The ruling states (my emphasis):

> *'**From analysis of the voice recorder** it can be surmised that the co-pilot Andreas Günter Lubitz **deliberately caused** the crash, as he was alone in the cockpit, initiated the descent and **prevented the other pilot from re-entering the cockpit through the use of an electronic locking device.'***

Even ignoring the fact that the ruling incorrectly specifies the date of the crash as the 23.03.2015, the judge's understanding of events is questionable in several respects:

1. **Neither the Düsseldorf public prosecutor nor any of his officers have themselves analysed the voice recorder evidence. In fact, according to Christoph Kumpa's own statements to the Lubitz family and his closing statement of the 15.12.2016, to date the public prosecutor's office has never even had access to a copy of the tapes.**

[39] See HA 10144 et seq.
[40] See HA 10150 et seq.

2. **At that time, and to date, it could and cannot be claimed that Andreas Lubitz 'prevented the other pilot from re-entering the cockpit through the use of an electronic locking device'** (see also 'Cockpit Door' section)**.**

The same occurs in the handling of Dr. B[redacted] K[redacted] A[redacted],[41] the therapist who treated Andreas Lubitz in 2008-2009. The fact that the doctor apparently attempted to charge higher rates than would be usual for similar cases caught the author's eye. This led to claim against Andreas Lubitz's insurer, AXA, after his therapy had ended.

In a statement dated 16.09.2009 concerning his claim for outpatient treatment of Andreas Lubitz, Dr. Torsten S[redacted] writes to AXA:

> *'The policyholder presents a very clear case of major depressive disorder: whether this actually manifests as a severe depressive episode, is in my view questionable, but this is of no great significance with regards to the indication of the psychotherapy requested.*[42]*'*

He goes on to write (my emphasis):

> *'In addition, the classification clearly depends to a great degree on the therapist in question and their expert opinion, in a way which is almost impossible to quantify objectively. There are certain exceptions, such as very obvious problems leading to crises, for example leading to psychiatric inpatient treatment for suicidal behaviour, which may possibly lead to longer-term hospitalisation.* ***However, this case does not present as a crisis of this sort****; in fact, an increase in the basic rate is planned.'*

[41] See H 10157 – 10164
[42] See HA 10155

In any case, on 11.08.2009, Dr. A[redacted] wrote to the Lufthansa medical department with the following diagnosis:

> *'State of exhaustion from overwork and decompensation with severe depression, ICD10 no. F33.2, tinnitus, ICD-10 no. B93. 1*[43]*'.*

On the 04.05.2015, DCS Elsner of the Düsseldorf CID notes: Salomon encountered 'no suicidal tendencies (16.03.2015)'.[44]

Careful examination of Mr. S[redacted]s records also reveals the following: The medical records were only released in digital form. Page HA 10287 gives **09:00 on the 27.03.2015** as the date of the last edit. This was a review, which includes a significant comment supporting the decision the doctor made to prescribe medication:

> *'In agreement with the medication prescribed by the doctor appointed by the airline company'.*[45]

The digital files' index tabs (listed below) date the last edit at **20:35 on the 26.03.2015**.

Mr. S[redacted], the psychiatrist, handed over further documents in the form of Microsoft Word .doc files only when explicitly ordered to do so by the CID. Investigators already had access to these files as they formed part of the original records handed over to police.

The author of this report suspects that after the crash, knowing that Andreas Lubitz was under investigation – this fact having been made public by Mr. Robin's press conference and

[43] See HA 10184
[44] See HA 10324
[45] See HA 10288

subsequent media coverage on 26.03.2015 – Mr. S[redacted] 'altered' his digital records.

That said, it is worth noting that none of the specialists, psychiatrists and psychologists who treated Andreas Lubitz assessed him as suicidal or made any reference to suicidal tendencies in their diagnoses.

The psychologist Dirk Michael S[redacted] expressly notes in his diagnosis (notes) of the 17.3.2015 ***'calm and thoughtful, not suicidal[46]'***.

In an examination on 20.02.2015, Dr. Hartmut K[redacted], consultant specialist in psychotherapy, internal medicine and cardiology found ***'no evidence of acute suicidal tendencies'[47]***.

On 08.02.2015, Dr. B[redacted] Martin of the 'Neurologie am Zoo' practice found: ***'No suicidal tendencies[48]'***

Dr. B[redacted]-Martin also noted:

'Informed about side effects of psychiatric medication! Again on 23.02.15!
Taking Mirtazapine up to 26.02.'

On the 26.02.2015, again the remark: ***'No suicidal tendencies'***

On the 17.02.2015, Andreas Lubitz was examined by the psychologist Lukas F. B[redacted]. On his 'evaluation' sheet, which contained a printed checklist, Dr. B[redacted] crossed out the word 'suicidal' by hand.[49]

[46] See HA 10338
[47] See HA 10354
[48] See HA 10408
[49] See HA 10439

The author will return to the representation of the evidence seized in the apartment and the basic findings from the pilot's records[50] later in this report.

The family's accounts of their questioning on 30.03.2015[51] on the whole corroborate the official transcripts of these interviews, **but leave out all statements critical of Andreas Lubitz made by family members**. The interviews were clearly carried out with the aim of gaining further insights into Andreas Lubitz's health, and his alleged depression in particular.

Conclusion No. 30:

In light of this evidence, it is very clear that from a very early point in the investigation, the investigators and the public prosecutor developed a kind of 'fixation' on the 'depressive phase' Andreas Lubitz underwent at the start of his training at the Lufthansa pilot school in Bremen in 2008. It comes across as though the investigators seemed to identify the suspected motive to fit the theory that Andreas Lubitz intentionally caused the crash.

[50] CF. HA 00034-00041
[51] CF. HA 00036-00037

VI. 'Examination of the Apple iPad 3 Tablet (A1416)'

VI. 1. The 'planned suicide' hypothesis and the 'cockpit door investigation'

The statements regarding the extant browsing history from 18, 19 and 20 March 2015 are highly questionable in many respects. In particular, as Andreas Lubitz's brother, [redacted] was also staying at the apartment shared by Andreas Lubitz and Kathrin G[redacted] at this time, meaning that there were simply no 'unlimited opportunities' – as the public prosecutor's office claims – for Andreas Lubitz to search for these terms 'unnoticed'.

In talks with the author of this report, as well as in a sworn statement presented to the courts, [redacted] has clearly and convincingly affirmed that he engaged in a range of leisure activities with his brother at the time in question, including long walks around nearby Lake Unterbach, cooking together, and playing computer games. On the evening of Wednesday the 18 March 2015, he was on his laptop in the kitchen with his brother and his partner. He played an album on his MP3 player and checked his emails. Afterwards, he cooked dinner, and all three ate together. They then watched television together; Andreas Lubitz and his partner fell asleep in front of the television, woke up around midnight and then went into their shared bedroom. Only then did [redacted] fall asleep on the living room sofa.[52]

The times given for the web searches allegedly made by Andreas Lubitz are thus directly contradicted by the brother's testimony and the joint activities they engaged in away from the apartment. The public prosecutor Mr. Kumpa's assumption that Andreas Lubitz 'used the iPad at a time when his partner may have been at work' and the conclusion he draws from this 'that the inputs in question [were made] by him' thus do not stand up to critical scrutiny.

[52] See [redacted]'s sworn statement, submitted to the court and the public prosecutor's office.

Here is a pure hypothesis adopted by Mr. Kumpa, which ought to have been discredited by targeted questioning by the police at a far earlier stage of the investigation.

It also makes absolutely no sense that a pilot, who had access to much more detailed manufacturer information on the cockpit door from his company computer and records (for example in the Aircraft Operation Manual, AOM), would search for such information on his personal iPad. Andreas Lubitz also did not search the internet for any information of any kind which could have been useful in planning such an act, as will be further shown below.

According to both the search record and the evidence list (HA 08780 and 08781) there were **two iPads** in the shared apartment in Düsseldorf. Initially, however, only one of the iPads was listed – clearly by mistake (see also HA 9542 Lubitz-Sondenheimer special files). DCS S[redacted] was responsible for this error (HA 09581), which was confirmed a day later by DSU K[redacted].

In a witness interview on the evening of the 26.03.2015, Kathrin G[redacted] first mentioned that she had deleted Andreas Lubitz's Facebook account that morning using her tablet. She subsequently handed over a second Apple iPad tablet.[53]

Conclusion No. 31:

Therefore, the claim made by the public prosecutor, Mr. Kumpa,[54] but also

[53] See HA 08919 and HA 09801

[54] See HA 00041'i) Analysis of the Apple tablet seized in the apartment in Düsseldorf' iPad 3 Wi-Fi (A1416):' and HA 05618

subsequently by the French authorities,[55] the BEA, and the BFU,[56] that this iPad was seized from the shared apartment, is false.

This false assertion was also taken up and spread by various media outlets.[57]

Although the public prosecutor's office must have been aware of this, it is immediately obvious that no efforts were made to correct this – hardly insignificant – misinformation.

[55] See HA 05449 Gendarmerie Nationale Investigation Findings of 30.04.2015
[56] See BEA Final Report, p. 122
[57] See HA 05597, 05613 HA, HA 05699

All this is significant because a total of **three iPads** were seized. Indeed, the CID is in a state of complete confusion regarding this matter; it is not always clear to which of these iPads is being referred, and it is perfectly obvious that they subsequently mixed up and mistaken for one another in the case files. This also applies to the findings of the expert forensic IT analyses. In any case, there are significant discrepancies which require a great deal of effort and patience to 'resolve'. A careful examination of the files is necessary to ascertain with any clarity specifically which device is being referred to.

It should be pointed out once again here that the BFU also makes this observation in their own analysis and when presenting the facts of the case, going so far as to pass on this information to third parties (the BEA and the Gendarmerie) in the form of a written report.[58] The author of this report is unable to ascertain whether press reports alone or direct information from the Düsseldorf public prosecutor's office played a role here. Doing so would require a court order or even the seizure of BFU documents, including files held by the head of the investigation, Johann Reuss.

[58] See comments on p. 170 of this report.

VI. 2. The Acquisition of the Three iPads

For the sake of clarity, when referring to specific exhibits, the author follows the exhibit numbers assigned by the law enforcement authorities in the case files, which, however, deviate from the exhibit numbers contained in the search records.

The file occasionally makes reference to an **'iPad CDMA (A1460)'** (see for example HA 08781). This is later examined by an IT forensics specialist and is referred to as **exhibit no. 1.1.1.1.11 by the list of exhibits** dated 21.05.2015[59].

However, when seized it was originally referred to as **exhibit no. 9**[60] or **No. 38**[61] according to the list of exhibits seized during the search or immediately thereafter, which was drawn up by DCS S[redacted]. The exhibit in question is an older model **iPad 2** (A1395), that is, with the 'old style' USB port, in contrast to Apple's more recent Lightning port, which the manufacturer has fitted to its devices since 2012, including the 4th generation iPad, iPad mini, iPhone 5, 7th Generation iPod Nano, 5th Generation iPod Touch, and other product lines, such as the iPad Air series.

It is clear that, probably a short time after the search had taken place, DCS S[redacted] realised **two iPads** had been seized from on top of the **small table in the living room** in the G[redacted]-Lubitz household. But only one of the two was initially included in the search records. Seized item **no. 38** was added later, after completion of the search and seizure.[62]

[59] See HA 08779 et seq.
[60] See HA 09540
[61] See HA 09542
[62] See HA 09542

A day later, this state of affairs was characterised by another officer present during the search, DSU K[redacted], as 'based on error'[63].

