SERVED: October 31, 2008

NTSB Order No. EA-5415

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D.C.
on the 30th day of October, 2008

ROBERT A. STURGELL, Acting Administrator, Federal Aviation Administration, Complainant, v. GREGORY S. WINTON, Respondent.	Docket No. SE-17907

OPINION AND ORDER

Respondent, who proceeds pro se, has appealed from the oral initial decision of Administrative Law Judge William A. Pope, II in this matter,[1] issued on November 28, 2007, following a lengthy evidentiary hearing held on March 8 and 9, August 29 and 30, and October 4, 5, and 9, 2007. The Administrator's order suspended respondent's commercial pilot certificate for 30 days, based on

[1] A copy of the initial decision, an excerpt from the hearing transcript, is attached.

alleged violations of 14 C.F.R. §§ 91.13(a),[2] 91.139(c),[3] and 99.7.[4] The law judge rejected respondent's multiple affirmative defenses, and found that the Administrator had fulfilled his burden of proving that respondent violated the aforementioned regulations, as charged. The law judge affirmed the Administrator's suspension of respondent's commercial pilot certificate for a period of 30 days. We deny respondent's appeal.

On December 13, 2006, the Administrator issued an order suspending respondent's commercial pilot certificate for 30 days. In the order, the Administrator alleged that on June 8, 2004, respondent violated NOTAM FDC 3/2126 when he was acting as pilot-in-command of a Cessna CE-172M in the vicinity of Gaithersburg, Maryland, by taking off and flying in the ADIZ without complying with the requirements of the NOTAM.[5] As a

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[2] Section 91.13(a) prohibits careless or reckless operations so as to endanger the life or property of another.

[3] Section 91.139(c) states that when a Notice to Airmen (NOTAM) has been issued under this section, no person may operate an aircraft within the designated airspace "except in accordance with the authorizations, terms, and conditions prescribed in the regulation covered by the NOTAM."

[4] Section 99.7 requires each person operating an aircraft in the Air Defense Identification Zone (ADIZ) to comply with the Administrator's special security instructions in the interest of national security.

[5] NOTAM FDC 3/2126, which became effective on March 18, 2003, prohibits entry into the "Washington DC metropolitan area Air Defense Identification Zone (DC ADIZ)," unless aircraft

result, the Administrator alleged that respondent had violated the regulations, as charged.

The case proceeded to a hearing before the law judge, at which the Administrator presented the testimony of three witnesses and provided 26 exhibits. The Administrator first called Ms. Dawn Ramirez, a support specialist for quality assurance at Potomac Consolidated Terminal Radar Approach Control (Potomac TRACON) for the Washington, D.C. area. Tr. at 63-64. Ms. Ramirez testified for the introduction of the Administrator's exhibits that contained radar and automation files for respondent's aircraft on the day at issue (Exh. A-6), as well as ATC plots of respondent's flight (Exh. A-7). Tr. at 67, 76-77.[6]

The Administrator also called Mr. Mark Olsen, the Acting Director of Safety Investigations and Evaluations at the FAA. Tr. at 101-102. Mr. Olsen offered detailed testimony concerning

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(..continued)
operators fulfill certain requirements, including establishing two-way radio communications with air traffic control (ATC), obtaining a discrete transponder code, and filing and activating an approved flight plan prior to entering the DC ADIZ. Exh. A-1 at 2-3.

[6] At the hearing, however, the law judge initially precluded the entry of Exhibit A-6, as well as testimony concerning the exhibit, due to confusion with the radar evidence and concern that the record would not sufficiently reflect testimony regarding the exhibit. Tr. at 97. As such, Ms. Ramirez's testimony was brief and of little substance.

the technical aspects of how the FAA identifies radar tracks, and testified that he was instrumental in developing the Administration's widely used Radar Audio Playback Terminal Operations Recording (RAPTOR) program for radar analyses. Tr. at 104. Mr. Olsen testified that the radar data that reflects respondent's flight on June 8, 2004, indicates that respondent's transponder was inoperative, in standby mode, or off. Tr. at 138. Mr. Olsen based this opinion on the fact that respondent's aircraft appeared on radar as a primary target, but not a secondary target; if the radar can track a primary target, then it would be able to pick up the discrete code that respondent had obtained and was required to squawk in the ADIZ. Tr. at 137-38. Mr. Olsen clarified that the altitude at which the radar could pick up aircraft is approximately 800 feet, and that a primary target appearing on the radar indicates that the aircraft was not below radar coverage. Tr. at 138, 140. Mr. Olsen also stated that radar data from Customs and Border Protection is more complete and captures more data than that which the FAA collects on its radars, and that both the Customs data and the FAA data overlapped during the time in question. Tr. at 144. Mr. Olsen stated that ATC did not contact respondent and inquire about his presence in the ADIZ while not squawking a discrete code because ATC had no way of knowing that the primary target was respondent's aircraft. Tr. at 180.

The Administrator also provided the testimony of Mr. Robin Dooley, the Deputy Director of National Security Missions and P3 Operations at Customs and Border Protection, who testified as an expert on the interpretation of radar data. Tr. at 650, 652.[7] Mr. Dooley explained the coordination between the FAA, Customs and Border Protection, and the Department of Defense that resulted from respondent's entry into the ADIZ in the absence of squawking a discrete code. Tr. at 666-73. Mr. Dooley testified that the Customs radar data indicates that respondent's aircraft was a "primary only" target, according to four different radar sites. Tr. at 691-92. Mr. Dooley also stated that respondent's aircraft was not emitting a signal that a secondary radar could pick up, and that Customs radars pick up signals at altitudes as low as 500 feet. Tr. at 696. Mr. Dooley opined that the radar evidence indicates that respondent's transponder was in standby mode, was off, or was not emitting a signal. Tr. at 697.

In response to the Administrator's case, respondent orally presented a motion to dismiss on the premise that the Administrator had not proved that he had failed to turn on his transponder on the day in question. Tr. at 713. The law judge denied respondent's motion, finding that the Administrator had

[7] The law judge allowed the respondent to provide two witnesses' testimony out-of-turn, due to travel arrangements. After respondent's witnesses testified, the Administrator resumed his case-in-chief.

presented “at least a prima facie case that the prohibited conduct occurred,” and that respondent’s contention that his aircraft was in the ADIZ but, for some reason, the radar did not pick up his discrete code, was an affirmative defense, rather than a basis on which to grant his motion to dismiss. Tr. at 722.

Respondent’s case-in-chief consisted of the testimony of eight witnesses and 35 exhibits. Respondent first presented the testimony of Mr. Nicholas Tarascio, who works in his family’s business as an airframe and powerplant mechanic. Tr. at 245-46. Mr. Tarascio testified that respondent spoke to him about respondent’s transponder, and indicated that, in a flight in New York subsequent to the flight at issue here, respondent identified a problem with his transponder and told Mr. Tarascio that his transponder intermittently stopped working. Tr. at 252, 260. Mr. Tarascio testified that he tested the transponder and did not identify any problems, so he assumed that a wiring problem was causing the transponder’s intermittent failures. Tr. at 260. Mr. Tarascio stated that the harness holding the transponder was “solid,” but that, when he tugged the harness and moved it around, the power began to “flash on and off.” Id. After over 8 hours of inspecting the harness and transponder, Mr. Tarascio testified that he and his father, Mr. Michael Tarascio, determined that an improperly installed circuit

breaker caused the intermittent electrical problems. Tr. at 261. Mr. Nicholas Tarascio stated that respondent's aircraft was unusual, because it had two transponders as the result of a 1995 avionics upgrade. Tr. at 262-66. Mr. Nicholas Tarascio identified the problematic circuit breaker in a photograph, and opined that an improperly installed screw must have interrupted the power flow to the circuit breaker, and that an incorrectly sized circuit breaker had been installed. Tr. at 269-71. Mr. Nicholas Tarascio testified that he replaced the circuit breaker to rectify the problem. Tr. at 270-71.

Mr. Michael Tarascio also testified on behalf of respondent, and the law judge accepted Mr. Michael Tarascio's testimony as an expert witness on the subject of aircraft maintenance and general aviation aircraft. Tr. at 293. Mr. Michael Tarascio testified that he had completed two requisite annual inspections of respondent's aircraft (Tr. at 291), and was involved in troubleshooting the transponder at issue with Mr. Nicholas Tarascio (Tr. at 298). Mr. Michael Tarascio stated that he believed respondent had experienced an intermittent transponder interruption, but that he did not identify the cause of this problem until 2006, and that such intermittent problems are difficult to troubleshoot. Tr. at 305, 308-309. Mr. Michael Tarascio also testified that the circuit breaker installed in 1995 was too short, and included an

improper screw. Tr. at 772. Mr. Michael Tarascio stated that these improper items would shut down the transponder within just seconds or a couple of minutes, depending upon the weakness of the connection and the vibrations in the aircraft. Tr. at 773. Based on his review of the maintenance records from 1996 to 2005, Mr. Michael Tarascio stated that no maintenance on the circuit breaker had occurred since its installation in 1995. Tr. at 780; see also Exh. R-4.

Respondent also provided the testimony of Mr. Robert B. Lewis, who is a trial attorney for the FAA. Tr. at 723-24. Mr. Lewis, who testified that he has been operating aircraft for over 30 years, stated that he has completed at least six requisite biannual flight reviews with respondent. Tr. at 727. Mr. Lewis testified that he and respondent utilized respondent's aircraft for these reviews, and that, during a flight review on September 14, 2004, Mr. Lewis observed respondent follow a checklist and verify that his transponder was on. Tr. at 748-49. Mr. Lewis also testified that he experienced a low battery while in the aircraft, that respondent had a mechanic check the battery and alternator, and that, later, Mr. Lewis observed the instrument panel in the cockpit go dark. Tr. at 751-52. Mr. Lewis described the panel darkening as "an occurrence of interruption of power to the panel." Tr. at 756.

Respondent also provided his own testimony, in which he testified that he is an experienced aviator and consistently maintains certain patterns and habits when operating aircraft. Tr. at 820. Respondent stated that he always turns the transponder on, and checks it a total of three times before taking off. Tr. at 821. Respondent testified that he purchased the aircraft at issue in 1994 with two colleagues, and that he agreed to participate in a program that the FAA and the National Aeronautics and Space Administration (NASA) sponsored, in which they installed $70,000 in avionics upgrades. Tr. at 823-24. After the upgrade, respondent testified, the aircraft contained two transponders, which an avionics master switch controlled. Tr. at 846. When the master switch is in the “off” position, respondent testified, nothing is powered other than the original transponder, which was installed in 1974. Tr. at 847. Respondent testified that his habit was always to turn the master switch to the “on” position, and that he has only utilized the new transponder since the avionics upgrade in 1995. Tr. at 849. Respondent testified that one can only enter in a discrete transponder code when the transponder is in the “on” position. Id. Respondent testified that if an intermittent interruption of power occurred, then the transponder display would go black, and that respondent also was not able to see the transponder go black while flying, because the avionics

equipment had been arranged so that a control wheel on the right side blocked the pilot's view of the transponder. Tr. at 852-54. Respondent indicated that, given this limited visibility, he always relied on ATC to inform him if he needed to recycle his transponder due to an intermittent transponder failure. Tr. at 854. Respondent admitted, however, that the circumstances of operation in the ADIZ were different, because pilots need not correspond with ATC as in other airspace, given the requirement in NOTAM FDC 3/2126 that pilots must continuously squawk a discrete code while in the ADIZ. Tr. at 856, 863-64. Respondent also presented a portion of the Administrator's Air Traffic Control Manual, which directs air traffic controllers to notify an aircraft when its transponder appears to be inoperative or malfunctioning. Tr. at 861-62. Respondent indicated that, when ATC requested that he recycle his transponder during other flights, he did not become concerned. Tr. at 900. Respondent also presented a copy of the Administrator's preliminary pilot deviation report, in which an FAA employee had marked "Transponder: Not Functioning" to describe the incident at issue. Tr. at 933-34; Exh. R-17. Respondent stated, however, that he had not received this report until over 1 year after the Administrator issued the order at issue here, and that he had no indication that a problem existed with his transponder prior to February 2007. Tr. 932-33, 936.

Respondent also presented the testimony of Mr. Neil Planzer, who was an active air traffic controller, then held a Senior Executive Service position at the FAA, and who testified as the Vice President for Air Traffic Management Strategy at Boeing. Tr. at 1022. Mr. Planzer stated that he had co-owned the aircraft at issue with respondent since 1994, and described the avionics upgrades that had been installed in the aircraft. Tr. at 1034-35. Mr. Planzer testified that, in the aircraft at issue, a pilot has the choice of which of the two transponders to use. Tr. at 1038. Mr. Planzer stated that, at the conclusion of the FAA/NASA program that resulted in the avionics upgrades, he and the other two owners had the choice of whether to retain the upgrades or return the aircraft to its original condition, and that they chose to keep the upgrades. Tr. at 1042. Mr. Planzer also testified that the transponder that respondent used was in an “inconvenient spot,” behind the control wheel. Tr. at 1047. Mr. Planzer stated that he never received instructions regarding how to put the transponder in standby mode, and that he did not recall having ever experienced a power failure in flight, but that ATC had requested that he recycle the transponder at times. Tr. at 1048, 1050-51. Mr. Planzer testified that Potomac TRACON could have issued a blanket transmission during respondent’s June 8, 2004 flight to

attempt to find respondent's aircraft and request that respondent recycle his transponder. Tr. at 1057-58.

In addition, respondent provided the testimony of Mr. Boni Caldeira, who holds certified flight instructor and airline transport pilot certificates, and who is actively involved in ADIZ education and training. Tr. at 1099-1100. Mr. Caldeira explained the typical process for obtaining a discrete code from Potomac TRACON prior to taking off, and that aircraft are allowed to remain in the traffic pattern at Gaithersburg and communicate on the common traffic advisory frequency——and not with ATC——while in the traffic pattern. Tr. at 1151. Mr. Caldeira testified that, with the transponder that respondent's aircraft contains, it is impossible to enter in the discrete code unless the transponder is in the "on" position. Tr. at 1157.

Respondent called Inspector Patrick Long, who is an FAA aviation safety inspector at the Rochester Flight Standards District Office, to testify. Tr. at 1159-60. Inspector Long testified that certain portions of the ADIZ report within respondent's Enforcement Investigative Report consist of boilerplate text that is not unique to each investigation. Tr. at 1176-77; see also Exh. R-35 at 2. The law judge precluded Inspector Long from testifying further, on the basis that Inspector Long's testimony was not relevant, and that Inspector

Long’s investigation into respondent’s alleged violation falls within the discretion of the Administrator, and is therefore an inappropriate subject for examination at the hearing. Tr. at 1185-86.

