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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
WESTERN DIVISION

CAPTAIN H. RAY LAHR,

Plaintiff,

v.

NATIONAL TRANSPORTATION
SAFETY BOARD, et al.,

Defendants.

CASE NO. CV 03-08023-AHM

**AFFIDAVIT OF
RICHARD S. BREUHAUS**

Richard S. Breuhaus, having been duly sworn, deposes and states as follows:

1. I am Chief Engineer of Air Safety Investigation for The Boeing Company. I am Boeing's primary contact for the National Transportation Safety Board concerning NTSB investigations and I coordinate the technical support that Boeing gives to the NTSB upon request.

2. I am over the age of 21 years and competent to testify herein. The facts stated herein are based on my personal knowledge, on my review and familiarity with Boeing's business records that are maintained in the ordinary course of business, and on my discussions with Boeing employees knowledgeable about and responsible for the documents and activities discussed herein. I would so testify if called to do so.

3. Shortly after the July 17, 1996 accident involving TWA Flight 800, a Boeing Model 747-100 aircraft, Boeing offered its assistance to the National Transportation Safety Board and was made a party to that investigation. Boeing

1 assigned one of its air safety investigators to coordinate Boeing's activities in
2 support of the NTSB's investigation into TWA Flight 800 and to act as the primary
3 conduit for communications between Boeing and the NTSB about that
4 investigation.

5 4. I have reviewed the documents identified as NTSB Records 1-4 and
6 10. Each of these documents is a Boeing facsimile cover sheet from Boeing's
7 transmittal of information to the NTSB in support of the NTSB's TWA Flight 800
8 investigation. The name, telephone number, and fax number of one or more Boeing
9 employee is identified on each of these documents. In addition, NTSB Records 3-4
10 and 10 include the signature of a Boeing employee. For commercial and privacy
11 reasons discussed more fully in paragraph 21 below, Boeing does not customarily
12 publicize the names or other direct contact information of all of its employees who
13 may provide technical assistance to the NTSB.

14 5. During the TWA Flight 800 investigation, the NTSB requested
15 technical assistance from Boeing concerning the mass properties, aerodynamic and
16 engine characteristics of the Boeing Model 747-100 aircraft. In response to that
17 request, Boeing created NTSB Records 5-9 and 12, discussed below.

18 6. I have reviewed the document identified as NTSB Record 5 and have
19 discussed it with the primarily responsible Boeing engineer. This document
20 contains proprietary data concerning the mass properties (aircraft gross weight,
21 center of gravity, and pitch and roll inertias) of the Boeing Model 747-100 aircraft
22 in two configurations: the baseline configuration and a hypothetical configuration
23 in which the aircraft's forward fuselage has been removed. This is business and
24 technical information that Boeing does not customarily disclose without appropriate
25 restrictions on use and further disclosure of the information by the recipient.

26 7. I have reviewed the four-page document identified as NTSB Record 6
27 and have discussed it with the primarily responsible Boeing engineer. This presents
28 in graph and table format the lift coefficient and pitching moment coefficient of the

1 Boeing Model 747-100 aircraft in two configurations: the aircraft's baseline
2 configuration and a hypothetical configuration in which the aircraft's forward
3 fuselage has been removed. NTSB Record 6 contains Boeing proprietary
4 information; each page of NTSB Record 6 is marked "Boeing Proprietary" and
5 "Preliminary."

6 8. A competent engineer with access to the hypothetical configuration
7 represented in the graphs and tables in NTSB Record 6 could determine the
8 baseline lift coefficient and pitching moment coefficient for the Boeing Model 747-
9 100 aircraft.

10 9. I have reviewed the document marked NTSB Record 7 and have
11 discussed it with the primarily responsible Boeing engineer. This graph shows the
12 corrected net thrust at maximum power lever angle for the engines used on the
13 TWA Flight 800 Model 747-100 aircraft. It contains Boeing proprietary
14 information and also third-party proprietary information that is subject to a
15 Proprietary Information Exchange Agreement between Boeing and one of its
16 suppliers.

17 10. I have reviewed the five-page document identified as NTSB Record 8
18 and have discussed it with the primarily responsible Boeing engineer. This record
19 presents in graph and table format the lift coefficient, pitching moment coefficient,
20 and drag coefficient of the Boeing Model 747-100 aircraft in two configurations:
21 the baseline configuration and a hypothetical configuration in which the aircraft's
22 forward fuselage has been removed. NTSB Record 8 contains Boeing proprietary
23 information; each page of NTSB Record 8 is marked "Boeing Proprietary" and
24 "Preliminary."