In any case, upon forensic examination, exhibit no. 1.1.1.1.11 is later described as a WiFi-capable **iPad 2 (A 1395)** with the **serial number DN6GFB[redacted]**, and according to the forensic IT analysis, registered to **'K[redacted]'**[64].

Five photographs are discovered on the iPad, **dated 20.03.2015**, containing **messages of condolence**.

Another striking discovery found on this iPad (exhibit 1.1.1.1.11) is another photograph dated 24.03.2015. The image is a screenshot of the website Flightradar24.com, which has clearly been used to track the ill-fated flight 4U9525/GWI18G. The screenshot shows the time of 09:32. The 'altitude and speed changes' of the aircraft are clearly visible. Unfortunately, it is not possible to ascertain whether this screenshot was taken at 9:32 UTC or 09:32 CET. The case files do not include a copy of the screenshot, which if available would allow conclusions to be drawn about the position of the aircraft at the time it was taken.

Flights on the 24.03-26.03.2015 (Andreas Lubitz's scheduled flights) were also marked in the calendar app.

In the Safari browser, the last search terms entered into Google were *'behavioural therapy + hypochondria + Düsseldorf'* – the time of search is not given.

There is a fundamental issue here. To carry out a forensic analysis of the browser, experts

[63] See HA 09581
[64] See HA 08910

compare the browser and connection data taken from the device with the data stored by the service provider and, using checksums[65] verify whether the data are consistent with the information provided, or whether they may have been tampered with. There are no references to this in the case files or the Düsseldorf CID's forensic analysis.

Exhibit no. 1.1.1.1.12, listed in the search records as **exhibit no. 9 or 38**, more accurately **No. 9 B**, is an **iPad CDMA (A 1460**) featuring a more modern Lightning port and bearing serial number **DMPJV**[redacted]. The device is also registered to **'K**[redacted]**',** and according to forensic IT analysis does not contain any data relevant to the investigation.

Exhibit no. 1.1.1.1.13 is an **iPad 3 WiFi (A 1416**) with the serial number **DMPHW**[redacted] belonging to **Kathrin G**[redacted] and **was handed over to the CID (DCS G**[redacted] **and DCS W**[redacted]**) by Ms. G**[redacted] **during her interview on the evening of the 26.03.2015** in the presence of her lawyer, Dr. B[redacted], and pastor Ms. von der H[redacted].

The interview transcript records the following: ***'Along with her statement, Ms G***[redacted] ***is submitting her boyfriend's iPad for analysis.'***[66]

The motives for this are totally unclear, in particular whether there was a particular reason for her to do so at that time. The files go on to note that of that Kathrin G[redacted] ***'stated to DCS G***[redacted] ***that this iPad was used both by her and by Andreas Lubitz.'***[67]

This is all the more significant because the forensic analysis carried out by the Düsseldorf CID on the 27.03.2015 on this – and only this – iPad brought to light its internet browser history, which was attributed to Andreas Lubitz and which very strongly implicated him.[68]

[65] Checksums [German: 'Prüfsummen'] allow experts to check whether a downloaded file is consistent with the original version. This is particularly useful in detecting data tampering.
[66] See HA 09801
[67] See HA 08923

[68] See HA 08922 et seq.

The 'internet search history' described here gave the investigators exactly what they were looking for, but had not yet been able to find: a plausible enough seeming 'motive', at least on the surface of things, as well as evidence of 'plans relating to the deed' made by the accused, Andreas Lubitz.

The iPad A 1416 (exhibit no. 1.1.1.1.13) was, however, quite clearly exclusively used by Kathrin G[redacted] between the morning of the 24.03.2015 to at least 26.03.2015.

According to the data extracted from this device, she had logged into Facebook at 06:53 and recovered a password (presumably for Andreas Lubitz's account). Four minutes later she had access to the account, clicked on messages received from 'Bolle Bo', and at 07:00 she deactivated Andreas Lubitz's account.

Notably, however, according to the browser history obtained by the CID analysis, in the days leading up to this, the iPad had clearly not been used, though Kathrin G[redacted] had access to it and used it as her exclusive means of internet access, with the exception of her smartphone.

The other iPads (exhibits 1.1.1.1.11 and 1.1.1.1.12) and her personal laptop were also found in the apartment in Düsseldorf, which she and her family left on the afternoon/evening of the 24.03.2015, i.e. the day of the accident, and to which she has ostensibly not returned.

These devices (exhibits 1.1.1.1.11 and 1.1.1.1.12) were seized by police during the search of the apartment in the afternoon of the 26.03.2015. Kathrin G[redacted] was not present when the devices were seized; she had previously handed over the apartment key to Dr. Mathias S[redacted], the lawyer representing Lufthansa AG. She must therefore have had this iPad with her at this time.

Note I:

The author considers it fairly unlikely that Ms. G[redacted] simply did not wish to use the iPad on 25.03.2015. However, Ms. G[redacted] declined to make a concrete statement on this matter in a conversation with the author in Montabaur on 17.09.2016.

Note II:

The search warrant was executed after assertions had been made by the *New York Times* (the previous evening) and the French public prosecutor Brice Robin (that morning) portraying Andreas Lubitz as a suspect in no uncertain terms.

Theoretically, in the time between the Lubitz family and Kathrin G[redacted] leaving the apartment on the evening of the 24.03.2015 and the police seizing the device on the afternoon/evening of the 26.03.2015, it would also have been possible for a third party with their own interests to tamper with the evidence and perform the incriminating internet searches, subsequently altering the date and time.

Finally, the possibility that Kathrin G[redacted] herself carried out the searches implicating Andreas Lubitz after the crash and after becoming aware of the details cannot be ruled out. An 'act' of this kind would certainly be conceivable given the tremendous psychological damage and her state of mind at the time. She may also not have realised the magnitude of the direct and indirect consequences at this point, or the way in which the authorities would interpret the searches.

When meeting Kathrin G[redacted] in Montabaur on the 17.09.2016, the author made repeated careful attempts to discuss the facts of the matter. She became defensive and evasive, saying: *'Like hell I will! I'm not going to dig my own hole.' (German: „Ich werde den Teufel tun und mich doch nicht selber reinreiten.“)*

In this context there are a number of other plausible scenarios which could explain Kathrin G[redacted]'s behaviour:

<u>Scenario A:</u>
Due to Andreas Lubitz's almost manic fixation on the problems with his eyesight, his state of mind, and his numerous visits to various doctors, the couple were experiencing problems and she had threatened to leave him.

<u>Scenario B:</u>
She was simply afraid that she would be accused of playing a part in the disaster – which lawyers representing the victims' relatives have recently done.

<u>Scenario C:</u>
There was an argument between the two and Andreas Lubitz threatened Kathrin G[redacted] – or vice versa – telling her to leave him.

Only the last scenario, if it were true, would make the scenario put forward by the investigators that Andreas Lubitz was suicidal at least plausible. No evidence can be found to support it, however. On the contrary, the two were planning to marry and have children. In the past, his partner had always supported him, such as during his illness at the beginning of his pilot training, and again in the lead up to his examinations, not to mention when was confronted with the incorrect diagnosis regarding his eyesight issues. Talking to the author of this report, Kathrin G[redacted] stated convincingly that there was no reason whatsoever, either

objectively or in her estimation, which could have led Andreas Lubitz to commit suicide on the 24.03.2015.

VI. 3. Browsing History According to Police Forensic Analysis

According to the browser history, iPad 1.1.1.1.13 was last used on Monday the **23.03.2015** between 19:40 and 19:41. This was obviously done by Andreas Lubitz himself, as he logged into the Germanwings-Crew-Link.

The iPad was used twice prior to this on that day, probably by Andreas Lubitz, between 11:57 and an unknown time and between 13:58 and 14:45.

The exact browser history is clearer when examined chronologically:

- First he logs in to the site 'meetup.com'. This is a platform for users to get in contact with other users in their area to arrange group activities. He signs up here.

- At 13:58 he logs in to 'spontacts.com', a recreational community that helps users find people in their area for recreational activities, try new pursuits, and get to know one another. He also signs up here, according to the browser history.

It is notable that in the CID's forensic analysis (page HA 08929) the first column of consecutive number 34 has clearly been covered over with white-out. This allegedly contains the membership confirmation, part of the login process.

- From 14:09, Andreas Lubitz searches Google for 'stress, lack of sleep and the consequences'. Until 14:21 he reads articles on a pharmaceutical website on this topic and on similar topics which are linked underneath the article, including 'insomnia – diagnosis, insomnia – living conditions/shift work, insomnia – medications, sleeping pills, insomnia – physical disorders, insomnia – depression and other psychological triggers, insomnia, snoring, sleep apnoea' and 'insomnia – restless legs and other movement disorders'.

- He then searches for the website of the 'Heilzentrum Mitte' in Düsseldorf, a group practice of alternative health practitioners. He researches the centre's founder, Marion P[redacted], whose therapy includes hypnosis-based treatments.

- From 14:53, Andreas Lubitz researches 'advance directives' [A.K.A. 'living wills']. He starts with a Google search, which first takes him to a Ministry of Justice webpage, and just a minute later to a downloadable PDF form issued by the Hamburg Medical Council. Due to changes made to the format of this form since then, it is unclear whether the advance directive he later filled out and signed on the 23.03.2015[69] is based on this form.

- On Sunday the **22.03.2015** the iPad was used three times, according to the browser history: in the morning at 09:33 to access a site with special offers at Kaufhof (a department store), and at 15:56 for a Google search for 'returnable deposit bottles'. At 18:39, it seems that Andreas Lubitz uses the iPad, initially to log in to the Germanwings-Crew-Link, and then barely a minute and a half later to navigate to the site meetup.com (for which he had not yet registered as a member at that point – see above; he did not sign up until the next day). After 10 minutes he then

[69] See HA 10144 et seq.

searched a number of topics including 'seeing, hearing, lack of sleep eye damage, disturbed sleep, blindness after solar eclipse without special eyeglasses (newspaper article)'. The search leading to the internet address 'traffic.outbrain.com/network/' could not be re-traced as the provider prevents the site from being archived.

- On Saturday the **21.03.2015** is only used briefly: once in the morning at 09:45 to call up the website of the Gemünder Park restaurant in Gemünd in the Eifel region, followed by a search for a tattoo worn by Peter Brings, a Cologne-dialect singer, for an advert for the 'Gaffel', a Kölsch brewery.

- On Friday the **20.03.2015** the iPad was also used three times. First, from 15:33 to 15:43 for online banking with Postbank, and at 16:04 for a Google search with the keywords 'tiredness seeing darker', which was apparently not followed up or was interrupted. The same search begins again at 20:15 and leads, via the webpage 'auge-online.de' (keywords 'glare and light sensitivity') to the reference certificate for ophthalmologist 'Dr. Dirk W[redacted]' in Ochsenfurt.

- At 20:21 the allegedly incriminating Google searches for the terms 'code cockpittür' ['code cockpit door'] take place. There was a discussion about this topic on the internet discussion forum 'MUC Forum' which took place in 2008, between the 29.06 and the 05.07. This 'MUC Forum' is a discussion board for pilots, plane spotters and amateur aircraft enthusiasts.

- At 20:23:39, a relevant link to 'findarticles.com' posted by the user 'cutlass' on the 02.07.2008 is clicked, but only leads to another search engine.

- At 20:23:50, another link posted by the user 'cutlass' on the MUC Forum on 02.07.2008 is clicked, which leads to an article in the Seattle Times.