Finally, respondent called Mr. Walter Lippan, an FAA employee from the Eastern Regional Office who reviewed ADIZ cases after September 11, 2001, to testify. Tr. at 1202-1203. The law judge admitted Mr. Lippan to testify as an expert in the operation of Cessna 172s. Mr. Lippan testified that pilots who allow their attention to be diverted during takeoff and while climbing out in a traffic pattern would fail a flight test. Tr. at 1226-27. Mr. Lippan also testified that he believed that respondent did not violate any of the Federal Aviation Regulations, because all evidence, including the radar data, indicates that respondent experienced a transponder problem. Tr. at 1236-37.

In rebuttal, the Administrator called Mr. Robin Dooley and Ms. Dawn Ramirez to testify again. Mr. Dooley reiterated that he concluded that respondent was not transmitting a signal in the ADIZ because multiple radars from different locations all consistently reported respondent’s aircraft as a primary target. Tr. at 1260-61. Mr. Dooley stated that a radar anomaly could not have occurred, given that four different radars all reported respondent’s aircraft as a primary target. Tr. at 1261.

Ms. Ramirez testified that Potomac TRACON records all frequencies that contain communications between controllers and pilots. Tr. at 1279-80; see also Exh. A-5 (initial communication between respondent and Chesapeake area flight data position that occurred on June 8, 2004, prior to respondent taking off). Ms. Ramirez stated that no one at Potomac TRACON could locate any transmissions between respondent's aircraft and the controller on the applicable frequency on June 8, 2004. Tr. at 1289. Ms. Ramirez also testified that the section of the ATC Manual that requires controllers to notify airmen if they no longer observe their beacon code does not apply to this situation, because it occurred in the ADIZ and ATC did not know the identity of respondent's aircraft. Tr. at 1297-98.

The Administrator also called Mr. Donald Ford, a radar operator in the National Capital Region Coordination Center for Customs and Border Protection, in rebuttal of respondent's case. Tr. at 1313-14. Mr. Ford testified that he located all flight plans filed for respondent's aircraft from December 21, 2003, to March 1, 2006, which totaled 48 flights. Tr. at 1319-20. The Administrator's counsel contends that this radar data provided no indications of the intermittent transponder problem that respondent alleged. Tr. at 1327-28. In addition, the Administrator called Mr. Stephen Isaacs, who is employed at the FAA Office of Flight Standards Services and was an aviation

safety inspector and policy analyst for the FAA for 18 years, in rebuttal of respondent’s case. Tr. at 1348-49. The law judge did not allow Mr. Isaacs’s testimony, however, because the law judge did not believe Mr. Isaacs could testify as an expert in general aviation. Tr. at 1350, 1354-55.

Finally, the Administrator called Mr. Kim Barnette, an FAA employee in the Aircraft Maintenance Division for General Aviation in the Avionics Branch, in rebuttal of respondent’s case. Tr. at 1377-78. Mr. Barnette’s testimony indicated that he had a significant background in general aviation maintenance, and that he had performed several hundred field approvals for general aviation aircraft. Tr. at 1379-80. Mr. Barnette testified that the Tarascios’ troubleshooting methods, in which they tugged at the harness to test the security of the transponder and underlying circuit breaker, were against the Administrator’s recommendations regarding such maintenance. Tr. at 1385-86. Mr. Barnette testified that wiring harnesses are not designed to withstand the tugging that Mr. Nicholas Tarascio did on the harness in respondent’s aircraft, and that a mechanic cannot simulate flight loading and vibrations in an aircraft by pulling or shaking a harness. Tr. at 1387-88. Mr. Barnette also testified that varying heights and styles of circuit breakers are not uncommon in aircraft, and that he did not see anything in the photograph of respondent’s circuit breakers that

led him to believe that a lack of continuity existed in the buss bars and circuit breakers that would affect the avionics equipment. Tr. at 1397. Mr. Barnette, in his review of the aircraft's maintenance records, also stated that no records indicated that an improper screw caused the intermittent problems, and that maintenance records typically include part numbers of the components replaced, but that it is impossible to determine the type of circuit breaker that respondent's aircraft had, from the Tarascios' maintenance entry. Tr. at 1401, 1410; see also Exh. R-4. Mr. Barnette also testified that no records existed until 2006 that indicated any transponder repairs or problems in respondent's aircraft. Tr. at 1415, 1430-31.

At the conclusion of the hearing, the law judge affirmed the Administrator's complaint, holding that the Administrator had proven that respondent entered the ADIZ without complying with the requirements of NOTAM FDC 3/2126. Initial Decision at 1636. In his decision, the law judge provided a detailed summary of the evidence and of both parties' arguments, and concluded that respondent had not met his burden of establishing that his aircraft's transponder had malfunctioned. Id. at 1642. The law judge stated that no evidence indicated that the transponder at issue failed any time prior to the June 8, 2004 incident, and that respondent did not have the transponder checked until January 2006. Id. at 1644. The law judge stated

that the possibility that a loss of the transponder's signal occurred because of a transponder malfunction is merely one of many possibilities, and that respondent did not assert that he had attempted to recycle the transponder or do anything to ensure that the transponder was functioning while in the air. Id. at 1645. The law judge determined that the testimony of both Messrs. Olsen and Barnette was credible and persuasive (id. at 1639, 1648-49), but that neither of the Tarascios' testimony was credible, in part because Mr. Nicholas Tarascio testified that he held an airframe and powerplant mechanic certificate, but later admitted that his certificate was suspended (id. at 1647), and because neither of the Tarascios could provide the part number of the replacement circuit breaker that they said they had installed (id. at 1646-47). Overall, the law judge found that respondent's contention that the electrical failure that allegedly rendered the transponder inoperative occurred on June 8, 2004, was based on conjecture, and that respondent had not provided sufficient evidence to prove his affirmative defense. Id. at 1651-52.

On appeal, respondent argues that the law judge's findings are contrary to the evidence, that the law judge erred in not applying the Brasher doctrine,[8] that the law judge also erred in

[8] The Brasher doctrine stands for the notion that a respondent is generally entitled to a waiver of sanction that the

evaluating this case under a strict liability standard, and that the law judge was biased and therefore denied respondent due process.

First, we reject respondent's argument that the law judge's findings were contrary to the evidence on the record. Respondent stipulated to the fact that he took off from Gaithersburg Airport, which is located in the ADIZ, on June 8, 2004, and that NOTAM FDC 3/2126 was in effect at the time of his flight. Exh. J-1 at 3. Respondent also does not deny that he received a discrete transponder code for the flight, that his aircraft was recorded by radar as a primary target for approximately 5 minutes at the commencement of the flight, and that, thereafter, his aircraft was recorded on radar as either squawking his assigned code or in "coast" mode. Id. at 3-4. Therefore, respondent admits that he was in the ADIZ, but that radar data indicates that he was not squawking the requisite code. Respondent, however, contends that this deviation is justified, because a failure in his aircraft's electrical system temporarily rendered his transponder inactive. In this regard,

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Administrator has imposed for a violation of the Federal Aviation Regulations regarding pilot deviations from ATC instructions when ATC did not provide timely notice to the pilot of the deviation. Administrator v. Brasher, 5 NTSB 2116 (1987); Administrator v. Pate and Yoder, NTSB Order No. EA-5105 at 5 (2004) (citing Administrator v. McIntosh and Spriggs, NTSB Order No. EA-4174 at 12 (1994)).

we note that respondent's argument is based upon an affirmative defense. We have previously held that, "in asserting an affirmative defense, the respondent must fulfill his or her burden of proving the factual basis for the affirmative defense, as well as the legal justification."[9]

We have evaluated the evidence in this record and have determined that respondent did not provide sufficient evidence to establish that a transponder failure or an intermittent electrical problem caused his transponder to stop working on the flight in question. Respondent provided the testimony of the Tarascios, whose testimony the law judge found lacking in credibility for several reasons.[10] Respondent did not provide any direct evidence that his transponder indeed stopped working as a result of an electrical failure, but instead asks us to

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[9] Administrator v. Nadal, NTSB Order No. EA-5308 at 10 (2007) (citing Administrator v. Gibbs, NTSB Order No. EA-5291 at 2 (2007); Administrator v. Kalberg, NTSB Order No. EA-5240 at 3 (2006); Administrator v. Tsegaye, NTSB Order No. EA-4205 at n.7 (1994)).

[10] We agree with the law judge's credibility assessment, and note that we have long held that credibility determinations are "within the exclusive province of the law judge," unless the law judge has made the determinations "in an arbitrary or capricious manner." Administrator v. Nickl, NTSB Order No. EA-5287 at 6 (2007) (citing Administrator v. Kocsis, 4 NTSB 461, 465 n.23 (1982); see also Administrator v. Smith, 5 NTSB 1560, 1563 (1986); Administrator v. Sanders, 4 NTSB 1062 (1983)). Respondent has not established that the law judge's credibility determinations were arbitrary or capricious; moreover, we note that the law judge provided several bases for his conclusion that the Tarascios' testimony was not credible. Initial Decision at 1646-48.

draw an inference that his transponder must have temporarily failed during the flight in question, due to an electrical problem that allegedly resulted from an improperly installed or malfunctioning circuit breaker or wiring harness. Such an inference would be contrary to the weight of the evidence, given that no one discovered respondent's aircraft's circuit breaker problem until 2006 and respondent had not experienced problems with his transponder prior to the incident at issue, or intermittently afterward. In addition, respondent provided evidence that Mr. Michael Tarascio had performed an annual inspection on respondent's aircraft in 2005, but identified no problems with the transponder.

In response to the Tarascios' testimony, Mr. Barnette, who testified on behalf of the Administrator, stated that nothing in the photograph of the circuit breaker (Exh. R-3(c)) indicated that a lack of continuity in the buss bars and circuit breaker existed that could have affected the avionics of the aircraft. Mr. Barnette also stated that the maintenance records did not provide a description of the type of circuit breaker that the aircraft originally had, nor did they provide evidence to show that a transponder failure had ever occurred.[11]

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[11] To the extent that respondent might imply that vibrations in the aircraft caused a screw holding the circuit breaker to loosen, we note that respondent does not allege that he conducted the flight in bad weather conditions, that the

Furthermore, we note that Mr. Lewis testified that he noticed the entire panel go dark when he flew respondent's aircraft in September 2004, and experienced a power anomaly following a problem with the battery. Tr. at 752, 756. This testimony, however, is not necessarily helpful to respondent's case, because respondent did not testify that he experienced a similar complete electrical failure, and instead argues that he would not have seen the transponder go dark if it alone had switched off. However, as we discuss herein, the evidence is far from compelling that the aircraft was experiencing intermittent transponder failures or that a transponder failure occurred on the day in question. Overall, respondent has the burden to prove his affirmative defense by a preponderance of the evidence; on the record before us, we agree with the law judge that the evidence does not fulfill this burden.[12]

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aircraft climbed to no more than 1,400 feet in the traffic pattern (Tr. at 795, 1135), and that respondent contends that he did not climb above 600-700 feet after takeoff (Respondent's Br. at 24).

[12] We note that this conclusion is consistent with Administrator v. Zingali, NTSB Order No. EA-3597 (1992), in which we rejected the respondent's affirmative defense that malfunctioning avionics equipment caused his operation of his aircraft in a manner that was contrary to ATC instructions, when the respondent did not discover the alleged intermittent failure until more than 1 year after the operation of the aircraft. See also Administrator v. Palmquist, 6 NTSB 476, 478 (1988) (rejection of defense that malfunctioning equipment caused violation, when respondent did not discover malfunction until

In addition, we note that respondent's apparent application of the Lindstam doctrine[13] is inapposite here. The Administrator has proved, by way of respondent's admissions, that respondent operated his aircraft in the ADIZ and that radar data indicates that the FAA tracked respondent as a "primary target." Exh. J-1 at 3. As such, this case rests upon whether respondent has proved his affirmative defense, not whether the Administrator can prove, using circumstantial evidence, that the violation would not have occurred but for respondent's carelessness. Respondent's reading of the law judge's decision in this regard is erroneous: on pages 1654-55 of his initial decision, the law judge was rejecting respondent's affirmative defense by stating that respondent's carelessness was the reason why his transponder was not transmitting the discrete code, rather than a transponder malfunction. Respondent's assessment that the law judge's reference to carelessness meant that the law judge was

(..continued)
7 months after the incident).

[13] Under Administrator v. Lindstam, 41 C.A.B. 841 (1964), the Administrator need not allege or prove specific acts of carelessness to support a violation of § 91.13(a). Instead, using circumstantial evidence, he may establish a prima facie case by creating a reasonable inference that the event would not have occurred but for respondent's carelessness. The burden then shifts to respondent to promulgate an alternative explanation for the event that casts reasonable doubt on, or overcomes the inference of, the Administrator's claim of carelessness. Id.; Administrator v. Stepovich, NTSB Order No. EA-4931 (2002).

applying the Lindstam doctrine is contrary to the fundamental issues in this case.

We also reject respondent's argument that the Administrator is obligated to waive imposition of a sanction under the Brasher doctrine. Specifically, respondent argues that ATC knew that it was his aircraft operating in the ADIZ without squawking a code, and they should have promptly notified him, but does not provide any evidence to establish how ATC would have been able to specifically identify his aircraft while his aircraft was in the ADIZ.[14] In addition, respondent emphasizes that he had provided his cell phone number to the Altoona Flight Service Station, from which he received his discrete transponder code, so ATC did have a way to contact him to advise him that he was not squawking a discrete code. Respondent's Br. at 47. We note that the Brasher doctrine is limited in application, and is

[14] Instead, respondent refers to a statement from an ATC specialist at the Potomac TRACON ATC facility, in which the specialist stated that, "[Potomac TRACON] was not in contact with the aircraft. Aircraft appeared to depart [Gaithersburg Airport] as primary target … Aircraft started squawking 5352 and was identified as N724TX." Exh. R-18. Respondent, however, does not address the initial portion of the specialist's statement, which clearly provides that she checked "to see if PCT was talking to the aircraft," and that Potomac TRACON "was not in contact with the aircraft." Id. Given this lack of communication, it is unclear how respondent expected ATC to contact him while he was not squawking his discrete code. If respondent asserts that ATC was obligated to contact him after he began squawking the code, he does not explain how this is consistent with FAA Order 7110.65, ¶ 5-2-14. See infra note 15.

based upon the ATC manual, FAA Order 7110.65, ¶ 5-2-14.[15] In this regard, the Administrator's witness, Ms. Ramirez, testified that ¶ 5-2-14 does not apply to circumstances in which ATC cannot identify the aircraft with a malfunctioning transponder because ATC is not in communication with the aircraft. Tr. at 1297-98. Respondent does not provide any cites to cases in which we have held that Paragraph 5-2-14 applies to situations in which ATC is unable to identify an aircraft with a malfunctioning transponder, nor does he provide a persuasive argument that we should expand the application of Brasher to cases that involve circumstances such as these, in which a respondent has not established two-way communications with ATC.