25 11. A competent engineer with access to the hypothetical configuration in
26 the graphs and tables in NTSB Record 8 could determine the baseline lift
27 coefficient, pitching moment coefficient, and drag coefficient for the Boeing Model
28 747-100 aircraft.

1 12. I have reviewed the document identified as NTSB Record 9 and have
2 discussed it with the primarily responsible Boeing engineer. This document is a
3 preliminary graph of the free response of a Boeing Model 747-100 aircraft upon
4 sudden loss of its forward fuselage; it shows the possible result of changes in mass
5 properties, aerodynamic characteristics, and thrust settings. Boeing proprietary
6 information and third-party proprietary information is included in this preliminary
7 graph and can be determined from this preliminary graph. The third-party
8 proprietary information that is incorporated into this graph is subject to a
9 Proprietary Information Exchange Agreement between Boeing and one of its
10 suppliers.

11 13. I have reviewed the document identified as NTSB Record 12 and have
12 discussed it with the primarily responsible Boeing engineer. This document records
13 a string of emails between Boeing and the NTSB in which the NTSB requests and
14 Boeing provides the possible ranges for the proprietary data that Boeing provided to
15 the NTSB in NTSB Records 5-9. This is business and technical information that
16 Boeing does not customarily disclose without appropriate restrictions on use and
17 further disclosure of the information by the recipient.

18 14. NTSB Records 5-9 and 12 contain proprietary information about the
19 baseline mass properties, aerodynamic and engine characteristics of the Boeing
20 Model 747-100 aircraft that Boeing does not customarily disclose publicly. These
21 are Boeing trade secrets because they have independent economic value derived
22 from not being ascertainable or available for use by other parties and are subject to
23 efforts by Boeing to maintain their secrecy. Boeing's competitors, customers, and
24 third parties with free access to this baseline data could use it in designing,
25 manufacturing, testing, and marketing their own aircraft, other products, and
26 services, thereby causing competitive harm to Boeing.

27 15. I am informed and believe that Boeing developed the baseline mass
28 properties, aerodynamic and engine characteristics of the Boeing Model 747-100

1 aircraft at great expense using Boeing's proprietary wind tunnel, flight test, and
2 simulator data. These data are maintained in Boeing's training simulator database,
3 and are presented in or can be derived using NTSB Records 5-9 and 12. Boeing
4 uses the proprietary information in its training simulator database to operate flight
5 simulators for various purposes, including flight training and engineering. These
6 are aspects of Boeing's current business. As part of its business, and for a fee,
7 Boeing licenses its proprietary simulator data to airlines and other third parties to
8 operate flight simulators for similar purposes, sometimes in direct competition with
9 Boeing. I am informed and believe that these licenses restrict unauthorized use or
10 disclosure of Boeing's proprietary information.

11 16. Boeing voluntarily provided NTSB Records 5-9 and 12 to the NTSB to
12 assist it in investigating the TWA Flight 800 accident. Because public disclosure of
13 these trade secrets and other proprietary information could cause Boeing
14 competitive harm, Boeing provided them to the NTSB under the belief and
15 understanding that the NTSB would disclose it only if necessary for the health or
16 safety of the flying public, and, if disclosure were necessary, that the NTSB would
17 take all measures available to lessen the resulting competitive harm to Boeing.

18 17. NTSB Records 5-9 and 12 include the names of the Boeing employees
19 providing the technical assistance to the NTSB. NTSB Record 9 also includes the
20 telephone number and signature of a Boeing employee. NTSB Record 12 also
21 includes the email addresses for Boeing employees. For commercial and privacy
22 reasons discussed more fully in paragraph 21 below, Boeing does not customarily
23 publicize the names or other direct contact information of all of its employees who
24 may provide technical assistance to the NTSB.

25 18. I have reviewed the document identified as NTSB Record 13 and have
26 discussed it with the primarily responsible Boeing engineer. This document
27 contains the initial comments of Boeing employees concerning a draft of the
28 NTSB's TWA Flight 800 Trajectory Study. I am informed and believe that Boeing


1 received the NTSB's draft Trajectory Study in its role as a party to the NTSB's
2 TWA Flight 800 investigation and that Boeing was asked to review the draft and
3 provide its technical and other comments to the NTSB. Reviewing and
4 commenting on draft reports is a standard activity for parties to NTSB
5 investigations. During an investigation, regulations bar the parties from unilaterally
6 disclosing the draft reports, which do not represent a final decision by the NTSB.
7 Once final, these reports contribute to the NTSB's deliberative process directed at
8 determining the probable causes of aviation accidents.