  The article is about a problem with cockpit doors, which were modified after the attacks of September 11th, 2001. The article reports that the lock could be deactivated or activated by a mechanic employed by US company Northwest Airlines using a Walkie-Talkie. The fault affected Airbus models A330 and A340 as well as Boeing wide-bodies. The article also reports how the manufacturers eventually got around the problem.

  Though the article is very long, barely a minute and 30 seconds later, the user navigates to another German-language internet discussion forum, 'vielfliegertreff.de'. There, user 'haenfi' discusses a TV report and his belief that he has been able to make out the cockpit access code used in the shot. The video is now 'offline'.

  On obtaining the case files in June 2016, however, the author of this report immediately found and watched the video, which is a report. In the relevant shot, which starts at roughly minute 47, a stewardess is shown calling the cockpit in order to deliver a meal or refreshments. With difficulty, it is possible to make out the code '1' and '#'. This is a normal 'call code' used to gain access to the cockpit, not a so-called 'Emergency Code' (at Germanwings at this time, this consisted of three successive numbers and the '#' symbol).

However, it takes more than 25 seconds just to call up the video and navigate to the

relevant point. The site was called up at 20:25:27, but at 20:26:02, the user navigates on to the next site, an article written by aviation journalist Andreas Späth in his column on the internet portal 'airliners.de' (!).

- In the article, dated 21.09.2011, Späth reported on 'near-accidents related to visiting the toilet', which were apparently becoming more and more common. Specifically, Späth reported that a co-pilot had accidentally activated the rudder trim switch instead of the cockpit entry switch when trying to let the captain, who had left the cockpit, back in. The aeroplane had then made an abrupt roll to the right and had lost height. Two flight attendants had been injured as a result.

  In another case, an Air India copilot flying a Boeing 737 hit the steering column so hard when adjusting his seat that the autopilot switched itself off automatically and the aircraft went into a dive, which he was not able to correct alone. It was only 40 seconds later, when the captain managed to input the emergency code and get back into the cockpit, that the plunge was arrested.

  Boeing had then installed toilets and a rest compartment for the pilots within the area protected by the cockpit door in the new Boeing 747-800.

- From 20:32 several other Google searches are made for the terms 'Death by lack of sleep; can you die from lack of sleep?' within 7 seconds, including calling up an article on 'gutefrage.net'. 1 ½ hours later, at 22:04, there is another Google search for 'lack of sleep weak eyesight', although no links are clicked.

- On Thursday the **19.03.2015** the iPad browser is used a total of four times, from 10:27 to 10:34, from 11:04 to 11:08, from 13:21 to 13:22 and from 15:25 to 15:31.

- First of all is a Google search for 'chloroquine suicide'.

This fact alone is remarkable, as it was preceded by no research which could have led Andreas Lubitz to chloroquine, either on the 19.03 or on previous days. Andreas Lubitz's brother, [redacted], was also at the apartment at this point.

- The second link in the search results leads to an article entitled 'Drugs for Dying' on the website 'apotheken-adhoc.de'. After the Google search results page, page 2 of this article was called up.

  The article reports that doctors in Germany risk losing their licenses if they prescribe drugs for the purpose of suicide. Another part of the article deals with the cocktail of drugs described in a book by Peter P[redacted], a German 'death assistant' who helps people to commit assisted suicide. He recommends using Diazepam, a psychotropic drug and sleep aid, to induce sleep, and taking 80-100 tablets of the antimalarial drug Chloroquine, which will lead to respiratory and cardiac arrest in 45 minutes to 6 hours.

  In the next section the article explains that doctors in the Netherlands and in Belgium recommend the use of other drugs such as Thiopental, Propofol, Pentobarbital, Secobarbital, and Natrium Pentothal.

Although the antimalarial Chloroquine is associated with neither Belgium nor the Netherlands in this article, at 10:31:32 and again at 10:31:54 another Google search is made for the keywords 'Chloroquine+Belgium'

- No further web pages are called up after either search, however.

- The search is repeated in the next few minutes in various combinations:

'Netherlands', then 'Neederland' [sic] and then 'Nederland' [Dutch for 'Netherlands'].

- At 10:33:21, the term 'Chloroquine' is entered into Google and two seconds later the Wikipedia page for the drug is called up.

- The average time it takes to read the Wikipedia article, which is written in a very complex and scientific style, is about 1 minute 40 seconds. After just 39 seconds, however, the user moves on to a Google search for the Diazepam, the psychotropic drug and sleep aid mentioned above.

However, a section of the Wikipedia article on Chloroquine may have played a role in this. In the section on 'Side Effects and Contraindications', the article reads:

> *'Chloroquine can have a range of side effects, including corneal blurring and changes to the retina of the eye, gastrointestinal disorders, sleep disorders, neuro-psychiatric symptoms and skin redness. Chloroquine is particularly unfit for use in patients with severe liver/kidney damage. Chloroquine must not be combined with liver-damaging drugs or MAO-inhibitors (see monoamine oxidase inhibitors). Chloroquine may not be used in cases of disorders of the eyes or haematopoietic system. Chloroquine should not be used in cases of hypersensitivity to quinine or Mefloquine.'* [70]

In the section for 'Dosage and Administration', the Wikipedia article points out that

[70] See: https://de.wikipedia.org/w/index.php?title=Chloroquin&type=revision&diff=139571030&oldid=138916358, version of 08.03.2015.

'In case of Chloroquine poisoning, Diazepam IV can be used as an antidote'.

Note: Andreas Lubitz must have been familiar with Diazepam as it was one of the drugs prescribed during his illness in 2008/2009.

In any case, 39 seconds after calling up the Wikipedia entry on Chloroquine, the user searches Google for the terms 'buy+Diazepam+Europe'. Thirteen seconds later the user visits the site 'alles-rezeptfrei.net' ['all-prescription-free.net'], calling up the 'valium-without-prescription' page.

- The search leads to a site which today operates under the name 'medikamente-kaufen.net' ['buy-medications.net'] This site is apparently run by foreign suppliers of drugs which require prescriptions in Germany, sold at prices often far above their market value.

The user does not move on for a whole 30 minutes, when he/she carries out a search for the terms 'alles-rezeptfrei.net + experiences'.

- After just four seconds (!) a press release from 'www.firmen-presse.de' is called up, which seems to feature testimonials about experiences with 'alles-rezeptfrei.net'. This page is no longer available.

- Fifty seconds later, 'alles-rezeptfrei.net/shop' is called up once again, followed by the page offering Benzodiazepines. The page reads:

  'You are guaranteed rapid and anonymous delivery when ordering Benzodiazepines prescription free from our store. Many customers report that their doctors often try to move them off Benzodiazepines by prescribing them new medicines which do not have the desired effects, or even cause unpleasant side effects.

The only people who benefit are the doctor and the pharmaceutical companies, who churn out new drugs to boost their profit margins. As soon as a drug's patent protection runs out, companies can only make small profits from it. But we care about looking after your health, not our bottom line. That's why you should order original Benzodiazepines prescription free from our shop.

After the patent protection period runs out, Benzodiazepines are often taken off the market and replaced with new drugs, even though these replacements are sometimes less effective than the old formula. The reason is that the pharmaceutical industry only makes big profits from protected branded drugs. That's why you can buy Benzodiazepines from us if your doctor or your pharmacy no longer sells the drug you need.

When ordering Benzodiazepine-class drugs online, please ensure that you're buying the exact drug you need and not a related or similar medication. When used responsibly, Benzodiazepines are some of the most useful and effective medicines.'

The drug on offer at the top of the page is 'Normison Mite Kaps' [Temazepam capsules].

- Another search is performed on the same website for Chloroquine. After 6 seconds, the user navigates to the website's homepage, and six seconds later the user searches Google for 'experiences' with the supplier 'alles-rezeptfrei.net'.

- Thirty-six seconds later, the user visits 'www.apotheke-adhoc.de', navigating to a page warning about counterfeit drugs.

According the Düsseldorf CID's forensic analysis, the browser is next used at 13:21.

- At 13:21:35, a Google search is performed for the terms 'Luxembourg + Chloroquine'. Twenty-two seconds later the user visits a page containing information about whether Viagra can be obtained without prescription in Luxembourg.

- The browser history from 11:02 on the **18.03.2015** is also of interest. Andreas Lubitz googles the 'Oberkassel pilot's medical practice', the practice of the flight physician Dr. Franz H[redacted], who also – probably coincidentally – seems to be Captain Patrick Sondenheimer's flight physician.[71] In any case, Andreas Lubitz visits the page set up for patients to book an appointment online.

According to the case files, this lead is never followed up by the CID. There are no references to contacting the medical practice and/or relevant investigation. It is conceivable to the author that Andreas Lubitz either had a telephone consultation or wished to book an appointment with this practice. His brother was also at the apartment at this time.

- Thirty-nine minutes later Andreas Lubitz orders both books recommended by his therapist, Dirk Michael S[redacted], from Amazon. He must have received them a short time later, as the books were handed over to the CID by the attorney Mr. C[redacted] on the 27.03.2016. They had been handed over to Mr. C[redacted]'s colleague, Dr. B[redacted], by Günter Lubitz the evening before.[72]

(Author's Note: This claim is inaccurate. Günter Lubitz did not hand over the books; instead, they were handed over Kathrin G[redacted]'s stepfather, Mr. Wolfgang L[redacted].[73] The police records are wrong in this regard.)

- According to Andreas Lubitz's medical records seized from his therapist, Dr. S[redacted], and his interrogation by DCS Fa[redacted] and DSU Fr[redacted], this recommended reading was not set until a therapy session on the **20.03.2015**, however **(!)**.[74]

[71] See SB 001-00403, Medical Certificate of Patrick Sondenheimer, dated 31.10.2014
[72] See HA 10099, note by DCS Bö[redacted] dated 27.03.2015
[73] Statement made by Günter Lubitz and [redacted] [redacted] to Tim van Beveren, 17.03.2017
[74] See HA 10340 and 10343

From this, we can conclude that either Andreas Lubitz was 'clairvoyant' and knew which books the therapist would recommend to him two days later, or the therapist's records are incorrect, or the browser history and timings are incorrect or have been tampered with.

It is extremely noticeable, however, that the browser history, which 'ostensibly' goes back uninterrupted to the 16.03.2015, includes an enormous 'jump' or 'spike' that day. Prior to the 16.03.2015, the latest date included in the Düsseldorf CID's forensic analysis of the seized device's browser history is almost six months before (20.09.2014 - 09:07 – an insurance application with HUK24 car insurance).[75] Given the usage before and after, dating back as far as 21.09.2014 (!), the browser history and the credibility of conclusions drawn from it are highly questionable.

In any case, it is clear that the browser history put forward by the CID and the searches allegedly carried out by Andreas Lubitz require more in-depth investigation and corroboration through a search of internet archives.

To conclude, it should also be noted that the alleged browser history comes as a total surprise to all those close to Andreas Lubitz. This observation was put on the record by Kathrin G[redacted]'s mother, Angela G[redacted], during her interview on the 03.04.2015.[76]

The incriminating yet highly 'questionable' exhibit no. 1.1.1.1.13. was also <u>not</u> promptly returned by police to Kathrin G[redacted] on request, made via her attorney on the 07.05.2015 (despite the existence of multiple mirrored copies and backups)! Only exhibits no. 1.1.1.1.11 and 1.1.1.1.12 [were returned].[77]

[75] See HA 08937
[76] See HA 09872-09873, HA 09878
[77] See HA 08830, HA 09436 etc.