Respondent also contends that the law judge erred by applying a standard of strict liability. In particular, respondent argues that the Administrator did not meet his burden

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[15] Paragraph 5-2-14, entitled "Failure to Display Assigned Beacon Code or Inoperative/Malfunctioning Transponder," provides instructions to air traffic controllers in the following situations:

a. Inform an aircraft with an operable transponder that the assigned beacon code is not being displayed.

b. Inform an aircraft when its transponder appears to be inoperative or malfunctioning.

c. Ensure that the subsequent control position in the facility or the next facility, as applicable, is notified when an aircraft transponder is malfunctioning/inoperative.

Exh. R-27 at 9.

because he did not provide any evidence that respondent knew or should have known that he committed any violations. Respondent's Br. at 49-50. Respondent does not specifically articulate how the law judge applied such a standard, and relies upon cases that are distinguishable from this case.[16] We find that respondent's argument regarding strict liability is unpersuasive. The case before us does not require application of strict liability, as respondent clearly knew the requirements of NOTAM FDC 3/2126, and knew that the NOTAM was in effect when he operated his aircraft. Respondent has admitted that he

[16] Respondent cites Administrator v. Dress, NTSB Order No. EA-5115 (2004), in which we held that the respondent was not liable for operating an aircraft in restricted air space when no government publications were available prior to the respondent's flight that depicted or referred to the expanded prohibited area that the respondent entered. Respondent also cites Administrator v. Frohmuth and Dworak, NTSB Order No. EA-3816 (1993), in which we stated that, "airmen cannot be held to a strict liability standard for ATC deviations when their mistaken behavior is apparently induced and then ratified by ATC's actions." Similarly, respondent's citation to Administrator v. Rolund, NTSB Order No. EA-4123 (1994), is also not on-point, as we held in Rolund that the respondent's abbreviated response to an ATC instruction did not amount to a violation, because the evidence did not establish that the respondent had heard ATC's instruction to maintain 2,500 feet. Finally, respondent's reliance on Administrator v. Brassington, NTSB Order No. EA-5180 at 18-19 (2005), is also misplaced, as we held in Brassington that the respondent could not be held liable for the operation of commercial flights without an air carrier operating certificate, because the respondent had no way of knowing that another air carrier was impermissibly exercising operational control over the flights at issue, and that the FAA had approved the arrangement and did not question the issue of operational control.

operated his aircraft in the ADIZ while radar data from the National Capital Region Coordination Center showed that his aircraft was a primary target for approximately 5 minutes. As such, the law judge's evaluation of respondent's violation did not require any application of a strict liability standard, but instead required an assessment of whether respondent had proved his affirmative defense by a preponderance of the evidence.

Finally, respondent contends that the law judge was biased against him, and that this bias manifested when the law judge "threatened to disqualify [respondent] from representing himself at the hearing." Respondent's Br. at 50. Respondent opines that this alleged bias is the result of respondent's history as a "seasoned FAA enforcement attorney" and his position as "chairman of the NTSB Bar Association Rules Committee." Id. Respondent contends that this alleged bias affected his due process rights. Id. We find that the evidence does not support such an assertion. First, we note that law judges have significant discretion in their oversight of hearings and evaluation of procedural issues. See, e.g., Administrator v. Wheeler, NTSB Order No. EA-5208 at 9 (2006) (citing 49 C.F.R. § 821.35(b); Administrator v. Reese, NTSB Order No. EA-4896 at n.4 (2001); Administrator v. Kachalsky, NTSB Order No. EA-4847 at n.4 (2000)). Moreover, we have held that, in order to disqualify a law judge for bias or prejudice, "the bias or

prejudice must stem from an extra-judicial source and result in an opinion on the merits on some basis other than what the judge has learned from his or her participation in the case." Administrator v. Steel, 5 NTSB 239, 243 n.8 (1985). We have long rejected contentions that a law judge decided a case or issued certain evidentiary rulings based on bias when the party alleging such bias presents nothing more than conjecture in support of the assertion. See, e.g., Administrator v. Nickl, NTSB Order No. EA-5287 at 7-8 (2007) (rejecting motion to disqualify law judge based on unsupported contention of bias); see also Administrator v. Wheeler, supra at 9.

We have carefully reviewed the lengthy transcript of all hearing sessions regarding this case, and note that the law judge frequently admonished the Administrator's counsel, overruled the Administrator's counsel's objections, and sustained respondent's objections; our review of the transcript indicates that the law judge agreed with respondent's position on evidentiary questions and objections over 75 times. Moreover, the law judge allowed respondent a considerable amount of flexibility in admitting evidence. See, e.g., Tr. at 460, 499-500, 750, 883-84. Respondent argues that the law judge demonstrated his bias by not allowing respondent to introduce evidence that indicated that Inspector Long conducted an inadequate and incomplete investigation, and that the law

judge's credibility findings are the result of his bias. We disagree with these contentions, and conclude that the law judge did not abuse his discretion in disallowing evidence concerning the Administrator's investigation into his violation, and that the law judge's credibility determinations were neither arbitrary, capricious, nor contrary to the weight of the evidence. Moreover, we note that the law judge's conduct at the hearing did not result in a disturbance of respondent's due process rights, as the law judge allowed for an extremely lengthy hearing at which respondent had the opportunity to cross-examine all adverse witnesses. We have previously held that, where a respondent has had the opportunity to present and cross-examine witnesses at the administrative hearing, neither the law judge nor the Administrator has denied the respondent due process of law, as established by the Fifth Amendment. See, e.g., Administrator v. Nadal, NTSB Order No. EA-5308 at 7 n.6 (2007) (citing Administrator v. Nowak, 4 NTSB 1716 (1984); Administrator v. Logan, 3 NTSB 765, 768 (1977); Administrator v. Smith, 2 NTSB 2527, 2528 (1976)). Overall, respondent's contention that the law judge was biased is based on conjecture, and therefore does not constitute a basis for a finding of bias.

In conclusion, we note that we have carefully evaluated the record, and find that many inconsistent items of evidence or areas of testimony plagued respondent's case; in particular,

respondent appears to have confused the issues in attempting to prove his affirmative defense of a transponder failure. For example, respondent asserts that the Administrator has not presented any evidence to show that respondent caused the failure of his transponder, thus preventing the radar from detecting his discrete transponder code. Respondent's Br. at 34. We note that the regulations at issue, however, do not require the Administrator to prove that respondent caused a failure of the transponder; instead, the Administrator must prove that respondent was not complying with the terms of NOTAM FDC 3/2126 (i.e., squawking the appropriate code). See notes 3-5, supra. Here, respondent has admitted that the radar evidence established that his aircraft was identified as a primary target (Exh. J-1 at 3), which indicates that his aircraft was not squawking the code. As such, respondent cannot now attempt to impose an additional burden on the Administrator, to prove specifically the manner in which respondent failed to fulfill the requirements of the regulation.[17] In short, respondent's attempt to shift the burden to the Administrator to disprove his affirmative defense is inconsistent with law and our precedent.

[17] To the extent that respondent seeks to establish that a problem with the Administrator's radar data exists, we note that Ms. Ramirez's testimony, as well as the radar data in the record, shows that multiple radars identified respondent's aircraft as a primary target. Tr. at 1261.

In addition, the record disputes respondent's argument that the Administrator provided him insufficient notice to defend the allegation properly. For instance, respondent testified that he did not have any indication that a problem existed with his transponder at any time prior to February 2007, and thus had inadequate opportunity to explore the possible malfunction. Tr. at 936. Mr. Lewis, however, testified that on September 14, 2004, the electrical panel in the aircraft darkened and appeared inoperative (Tr. at 752), and Exhibits A-21, A-22 and A-23 indicate that respondent knew that the FAA was pursuing a certificate action against him, and why, in September 2004, based on the June 8, 2004 flight (Tr. at 1003). Moreover, in July 2004, the FAA first contacted respondent to inform him that he had violated the ADIZ requirements, and that they intended to pursue an action against respondent. Therefore, notice in this case appears to have been sufficient.

Overall, we find that respondent has not met his burden in attempting to establish that malfunctioning equipment excuses his failure to comply with the provisions of NOTAM FDC 3/2126.

ACCORDINGLY, IT IS ORDERED THAT:

1. Respondent's appeal is denied;

2. The law judge's initial decision is affirmed; and

3. The 30-day suspension of respondent's commercial pilot certificate shall begin 30 days after the service date indicated on this opinion and order.[18]

ROSENKER, Acting Chairman, and HERSMAN, HIGGINS, SUMWALT, and CHEALANDER, Members of the Board, concurred in the above opinion and order.

[18] For the purpose of this order, respondent must physically surrender his certificate to a representative of the Federal Aviation Administration pursuant to 14 C.F.R. § 61.19(g).

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

OFFICE OF ADMINISTRATIVE LAW JUDGES

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* * * * * * * * * * * * * * * * * *
In the matter of:                  *
                                   *
ROBERT A. STURGELL,                *
ACTING ADMINISTRATOR,              *
FEDERAL AVIATION ADMINISTRATION,   *
                                   *
                     Complainant,  *
     v.                            *    Docket No.:  SE-17907
                                   *    JUDGE POPE
GREGORY S. WINTON,                 *
                                   *
                   Respondent.     *
* * * * * * * * * * * * * * * * * *
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National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, D.C.

Wednesday,
November 28, 2007

The above-entitled matter came on for hearing, pursuant to Notice, at 11:00 a.m.

BEFORE: WILLIAM A. POPE, II
Administrative Law Judge

APPEARANCES:

On behalf of the Administrator:

JAMES A. BARRY, Senior Attorney
Enforcement Division
Office of the Chief Counsel
Federal Aviation Administration
800 Independence Avenue, SW
Washington, D.C. 20591
(202) 267-8198

On behalf of the Respondent:

GREGORY S. WINTON, ESQ. Pro Se
ERICA GUDELSKY, Assistant
Aviation Law Experts
One Research Court
Suite 450
Rockville, Maryland 20850
(301) 294-8550

ORAL INITIAL DECISION

DISCUSSION

This is a proceeding under the provisions of 49 USC Section 44709, formerly Section 609 of the Federal Aviation Act and the provisions of the Rules of Practice in Air Safety Proceedings of the National Transportation Safety Board.

Gregory S. Winton, the Respondent, has appealed the Administrator's Order of Suspension dated May 20th, 2005, which pursuant to Section 821.38(a) of the Board's rules serves as the Complaint in which the Administrator ordered the suspension of any airmen pilot certificate held by him, including his commercial pilot certificate, because he allegedly violated Sections 91.139(c), 99.7, and 91.13(a) of the Federal Aviation Regulations by operating an aircraft within the Washington Air Defense Identification Zone without complying with the requirements of FDC Notice to Airmen 3/2126.

Section 91.13(a) of the FARs states that no person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another.

Section 91.139(c) provides that when a NOTAM has been issued under this subsection, no person may operate an aircraft or other device governed by the regulations concerned within the designated airspace except in accordance with the authorizations, terms, and conditions prescribed in the regulation governed by the NOTAM.

Section 99.7 of the FARs provides that each person operating an aircraft in an ADIZ or defense area shall, in

addition to the applicable rules of this part, comply with special security instructions issued by the Administrator in the interest of national security and that are consistent with appropriate agreements between the FAA and the Department of Defense.

In his first amended answer to the complaint the Respondent admitted Paragraphs 1, 2, 3, of the complaint, and denied or stated he lacked sufficient knowledge or information sufficient to form a belief as to the truth or falsity of the remainder of the complaint.

The Respondent also raised as affirmative defenses:

1) He relied on his emergency authority as pilot-in-command.

2) His aircraft experienced an electrical malfunction in flight, the extent of which he was unable to determine.

3) He was not advised of the alleged deviation until July 14th, 2004, more than five weeks later.

4) The respondent relies on the Lindstam Doctrine.

5) He is entitled to waiver of sanction because he was not notified of an ATC deviation in accordance with the provisions of FAA Order 7110.65 Paragraph 2-1-26.

6) He exercised appropriate cockpit resource management.

7) The regulations cited by the Administrator are vague and deny him due process of law.

8) The Administrator lacks substantial basis in law and fact to continue prosecution of this matter against him.

Thus, the Respondent has admitted, and there is no dispute, that the Respondent is and was the holder of airmen certificate number (omitted) with commercial pilot privileges; that on or about June 8th, 2004, he acted as pilot-in-command of civil aircraft N724TX, a Cessna CE-172M, the property of another, during a flight conducted in the vicinity of Gaithersburg, Maryland, and FDC Notice to Airmen 3/2126, a NOTAM issued pursuant to 14 CFR Sections 99.7 and 91.139 became effective March 18th, 2003, and was in effect on June 8th, 2004.

MR. WINTON: Judge, would you pull the mike maybe a little closer to your mouth, please? Thanks.

ADMINISTRATIVE LAW JUDGE POPE: Can you hear me better now?

MR. WINTON: Yes. Thank you.

ADMINISTRATIVE LAW JUDGE POPE: Exhibit J-1 is a stipulation entered into by the parties covering the Administrator's exhibits, the Respondent's exhibits, the attendance of certain witnesses and a stipulation of facts as follows:

Respondent is the holder of airmen certificate number (omitted) with commercial pilot privileges.

On or about June 8, 2004, Respondent acted as pilot-in-command of a Cessna C-172M, a civil aircraft identified as N724TX during a flight conducted in the vicinity of Gaithersburg, Maryland.

FDC Notice to Airmen 3/2126, a NOTAM, was in effect on June 8th, 2004.

The NOTAM covered airspace in which the Respondent operated N724TX on June 8th, 2004.

Prior to operating the aircraft in the DC ADIZ, Respondent filed a flight plan with an Altoona Flight Service Station.

Prior to operating the aircraft in the ADIZ, the Respondent obtained a discreet transponder code from ATC, i.e. 5352.

Respondent requested clearance out of Washington, D.C., ADIZ and received from Potomac TRACON a discrete transponder code, i.e. 5352, and a departure frequency.

According to the National Capital Region Coordination Center (NCRCC) radar track history, on June 8th, 2004, N724TX was recorded by radar as a primary target during the following periods, 23:29:32 through 23:34:18, primary target.

According to the National Capital Region Coordination Center (NCRCC) radar track history, on June 8th, 2004, N724TX was recorded by radar as continuously transmitting the following discreet transponder code, 5352, from 23:34:29 through 23:40:09 with the exception of 23:36:06 through 23:36:30 when the target was in coast mode.

According to the National Capital Region Coordination Center (NCRCC) radar track history, on June 8th, 2004, N724TX was

recorded by radar as in the coast mode during the following periods, 23:40:20 through 23:43:57 with the exception of 23:41:19 and 23:43:57 when the target was a primary target.

According to the National Capital Region Coordination Center (NCRCC) radar track history, on June 8th, 2004, N724TX was recorded by radar as continuously transmitting the following discrete transponder code from 23:47:01 through 23:50:36. The code that was transmitted was 5352.

According to the National Capital Region Coordination Center radar track history, on June 8th, 2004, N724TX was recorded by radar as in the coast mode during the following periods, 23:50:48 through 23:54:26 with the exception of 23:54:26 when the target was a primary target.