9 19. NTSB Record 13 includes the names the Boeing employees providing
10 the technical assistance to the NTSB, and one of their signatures. For commercial
11 and privacy reasons discussed more fully in paragraph 21 below, Boeing does not
12 customarily publicize the names or other direct contact information of all of its
13 employees who may provide technical assistance to the NTSB.

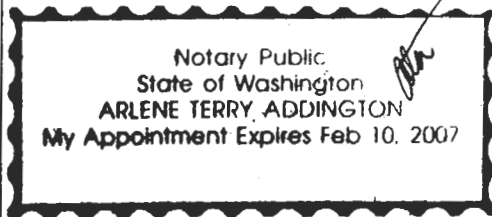
14 20. Boeing engineers and technical staff create, access, and use trade
15 secrets and other proprietary information that have independent economic value to
16 Boeing because they are not freely ascertainable or publicly available for use by
17 other parties. Boeing therefore has procedures to limit disclosure and dissemination
18 of this information. Boeing requires its employees to mark certain types of
19 proprietary information as "Boeing Proprietary" and to protect it from unauthorized
20 use and disclosure by appropriate agreements. Boeing employees are instructed not
21 to disclose Boeing's business and technical information without appropriate
22 restrictions on use and further disclosure of the information by the recipient.
23 Boeing employees are instructed to treat third-party proprietary information in
24 accordance with the agreement under which it was furnished to the company. In
25 addition, Boeing employees enter into a Proprietary Information and Invention
26 Agreement, which safeguards proprietary information belonging either to Boeing or
27 to a third party that has authorized Boeing to use its proprietary information.
28

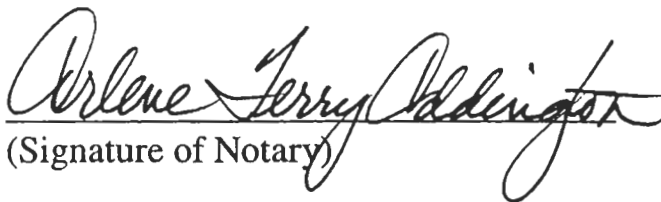
1 21. Boeing does not customarily publicize the names and contact
2 information of all of its employees who may provide technical assistance to the
3 NTSB, but instead assigns responsibility for third-party communications to a few
4 employees. This helps to protect Boeing's proprietary information from accidental
5 or unauthorized disclosure. It also protects Boeing's employees from burdensome
6 or improper contact by third parties whose interests are adverse to Boeing,
7 including third parties seeking to benefit freely from the substantial time, money,
8 and other resources that Boeing invests in educating and training its personnel. Not
9 publicizing the names and direct contact information of every Boeing employee
10 involved in supporting an NTSB investigation also protects the personal privacy of
11 Boeing's employees by reducing the risk of third parties contacting them directly
12 about or publicizing their involvement in high-profile NTSB investigations.

13 DATED: MAY 14, 2004

14
15
16 By 
17 Richard S. Breuhaus
18

19 SUBSCRIBED AND SWORN to before me this 14th day of
20 MAY, 2004.




(Signature of Notary)

25 ARLENE TERRY ADDINGTON
(Print or Stamp Name of Notary)
26 NOTARY PUBLIC in and for the State of
27 Washington, residing at: Seattle, WA
28 My Commission expires: 10-FEB-07

1 PROOF OF SERVICE BY MAILING

2 I am over the age of 18 and not a party to the within
3 action. I am employed by the Office of United States Attorney,
4 Central District of California. My business address is 411 West
5 Fourth Street, Suite 8000, Santa Ana, California 92701.

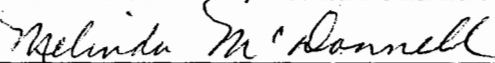
6 On May 19, 2004, I served the foregoing: **NOTICE OF FILING AND**
7 **FILING OF NTSB'S VAUGHN INDEX** by special messenger described in
8 this Certificate was made; that on May 19, 2004 I hand delivered
9 to a duly constituted messenger service with instructions to
10 deliver to the following named individuals:

11 JOHN F. DUNN, ESQ.
12 1601 Cloverfield Blvd.
13 Second Floor, South Tower
Santa Monica, CA 904-4-4084

14 I declare under penalty of perjury under the laws of the
15 United States of America that the foregoing is true and correct.

16 I declare that I am employed in the office of a member of
17 the bar of this court at whose direction the service was made.

18 Executed on: May 19, 2004 at Santa Ana, California.

19 
20 Melinda McDonnell
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