The exhibit was not released to the lawyer, Mr. C[redacted], until 14:30 on 22.06.2015.[78]

The author of this report considers that the conclusions drawn by police, specifically DCI Rüdiger M[redacted], by as early as **14:13 on 27.03.2015,** and exclusively on the basis of this piece of evidence, are astounding and demand further scrutiny in light of the facts and circumstances laid out above. DCI M[redacted] stated (my emphasis):

> *'On initial examination of the browser history, I was able to establish that searches had been carried out containing the keyword 'suicide', most notably on the 18 and 19 March 2015.*
>
> *On the 18 March 2015, for example, searches were performed for the terms 'buy potassium cyanide', and on the 19 March 2015, for 'Chloroquine suicide'.*
>
> *On the 20.03.2015, a search was carried out for the terms 'code cockpit door' amongst others.*
>
> ***Furthermore, the iPad was not used again after the incident**.'*[79]

It is worth noting that at this point DCI M[redacted] distinctly attributed ownership of the iPad to Kathrin G[redacted][80]**.**

A further evaluation was carried out, apparently by DSI V[redacted] and DCI B[redacted]. This evaluation claimed that the iPad was registered to Andreas Lubitz, however.[81]

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[78] See HA 08847

[79] See HA08923

[80] ibid.

[81] See HA 08925

Conclusion No. 32:

This is a clear contradiction in this regard. The iPad was supposedly registered to several people. The design of the device means this is technologically not possible, however.

Note:

At this point police were searching for a 'motive' under considerable time pressure and it appears the facts were 'made to fit'. The conclusions drawn from this evidence in this manner were adopted by the public prosecutor, Mr. Kumpa, and clearly filtered through to the French authorities and the BFU. The BFU in turn passed on these false claims to the BEA and the French Gendarmerie.[82]

Due to time constraints, the author has not yet been able to compare the browser history the police have held up as 'crucial' evidence (see pp. HA 08993 et seq.) with the times and dates allegedly recorded in the browser histories of the other computers (see pp. HA 09244 et seq.).

It may prove useful to send off the hard drives mirrored by the police to experts in data forensics for analysis.

[82] see p. 17 of this report as well as HA 05449 et seq.

[redacted]

Certainly, the police and public prosecutor's office have failed to take into account the possibility of 'tampering' by a third party or parties in their analysis of the iPad labelled exhibit no. 1.1.1.1.13. At least from the files, it is unclear whether any attempt was even made to compare or synchronise the devices and their browser histories, given that they are all 'interconnected' as part of a network.

The investigators only state that the 'name' of the iPad or its owner can be changed at will.

But tampering with the dates and system time recorded by the internet browser at a later date is absolutely possible, and not particularly difficult. All that would require is for someone with access to the iPad to reset the date and time display to any date in the past and to uncheck a checkbox to prevent the display from being automatically updated by the Apple server.

This could be done remotely by a total stranger, for example when Andreas Lubitz connected to a company server with the iPad in question. Many intranets are also capable of recording certain keyboard inputs, such as passwords and PINs, completely remotely with the help of so-called 'keyloggers'. Some corporate networks, especially large multinational corporations, already do this for their own security reasons.

Finally, investigators also failed to determine the extent to which the various devices seized – including the laptop, iPads, and possibly also the mobile phones linked to them – worked together as a network over the cloud. Taking this into consideration, it is indeed quite possible that certain search queries were originally performed on a completely different device, but were shown in the browser history when the devices synchronised.

Discussing this possibility at a meeting with the author, the attorney Frank Palmer and the Lubitz family in Montabaur on the **17.09.2016**, Kathrin G[redacted] **claimed that she had, and in fact still to this day has access to Andreas Lubitz's 'flight log' (actually his 'updated deployment plan') through this cloud function, for example. This alone casts serious doubt on the admissibility of the incriminating Google searches as evidence, which investigators 'unambiguously' ascribed to Andreas Lubitz.**

Recommendation No. 2:

An external review should be carried out by a qualified IT expert. This would require 1:1 copies of the devices seized by detectives on the 26.03.2015 and the subsequently cloned memories to be handed over to external data forensics experts for analysis.

VI. 4. Conflicts of Interest

It is to Lufthansa's credit that the company provides legal representation and, if requested, personal care by specially trained Crisis Intervention Managers and specialists to the families of its employees in case of accidents. However, the company is not prepared to allow this support to get in the way of its own interests. This was quite clearly the case here with the Cologne-based lawyer Dr. Mathias S[redacted] from the law firm Feigen & Graf.

According to a document laid out in the case files,[83] power of attorney was granted to the law firm Feigen & Graf on the day of the accident, the 24.03.2015, charging the firm with protecting the interests of Lufthansa AG in the aftermath of the crash.

However, he also went on to represent the interests of Andreas Lubitz's partner, Kathrin G[redacted]. So when the apartment in Düsseldorf was searched, he was the one to whom Ms. G[redacted] gave the house key, and who then went to the apartment and let the police in. He also signed the original search record and even later requested and received copies of the list of evidence seized.

At the same time, however, Dr. S[redacted] was acting as the legal representative of the Germanwings pilots when they were interviewed by police and accompanied them to the interviews and official witness hearings.[84]

Only a few weeks after Ms. G[redacted] was questioned by police, he resigned as her representative due to concerns about a possible conflict of interest.[85]

VII. The French Authorities' Requests for Assistance

[83] See HA 11345
[84] See SB 001-00030
[85] See interview with Kathrin G[redacted] in Montabaur.

VII. 1. Page H 00064

Around noon on 26.03.2015 Cord-Hendrik M[redacted] of the Meckenheim BKA ['Bundeskriminalamt'; Federal Criminal Police Office] informed the public prosecutor, Mr. Kumpa, that the French authorities were planning to make an official request for legal assistance and requested that he be sent information regarding 7 issues.

In *point 1*, the French investigators requested information about any aviation knowledge or skills other passengers on board the flight may have had. The possibility of *'interference by a third party'* was clearly being considered.

In *point 2*, the authorities request the usual general information requested in an air crash investigation, i.e. the crew records.

In *point 3* more standard information about the aeroplane is requested.

In *point 4* the French investigators request further customary details about the condition and maintenance of the aircraft. This includes the list of 'hold items' (the list of unusual or specialist equipment on board).

In *point 5*, the authorities request a copy of the AOC (Air Operator Certificate), i.e. Germanwings' operating licence.

In *point 6*, a request is made for details of the insurance company, also absolutely standard procedure in a crash investigation.

In *point 7*, the investigators request a list of all flights flown by the aircraft in question in previous months.

The information was to be passed on to the French embassy in Berlin, specifically to the liaison officer there, Detective Chief Superintendent Franck C[redacted].

This request was to be carried out by the head of the Criminal Investigation Department ST 1 at the Düsseldorf police headquarters, Mr. Peter H[redacted]. According to his handwritten notes on pp. H 00068/00069, it seems that at this point, the Düsseldorf police force had not yet consulted any aeronautical experts or advisors.

In an email to the president of the Federal Aviation Authority (FAA), Jörg-Werner M[redacted], sent at 17:23, he informed the FAA that there would be *'even more dramatic findings [coming out] soon'*.

In any case, at 10:24 the next morning the FAA faxed over a list of the flights flown by D-AIPX since the 01.02.2016, which seems to have requested in turn from EUROCONTROL. The list is largely unremarkable except for a return flight from London Heathrow on 17.03.2015, which was apparently cancelled. The flight to Stuttgart took place the following day.[86]

It seems reasonable to assume from the list that the aircraft was undergoing maintenance and servicing between 21:28 (UTC?) on the 22.03.2015 and 15:40 (UTC?) on the 23.03.2015, at least 18 hours, as it was not flown during this period.[87]

Notably, the EUROCONTROL list of 24.03.2015 for the flight which crashed reads 'terminated (TE)' at 10:51. According to a footnote, however, the list dates from 07:38 UTC i.e. 08:35 CET on 27.03.2015.

[86] See p. H00080
[87] See p. H00081

Captain Patrick Sondenheimer's pilot's licence is missing his signature.[88]

[88] See p. H00087

VII. 2. The Certificate of Airworthiness and the Owner

The certificate of airworthiness certainly merits close attention and consideration:[89]

It was issued on 7 March 2014 and expired on 23 March 2015. It was issued by somebody named 'Boussios', but the signature does not seem to match the name.

An extension was granted on the 23.03.2015 and was due to expire on the 11.03.2016, according to the handwritten entries in the records. This is quite remarkable as no airline – particularly not a major airline such as Lufthansa – would risk an aeroplane being deemed 'not airworthy' due to an expired certificate. Extensions of this kind are usually arranged days if not weeks before the current certificate expires. (See section **III. 5 – The Crashed Aircraft and its Maintenance** , p. 127 et seq. above.)

Whilst the first certificate of airworthiness covers a period of a year and 16 days, the extension granted on 23.03.2015 is notably valid for less than a year. The company should clarify how this is usually handled. The inspector and his authorisation number are also given, so he could be consulted on this matter.

According to the registration certificate listed in the FAA's aircraft register, the owner of the aircraft is Lufthansa Leasing Austria GmbH & Co OG No. 18, operating out of Ernest-Thun-Strasse 11a, Salzburg, Austria. The certificate is dated 23 January 2013.[90]

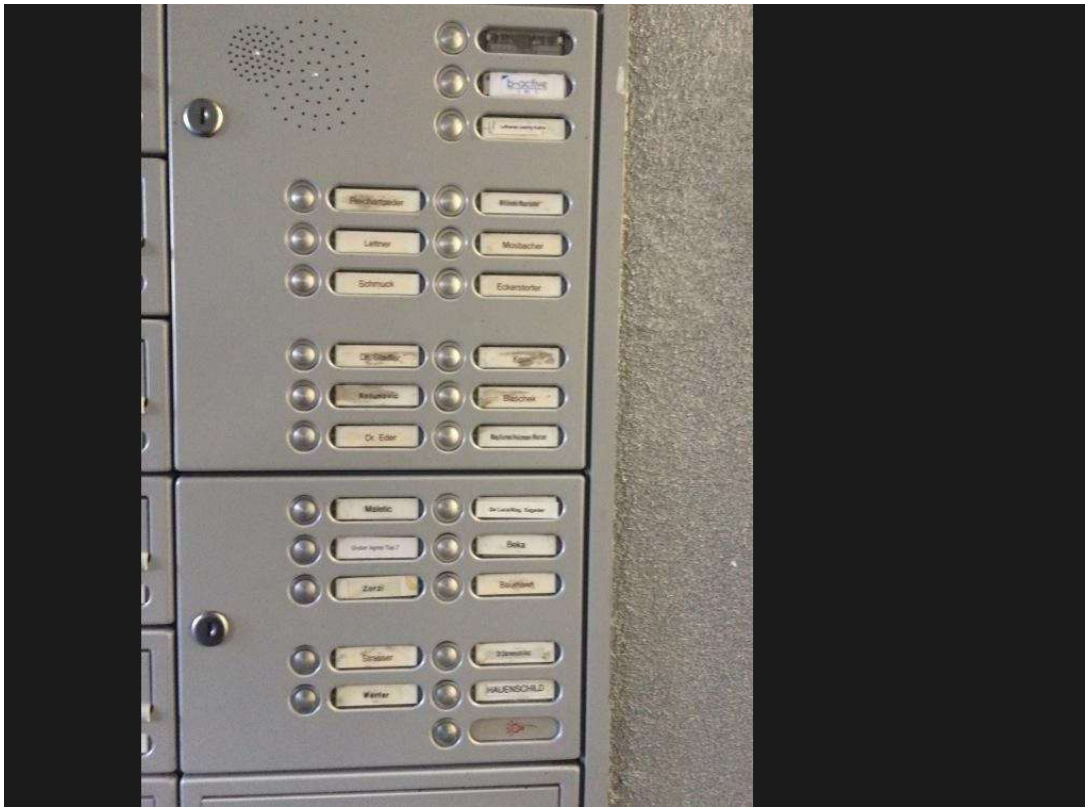
The company seems to be pure shell company, consisting of little more than a postal address roughly 15 minutes walking distance from the private residence of former Lufthansa CEO and current chairman of the board Wolfgang Mayrhuber. The company is listed in a fairly modern mixed office and residential building in the Bahnhofsviertel area of Salzburg. It shares a

[89] See p. H00093
[90] See p. H00094

letterbox with 'AAR InterInvest GmbH'. The 'office' was vacant when visited repeatedly at a number of different times of day.