Radar Audio Playback Terminal Operations Recording known by the acronym of RAPTOR is a computer program developed by the FAA relatively recently for review of radar data. In this case, the radar is stored electronically in the Potomac Consolidated Terminal Radar Approach Control, the TRACON. FAA technicians use a program called an editor to extract data and download the data in a text format on a CD disc which when used with the RAPTOR program shows a representation of the radar track of an aircraft in a digital display format as seen by air traffic controllers on their screens for use in the investigation and litigation of accidents.

According to the testimony of Dawn Ramirez, a Support

Specialist for the quality assurance at the Potomac TRACON, who extracted and downloaded the radar data used by the Administrator in this case, the raw radar data also has an automation component which tags aircraft using discrete beacon codes, and that enables the computer to identify specific aircraft that have filed flight plans and have been assigned discrete beacon codes.

She testified that she prepared Exhibit A-6 using a text representation of the flight track of N724TX on June 8th, 2004. A-6 is a CDR data or Continuous Data Recording of whatever the radar paints for a digital display. It has to be used in conjunction with the RAPTOR program. Without the RAPTOR program, the data could only be reviewed as a text document or Word document which gives the latitudes and longitudes, altitudes and times. The radar data she extracted came from the Baltimore sensor and includes everything that the Baltimore sensor was painting during a specific time period.

She stated that in order to have the data displayed as seen by the controller, it would be necessary to have a computer with a RAPTOR program installed in it.

Counsel for the Administrator represented that the Respondent was provided a copy of the raw data and a copy of the RAPTOR playback of the data which can be played back through a computer without any sort of special program. What is displayed back is basically a moving display of what an air traffic controller may see from his particular station at a tower or a

TRACON.

Counsel further represented that the RAPTOR program itself is proprietary and is not available to the public.

Ms. Ramirez said that Exhibit A-7 includes several plots or graphical displays of the flight path of N724TX and a matrix derived from the RAPTOR data that explains in more detail what the flight path is. As explained by Ms. Ramirez, the plots are composed of a picture which is a graphic display of a flight path and then is followed by a matrix display of a flight path that explains in more detail what the flight path is. They are used in conjunction. They are tools that we use to further an investigation, she said.

She said that A-6 has all of the flight information while the plot and matrix have flight information for a particular aircraft derived from the RAPTOR program. She said that RAPTOR displays all information from the Baltimore sensor and the separate plot programs use portions of this data for specific flights. A plot of everything would be unreadable. The RAPTOR program gives a moving graphical display on a computer screen. The plot program called the ATC Plot Program, uses the raw RAPTOR data to extract specific flights and produces plots and matrix which explain the plot by giving X and Y positions, the latitude and longitude bearings, range, and heading speeds.

By agreement with counsel, Ms. Ramirez was excused subject to recall to complete direct and cross-examination.

The next witness called by the Administrator was Mark Olsen who is currently the Acting Director of Safety Investigations and Evaluations for the FAA. He has been employed the FAA for 25 years and has been doing radar analysis since the early 1990s. Mr. Olsen developed the RAPTOR tool for the FAA, along with a colleague from technical operations.

As he described it, the tool was designed, developed, and maintains programs that support RAPTOR throughout the country and to various organizations outside the Government.

He said that RAPTOR was developed in the late 1990s. He said that the purpose was for analyzing CDR, or Continuous Data Recording, the information recorded on a continual basis by automated radar systems, in this instance, the Potomac Consolidated TRACON's automatic radar terminal service version 3E. He said that we analyzed information through RAPTOR for the 9/11 hijack and then the Columbia space shuttle accident. NASA asked for our help through RAPTOR finding space shuttle debris and this tool has become the primary investigative tool for the agency in analyzing terminal automation information.

He said he was asked to conduct radar analysis on the flight at issue in this proceeding. He was asked to determine if the plots prepared by Potomac TRACON had indeed identified the correct aircraft and what the flight path of the aircraft was, and specifically, whether or not it was squawking the appropriate discrete code at ADIZ.

He said he relied on CDR data provided by Potomac TRACON from their automated system. He described his intention at the hearing to do the following. I'm going to present a rapid depiction of the radar data as recorded by the automation system on June 8th, 2004, depicting the flight path of N724TX and other aircraft operating in or about the vicinity of the Gaithersburg Airport.

From a computer screen projected on a larger screen, he said he was demonstrating the functionality of the RAPTOR program to give you a frame of reference by pointing out the location of the Baltimore/Washington International Airport, the Dulles Airport, and the Gaithersburg Airport, and the ADIZ line. He said it is a video map used by the Potomac TRACON for reference on their radar displays. He said he will be able to zoom into a particular area of interest and eliminate the unnecessary clutter.

He said in response to my question that he has the capability to prepare both still pictures of what is on the screen or prepare electronic files that someone at a later date can just review on their computer. He said that the NTSB does have a copy of the RAPTOR program.

To resolve the problem of how to preserve the witness' running narrative accompanying and explaining the moving presentation by the RAPTOR program, the witness was instructed to prepare prints of the screen at what he considered to be key points in his testimony.

The Respondent objected strongly to this procedure stating it would have to be done in a timely fashion before the hearing so that he could be provided with copies of the prints in advance of the trial for his expert to study.

Mr. Olsen made his RAPTOR presentation supplemented by prints of the computer screen at various points. He agreed that if an aircraft is about 800 mean feet above sea level, the radar system and the automation system should be able to track a primary or secondary radar signal from the aircraft. If it flies below that, the radar and automation system will not be able to track the aircraft. The aircraft would go into coast and not be depicted on the radar display.

Mr. Olsen said it appears that N724TX departed the Gaithersburg Airport on Runway 32, proceeded to the north, then turned to the northeast, then turned east, then turned southeast, then turned to the southwest back towards the airport, then crossed the extended centerline of Runway 32, and then its transponder registered on the radar system. The automation system indicates through tracking that he was not squawking a transponder code on takeoff. The aircraft began squawking a particular code at 1100 or 1200 feet. He said that the Customs Service radar data, which he had access to, shows that the aircraft continued squawking 5352 but the RAPTOR presentation only plays data back from the FAA radar.

Exhibit A-12 is the Customs Service radar data reviewed

by Mr. Olsen. It indicates that at 23:29:32 Zulu from the vicinity of the Gaithersburg Airport, an aircraft came with no transponder signal. It was a primary target heading to the north. He said that it appears to be consistent with the information he drew on Exhibit A-10 and that at 23:34:29 Zulu the aircraft appears to cross the centerline of Runway 32. It looked like it was squawking 5352, though in Exhibit A-10 he said that 5352 was displayed at 23:34:26. So, he was three seconds off.

The Customs Service data overlaps the FAA radar data from 23:29:44 to 23:34:26. According to the Customs Service data, the aircraft continues to squawk and begins to descend from an altitude of 1300 feet to 800 feet, then to 600 feet, then the target goes into coast. He said he did not plot out the Customs Service data and the aircraft may have turned back and landed at Gaithersburg. He said it was his opinion that the aircraft was not squawking a code on departure, became airborne, and the transponder started working. Probably it was turned from standby to on. 23:34:29 was when we started picking up the transponder. It was not squawking prior to that. If its transponder was on, it would have been picked up. As soon as the automation system started to track on the aircraft, the air target was strong enough to be picked up by the radar with the transponder signal. That happened at 23:29:44. The track number assigned by the automation system at the Potomac TRACON was 299.

Mr. Olsen explained that coast means that the tracker

within the automation system did not pick up any radar information and projected an estimate of where the aircraft should have been based on the last heading and speed. A primary target does not include any altitude information. There is no transponder associated with it. A secondary target is the transponder signal detected by the radar system. There is a radar reinforced beacon type of target that says that this particular primary target is associated with this particular secondary target. But an aircraft at a low altitude squawking a discrete beacon code can still register as a coast. If it climbs into radar coverage, it would be displayed on the radar as a primary and secondary target. At Gaithersburg Airport, 800 to 900 feet is where the radar should be able to detect a secondary and primary signal.

If an aircraft takes off without squawking a code, it would be identified as a primary target when it enters radar coverage. If the target becomes strong enough for the automation system to start a track, and it still is not displaying the transponder signal, we can assume that the transponder was either malfunctioning, off, or on standby. An aircraft taking off would be identified as a primary target as soon as it entered radar coverage. If the target becomes strong enough for the automation system to start a track and it was still not displaying a transponder signal, we can assume the transponder was malfunctioning, off, or on standby.

Exhibit A-7, page 6, is a plot showing that TRAK426, an

aircraft squawking a transponder signal, was detected as a primary target heading to the north northwest, continuing on until approximately 23:21:07 before reversing course turning southeast bound, then turning to the east, then turning to the south, entering the right downwind for Runway 32, turned right, then the track was lost, meaning the automation system no longer tracked the aircraft. It then became a primary target. It turned right almost turning onto final approach, then the radar system no longer detected it as a primary target.

The notation in the bottom left hand corner is N724TX 426 coast. The A stands for aircraft number one on the plot. It is assigned by the ARTS 3E system. It says CST at the end because that was the last track the automation picked up and the aircraft went into coast status, meaning there is no radar information behind the track entry. A is a primary target. It does not display any altitude information.

There is a notation on the plot indicating that it was derived from the computer recordings from June 8th, 2004, 23:00:01 UTC to 23:59 UTC. The line just west of the track going north is an airspace boundary. The witness marked the ADIZ on the plot and on the map depictions on page 1, 4, and 10. Everything below the line is in the ADIZ.

Pages 7, 8, and 9 of Exhibit A-7 have header information across the top. It starts with aircraft A return one. The time is UTC, or Universal Coordinated Time. ACID is an aircraft

identification. ACP is call azimuth control pulse, which is 360 degrees divided by 4,096. ACPs are much finer than degrees. The aircraft identification is N724TX. The call sign is manually entered by the person preparing the plot. Next are the X and Y positions from the Baltimore radar system. Next are the latitude and longitudes of a particular target. Then the BRG, which is the bearing from the radar system. Next if the aircraft is sending Mode C, is the altitude in mean sea level. The HDG is the heading of the track and the SPD is the ground speed in knots.

A computer program called ATC Plot analyzes the CDR and produces this document. The person who entered exhibit A-7 said that the depiction is for a TRAK299. The person who prepared the plot had to know what the track number was so it could be entered into the program. In the lower left corner is the entry for the call sign, N724TX. Then only track number 299. The person who prepared the plot had to use some other analysis tool, either RAPTOR or a review of the raw CDR data to get the actual track number out of the text file. The tracker or tracking system, which is part of the automation system, determines that a transponder signal is associated with a particular primary target. All that is displayed on the display is an asterisk and ground speed which is calculated by the tracking system. The tracking system automatically updates the track every 4.6 seconds.

Pages 10 and 11, Exhibit A-7, depicts track CK426, a primary target departing Gaithersburg heading out to the north and

reversing course, then turning east, then turning south, then turning final to Runway 32. It appears that Mr. Peterson who prepared the plot, in order to make the plot more legible, decided to plot every third radar turn, giving an update of every 14 seconds.

Pages 2 and 3 are the plotting information relating to page 1. The update is every 4.6 or 4.5 seconds. This is TRAK299. As the previous TRAK426 turned final approach to Gaithersburg. The radar system no longer registered a signal or detected a primary return associated with that particular track and the track went into coast and 15 to 30 seconds later the track was terminated and that makes the track number available for another aircraft.

TRAK299 is an aircraft that departed Gaithersburg and the automation system established another track for it. TRAK299 had been assigned to another aircraft that landed at Dulles and terminated at 23:29:33. TRAK299 was reassigned at 23:29:44 to N724TX.

N724TX was in the air from 23:29:44 to 23:34:39 without transmitting a transponder signal. The tracker picked up the discrete signal 5352, which was associated with N724TX and it showed up in the data block on the display at 23:34:39. The new track number at that time was TRAK563.

N724TX was in the air approximately five minutes before it started transmitting a discrete code. At the very end it was

coasting when the automation system again picked up the 5352 code. When that happened, the tracker generated a new track, TRAK563. That can be seen in the raw CDR data. TRAK299 went into coast, then TRAK563 picked up simultaneously. The tracker went into coast because it was expecting a primary only target and it changed to a primary and secondary target so the tracker changed the track number to TRAK563.

Mr. Olsen said he believes that TRAK299 and TRAK426 belong to the same aircraft, N724TX. From the times and distance, he believes that the aircraft in TRAK299 and TRAK426 did a touch and go landing at Gaithersburg Airport. TRAK299 showed up first at 23:19:12, roughly two minutes after the Respondent said they would be airborne in a minute.

In TRAK299 it is difficult for the automation system to track primary signals or targets. So, the data there is an occasional CST, which means a radar system did not pick up a primary target on the next update it did. The aircraft did not coast long enough for the tracker to lose tracking.

Pages 7 through 9 of Exhibit A-7 show A1 through A113. A113 is at 23:27:48. Index A108 on page 9 through A113 is in coast meaning we did not receive radar information during that timeframe so the track went into coast. We believe the aircraft was on final approach and descended below the altitude at which the radar system could pick it up. That would be standard for an aircraft descending to the airport.

Exhibit A-5 is a partial transcript prepared by the Potomac TRACON containing recorded audio from N724TX on June 8, 2004, from 23:10 to 23:21 UTC.

23:15:46 N724TX: Potomac Cessna 724TX, Gaithersburg for clearance out of the ADIZ.

23:15:54 CHPFD: Say again call sign. Requesting release.

23:15:57 N724TX: Cessna N724TX for release from Gaithersburg to Frederick.

23:16:02 CHPFD: Cessna 724TX Potomac approach squawk 5352. Departure frequency 128.7. Remain clear of Class Bravo airspace.

23:16:12 N724TX: Okay. Remain clear of the Class Bravo. 5352 on squawk box. 128.7 on freq.

23:16:20 CHPFD: Cessna 4TX, read back correct.

23:16:23 N724TX: So, we'll be off in a minute.

Mr. Olsen said that he cannot establish positive radar identification from A-7 alone because it does not contain the plot of the aircraft squawking 5352. In concluding that A-7 depicted 724TX, he relied on the continuous data recording from the Potomac TRACON. He relied on the analysis of that information through the RAPTOR program, and he relied on the information presented by the Customs radar system. He said that he went backwards in time from TRAK563 to TRAK299, and TRAK299 goes back to the airport and goes out the other side in reverse. Given that information and the

radio transmission from N724TX that we'll be off in a minute, he concluded that TRAK426 and TRAK299 were the same aircraft.

He said that TRAK426 at 23:19:12 shows an aircraft proceeding northbound, then turn southbound, reverses course, enters the right traffic pattern to Gaithersburg, turns final approach or final, then continues northbound on a new track number 299, then makes a right turn to the east, to the south, to the west, and then as crossing the extended centerline of 32, the secondary return comes on as the transponder comes on. That is the end of A-7.

I reserved ruling on the admissibility of A-7 until the Respondent's cross-examination.