Ernest-Thun-Str. 11a, Salzburg, Source: Author's image.

Entrance, Source: Author's image.



Intercom panel, Source: Author's image.

Doorbell nameplate, Source: Author's image.

Letterbox, Source: Author's image.

VII. 3. Assistance request – p. HA 00139

Note: the request for judicial assistance (HA 00139) is the first instance in which reference is made to a 'possible depressive state', though it is not specific and refers to both pilots.

Under the terms of the request for assistance made by the French judiciary at 16:31 on the 26.03.2015, the Düsseldorf police force were to seize and hand over the following records to the French authorities (HA 00139-HA0141):

1. from the Germanwings airline:

A. Regarding the crew members:

- The working hours of the two pilots (Patrick SONDENHEIMER and Andreas LUBITZ) over the last 6 months (flights; rest periods; nights spent abroad; early starts),
- both pilots' employment contracts,
- all documents relating to the recruitment of both pilots by Germanwings,
- the basic training for the A320;
- the maintenance of the airworthiness of the A320 (recurrent; LPC – Line Proficiency Check; OPC - Operator Proficiency Check ...),
- the air traffic control (both in the air and on the ground);
- Information concerning Patrick SONDENHEIMER's practical training as captain,
- detailed records of the simulator training undergone by both pilots (Flight Training Records),
- the pilots' professional licenses and qualifications,
- the pilots' medical certificates,
- their total experience (flying hours),
- their recent experience over the course of in 1 month, 6 months, 1 year, 3 years (flying hours),
- their total experience flying the Airbus 320 (captain/copilot at Germanwings or other carriers) and their total experience working at GERMANWINGS,
- their experience flying the route Barcelona - Düsseldorf (BCN-DUS)

B. Regarding Germanwings:

- the Air Operator Certificate (AOC), issued by the German civil aviation authority,
- the flight safety officer's flight analysis reports and the airline's flight parameter estimation method,
- the documentation relating to the BCN-DUS flight (Operational Flight Plan, weather, NOTAMs, weight and balance)

C. Regarding the aircraft

- the flight manual (in English) and/or the FCOM (Flight Crew Operating Manual) and/or the AOM (Aircraft Operating Manual),
- the Aircraft Maintenance Manual,
- the Master Minimum Equipment List (MMEL),
- the Minimum Equipment List (MEL),
- the operating manual in English (parts A; B; C; D),
- The movements and deployments of the aircraft registered D-AIPX in the last 3 months,
- the Normal/Abnormal/Emergency checklists,
- the Quick Reference Handbook (QRH),
- the certificate of airworthiness,
- the aircraft's licence and registration,
- the aircraft station's broadcasting licence

2. From GERMANWINGS or the maintenance workshop responsible for the aircraft with the registration D-AIPX:

- the maintenance records: Checks A; B; C as well as all scheduled and non-scheduled maintenance work,
- Certificate of Release to Service) for the last three years,
- Compliance/Maintenance Service Bulletins (SB) and Airworthiness Directive (AD),
- Incidents and accidents involving the aircraft currently registered D-AIPX (serial number SN #I47),
- all maintenance messages, particularly ACARS messages (for the last three months),
- the TLBs (Techlogs) for the last three years

3. From the board of the German civil aviation authority

- the traffic rights of the carrier Germanwings,
- the Air Operator Certificate for Germanwings' registered fleet,

- Incidents and accidents involving Germanwings in the past,
- Information regarding any events in the two pilots' pasts (breaches of duty, suspension or restriction from flight duty etc.),
- the licences, qualifications, and medical certificates of both pilots,
- an audit of Germanwings (data, findings, non-compliance/conformance, corrective measures, inspector's details),
- validation order for the approved Minimum Equipment List (MEL) for the aircraft,
- the German civil aviation authority's monitoring plan for the airline,
- date of approval of the airline's manuals and any alterations,
- further details for consideration of the German civil aviation authority's recommendations concerning the airline,
- further details regarding EASA (European Aviation Safety Agency) requirements,
- further details of the SIB (Service Information Bulletin)

VII. 4. 'Fake News' Video Analysis

The first thing to note on this topic is that the Düsseldorf CID and their French counterparts, the Gendarmerie, were forced to devote significant amounts of time and resources to dealing with so-called 'fake news' arising from the tabloid press. They seem to have been far more meticulous in dealing with it than they were in their ongoing investigations and forensic analyses.

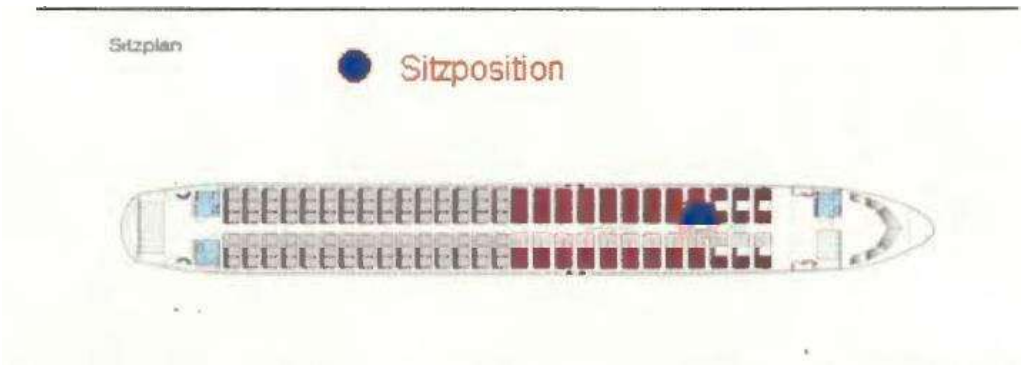
On the 31.02.2015, the BILD tabloid[91] and Paris Match reported on a video allegedly seen by the editors of both publications which was allegedly 'found at the scene of the crash by a person linked to the investigation'. BILD claimed that this video was an important piece of evidence and that its authenticity was 'beyond doubt'. The video would support statements made by the French public prosecutor, Brice Robin, at a press conference held on the 26.03.2015.

The recordings were evaluated by the Düsseldorf CID and the French Gendarmerie on the 02.04.2015. The CID began work to determine which seat the person who made the recordings may have been sitting in. The Detective Chief Superintendent investigating even concludes that

> *'comparison with seat occupancy records for the Airbus A-320 (GERMAN-WINGS) suggests the hypothesis that the creator of the video could have filmed it from the following seating position:*[92]'

[91] see: http://www.bild.de/news/ausland/flug-4u9525/video-germanwings-sekunden-bis-zum-absturz-40376768.bild.html

[92] See HA 09410 et seq., Video Analysis



Source: excerpt from the inquiry case file

A single glance by an expert would have been enough to determine that it was impossible that these recordings had been made on the crashed aircraft: the images show a 'Wide-Body' aircraft, i.e. an aeroplane fitted with two aisles, one left and one right. Screens embedded in the front seats can also be made out in the recordings. D-AIPX was not fitted with such screens. Moreover, the recordings show a night flight, as can easily be seen from the darkened cabin and the brightly lit cabin light on the ceiling. One still from the video clearly shows a galley in the mid-section of the plane. Moreover, the colour of the upholstery does not match the Germanwings colours (grey instead of blue).

This example alone, which in the author's opinion is frankly embarrassing, is enough to make clear that the investigators quite obviously never considered it necessary to draw on the skills and knowledge of experts – e.g. aviation professionals – in the course of these proceedings.

That said, it is true that many smartphones with built-in cameras were amongst the victims' personal belongings seized as evidence at the crash site by the French Gendarmes. The degree of damage to these phones varied considerably. Apparently no attempts were made to extract data from these devices' memories or SD cards and to search for clues, such as, for example, video footage or photos taken on board in the final minutes of the flight, or any other information recorded by the victims shortly before their deaths.

Relatives of victims have informed the author that personal effects were returned on several occasions by Kenyon, a company commissioned by Lufthansa AG, including a phone with an SD card inserted. The family wanted to read the SD card but were unable to do so. They commissioned a professional data recovery company to extract the data. The company reported that the memory had been irrecoverably wiped, seemingly 'professionally, by being repeatedly overwritten'.

Recommendation No. 3:

This ought to lead to an investigation into what happened to the memories and SD cards of the mobile phones found at the crash site. Particular focus should be placed on the question of whether attempts were made to extract, recover, or reconstruct their contents, and if so, what attempts were made, who were they made by, and when did this take place.

VII. 5. The Alleged Girlfriend, 'Maria W.'

On the 27.03.2017 the BILD tabloid published a story by John Puthenpurackal, which involved an interview with a woman who claimed to be a 26-year-old Germanwings stewardess with whom Andreas Lubitz was having an affair. She was dubbed 'Maria W.', an assumed name. Puthenpurackal supported the credibility of this alleged mistress by providing a photograph showing Maria W. and Andreas Lubitz as part of the same crew. Allegedly, BILD insiders report, Maria W. also claimed to have shared a hotel room with Andreas Lubitz during layovers.

There are strong reasons to doubt the authenticity of this alleged mistress. Firstly, Andreas Lubitz was the type of man who would enter into other intimate relationships alongside his long-standing stable relationship with Kathrin G[redacted]. This is readily and independently confirmed by family and friends.

The photograph allegedly given to the BILD reporter does not constitute sound proof as long as the original is not available for verification, and in any case is hardly conclusive. But above all, the claim that Maria W. had shared a room with him on 'layovers', i.e. nights spent at a destination before a crew returns, simply cannot be true, because Germanwings does not schedule layovers. Crews begin and end their shifts at the same location, i.e. the same airport. They sleep at home. This can be confirmed by checking Andreas Lubitz's shifts on the deployment plans handed over by Germanwings. In 2014 Andreas Lubitz did not spend a single night in a hotel after a shift in an official capacity.

It would surely have been possible for the police to track down this person using the information they had, i.e. the deployment roster, which also contained the names of the other crew members on each shift. However, the matter was not pursued.

VIII. The Author's Findings up to December 2016:

VIII. 1. 'CVR leak'

This was obviously not an intentional action by a party involved in the investigation, but rather an equally unforgivable 'mishap', which apparently occurred in the public prosecutor's office in Marseille in the late afternoon/early evening of the 25.03.2015.

From a colleague – whose identity, as a source, will not be revealed – I received more detailed information regarding certain parties in the field of journalism who had been covering the crash on behalf of US media outlets. Further research in the United States led me to make contact with the source 'WP'. We finally agreed to a meeting under the pretence that I was carrying out research for a non-fiction book I planned to write about the crash.

I met the source 'WP' in summer 2016. In my opinion, the source is trustworthy; he/she has no other commercial interests.

He/she informed me that the prefecture in Marseille was absolutely unprepared for the media onslaught in connection with the Germanwings crash on the 25.03.2015. The informant noted that the public prosecutor, Brice Robin, and his staff were virtually 'besieged' by journalists as a first transcript of the Cockpit Voice Recorder's evidence, containing rudimentary details of the recordings of the last minutes before the crash, was faxed over to the office from Paris by the Gendarmerie (GTA) and handed over to him. Shortly afterwards Robin received a phone call, probably to explain the details of the transcript to him over the phone. As there were journalists in his office, he briefly left the room to take the call undisturbed nearby. A journalist who apparently worked for the *New York Times* took the opportunity to take a photograph of the fax left on the desk with his/her smartphone and immediately sent it to the editors in New York.

Their first online article was published a few hours later. The story was the lead story in the

NYT.

The source believed that Robin was aware, that this 'malheur' was his fault, and the next morning, after the splash in the NYT, which was immediately picked up by all the other media, he 'took the bull by the horns'. He convened an official press conference in which he confirmed the information from the previous evening.

Through this press conference, however, he 'contaminated', consciously or unconsciously, all other ongoing and future investigations. The press conference took place at a time when essential pieces of evidence had not yet been seized and a number of witnesses had not yet been interviewed.

The source suspects that the aerospace manufacturer Airbus was questioned in the course of further research by US journalists, thus learning what details from the investigators' inner circle had leaked out.

In any case, Airbus reacted immediately by providing all TV and print media with materials (videos and photographs) of the cockpit door and its mechanism – even when unasked.

On his part, the author assumes that the public prosecutor, M. Robin, has been trying very hard to pass on these proceedings to other jurisdictions and authorities precisely because of this 'leak' in his own area of responsibility.

In its article, which appeared on the evening of the 25.03.2015 (US East Coast time), the *New York Times* stated that its information came from a source linked to the military air crash investigation. The author regards this as a false claim made to disguise the true source of the leak.

The behaviour of the *New York Times'* journalists is irresponsible in more ways than one. This

includes the actions of the then editor-in-chief. They would have had to have been aware of the consequences of this sort of reporting for the investigation, due to both their own experience and to the policies this distinguished and prestigious newspaper follows when dealing with air crash investigations in their own country, where they are carried out by the NTSB.

Looking back over the media coverage of this case, it is the author's opinion that this event was one of the causes of the **'confirmation bias'** which crept into both the investigation and reporting. It continues today and has far-reaching consequences for the public perception of the case, for the relatives of the victims, but most importantly also for any further legal proceedings relating to the case.

VIII. 2. Medication and Sick Leave

Toxicological analysis of fragments of Andreas Lubitz's tissues and other remains found at the crash site has established that he had ingested various psychotropic drugs. Further details, such as a more exact time frame since ingestion, could not be established without access to more complete blood or tissue samples from the time of the crash.

A number of packets of psychiatric medications were also discovered and seized as evidence during the search of the apartment shared by Andreas Lubitz and Kathrin G[redacted] on the 26.03.2015.[93]

This was a bottle containing 20 mg/ml of Escitalopram, an antidepressant. The specific active ingredient is Citalopram. This drug was also detected in the tissue samples taken from the human remains of Andreas Lubitz found at the crash site.[94]

Test results showed 2.8ng/g of Citalopram in an unspecified 'tissue sample' (PM-033-COCKPIT-0001-TOX) and 1.4 ng/ml in blood plasma from the 'trachea' (PM-033-COCKPIT-0002). According to several psychiatrists and neurologists approached for comment, these levels are indicative of residues from the ingestion of 'low therapeutic doses' several days before the crashed flight. They do not indicate that these drugs were taken immediately before or during the flight.

Citalopram belongs to the group of drugs called SSRIs, which are psychogenic drugs which are often prescribed even for patients with mild symptoms due to their generally excellent tolerability.

Toxicological analysis showed low levels of Citalopram and Mirtazapine in tissue and hair

[93] See HA 00034
[94] See HA 07719, FG 002984

samples. The report compiled by the French toxicologists who carried out the tests on the hair samples concluded:

> *'...clearly lower levels [of Citalopram] were present in the samples than would be caused by daily treatment with this antidepressant.'*
>
> and
>
> *'clearly lower levels [of Mirtazapine] were present in the samples than would be observed in the case of regular treatment with this antidepressant.*[95]*'*

The conclusion of the toxicological report provided by the TOXLAB laboratory in Paris on 17.06.2015 reads:

> *'At the time of death Mr. Andreas LUBITZ very likely had antidepressants in non-toxic levels in his blood (they were found in low to moderate concentrations in tests of tissue samples taken from the muscle and trachea).*
>
> *It is impossible to say whether the circulating blood concentrations were therapeutic, and therefore it is impossible to say whether the antidepressants were effective or not shortly before death.'*
>
> *There was very likely no sedatives in his blood (absent in tissue samples) at the time of death.*
>
> *The results of the analyses of hair samples are compatible with an irregular intake of the antidepressants found (Mirtazapine and Citalopram) and with the occasional use of a sedative (Zopiclone).'*[96]

[95] See HA 07737

[96] See HA 07739

The BEA report claimed, however, that the tests found residues of Zopiclone, a sleep aid, in tissue samples. Andreas Lubitz was prescribed the drug on the 17.02.2015[97] by a general practitioner. The Alpen Investigatory Commission's turnover report dated 22.05.2015 lists a packet of 6 tablets of Zopiclone CT, five of which were empty, as exhibit 1.1.1.2.1.4. Another packet containing Zolpidem 1mg, a hypnotic, was seized unopened by the Düsseldorf CID during their search of Andreas Lubitz's apartment on the 26.03.2015. The drugs had been prescribed by Mr. S[redacted] on the 16.03.2015. It is therefore clear that Andreas Lubitz had not taken this medication. No further significance was attached to this by investigators, who did not follow up the matter.

It should be noted, however, despite reports to the contrary in the media and false statements to the same effect by investigators and the public prosecutor's office, toxicological tests of tissue and hair samples were unable to give definitive proof that Andreas Lubitz was under the acute influence of psychiatric medications at the time of the crash.

The results indicate that Andreas Lubitz most likely took these drugs during his sick leave the week before, but not during or around the time of his active flight operations.

Andreas Lubitz was known to be scrupulous about his fitness to fly; this was confirmed by his partner and family. His doctors, too, saw no reason to doubt this. He was certainly aware that he was not fit to fly an aeroplane whilst under the influence of the drugs he had previously taken. He had petitioned his employer for and taken the appropriate sick leave for the period in which he was taking the drugs. This is clear from the files and from the sick notes forwarded to investigators by Germanwings, all of which are stamped as received by the company. He was excused from work and did not fly at these times.

The Düsseldorf public prosecutor's office, however, claimed in its press release of the

[97] See HA 05452 (apparently a mix up in 2014), HA 05457

27.03.2015 regarding the search conducted the day before and the documents seized (my emphasis):

> *'On initial evaluation, the fact that torn up sick notes covering the day of the incident were found* ***supports the assumption that the deceased hid his illness from his employer and his professional environment****'.*[98]

Once again, the public prosecutor's office omits any mention of exculpatory details and fails to correct or give context for their statements later, here for example after receiving the results of the toxicological analysis.

In fact, in Germany it is standard practice – and mandatory – for employees to provide a doctor's note to their employer when unfit for work. This is linked to various related practices such as the continued payment of wages whilst on sick leave. Nowhere is any inverse provision to be found when a previously unwell employee is fit to work again; having stopped taking the medications in question, the employee is not prevented from returning to active flight operations unless he/she provides the employer with a medical 'health note'.

Even the Germanwings FAQ[99] explicitly states that employees always have the option of reporting themselves fit for work. It reads (my emphasis):

> *'Also consider* ***reporting yourself fit for work again****; to do so, call by 17:00 local time on the day before your next scheduled shift and report yourself fit to work.'*

Obviously Andreas Lubitz was provided with the doctor's note which covered the day of the crash by his doctor, Dr. Richter-P[redacted], a general practitioner. This covered the period of 12

[98] See senior public prosecutor Mr. Ralf Herrenbrück in 'Press Release No. II from the Düsseldorf public prosecutor's office regarding the crash of flight 4U 9525', dated 27.03.2015

[99] See SB 001-01390 et seq.

to 30 March 2015. The doctor was away on holiday during this period. Andreas Lubitz therefore saw Dr. Richter-P[redacted]'s replacement, Dr. Robert H[redacted] from the H[redacted] and N[redacted] General Practice Surgery, on the 18.03.2015. He was given a doctor's note by Dr. H[redacted] valid from 18.03.2015 to the end of the day on Sunday, 23.03.2015, which he presented to Germanwings, as evidenced by the fact that it was stamped as received.[100]

He was also still being treated by his usual psychotherapist, Dr. S[redacted], in Montabaur. He had seen him in person on the 16.03.2015. Dr. S[redacted] had also given him a sick note, probably due to the psychiatric medication he had been prescribed. This sick note was valid until Sunday the 29.03.2015.

It should be noted that Dr. S[redacted] & Dr. K[redacted]'s practice was closed from 18 to 31.03.2015 due to holidays. But it is understandable for obvious reasons why Andreas Lubitz preferred to give his employer a doctor's note from a general practitioner rather than a psychotherapist.

Taking Andreas Lubitz's perspective, it makes perfect sense to assume that on the Sunday he made the decision to stop submitting sick notes, report himself fit, and return to work. He had clearly stopped taking the drugs. This is shown by the French forensic toxicology report (see above). At the time of the crash he was not under the acute influence of psychiatric drugs or other drugs which would have affected his ability to fly or that would allow authorities to designate his flying an aircraft on the 23.03.2015 and 24.03.2015 as 'illegal'.

If a person drinks alcohol to excess on Saturday and then is involved in a car crash whilst driving on Monday evening, it cannot be said that that person was 'under the influence of alcohol' at the time of the crash and so should not have been driving a car.

The media coverage and tabloid newspapers paid particularly scant attention to this context

[100] See HA 10594

and details. In the author's opinion, this can be overwhelmingly attributed to the influence of the Düsseldorf public prosecutor's office's grossly simplified wording and failure to provide clarification in their statements and press releases.

These incomplete and sometimes erroneous findings were also taken up directly by the inquest run by the French Gendarmerie, apparently even as the substantiated findings of the Düsseldorf public prosecutor's inquiry. This was almost certainly a result of following and poorly verifying media reports. This can be clearly seen in the French Gendarmerie's records included in the section of the case files concerning the French authorities' investigation. It is particularly true of information spread in the first few days and weeks of the inquiry. From this, it must be assumed that communication between the authorities was not optimal and below the standards required given the seriousness of the events. This may be attributable in part to language barriers.

Conclusion No. 33:

Andreas Lubitz did not hide his illness from his employer. His most up-to-date thorough examination by a general practitioner was on the 16.03.2015; as a result of which he was issued a doctor's note valid until and including 22.03.2015. This overruled previously issued sick notes which were valid for a longer period.

Conclusion No. 34:

According to current findings, at the time of the accident he was also not under the influence of any drugs which would seriously affect his ability to fly or even make his being in charge of an aircraft illegal.