Mr. Olsen was offered as an expert in radar analysis. On voir dire he repeated that he did not know or ask how Mr. Peterson, who created A-7, determined that TRAK299 was associated with 724TX. Mr. Olsen said that index A003 through A021 on Page 2 are not associated with that aircraft.

Mr. Olsen was accepted as a radar expert, rather, was accepted as an expert in radar analysis without objection. On cross-examination he said that it was his opinion that the Respondent failed to activate his transponder upon takeoff from the Gaithersburg Airport. He said the Respondent did not comply with Paragraph 6 of the Notice to Airmen 3/2126, Exhibit A-1, requiring that the aircraft's transponder continuously transmit the ATC issued discrete transponder code while the aircraft is

operating in the ADIZ. He agreed that from the time the transponder began broadcasting a discrete signal until the flight terminated, it did continuously transmit a discrete code. It was not transmitting a discrete code during the first part of the flight when it was a primary target. He said it was possible that the automation system did not pick up the code.

He said that index A003 to A021 on Exhibit R-23 are not associated with the Respondent's aircraft although Mr. Peterson marked them as such. He did not ask Mr. Peterson why he did that.

Index A022 and A023 on page 2 are radar returns from N724TX. A022 indicates a ground speed of 126 knots. A023 at five seconds later shows a ground speed of 70 knots. Mr. Olsen stated that in his opinion the speed indicated in A023 is inaccurate. He agreed that the A055 shows that the aircraft was doing 125 knots but five seconds earlier A054, it was doing 94 knots.

He said that Exhibit R-23, Exhibit A-7, contains no plot of an aircraft squawking 5352, and without that information he could not positively identify the aircraft as N724TX.

Exhibit A-12 is encompassed in Exhibit R-22. He said that R-22 starts with a preliminary pilot deviation report. Then there is a copy of information from Customs. Then there is another copy of the preliminary deviation report. And they present a graphical depiction of Customs radar information, a text printout of the Customs radar information.

He said he reviewed R-22 and R-23. He said he did not

rely on the plotting information. He said that R-22, the NCRCC data is consistent with the FAA CDR data. R-23 he said is a plot from the CDR data. It is not the CDR data. The radar data that the witness used contains additional information that is not in the plot. The data within the raw CDR data file is consistent with that in the NCRCC, but there are going to be minute differences in time and possible altitude since he does not know when Customs actually painted the track. He agreed that at the time the radar was tracking the aircraft in Exhibit R-23, it did not know that it was N724TX. Mr. Peterson put that in the computer.

In Exhibit R-23, the automation system did not receive a signal from the transponder from A022 to A091.

TRAK299 and TRAK426 were also tracked as TRAK84 and TRAK85. TRAK84 apparently took off from Montgomery County Airport as a primary target. It proceeded northwest, turned around into the traffic pattern. He does not know if it landed. It disappeared from the radar for 2 minutes and 11 seconds. The automation system dropped the track or it coasted out. Then 2 minutes and 11 seconds later the primary takes off from Gaithersburg Runway 32. He said he did not know definitively whether TRAK84 was a Cessna 172 that landed and TRAK85 was another Cessna 172 that took off. He said that after TRAK84 disappeared and coasted out, 0415 took off from Runway 32. At first it appeared as a primary target. He said that there were various

reasons as to why 0415 with an operating transponder appeared first as a primary target. He said that if he is allowed to enter the CDR data into the record, it will show that TRAK85 related to automation TRAK299. TRAK84 was a call sign that the ADIZ specialist typed in and made the track that call sign. TRAK426 was the automation track number which the ADIZ specialist could not change. He changed only the call sign so that when he talked with someone they talked about TRAK84, which was on the display, but the automation system identified it with a three digit number, TRAK426.

Mr. Olsen resumed his testimony the next day. He identified Exhibit A-11 as the N724TX RAPTOR presentation recorded on a CD-ROM. It is an executable program with the RAPTOR presentation on it. He created it from the raw target information on Exhibit A-6, the CDR information containing raw radar information. Exhibit A-11 is the RAPTOR presentation with tracking information based on Exhibit A-6. Exhibit A-6 includes 32,000 pages of tracking information and raw radar information. He said that he used A-6 to make the RAPTOR presentation.

Mr. Olsen said he was going to present the tracking information and radar information solely respective to the Respondent's aircraft only. He said that he included in the RAPTOR presentation track number 426, 299, and 563, which he believes is the Respondent's aircraft. Once he found the 5352 beacon code, he went back in time tracing back the tracks involved

with the Respondent's aircraft and eliminated everything except for those three tracks. He said that without this filtering you would see on the RAPTOR program every target the radar saw during the time period. It could be millions of returns.

He said that the playback of the RAPTOR program indicates that N724TX departed Gaithersburg without squawking 5253. It was a primary target for a determined amount of time then began squawking 5253.

Exhibit A-14 are the slides presented by Mr. Olsen as he played the RAPTOR program. On the right hand side of the screen is a track information number giving the track number of 0 for raw target information, then the time the radar recorded the return, aircraft identification, beacon code, altitude, range from the Baltimore/Washington International Airport, the azimuth in degrees, X coordinate, Y coordinate, latitude, longitude, quality of the target received by the radar with 7 as a strong return, speed, arrival/departure status, entry fix, exit fix, that tells the automation system this particular data block would go with a particular display, position symbol assigned to a particular target, the scratchpad information, second scratchpad information, type of aircraft, runway assigned, altitude requested by the aircraft, target and coast status, STARS system that do not fly to the Potomac TRACON, and flight plan rules, VFR, IFR, M2 for military.

At the center of slide 181 is an airport symbol for the

Gaithersburg Airport. At the bottom left of the screen is a time reference, 23:18:57 UTC. The next, going from left to right on the bottom is the scan or radar update number which increases as the presentation moves forward. Every time the radar completes a 360 degree turn is a scan, a radar update. The radar completes a scan every 4.6 seconds. Next is the X and Y position of the mouse on the screen. Next is the latitude and longitude of where the mouse is pointing. The scale is 6.74 miles, which is an indicator of what the screen is set at. The next two entries are the CDR data file contained on Exhibit A-6 and the file name, N724TX. In the background is the video map from the Baltimore/Washington Airport, which is the ADIZ map from the Potomac TRACON that it uses for that particular radar system.

To the left of the screen is a control bar, which can be used to manipulate the speed and direction of the RAPTOR program. The witness said that in his presentation he was only moving it forward in time a little faster than normal to speed the proceeding.

Screen 14-1, the white arrow in the center of the screen is pointing to the Gaithersburg Airport. The lower symbol is the Gaithersburg Airport and is a standard map symbol used on a chart and used by air traffic controllers on their radar display. The line that bisects the circle is the direction of Runway 14-32 at the Gaithersburg Airport. This is the first time the radar picked up the Respondent's aircraft. The time is 23:18:56. It is a raw

radar return because the automation system has not started a track of this aircraft yet.

Screen 14-2, the pointer is to the northwest of the Gaithersburg Airport. The automation system is now tracking the aircraft and has identified the track in the upper right corner as track number 426. It is the only target on the screen. The heading of the aircraft is 338 degrees. The speed is 97 knots. The controller would see the speed rounded up to 100 knots.

RAPTOR scan 197 indicates that the target is traveling at a speed of 120 knots.

RAPTOR scan 219, slide 3, the aircraft controller labeled this track 426 and gave the aircraft a call sign of TRAK84. The target is traveling eastbound. The dots behind it indicate the history of the target back in time. The target made a turn and was not heading 124 degrees.

RAPTOR scan 290 shows TRAK84 continuing to the southeast. The aircraft appears to be on final approach to Runway 32 at the Gaithersburg Airport. The radar target was lost and the display shows a ghost track.

RAPTOR scan 318 is the first indication the Respondent's aircraft has left Gaithersburg for a second time and is proceeding to the north. The time is 23:29:29 and 4 seconds. The red dot indicates a primary only target. No transponder information. The radar system was not receiving any transponder signal. Mr. Olsen testified that he believed the aircraft had either completed a low

approach or a touch and go and had continued on.

Scan 324 shows the automation system has established a new track for this particular aircraft of track number 299 heading 8 degrees, speed 107 knots. There is no transponder signal being received. It took 2 minutes and 10 seconds for the aircraft from the time it went off the radar until it reappeared. It would have to have traveled at about 88 knots. There was not enough time for the aircraft to have left the runway and another aircraft to take off. That is why Mr. Olsen believes it was the same aircraft.

When the Respondent communicated with ATC at approximately 23:16 Zulu, he said he would be off in a minute. The radar system picked up the first return Inspector Olsen believes was associated with the Respondent's aircraft at 23:18:56, about 2 minutes after the Respondent said he would be airborne.

At scan 334, the aircraft is still to the north of the Gaithersburg Airport, has turned west, and the track label or call sign of TRAK85 has been assigned to the aircraft by the air traffic controller. The aircraft has been assigned a track number of 299. Mr. Olsen said that the computer ID or track number is 299. The label that the air traffic controller assigned to it is TRAK85.

Scan 380 is the last primary target only associated with TRAK299 before the aircraft goes into coast or drops off the radar. This is at 1334 at a heading of 264 degrees at a speed of

82 knots.

Scan 382 is the first time that the automation system has detected an aircraft using transponder code 5352. The numbers displayed on the slide show the aircraft is at 1600 feet with an indicated speed of zero. The computer put TRAK85 into a coast mode because it was expecting a primary only target and a secondary target with 5352 transponder code appeared. The primary target is no longer being displayed and the secondary target with the transponder code of 5352 is displayed. That is based on previous history of track 8 given the speed and the same heading, meaning the aircraft could not have turned off that particular heading. The transponder indicated an altitude of 1600 feet.

It takes two returns of the radar to establish a track. So, there were one or two transponder returns prior to the automation system establishing a track on 5352.

On scan 385, the automation system has auto acquired the information contained in the flight plan for N724TX and has assigned that call sign to TRAK563. With the type of aircraft given the Cessna 172 on a heading of 224 degrees, at a speed of 69 knots, the entry fix is GAI, standing for Gaithersburg. The exit fix is FDK, standing for Frederick.

Mr. Olsen said that the aircraft with the transponder code of 5352 was east of the extended centerline of Runway 32. Mr. Olsen identified Exhibit A-3 as a transcript of communications between Mr. Winton and the Altoona Flight Service Station. It

indicates that the aircraft's destination was Frederick.

Mr. Olsen said that scan 388 is the end of the FAA radar data he prepared. It shows N724TX as TRAK63 at 1400 feet, indicating 56 knots on a 200 degree heading. Just to the northwest is TRAK85 still in coast mode. It is a projection with no radar data behind it. The tracking information displayed on Exhibit A-7 is the same as in the RAPTOR presentation except it does not include TRAK63. Neither are TRAK84 and 85.

The witness identified Exhibit A-15 as snapshots of screen captures from the RAPTOR presentation that he presented at a deposition on March 1 to the Respondent. However, counsel for the Administrator decided not to present it in this case.

Mr. Olsen stated that in his opinion, the Respondent departed Gaithersburg Airport but did not generate the transponder signal until a later time in the flight.

On cross-examination, Mr. Olsen, viewing Exhibit A-15, screen 2 at 23:21:07 said that it shows another transponder on an aircraft squawking 1360 and an altitude of 15,500 feet. He conceded that there were other aircraft flying in the area.

A-15 screen 3 at 23:22:06 shows an unknown aircraft. Its altitude and whether it was in climb or descent are not known. Its speed was 80 to 110 knots.

Screen 4 at 23:23:06 shows the aircraft headed towards Gaithersburg Airport. To the east of the airport is another aircraft, N111F, displaying a transponder code of 0415.

Mr. Olsen said that neither of these aircraft were displayed on the RAPTOR display that he had played earlier. They were both flying in the vicinity of Gaithersburg. At 23:24:06 they were one and a quarter miles apart. They were performing traffic pattern operations.

The aircraft displaying transponder code 0415 turns southbound, then turns to the west, and then to the south, and at 23:24:53, it appears the aircraft is turning final to Runway 32. Then radar contact was lost.

Mr. Olsen said he did not know at what altitude radar coverage was lost. He said it could have done a low approach, a stop and go, or a touch and go.

Mr. Olsen agreed that TRAK85 eventually became the Respondent's aircraft. The aircraft that became identified as TRAK85 departed from Gaithersburg Runway 32 at 23:29:30.

Mr. Olsen said that 2 minutes and 10 seconds elapsed between the time that TRAK84 coasted out and TRAK85 appeared as a primary target. Mr. Olsen confirmed that he had earlier said that TRAK85 was identified as N724TX, and he had tracked backwards and assumed that TRAK84 was also aircraft N724TX. He said that he based that on the same flight characteristics, the same type of turning pattern, and that they both appeared to remain in the traffic pattern at Gaithersburg. TRAK84 entered the traffic pattern and became TRAK85. Both were in the traffic pattern. TRAK84 stopped at 23:27:20. TRAK85 started at 23:29:30. He

agreed that it was possible that the aircraft depicted as TRAK84 actually taxied off the runway and another aircraft took off.

MR. WINTON: Judge, if I may for a moment.

ADMINISTRATIVE LAW JUDGE POPE: Yes.

MR. WINTON: You've identified TRAK84 and TRAK85 as November 111 --

MR. BARRY: Foxtrot.

MR. WINTON: -- it's N724TX. I don't want that to be an error in the record.

ADMINISTRATIVE LAW JUDGE POPE: That's correct. Where I said N111F, I meant to say N724TX.

MR. WINTON: Thank you.

ADMINISTRATIVE LAW JUDGE POPE: He was shown R-22(a) which were separated from R-22 and the rest of R-22 was marked as R-22(b). Mr. Olsen said that R-22(a) is a preliminary plot deviation report, Form 8020-17, regarding the Respondent's aircraft on June 8th, 2004. Mr. Olsen said that R-22(a) has his handwriting on it placed there at the time of the deposition.

Counsel agreed that J-3 is a copy of the same report without the handwriting on it. By agreement, R-22(a) was admitted into evidence.

Mr. Olsen said that at his deposition he said that he did not agree with the passage that said that aircraft designated as TRAK84 appeared to land at the Gaithersburg Airport. When TRAK84 dropped off and TRAK85 started, they were both in the

Gaithersburg traffic pattern. TRAK85 exited the traffic pattern, turned around, and re-entered. He said he did not know of his own knowledge if TRAK84 ever landed. In his opinion, TRAK84 and TRAK85 were the same aircraft. TRAK85 turned to the right, flew a few miles then re-entered the pattern. Mr. Olsen agreed that one of the similarities between TRAK84 and TRAK85 was that neither was transmitting a discrete transponder code.

Mr. Olsen said that the reason that N724TX was not identified as transmitting a discrete transponder code 0415 until four seconds after it appeared on the radar as a primary signal was because the transponder was off or it was below radar coverage. There could be a myriad of other reasons. The first transponder hit was at a thousand feet. TRAK85 could have been below radar coverage and that is the reason its transponder code was not picked up. As soon as the automation system started to track the airplane that means the target was strong enough for the tracker to track it. One hundred percent of the time if the tracker can track the aircraft and the aircraft is transmitting a secondary signal, then the secondary signal will be displayed on the radar display.