VIII. 3. Reconstruction of Andreas Lubitz's Flight Log

As no digital or handwritten pilot logbook recording Andreas Lubitz's flights with Germanwings was available at the time this report was commissioned, his flight log has been reconstructed based on the deployment rosters in the case files (which were handed over to the Düsseldorf CID by Germanwings). The reconstruction initially covers only those flights Andreas Lubitz flew either as the pilot of a Germanwings plane or as a passenger in a Lufthansa plane since receiving his Multi-Crew Pilot Licence (MPL) on the 11.02.2014.

The first step was to find out the identifiers (registry) of the aircraft flown. These are generally known to the airline (Germanwings), but were not handed over with the documents submitted to the police or the civil air crash investigation authorities (the BEA and BFU). I received the identifiers for the days specified in the roster from a source with access to a database at GWI [Germanwings].

Using their registrations, it was possible to identify those aircraft which in the past had been officially reported as having been involved in 'fume events' – though these incidents had not necessarily been publicly disclosed. The incidents are recorded in a special database, which is not publicly accessible. In the past, its contents have not been disclosed even to parliamentary inquiries. The list of cases below cannot claim to be exhaustive, especially given the fact that some are based on information given confidentially by individual crew members and/or persons who reported these incidents. It is entirely possible that the BFU's unofficial database shows a far higher number of reported cases involving these aircraft.

These data were included in an Excel file entitled **'Flight Log Andreas Lubitz - Reconstruction'** in the last (second) column under 'Fume Events' for each aircraft flown by Andreas Lubitz. They expand on the incidents recorded in the preceding column, which were reported, verified, and collected into a database by the internet-based aeronautical information service AVHERALD.COM.

A brief note about the **Aviation Herald**: AVHERALD is an online information portal which has been run by Simon Hrdecky, an Austrian computer scientist and aviation enthusiast, since 2008. It keeps records on incidents, accidents, and crashes in civil aviation. Hrdecky himself has developed and distributed software used by flight control computers. The AVHERALD enjoys an excellent reputation and is widely respected by all in its field, except for airlines, who for understandable and obvious reasons do not appreciate the publication of such information.

Before an article is published on AVHERALD.COM, it must be verified by two independent sources, or by indisputable documentation which would stand up in court.

The sources who report incidents come from all sectors of the aviation industry. They include pilots, flight attendants, air traffic controllers, mechanics, employees of various authorities linked to aviation and many others, even down to passengers.

Hrdecky also operates a network of ADS-receivers which helps him to understand flight movements worldwide right down to the airport runway.

The author has used the AVHERALD database to validate the reconstruction of Andreas Lubitz's flight log. Hrdecky also helped the author conduct more in-depth research into reports about the aircraft flown by Andreas Lubitz which had been submitted to AVHERALD but not yet investigated.

More in-depth research into the flight rotations Andreas Lubitz was involved in during his 'qualifying period' as a Lufthansa flight attendant is not yet complete.

The resulting **'Flight Log Andreas Lubitz - Reconstruction'** is attached to this report as Appendix A.

The next step in the reconstruction was cross-checking with the AVHERALD database. This found that all of the source's information was consistent with the actual flight movements on the days in question as well as the relevant aircraft registrations numbers.

Then a comparison was performed of 'fume/smell events' involving the relevant aeroplanes. The incidents reported to AVHERALD, only some of which had been published, and the officially reported incidents were brought together into an Excel spreadsheet.

This provided me with an overall picture, which in my view very strongly indicates that Andreas Lubitz was overwhelmingly deployed in Germanwings aircraft which had already or have since been reported for 'fume/smell events'.

These include numerous incidents resulted in crew members receiving short-term or lasting injuries. The author tracked down and contacted those involved in these incidents, either directly or through third parties. Some stated that they would be prepared to provide their medical records (on condition of anonymity) if necessary.

At the meeting with Kathrin G[redacted] in Montabaur on the 17.09.2016, the author then learned that, contrary to what had been believed at the start of this investigation, Andreas Lubitz's own notebooks still existed on his his cloud-based schedule, to which Kathrin G[redacted] had access. It would appear that investigators failed to discover this cloud storage; there is no mention of its existence in the case files, at least.

Using these records, the reconstruction could be checked and verified again, and in some places (aircraft changes/route changes/standby shifts) it was expanded and corrected. New entries as well as further verification of the aircraft flown were provided by official reports and reports made to AVHERALD by further sources.

One detail which stands out is that Andreas Lubitz very clearly first experienced symptoms and took sick leave for the first time since starting work on the 01.03.2014 after two consecutive deployments on one particular aircraft, which had been involved in the past in several incidents which had left crew members with lasting injuries (operating under Lufthansa).

This concerns the aircraft **D-AIQL**, specifically the flights on 23.10.2014, and again on 05.11.2014 and 06.11.2014. From 23.11.2014 to 30.11.2014 Andreas Lubitz was ill for the first time since starting work with Germanwings. It is also notable that 5 days after his first flight on this aircraft, there are suddenly no more entries in his cloud calendar (with the exception of the 16.11.2014). The entries do not resume until the 04.12.2014.

It should be clarified whether there were originally entries here which were later deleted, either by him or by somebody else (e.g. Kathrin G[redacted]). It is also possible that Andreas Lubitz made other entries on personal matters in this period.

On 05.12.2014 there is an unusual change of aircraft at Düsseldorf. Normally, Germanwings crews stay on the same aircraft and fly it back to its home base. But instead of flying from Düsseldorf to Berlin-Tegel on D-AGWY, which had no previous 'fume events', the crew were switched onto D-AKNN. This aircraft had already been involved in nine 'fume events' since 2010, including two in 2014, on the 05.03.2014 and barely two and a half months before on the 23.09.2014 (a further, number 9, followed on 31.10.2015).

Immediately afterward, on 06.12.2014, Andreas Lubitz wrote the first entry recording that he had noticed 'distorted perception' ['Verzerrungen']. A day later Andreas Lubitz flew to Abu Dhabi for a week-long holiday.

Just a week after returning, on the 19.12.2014, he noted 'distorted perceptions around the stereo system' and only two days later, on the 21.12.2014 'impairment persists, even after flight, halo present at Christmas party'.

His symptoms then become particularly conspicuous alongside his other entries, causing him to visit several doctors, initially eye specialists in particular. In the entire period which followed, he was deployed on aircraft with a history of 'fume events', with the exception of one rotation on the 27.12.2014.

A similar picture can be seen in January 2015, with the exception of one rotation on the 14.01.2015. On the 15.01.2015 he called in sick and went to see a doctor.

In February 2015 he almost exclusively flied in aircraft with a history of 'fume events'. He took sick leave again from 22.02.2015 to and including 24.02.2015.

In March 2015 he only flew one flight in an aircraft not linked to 'fume events', on the 03.03.2015. Another flight on D-AIQL on the 10.03.2015 also stands out. Three days later (13.03.2015–22.3.2015) he took sick leave.

The next step in the author's investigation was to compare the registrations of the aircraft which stood out for 'fume events' to entries in Lufthansa Technik's AMOS maintenance system. This analysis is extremely complex and is therefore not yet fully complete. However, it can already be stated from the results that despite officially reported incidents, the measures recommended by the manufacturer, Airbus, were often not carried out, including in particular decontamination of environmental control systems, i.e. the ventilation system for the aircraft and cabin. The aircraft were repeatedly put back into service shortly after an incident without the cause being identified. This includes cases in which it can be proven that crew members suffered symptoms requiring medical treatment or were even rendered unfit to fly.

The manufacturers and operators as well as the maintenance company have been very sceptical and unhelpful about the phenomenon of 'contaminated cabin air'. The comprehensive, transnational and above all independent epidemiological investigation of the problem for which scientists and unions have been calling for decades has still yet to materialise.

Instead, the findings of studies carried out by the industry itself of by institutes and institutions (including the EASA) which are closely linked to the industry are referenced again and again. As long as there are no signals telling the industry to act, there will be no change to existing procedures, including maintenance.[101]

In the meantime even investigatory authorities such as the German BFU refuse to launch any

[101] See. A. Heutelbeck, L. Budnik, X. Baur, *Health disorders after fume event Background*, Ramazini Days 2016, UMG Göttingen, December 2016

investigation into the matter despite detailed reports of incidents. The authorities clearly see no need to act. This cannot be appropriate given the potential risks to passengers and aviation industry employees.

Recommendation No. 4:

Attempts should be made if possible to include the flights Andreas Lubitz served on as a Lufthansa flight attendant between 15.06.2011 and 31.12.2013 in a more in-depth investigation into the use of aircraft with a 'fume event history'.[102]

[102] BEA Final Report, March 2016, p. 17

VIII. 4. Other Medical & Toxicological Evaluations

In his role as an aviation reporter, the author has been dealing with the phenomenon of 'contaminated cabin air on board aeroplanes' since early 2008. He has produced several films for the ARD between 2009 and 2014 and written numerous articles for printed media (including newspapers *Die Welt* and *Welt am Sonntag*, amongst others). From 2013 to the summer of 2015 he made the multiple prizewinning documentary 'Unfiltered Breathed In – The Truth About Aerotoxic Syndrome' which premiered in English on the 15.07.2015 in Berlin, and is also available on DVD in German, English and French. A Spanish language version and a version with Chinese subtitles come out in summer 2017. The film documents the case of the British pilot Richard Mark Westgate, who died in 2012, as well as a historical overview of the problem since the early 1950s. During his lifetime, Westgate had arranged to donate his body to science for the purpose of research into the hitherto largely unexplored problem. An autopsy detected serious damage to the brain, nerves, and heart muscle tissue.

Though the aviation industry continues to deny that there is any connection between incidents involving contaminated cabin air (known as fume or smell events, or recently sometimes as bad air events) and the resulting symptoms and medically diagnosed illnesses of the nervous system, eyes, lungs, extremities, brain, and heart experienced by crew members, and occasionally passengers, the problem is real.

In December 2016 studies carried out at Göttingen University Hospital (UMG) were published which show that aviation-specific pollutants could be found in blood and urine samples taken from subjects exposed to fume events using well-accepted human biomonitoring methodologies.[103] In the researchers' professional medical opinion, these substances would be quite capable of causing the symptoms reported by patients and diagnosed by doctors.

[103] See C. Bornemann, A.Seeckts, M. Müller, A.Heutelbeck: Symptomatische Crewmitglieder nach inhalativer Intoxikation durch kontaminierte Kabinenluft, Tagungsband DGAUM 2016, S. 305 ff, ISBN: 978-3-9817007-2-5

Scientists and doctors suspect there is a connection here. The outpatient clinic for 'fume events' at the University of Göttingen's Institute for Occupational, Social and Environmental Medicine, which opened in 2013, has recently proven that fume events can lead to concrete effects on the human body, meaning that incidents can lead to a form of poisoning. This has so far been denied by the aviation industry. The findings also confirmed the results of previous research and publications by the biochemist Professor Mohamed B. Abou-Donia of Duke University in North Carolina.[104] Professor Abou-Donia has been working on the effects of toxic substances released during fume events on the human auto-immune system since the 1990s. He found increased amounts of very specific proteins in blood samples taken from subjects affected by fume events.[105]

A 'fume event' is described as follows in the medical and scientific literature:

> *By a fume event we understand a cabin air incident or a cabin air contamination, which results in accidental inhalation trauma caused by harmful substances in the air of the cabin or cockpit of an aircraft. The technical causes of this cabin air contamination are still not entirely understood from a technical perspective. The substances or groups of substances that are considered most likely to be involved are motor fuels, lubricants or hydraulic fluids. The first sign of an event is usually an unpleasant odour, which may then be followed by a variety of kinds of damage or impairment to health. There are still no structured plans for diagnosing and treating affected*

[104] See A. Heutelbeck, M. Lange, A. Seeckts, C. Bornemann, M. Müller, Acetylcholinesterase and Neuropathy Target Esterase Activities in 11 Cases of Symptomatic Flight Crew Members After Fume Events, Journal of Toxicology and Environmental Health, part A, vol. 79, ISS. 22-23, 2016

[105] See Mohamed B. Abou-Donia, Martha M. Abou-Donia, Eman M. ElMasry, Jean A. Monro, and Michel F. A. Mulder, Autoantibodies to Nervous System-Specific Proteins are Elevated in Sera of Flight Crew Members: Biomarkers for Nervous System Injury, Journal of Toxicology and Environmental Health, Part A, vol 76, ISS. 6, 2013

patients.[106]

The author has contacted the doctors and scientists involved in the 'Westgate investigation' to request further medical and scientific clarification of the question whether contaminated cabin air could have caused the symptoms Andreas Lubitz reported suffering in his eyes. These include:

- the Dutch forensic pathologist Dr. Frank van de Goot
- the Dutch flight physician Dr. Michel Mulder
- the American biochemist Prof Mohamed Abou-Donia

and other experts. Further forensic investigations are planned together with these specialists. These studies depend, however, on which of Andreas Lubitz's tissue samples are still available and whether they will be made available by the authorities. This is subject to requests made in the French civil action proceedings.

[106] See C. Bornemann, A. Seeckts, M. Müller, A. Heutelbeck: Symptomatische Crewmitglieder nach inhalativer Intoxikation durch kontaminierte Kabinenluft, S. 306, Tagungsband DGAUM 2016, ISBN: 978-3-9817007-2-5

VIII. 5. DNA Profile of Andreas Lubitz's Parents and Brother

To construct a DNA profile of Andreas Lubitz which would conclusively determine what degradation-causing enzymes may or may not have been at work after his exposure to organophosphates or other toxic substances released during 'fume events' – and particularly if the findings are to stand up in court – researchers would ideally need access to original blood and muscle tissue samples. These samples should be taken immediately and properly stored by the French judicial authorities.

Organophosphates are used in certain oils and hydraulic fluids used by the aviation industry.[107] They have neurotoxic effects, however, particularly on certain at-risk groups of people whose bodies are unable to break down the toxins fast enough
or at all. We now know that extremely small quantities of these neurotoxic chemicals actually constantly leak into the air supply on board modern aeroplanes via the bleed air system[108]. This risk is actually far higher in the cockpit than in the passenger cabin because the system setup means that 100% of the air supply always comes from bleed air from engine no. 1 (unless an air system is turned off, in which case 100% comes from the remaining system), whereas the passenger cabin takes only 60% bleed air coming from both engines, which is also then recirculated. The cabin air is passed through special HEPA filters; these are not designed to filter out organophosphates, however.

Organophosphates can also be absorbed through the skin as well as entering the body via inhalation. They were originally developed for use as nerve agents in chemical weapons. They easily cross the blood-brain barrier and (in large quantities) can therefore cause serious damage, particularly to the brain and nervous system. Cognitive issues are a common effect

[107] C. van Netten, V. Leung, *Comparison of the Constituents of Two Jet Engine Lubricating Oils and Their Volatile Pyrolytic Degradation Products,* Applied Occupational And Environmental Hygiene Vol. 15, Iss. 3, 2000
[108] See Mark R. Montgomery, G. Thomas Wier, Franklin J. Zieve, M. W. Anders, *Human Intoxication Following Inhalation Exposure to Synthetic Jet Lubricating Oil,* Clinical Toxicology vol. 11, Iss. 4, 1977

and can arise suddenly after intoxication.[109] The chemicals are absorbed by the body and then metabolised. This requires sufficient amounts of a certain group of enzymes. The enzymes help to convert the toxins which are then usually excreted in the sweat and urine.

It should be noted that the effects of the toxins can also be accumulative; that is to say that if the person is exposed to further toxins, the body cannot break them down fast enough and this leads to a range of symptoms. The resulting disease has also been known as 'aerotoxic syndrome' since the 1990s, although this term has (still) not yet been officially recognised and established as a medical term.[110]

Forensic pathological studies carried out on the corpse of Richard Mark Westgate († 2012), a former British Airways pilot (flying the Airbus A320) allowed a team of scientists and doctors to explore and confirm the effects on the human body for the first time. These studies were carried out in 2013 to mid-2014 by the Dutch pathologist Dr. Frank van de Goot, the aviation physician Dr. Michel Mulder, the American biochemist Prof Mohamed Abou-Donia, and the British nano-physicist Prof Jeremy Ramsden. The findings were published in a peer-reviewed paper.

Analysis of the tissue samples taken from the deceased's heart muscle tissue during autopsy revealed among other things a disease called 'lymphocytic myocarditis'.[111] This condition involves inflammation of the heart muscle, which can lead to life-threatening cardiac arrhythmia and to sudden cardiac death. It is caused either by infections, autoimmune diseases

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[109] See Sarah Mackenzie Ross, *Cognitive function following exposure to contaminated air on commercial aircraft: A case series of 27 pilots seen for clinical purposes,* Journal Of Nutritional & Environmental Medicine Vol. 17 , Iss. 2, 2008

[110] Carl R. Mackerer, Mary L. Barth, Andrew J. Krueger, Birbal Chawla, Timothy A. Roy, *COMPARISON OF NEUROTOXIC EFFECTS AND POTENTIAL RISKS FROM ORAL ADMINISTRATION OR INGESTION OF TRICRESYL PHOSPHATE AND JET ENGINE OIL CONTAINING TRICRESYL PHOSPHATE,* Journal Of Toxicology And Environmental Health, Part A Vol. 57 , Iss. 5, 1999

[111]See: Abou-Donia et al, *Markers of neural degeneration associated with histopathological alterations*, July 2014, Journal of Biological Physics and Chemistry, doi: 1.4024/05AB14A.jbcp.14.03

(e.g. in HIV positive patients), or poisoning. The same condition has been found in tissue samples taken in autopsies of other flight crew members.[112]

Because Mr. Westgate's case involves the unnatural death of a British citizen, the causes and circumstances of his death are subject to a special investigation and legal proceedings under UK law. An official coroner with the rank and powers of a judge was appointed by the Queen of England to preside over the proceedings. In early 2015 the coroner in this case issued an official and public notice to British Airways, as Richard Westgate's employer, and to the British aviation safety authority, the CAA, informing them of the alarming findings of the investigation and giving them 50 days to provide a response.
It is also possible that Andreas Lubitz's illness and the symptoms he reported could be attributed to poisoning by contaminated cabin air. There are a number of indications of this:

1. **This type of poisoning can lead to problems with the eyes, the retina and the optic nerve, which have been reported numerous times, particularly by pilots and flight attendants. This has also been shown in the scientific findings related to the 'sheep-dipping scandals' in England.[113]**

2. **The poisoning can cause sudden drops in performance and energy levels. Günter Lubitz saw this happen to his son whilst playing sport together from January 2015 on.**

3. **The poisoning can lead to sudden changes in behaviour, including depression and suicidal tendencies.**

4. **The poisonings are often misdiagnosed, in general due to widespread**

[112] See: https://www.gesundheitsstadt-berlin.de/todkrank-vom-fliegen-lymphozytaere-herzmuskelentzuendung-in-drei-faellen-bestaetigt-6836/
[113] Royal College of Physicians and Royal College of Psychiatrists, *Organophosphate sheep dip – Clinical aspects of long term low-dose exposure,* November 1998, ISBN 1 86016 080 8

ignorance of the condition, especially in conventional medicine (common misdiagnoses are hypochondria, Parkinson's disease, MS, etc.).

5. **Combination with psychiatric drugs can cause pronounced and unwanted side effects.**

To ascertain whether this theory was worth investigating further, it was agreed on the 22.10.2016 with Günter Lubitz and on the 28.10.2016 with [redacted] that the parents' DNA profile should be studied first, as it is easier to obtain than Andreas Lubitz's DNA. If both parents belong to the group of people who have sufficient enzymes to break down these toxins, in the expert opinion of the Dutch specialist Dr. Michel Mulder and the forensic pathologist Dr. Franc van de Goot, it would be very unlikely that Andreas Lubitz belonged to one of the at-risk groups of people.

The blood samples given by the parents show that Andreas Lubitz was **at a greatly increased risk** of belonging to the group who are only capable of breaking down the toxins very slowly and with great difficulty after exposure, or who are even unable to do so at all.

According to the DNA profile created by the ProHealth InVitaLab in Holland, the father, Günter Lubitz, belongs to the 'intermediate metabolizers' group. The mother, [redacted], however, belongs to the group of people who have a very small amount of the enzyme required, and is therefore part of a more at-risk group.[114]

According to a comparison carried out by Dr. Mulder (which also includes the DNA profiles of the entire family of Richard Westgate, including his twin brother), [redacted] is located between the 'intermediate metabolizers' group and the 'poor metabolizers'. People belonging to the latter group, like Richard Westgate, are not able to break down the toxins they ingest at

[114] See DNA analysis results and letter from Dr. Michel Mulder of the 12.11.2016

all and therefore inevitably fall ill, depending on the dose to which they are exposed. Dr. Mulder therefore advised [redacted] to avoid air travel completely, whilst Günter Lubitz was advised to protect himself with a special filter mask.

The team subsequently created a DNA profile of Andreas Lubitz's brother, [redacted]. He also belongs to the group of people who only have a moderate ability to metabolise the toxins.[115] He is therefore subject to higher risk if exposed to contaminated cabin air.

Given this information, scientists should immediately be allowed to create an exact DNA profile of Andreas Lubitz to establish his body's ability to break down these toxins. This is also the opinion of the forensic pathologist Dr. van de Goot.

The materials provided by the family (remains of the beard, fingernail dust, hair etc.) are unfortunately unsuitable for this process. However, they could be used if necessary at a later stage to validate individual results.

The mortal remains of Andreas Lubitz, which were returned to the family, were unfortunately cremated on the advice of Kenyon, the company Lufthansa commissioned to oversee the handling and burial of the remains of the victims of flight 4U9525, meaning that exhumation is out of the question.

Dr. van de Goot has outlined a proposal in this regard which could allow further investigation if necessary with the help of samples retained by the French judicial authorities.

The relevant applications have been made by the family as part of the pending joint civil suit (*parti civil*) in the Marseille courts. The first application for admission as joint plaintiff in the civil action was rejected on 07.03.2017 by the presiding judge.

[115] See DNA analysis and letter from Dr. Michel Mulder of the 21.02.2017

An appeal against this decision was promptly lodged on 17 March 2017.

IX. Appraisal of Media Coverage

The media coverage of this case is being studied as a student research project at a German university under the author's supervision. Over 2000 pages of online and newspaper articles have been captured digitally and collected in a database using optical character recognition (OCR) software. This then allows targeted searches to be performed for phrases, sources and facts across all articles.

The project also aims to collect and evaluate all related video content posted online. This is done predominantly in German, English, French, and Spanish, and is extremely time consuming.

The project is not expected to be completed until at least autumn 2017, particularly given the sizeable amount of media coverage which emerged after the press conferences in Berlin marking the second anniversary of the crash.