Mr. Olsen said that the two aircraft had similar flight tracks including speed and the way they turned and the same rate of turn. As an air traffic controller, he could recognize the similarity in the rate of turn of one Cessna 172 and another Cessna 172.

He said that the aircraft transmitting transponder code 0415 departed before the aircraft identified as TRAK85. After they both departed, 0415 turned left crosswind and TRAK85 was heading northeast. 0415 turned left at 1100 feet. The two aircraft were about a mile apart. The altitude of TRAK85 was not shown. Mr. Olsen said that at about a minute and nine seconds after 0415 appeared, it started reversing course and the transponder code of 1514 entered view. Both appeared to be approaching Runway 14. Mr. Olsen said he saw no potential for a collision. He said that if a controller was talking to both of them, he would have pointed out traffic to both of them. He agreed with the Respondent that it appeared that 0415 approached Runway 14 and that the other aircraft from the northwest also approached Runway 14. He agreed that it looked like TRAK85 was approaching Runway 14. The radar picked up the transponder code of Respondent's aircraft at 1400 feet.

Mr. Olsen said it was his opinion that Respondent took off with his transponder in standby and at some time during the flight turned it on. He did not know if it was off or in standby or if there was a malfunction.

On redirect examination at the second session of the hearing, Mr. Olsen said that TRAK84 and 85 are the same aircraft as shown on Exhibit A-16.

A-14 are screen shots from the RAPTOR presentation filtered for tracking information for Respondent's aircraft.

A-17 was prepared using CDR data from the Potomac TRACON and a tactical mapping program for search and recovery and shows TRAK84 superimposed over a sectional chart.

A-18 is the same program using track data for TRAK85 and terminates with the Respondent's aircraft squawking discrete code within the ADIZ. It does not show other aircraft around the Respondent's aircraft.

A-19 was prepared using the tactical mapping program in the U.S. Customs radar information and depicts N724TX.

On cross-examination Mr. Olsen said that the U.S. Customs data tracks aircraft to 500 feet mean sea level, or almost on the ground. The field elevation at the Gaithersburg Airport is 538 feet. He said that the speed of TRAK85 and 84 are similar, within 20 to 30 knots.

Mr. Olsen said that the Respondent's aircraft never squawked code 1200.

The traffic area of the Gaithersburg area is five miles around the airport up to 3,000 feet. The hits shown on A-18 are within the Gaithersburg traffic area.

R-21 indicates the timeline of TRAK85 and corresponds to the U.S. Customs data.

Mr. Olsen said that he reviewed R-22(a) identified as a preliminary plot deviation report.

On redirect examination, he said that the speed of 125 knots shown on A-7 is an error in the plot program not a problem

with the BWI radar. It was a strong signal and the only reason if a transponder signal could not be seen is if it was not on or the transponder was broken. About 700 feet in altitude was the lowest altitude of a transponder signal.

The next witness called by the Administrator was Robin Dooley. He has been employed by the U.S. Customs and Border Protection for 10 years and is the Deputy Director of National Security Missions and P3 Operations. His responsibilities include aircraft security. Without objection, he was accepted as an expert in radar interpretation. Mr. Dooley also testified for the Administrator as a rebuttal witness. He stated that his organization has an active wing of about 287 aircraft and at the times relevant to this case, supported the mission of the Department of Defense and Homeland Security to launch aircraft at the request of the Department of Defense and intercept aircraft perceived to be in violation of the ADIZ NOTAM.

THE COURT REPORTER: Your Honor, I want to switch tapes now.

ADMINISTRATIVE LAW JUDGE POPE: Yes.

THE COURT REPORTER: Thanks.

MR. WINTON: Your Honor --

ADMINISTRATIVE LAW JUDGE POPE: Yes.

MR. WINTON: -- can I go off the record?

ADMINISTRATIVE LAW JUDGE POPE: Yes.

MR. WINTON: I'd like to --

THE COURT REPORTER: You want to go off the record? I'm still on. Okay. I'm stopped.

ADMINISTRATIVE LAW JUDGE POPE: He's changing tapes. Go ahead.

(Off the record.)

(On the record.)

THE COURT REPORTER: On the record.

ADMINISTRATIVE LAW JUDGE POPE: All right. At this point, let's take a 15-minute recess, please.

MR. BARRY: Thank you, Your Honor.

THE COURT REPORTER: Off the record.

(Whereupon, a brief recess was taken.)

THE COURT REPORTER: On the record.

ADMINISTRATIVE LAW JUDGE POPE: Mr. Dooley stated that his organization has an active wing of about 287 aircraft and at the time relevant to this case, supported the mission of the Department of Defense and Homeland Security to launch aircraft at the request of the Department of Defense and intercept aircraft perceived to be in violation of the ADIZ NOTAM.

I may have said that already. If I did, I just now repeated it.

The DC ADIZ was developed after 9/11 and expanded when it was determined that due to numerous violations by private aircraft entering the smaller airspace, a larger airspace was required to allow time to respond to a perceived violator.

NOTAM 321.267 governs the restrictions for aircraft entering and exiting and operating in the National Capital Region ADIZ. At the time of this incident, U.S. Customs jointly monitored, tracked, and attempted to identify aircraft tracks that appear to be operating outside of the provisions of the NOTAM and actually launched at the request of the Department of Defense and Homeland Security in support of DoD and the Homeland Security law enforcement mission.

Customs has a fleet of Blackhawk helicopters and Cessna Citation jets based at Reagan National Airport. Customs monitors the National Capital ADIZ from its Marine Operations Center at March Air Force Base in California using satellite radar feeds from the region and launches aircraft in coordination with DoD to intercept and try to divert and identify and determine the intent of a perceived violator.

Customs would launch if it cannot identify or determine the intent by either calling the FBO, the Flight Base Operation, or looking back through an aircrafts trail to see if it was squawking a different transponder. Customs would actually go to runway alert or actually launch on the aircraft for an intercept to try to determine the intent if the aircraft continues towards the center of the ADIZ, does not turn, does not communicate, does not deviate, and does not follow recognized procedures. In the worst case scenario, the aircraft could be shot down.

Customs radar system operates as a mosaic using up to

nine multiple radars to interrogate the transponder code displayed by an aircraft through the secondary radar associated with the radar display in the hit as indicated on the track display.

The FAA air traffic control system operates off a single radar. A primary target is just a raw radar hit. It could be the result of the secondary portion of the radar not operating or if the transponder is on standby or is inoperable and is not emitting a signal that could be picked up by a secondary position. Radar goes into coast because it misses or has missed or lost a signal. The computer system continues to plot a virtual or dead reckoning track and is able to go back on a reciprocal track to see if the aircraft has landed or can be detected.

Exhibit A-12 is a track history package of N724TX on June 8, 2004, that was prepared by the National Capital Region Coordination Center to assist in identifying the tracks of aircraft of interest or perceived violators. Because Customs operates off a mosaic of multiple radar hits from different quadrants rather than a single radar hit used by air traffic control, it may be able to see aircraft operating below the capabilities of the single radar used by Air Traffic Control. In this case, the Potomac TRACON was using the Baltimore radar for sequencing and separation.

In this instance, Customs Air and Marine Operations Center first detected the primary target N724TX at 23:21 on June 8, 2004, at the Gaithersburg Airport and perceived a

violation using an FAA ground based radar then notified the Potomac TRACON and air defense. Dulles radar actually detected the target before Baltimore radar, but the Potomac TRACON was using the Baltimore radar to display tracks in that area. The Potomac TRACON eventually identified the aircraft being tracked as N724TX. Its initial course was 158, speed 118.

At 23:51 the signal was lost, probably because the aircraft landed. Dulles radar detected the aircraft subsequently identified as N724TX at 23:29:32. It was designated as TRAK102 by Customs. It was a primary target only. It made a low approach then came off again.

At 23:34:29, the target began broadcasting the discrete code of 5352. The altitude was 800 feet and the speed was 80 knots. During the proceeding five-minute period, it was not broadcasting a discrete transponder code.

TRAK102 went into dead reckoning and then appeared at 23:47:01 squawking 5352 and was re-designated as TRAK106. It probably went below coverage or did a stop and go. The gap in time was six minutes.

At 23:50:48 it went into coast and no further data was gathered.

The track was identified as that of N724TX by the Potomac TRACON. Once Customs had a tail number it pulled up the aircraft registry for that tail number. It was determined that the aircraft was in the traffic pattern of Gaithersburg Airport.

N724TX was on a VFR flight plan from Montgomery County, Maryland, to Frederick Municipal Airport. It landed at Montgomery County without incident.

A launch of Blackhawk helicopters was requested. Aircraft were put on runway alert for a launch at Andrews Air Force Base but were not launched.

The first primary target for which the launch was requested took off from Runway 32, made a north turn to a crosswind, entered the downwind pattern, turned on a southeast bound base leg, and turned on final approach. The aircraft disappeared then reappeared at the end of Runway 32. The timeline indicated it had probably made a low approach, but it could have been a stop and go. When it came off, Customs continued its radar tracking and linked it to the aircraft that ultimately squawked 5352.

Customs could not positively identify the aircraft that made the final on Runway 32 as the same aircraft that appeared at the end of Runway 32. The data submitted by Customs to Potomac TRACON showed that an aircraft departed Runway 32, entered a right downwind and subsequently started squawking 5352 after a period of about five minutes as a primary target before it started squawking a transponder code. The time was 23:29:32. Customs observed no other primary target at that time.

Customs was able to determine through the Potomac TRACON that the Respondent's aircraft was issued this code block and it

is associated with tail number N724TX. The aircraft was assigned TRAK102. The field elevation of Gaithersburg Airport is 538 feet. One of the Customs radars has the capability of doing an interrogation of a transponder on the runway.

The aircraft was not transmitting a beacon interrogation signature from 23:29:32 to 23:34:18 because the transponder was off, in the standby mode, or just not transmitting the signal as if it was broken.

At 23:36:42, the Customs radar was able to track the aircraft all the way to the ground. There is no indication radar coverage was lost.

On cross-examination the witness said that at 23:34:18, the target was a primary target. The aircraft's altitude was 1400 feet. Once the aircraft started squawking its beacon code, Customs cancelled the alert.

Between 23:34:29 and 23:40:20, the aircraft transmitted the discrete transponder of 5352. Between 23:40:19 and 23:43:57, a period of two and a half minutes, there was no radar data for that aircraft. The witness said he did not know the status of the transponder during that period of time.

At 23:41:19, the radar stopped picking up the discrete transponder code.

At 23:47:01, the radar started picking it up again.

At 23:52:09, it continuously squawked 5352 when it was an altitude of 500 feet on a 180 degree heading at 67 knots.

The first two witnesses called by the Respondent were Nicholas Tarascio and Michael Tarascio, who by agreement of counsel, were called by the Respondent out of turn in the middle of the Administrator's case-in-chief.

Nicholas Tarascio said he holds an A&P certificate and has helped with maintenance of N724TX over the past couple of years. He has 18 years experience and is associated with a family owned business called Air East Airways which specializes in general aviation aircraft.

He identified Exhibit R-13 as his affidavit regarding the maintenance he has done on the aircraft specifically with the transponder problem.

He identified Exhibits R-3(a) as a photograph of the instrument panel of N724TX showing the transponder; R-3(b) as a photograph of the circuit breaker panel; and R-3(c) as a photograph from behind the circuit breaker panel showing the wiring to the busses from the circuit breakers. He said that the metal strips shown in photograph R-3(c) are the power bars that feed power through the circuit breaker buss.

He identified R-11 as a work order for work on N724TX. The principal reason was for an annual inspection. The second line is to check the transponder that the Respondent said had failed on the way into Farmingdale. The Respondent told him that the New York TRACON had told the Respondent that the transponder went out and there was something intermittent and the Respondent

should have it checked. Page 2 of R-11 is the bill, and page 3 shows the bill was paid, and page 4 is the log book endorsement for the annual and also points out the work done on the transponder.

Nicholas Tarascio said he did not remember exactly when the work was done. He said that the signature on page 4 is that of Michael Tarascio. Nicholas Tarascio said he is not an IA and cannot sign off on an annual inspection. He said he performed the work under the supervision of his father, Michael Tarascio. Nicholas Tarascio said he performed the work on the transponder a week or two after the aircraft was brought in on January 19th, 2006. He said that the Respondent had said that he had been told by TRACON that the transponder had dropped out. They had not received the signal. He said he first used a test box to see if the transponder output any information. He said that everything tested okay. He said he figured that it had to be a harness issue. He traced the harness to all various points and found that it was solid. That further confused him, so he began tugging on the harness and moving it around and started to notice that he could get the power to turn off, flash on and off, depending on how he pulled on the harness.

After eight and a half hours of troubleshooting, he said he finally found that there was an improperly installed circuit breaker which was installed when the special transponder had been installed. He said it was not typical of a Cessna 172 of this

vintage to have two transponders. He said the original one was just old and basically junky, but was not the one that was in use.

Exhibit R-4 is the sign off dated 12/13/95, for when the second transponder was put in.

Exhibit R-3(c), which shows the wiring behind the panel shows two metal bars, one of which powers all of the avionics in the aircraft, and all of the circuit breakers have to be the same depth from the panel. Someone had bent the bar down and one of the bars had a missing screw. There's no breaker in that position. He said that the buss bars basically are electrical feeds for all systems in the aircraft. He said he assumed that someone when the transponder was originally installed had installed the wrong depth circuit breaker, which did not allow proper contact with the buss bar. He said he found that the circuit breaker was not making a solid connection. He said he removed the improper circuit breaker and put a circuit breaker of the same value with the same part number as the other ones so it would fit. Once it was changed, there was a solid connection. Initially when he had pulled, there was an intermittent loss of contact through the screw to which the yellow wire going to the buss bar which he had then at that time found to have a little bit of play and to be making an intermittent contact.

On cross-examination, Nicholas Tarascio agreed that no person may use an ATC transponder unless within the preceding 24 calendar months the transponder has been tested and inspected and

found to comply with Appendix F of Part 43. He said he did not recall seeing any records indicating the transponder had been tested. He said that was not his responsibility.

He said that the log book endorsement, Exhibit R-10 is dated 3/1/2006. He said they were busy with other work and apparently the Respondent did not need the aircraft until March. The aircraft was released on March 1, 2006.

Nicholas Tarascio admitted that his A&P certificate was under suspension when he worked on the Respondent's aircraft.

He said that Exhibit R-4 indicates that when transponder two was installed in 1995, it had been tested in accordance with the FARs. He said that all he can tell is that it was installed by a repair station.

The next witness to testify for the Respondent at that time was Michael Tarascio. He stated that he is an aircraft mechanic and owns a maintenance company called Air East Airways. He has been an aircraft mechanic since 1982. He holds an A&P certificate and Inspection Authorization. He also holds an ATP certificate and is a certified flight instructor.

He said he is familiar with N724TX. He said he did two annual inspections, one in 2005 and one in 2006. He has been working on similar Cessna 172s since 1984.

Michael Tarascio was accepted without objection as an expert in the maintenance of general aviation aircraft.

He identified Exhibit R-10 as an invoice for work

performed on the Respondent's aircraft. The invoice is dated 1/13/05. It is for a two year IFR certification of the transponder. That is a required test of the transponder and static system in order for the aircraft to fly IFR. He performed the test in January 2005.

Michael Tarascio looked at the photographs marked as Exhibits R-3(c) and (d). He said the aircraft has two transponders. The aircraft's electrical system was modified to allow the installation of the second transponder. He said he was involved in the troubleshooting and repair of the circuit breaker. He said the work was done by his son, Nicholas Tarascio.

Exhibit R-10 is an invoice dated 1/13/2005, which shows that the light bulbs on the wing tips of the Respondent's aircraft were both replaced at the same time. He agreed that an anomaly in the aircraft's electrical system would affect the transponder. He said he noticed that all the instruments and all the light bulbs in the aircraft were blown out. He says in the invoice that two nav lights, one light bulb, the tail beacon light, and instrument lights were replaced. There was not one working bulb in the aircraft.

He said that in February 2006, he corrected a problem with an intermittent transponder failure.

On cross-examination, he said that the 91.413 inspection and testing of the transponder in 2005 was performed by a company called Prop Air Aviation. He said that he did the annual

inspection in 2005. He did not detect a problem with the transponder during the annual inspection. He said he checks all of the wiring during an annual inspection.

He said that he recalled that the Respondent had reported an intermittent problem with the transponder before 2006 but there is no record of it.

The first witness called by the Respondent in his case in chief after the Administrator rested was Robert B. Lewis, a trial attorney for the FAA. He said he holds a commercial pilot certificate with a high performance signature. He has been flying since 1972 and has been licensed since 1976. He has around 2,000 flight hours. He has been an aircraft owner since 1976. He said the Respondent has given him his past six biannual flight reviews.

He identified a photograph of the Respondent's aircraft and its instrument panel. He said he does not know when the photograph was taken. He does not think the instrument panel has changed in the time he has been flying with the Respondent.

The Respondent gave him a biannual flight review around September 4, 2004, but he does not remember the exact date. He said the Respondent used the checklist during the times he flew with him. Exhibit R-2 appears to be the checklist. There is an entry for the transponder.

He said there is an avionics master switch that the Respondent leaves in the off position until the engine is started, then the panel lights come on. Transponder two is a digital

transponder behind the yoke. Below it is a non-digital transponder. Transponder two is the one they typically used. It does not display until the numbers are set. All the radios come up at the same time when the master switch comes on. He never observed the Respondent put the master switch in the standby position.

He said his biannual flight reviews were conducted in the Respondent's aircraft in the Washington, D.C., ADIZ. He said he followed ADIZ procedures, and that during the flight on or about September 2004, the aircraft experienced a low battery when an attempt to restart it was made in Frederick. A mechanic used a power pack to start the engine and checked that the alternator was performing alright. On return arrival back at Gaithersburg when the flap handle was moved down, the instrument panel went dark and the flap motor ceased to operate.

The witness was present during a discussion between the Respondent and a mechanic relating to fixing the electrical problem.

On cross-examination, the witness admitted that he had no knowledge concerning anything that may have happened on June 8, 2004, as he was not onboard the Respondent's aircraft at that time.

The Respondent then recalled a previous witness, Michael Tarascio. Michael Tarascio said that a buss bar carries power to the circuit breakers and the circuit breaker acts like a toll

booth monitoring the power going on to the particular item, like the transponder. If the current is too high, it will not allow the current through. In this case, there was a disconnect between the buss bar and the circuit breaker. The circuit breaker was too short and an improper screw was used to pull the buss bar closer to the circuit breaker. It backed off and there was no connection to the circuit breaker. It would shut down the transponder for seconds or a minute, depending on how bad the vibration was.

He said that he thinks he looked at the Respondent's aircraft before February 2006. The discrepancy sheet said check the transponder because it failed on the way into Farmingdale Airport, New York. He said he talked to the Respondent personally. He troubleshooted the transponder to find out what was wrong. Michael Tarascio said that his son was working with him and was actually doing the work and that he helped his son. His son found the problem and showed it to him. They found that the circuit breaker was the wrong style and the wrong type for that aircraft so that it would reach the buss bar and the screw had backed out far enough so that there was not a good connection. And that caused an intermittent problem. His son fixed the problem and let him see what he had done. He replaced the circuit breaker with the proper circuit breaker and made some splices. Michael Tarascio said the transponder wiring was correct.

Michael Tarascio identified Exhibit R-4 as a log book sheet from the Respondent's aircraft log book showing installation

of a transponder on 12/13/1995. The aircraft records show no maintenance of the buss bar or circuit breakers since then until he worked on it in 2006.

Michael Tarascio said the circuit breaker was not correct because it was too short and did not reach this buss bar. He said he replaced it with the correct circuit breaker that reached the buss bar and could be tightened with a screw.

He said that had the maintenance manual for the King KT-70S transponder. From the King manual he determined that a circuit breaker of a certain amperage, probably two or five amp circuit breaker, was the proper one. Then he looked up the part number of a circuit breaker of five amp that would fit in the panel in the aircraft's maintenance manual and installed that circuit breaker.

It was his opinion that a power outage could have been caused by the improper installation of the original circuit breaker. He found no record in the log book of a repair to the circuit breaker since the installation in 1995.

He said that when an aircraft is flying there are loads put on the aircraft that cause things to move around and could cause intermittent problems with the loose electrical connections.

On cross-examination, the witness identified Exhibit R-4 as an FAA Form 337, a one page major report or modification form for a King KT-70S transponder and it refers to FAA 337 Form dated 12/13/1995. He said that without seeing that form, he could not

tell if the installation met field approval standards. R-4 says the transponder has been tested in accordance with 91.413 and 217. The witness said that and that it worked properly at the time. He said he did not remember if he reviewed a field approval for installation of the transponder. He said he did see the FAA Form 337 dated 12/13/95, for installation of the King KT-70S. He said he was not required to get field approval for installation of the circuit breaker in 2006 because it is in the parts manual for the aircraft. He did not have a copy of the maintenance manual with him as he testified.

Michael Tarascio said that the last page of Exhibit R-11 is the only maintenance record of his repair of the transponder in 2006. He said the circuit breaker he installed met the requirements of the approved installation of the transponder. He said he went to the installation manual for the King KT-70S which gave the amp rating for the circuit breaker, then went to the Cessna parts manual and looked up the appropriate circuit breaker with that amp rating and installed that breaker. He said he did not see any mention of a transponder malfunction when he reviewed the maintenance records. Mr. Winton's complaint was on a work order but he did not recall the date, but it was either in December 2005 or January 2006. The date of the invoice for the repair was March 1, 2006, but that included an annual inspection and other things. That is the last page of R-11.

The plane did not fly between the time it was dropped

off for the squawk, until February 2006. Mr. Winton probably did not get the aircraft back for four months. He said that apparently the Respondent did not need the aircraft back until March 2006.

Michael Tarascio identified Exhibit R-3(c) as a photograph of the back of the instrument panel where the circuit breakers are. He said he did not know when the photograph was taken. He said there is nothing obviously wrong with the circuit breakers in that photograph. He identified several circuit breakers in the photograph, but could not tell which was the circuit breaker for the transponder. The witness said that there were numerous circuit breakers in the photograph and he circled them. He said there were two transponders in the aircraft and there would be a circuit breaker for each of them.

The Respondent next testified in his own defense. He described his flying experience and training. After six years of flight training he got a commercial instrument multi engine and became a certified flight instructor rating with single engine land privileges for the flight instruction. He bought his first aircraft at age 21. N724TX, a Cessna 172, is the second aircraft he owned. He has had extensive experience dealing with air traffic controllers and flying around Kennedy Airport in New York.

He said that the first thing he does when he is in an aircraft is to turn on the transponder and leave it on. He makes a final check of the transponder when he is lined up with the

centerline for takeoff.

He said he flew professionally as a flight instructor then went to law school and started working for the FAA Eastern Region, Assistant General Counsel's Office, initially as a paralegal and law student. He put together a pilot training program for the entire staff and received many awards for the work he did. Eventually he was transferred to the FAA Headquarters in Washington, D.C., to work in the Crash Litigation Division. There he met Brook Lewis who testified the day before and Neil Planzer who held a senior executive level position within the Air Traffic Division. Together with Neil Planzer and Andrea Nash, another FAA attorney as co-owners, they bought an aircraft in 1994, a 1974 vintage Cessna 172 originally with the registration number 5164R.

MR. WINTON: Judge, the aircraft is 1974.

ADMINISTRATIVE LAW JUDGE POPE: Isn't that what I said?

MR. WINTON: I thought you said '94.

ADMINISTRATIVE LAW JUDGE POPE: Well, let me repeat it then. Together with Neil Planzer and Andrea Nash, another FAA attorney as co-owners, they bought an aircraft in 1994. It was a 1974 vintage Cessna 172 originally with the registration number 5164R.

Is that correct?

MR. WINTON: Yes.

ADMINISTRATIVE LAW JUDGE POPE: In 1995 Neil Planzer informed the Respondent and Andrea Nash that they had an

opportunity to use their aircraft in a research and development program sponsored in part by NASA and the FAA. It involved the installation of about $70,000 worth of avionics. The purpose was to give the pilot as much information as possible about surrounding traffic and included installation of a color TV monitor screen in the middle of the instrument panel and access to uplink weather so they could switch between traffic and weather. The GPS was linked to the monitor so they could see a moving map on the monitor screen.

The Cessna 172 had to be modified extensively, and in December 1995, a multi-function display, which included a five-inch screen, was installed in the middle of the panel. After the installation, the aircraft had two transponders controlled by an avionics master switch labeled transponder one and transponder two. Transponder one was the original transponder. When the switch is in the down position, the avionics master switch is off and the radios and the multi-function display, the GPS, digital transponder cannot be used. Only the original transponder can be used. The aircraft is never flown with the switch in that position. When it is in the up position, the Mode S or second transponder and all other avionics can be used.

He said that transponder two illuminates when the master switch is on and never goes into standby. Four dials are used to put in a new code. He said that once the engine is running and the master switch is turned on, the transponder illuminates and he

calls Potomac clearance and gets the ADIZ squawk code, which he dials into the transponder and reads back the code. He said that is what he did on the day of the incident at issue here, and, therefore, he knew that the transponder was on.

The Respondent said the pilot does not know if the radar is picking up his discrete transponder code. The pilot's view of the transponder two is blocked completely by a control wheel. He would have to move his head to see it and that would not be prudent in a traffic pattern. He said that the pilot cannot see it if it goes off intermittently. He said he relied on Air Traffic Control to tell him if they were not receiving his transponder code. He said he is in constant radar contact with Air Traffic Control on most flights, but in the ADIZ, if his aircraft is operating within the airport traffic pattern of a non-controlled airport and he monitors control tower frequency, he is exempt from talking to Air Traffic Control, Exhibit A-1. It is his practice, however, to monitor the Potomac approach frequency.

The Respondent stated that it is the duty of an air traffic controller to tell a pilot when an aircraft transponder is no longer transmitting a discrete code. He cited FAA Order 7110.65, the Air Traffic Manual, Chapter 5, Section 2, entitled Beacon Systems, Exhibit R-27. It requires Air Traffic Control to inform the aircraft with an operable transponder that the assigned beacon code is not being displayed. Specifically, the controller shall state reset the transponder then squawk the appropriate

code. Paragraph B of Section 5-2-14 of FAA Order 7110.65 states specifically to inform the aircraft when its transponder appears to be inoperative or malfunctioning.

The Respondent said he tried contacting Potomac approach by radio twice as soon as he was off the ground but got no response. Therefore, he did not operate in the ADIZ outside the traffic pattern and made a right turn to remain in the traffic pattern as shown in Exhibit A-11. The traffic pattern at that airport is between 1300 and 1500 feet. As soon as his transponder was tracked by radar, the first altitude that showed up was 1400 feet.

He saw that an aircraft had taken off ahead of him to do a touch and go and he decided to follow that aircraft. The other aircraft made a right turn to do another touch and go and the Respondent made a right turn behind it. He made a second right turn on downwind then noticed that the other aircraft had made a 180 degree turn and was coming directly at him at traffic pattern altitude of 1300 to 1500 feet. As soon as he knew everyone's intentions he climbed to traffic pattern altitude, and once he had stabilized the aircraft, he looked at his instruments and the transponder was on. He said the numbers are dim and he may not have noticed before that that it was not on.

The Respondent said the FAA was in charge of installing the experimental equipment and it was the FAA's decision where to install the Mode S transponder.

On February 20th, 2004, it appeared the aircraft's battery was dead when he tried to restart the engine after a landing. Montgomery Aviation checked the wiring and found there was no power to the alternator and performed some maintenance on the aircraft. Exhibit R-8 is a shop order from Montgomery Aviation dated February 19th, 2004.

The Respondent said he was not notified for five weeks after the incident that anything out of the ordinary had happened, and when he was notified, he was not told it was a transponder malfunction or that radar had not detected his aircraft.

On September 14th, 2004, during an annual review flight for Brook Lewis took place, and that was only two flights in his aircraft after the incident; on that flight there was an electrical failure as described by Brook Lewis in his testimony. The airplane's electrical system was checked out by Montgomery Aviation and they replaced the battery. The receipt is Exhibit R-9.

R-8 is the receipt from Frederick Aviation for the ground start on February 19th, 2004.

Five flights after the September 14th, 2004, incident the Respondent brought the aircraft to New York for an annual inspection. After that he received a telephone call from Michael Tarascio who said that there was an electrical issue that he needed to check and thought that there may have been a power surge that caused two navigation lights, a fuse, a tail beacon light to

burn out. Tarascio said he replaced these items and returned the aircraft to service and told the Respondent he had resolved whatever electrical problems there had been. He also did the two-year IFR certification certifying that the transponder was qualified and certified for flight. That was on January 5, 2005, Exhibit R-10.

About a year later, approximately in January 2006, he was advised by air traffic controllers in the New York terminal radar area as he was about to land at Farmingdale Airport, New York, that they had lost his transponder signal. The controller said that was okay as he was about to terminate radar service anyway and he gave the Respondent clearance to proceed into Farmingdale and to change frequency over to the tower control.

When he landed, he turned the aircraft over to Michael Tarascio for an annual inspection and told him not to return the aircraft until he had discovered why the transponder had failed. A couple of months later Michael Tarascio called and said he had found that an inappropriate circuit breaker had been installed in the original installation. He said that over time vibration may have caused the screw to back out.

The Respondent said he could not say with any degree of certainty what occurred on June 8th, 2004, because he did not have the benefit of bringing the aircraft in for service immediately after the incident, which he would have done had he been advised

earlier of the lack of transponder signal.

He said there were approximately 30 flights by the aircraft after that until he took the aircraft to Michael Tarascio in January of 2006 for an annual inspection and to correct the transponder failure. Once the aircraft was returned to him by Michael Tarascio, he never again experienced a transponder problem.

The clearance that Respondent received from Potomac clearance delivery on June 8th, 2004, was to remain clear of Class Bravo airspace, squawk 5352, and the departure frequency was 128.7. The Respondent read back the clearance and the controller said it was correct. The Respondent said he would be off in a minute. At that time though, he was still at the tie down place. The Respondent agreed he was given a clearance at 23:16:02, repeated it as 23:16:12, and took off at 23:16:23. But he said that at the time between when he finished talking to Air Traffic Control and got his clearance until the first radar hit was a full 13 minutes. Within that time, he did all of his run-up procedures, made his takeoff roll and climbed.

The Respondent said that radar started tracking him at 23:29:32 and the last hit, according to A-12 was 23:51:59. He said that the flight lasted 22 and one half minutes, which is the same flight time tracked by Customs radar. He disagreed that TRAK84 in the FAA's radar presentation was his aircraft. He agreed that the first time radar detected his transponder code was

23:34:18.

The Respondent repeated that his transponder was on and there was no way for him to know that the radar was not picking up the discrete transponder code. A-13 indicates that the first indication he received about something wrong with the flight was on July 14th, 2004, through a telephone conversation with FAA Aviation Inspector Patrick Long regarding the TFR pilot deviation. Inspector Long told him that the evidence showed the Respondent operated his aircraft in the DC ADIZ TFR without clearance.

The Respondent said he was not provided with a copy of the RAPTOR program until two and one-half years after the incident. He said he did not know until February 2007 there was an indication of a problem with his transponder. Therefore, he did not ask at the time of the incident for an inspection of the transponder. FAA radar experts did not explain to him until in depositions they said that for some period of time there was a primary target for his aircraft then the appropriate code came up. Then for some unexplained reason there was no radar data for his aircraft. However, it continued to discretely emit the 5352 code as evidenced by TRAK106. It appeared as a proper code then dropped off again.

On cross-examination, the Respondent said he follows the pre takeoff portion of his checklist every time he flies. He said he does not use the after landing portion of the checklist which says to put the transponder in standby, which means that after

landing you put the transponder in standby. He said he did not do this because he had a non-standard transponder and avionics and does not know what would happen if he did.

He said he never trained his students to use the standby switch. He said that other owners of the aircraft fly it occasionally but rarely.

He said that the off and alt switches are the only switch positions he uses. If the transponder switch is in the alt position when the master switch is turned on, it would remain in that position upon powering up with the master switch. He said that the alt position is for the full use of the transponder and he uses it every time he flies. He has never been instructed to squawk standby. He is not aware what other pilots use that position for. He does not recall ever turning the transponder to standby after landing or while on the ground.

Respondent said that at no time during his flight was he able to establish two-way radio communication with Air Traffic Control. He attempted to but was not successful. He said he does not know why radar did not pick up the transponder code.

Inspector Long reported that the Respondent told him that he could not recall the details of the flight. The Respondent agreed that he said that or something close to it. He said that he followed the procedures for the ADIZ. He said he was not even sure that he flew that day.

The Respondent admitted that he made an entry of an

electrical failure on the flight log for June 8th, 2004, Exhibit A-20, two and a half years later. He said it was for his own use. He said that was the only way he could determine what had happened. He did not write any comments on Exhibit A-20 on June 8th, 2004, other than toped off because the flight was uneventful. He had pulled the flight book out of service after June 8th, 2004, and the entry he made about an electrical failure two and a half years later was after the book was out of service.

The entry on Exhibit A-20 dated 9/13/04, is for the flight with Brook Lewis but the flight was actually on 9/14/04, and that was the flight with an electrical failure. The Respondent said that Inspector Patrick Long contacted him five weeks after the June 8th, 2004, flight to discuss why he had operated in the DC ADIZ without a discrete beacon. The Respondent said he had no knowledge of any malfunction of his equipment at that time. He said he did not respond to the letter of investigation, Exhibit J-2.

He said he is sure he requested a copy of the EIR after receiving a notice of proposed certificate action. He denied that the EIR gave him the impression that his transponder was not working, but later acknowledged that it says that he was not squawking the discrete transponder code.

He said that he first informed the FAA that N724TX had an intermittently functioning transponder as soon as he found out in 2006. R-11 is the only exhibit indicating a transponder repair

and that was done 18 months after the incident on June 8th, 2004.

The Respondent said he was aware of only one transponder failure and that was in going into New York, but on several occasions over the past 10 years he was asked to recycle the transponder.

The Respondent's next witness was Neil Planzer, who spent 25 years with the Federal Aviation Administration, including 12 years as an active controller, the remainder in management. Subsequently he was Chairman of the Department of Defense Policy Board for Civil Aviation, an Associate Director for Civil Aviation for the Air Force. His present position is Vice President for Air Traffic Management Strategy for the Boeing Company. He holds a private pilot certificate with an instrument rating. He has 20 years flying experience and 1100 flight hours. He was accepted as an expert in Air Traffic Control and air traffic systems.

He said he has been co-owner of N724TX since 1994. The FAA had a program called The Traffic Information System that would allow smaller aircraft to see other aircraft and avoid collisions. It was an inexpensive ground base terminal collision avoidance system and several ground stations were set up to test the system. The FAA wanted two dozen pilots who flew frequently in the area to participate in the program. Mode S transponders were installed in the aircraft of the participants. It would receive the signal from the ground and send its position, and the signals from other aircraft were shown on a multi-functional display installed in the

aircraft. It was intended to be a test only.

A new transponder was installed in Mr. Planzer's aircraft and was modified by the Massachusetts Institute of Technology laboratories which initially funded a research and development center and the transponder was modified to be a Mode S transponder. Mode S is essentially a data link. It's sent information electronically and it received information from the ground station concerning the positions of other aircraft which were shown on a display in the cockpit. The manufacturer of the transponder was Arnav.

On Exhibit R-3(b) he pointed out a transponder switch which had an on and off position. The up position is the on position for transponder two, the Mode S transponder. It says transponder two. The lower position says transponder one which is the 1974 transponder. He stated that after the Mode S transponder was installed, he used it exclusively in flight. He said that the switch only affects which transponder is used and the multi-functional display. Putting the switch in the lower or transponder one position does not affect the aircraft's other electrical systems. The multi-functional display is a visual depiction of the global positioning system map.

Exhibit R-3(a) is a photograph of transponder one and the Arnav NFB, which is basically a computer. It allows insertion of a data card with either traffic information or GPS data. He said that when the system was installed it was tested and worked

good. The program lasted six years. At the end of that time the FAA offered to remove the equipment and restore the panel to its original condition or to leave the equipment in. He said the equipment worked well so he and the other owners kept the equipment.

The information shown on the multi-functional display was discontinued two years ago. The system no longer has traffic information. It still has a GPS which uses the multi-function display. He said the radios are below the multi-function display. A hole was cut in the center of the panel to accommodate the multi-functional display and the first transponder was moved to the right hand side. The new Mode S transponder was also put on the right hand side behind the control wheel.

The FAA oversight was done under contract by Lincoln Labs, which is part of a federally funded research and development. The actual installation was done by an avionics company. He said they were advised to put the Mode S transponder in the off position after every flight because of the data cards. Then the data cards could be taken out. They were never advised to put the transponder in the standby mode. He said there could be some reason for Air Traffic Control to tell the pilot to go to standby but that never happened to him. He said he had been requested to recycle the transponder because the signal was intermittent or not being picked up. That was in 1995, a long time ago. He said he did not recall ever experiencing a power

failure in flight. Mr. Planzer said he bought the checklist, Exhibit R-2.

MR. WINTON: Judge, may I have two minutes?

ADMINISTRATIVE LAW JUDGE POPE: All right. Let's take another 15-minute recess.

THE COURT REPORTER: Off the record.

(Whereupon, a brief recess was taken.)

THE COURT REPORTER: On the record.

ADMINISTRATIVE LAW JUDGE POPE: Ready?

MR. WINTON: Yes, sir.

THE COURT REPORTER: Yes, sir.

ADMINISTRATIVE LAW JUDGE POPE: Mr. Planzer said that Section 5-2-14 of the Air Traffic Control Handbook, Exhibit R-24, failure to display assigned beacon code or inoperative malfunctioning transponder, requires an air traffic controller to recycle or reset his transponder if the controller does not see the beacon code. That could be when the controller sees a target taking off but the transponder is not working or displaying the wrong code. The controller could have given an IFR aircraft a release time and had been looking for it, or made a blanket transmission to a lot of aircraft over an uncontrolled airport that the controller is not receiving the transponder from an aircraft he is expecting. He said a pilot never knows if his transponder has been received by the controller. He said a little yellow light flashes on the transponder indicating it is being

interrogated and is responding, but the pilot does not know what radar it is or if it is being received.

On cross-examination, Mr. Planzer said he did not know of any failures of the Mode S transponder during the test period. The equipment belonged to the FAA until the test period ended. He said the Mode S transponder is a separate function. The controller only sees the transponder portion. The Mode S is the data link and it is used for traffic information. If the Mode S failed, an error code would appear on the multi-function display.

Mr. Planzer said the last time he flew N724TX was two years ago.

The Respondent called Boni Caldeira as a witness. He holds an ATP and is a certified flight instructor with 12 years experience and has 3,000 flight hours, approximately 2,000 of which are in the vicinity of the Gaithersburg Airport. He is also an Assistant Chief Pilot in a Part 135 operation. He was offered as an expert in piloting and ADIZ procedures at the Gaithersburg Airport. The Administrator was willing to stipulate he is an expert in general aviation. He was accepted as an expert in general aviation and ADIZ procedures at the Gaithersburg Airport.

He said that he has reviewed the RAPTOR data on Exhibit A-17 and A-18 introduced into evidence during this hearing. He said that the ground speed of the aircraft in TRAK84 is too high to be consistent with that of a Cessna 172, but the ground speed of the aircraft in TRAK85 is consistent. He said several of the

aircraft based at the Gaithersburg Airport are high performance aircraft which could achieve speeds consistent with TRAK84. He said that TRAK85 is within the traffic pattern of Gaithersburg Airport.

He said that the traffic pattern at Gaithersburg Airport is rectangular. The traffic pattern altitude is 1300 to 1500 feet. He said at Gaithersburg Airport, the practice is to start the engine but not to taxi until getting a discrete code from Potomac clearance. He described the green path on Exhibit R-6 as the path from where the Respondent ties down his aircraft to Runway 14. He said it would take roughly 10 minutes from an engine start to takeoff.

He said that when the Respondent was unable to contact Potomac TRACON after takeoff he should have gone back and landed. He said aircraft are allowed to remain in the traffic pattern at Gaithersburg Airport after getting and squawking a code without establishing two-way radio contact with Air Traffic Control. He said a pilot cannot tell if radar is picking up his aircraft unless Air Traffic Control confirms it.

He said that the use of a checklist is prudent and reasonable and a pilot should check his transponder while doing the checklist. He said it is common practice for pilots to do one last check of critical items, including the transponder, before takeoff. He said the best practice is for the pilot to enter their transponder code as soon as he gets it. He said a digital

transponder must be turned on to enter a code.

On cross-examination, Mr. Caldeira said he was not onboard N724TX on June 8th, 2004, and does not know what took place. He said it is not a requirement to enter a transponder code before taxiing. He said a transponder code cannot be entered if the transponder is in the off position. He said the blinking light on a transponder indicates it is receiving radar and has responded. He said that in a turn shown on Exhibit A-17 as TRAK84, a Cessna 172 cannot achieve a speed of 128 knots. Its top speed is 105 to 110 knots.

Walter Libban retired in 2005 as a FAA Aviation Safety Inspector. He was offered as an expert in FAA investigative reports. He was not accepted as an expert because there is no such field of expertise and the Respondent is precluded from seeking an expert opinion from him concerning the decision process of the FAA by 49 CFR 9.7(b). He was further not accepted as an expert in air safety investigations by the FAA because he may not testify as an expert on anything arising out of his employment. He was accepted as an expert in Cessna pilot procedures.

He said if a pilot's attention was directed to the interior of an aircraft on a non-safety related item after takeoff and climb up, he would fail a check ride. He can do that after the aircraft reaches cruise altitude. He said that he had reviewed all of the data presented to him by the Respondent, including statements, radar data, prior problems with the

aircraft, and in his opinion, there was no violation because he had experienced an electrical problem. He said he did not think a pilot would turn his transponder on and off.

He said his opinion is based on the Respondent's statements and those of the Tarascios and radar data from Customs and ATC. He stated he did not look at maintenance records. He said that coast means no radar data is being received from a target. The transponder could be on standby.

In rebuttal, the Administrator recalled Robin Dooley. He identified Exhibit A-12 as the data collected by Customs and forwarded to the Potomac TRACON regarding the pilot deviation. He said that Customs radar system uses a mosaic of multiple radars for both primary and secondary systems and that Exhibit A-12 shows Respondent's aircraft was first detected by the Baltimore radar at 23:29:32 as a primary signal only. Then within six minutes, multiple radars hit it. All four radars did not detect a transponder. At 23:34:29, the aircraft began broadcasting a discrete transponder code. He said that TRAK102 showed that the aircraft appeared to make a low approach to the Gaithersburg Airport, then reappeared at 80 knots at 800 feet as a primary only. The beacon interrogation began five minutes later. He concluded that the aircraft was not broadcasting a discrete signal during that five minute period.

He said that TRAK102 went into dead reckoning then reappeared as TRAK106 squawking 5352 at 23:47:01. He said it

probably went below radar coverage and did a stop and go or a touch and go. There was a gap of six minutes. At 23:50:48, it went into coast and no further data was gathered.

The Administrator recalled Dawn Ramirez as a rebuttal witness. She said that the Potomac TRACON continuously records all radio frequencies in use. She said that voice data is kept for 45 days. If an incident occurs, the data for that day is pulled, and if a decision is made to rerecord it, it is kept for two and a half years. She said that Exhibit A-5 is a partial transcript of communications between the Respondent and the Chesapeake flight data position which gave the Respondent the departure frequency of 128.7. The Respondent received the transponder code on 121.6 and was told to contact 128.7 on departure. No transmission from the Respondent on 128.7 frequency was found.

Her testimony regarding the absence of a transmission on 128.7 was disallowed because she did not make the check.

Donald Ford called by the Administrator in rebuttal is employed by the Customs & Border Protection, National Capital Region Coordination Center as a radar operator assigned to detect and monitor traffic. He said that the Customs database, Exhibit A-24, shows only two instances regarding transponder coding by this aircraft, one by someone else squawking 1200 on May 24, 2005, and this incident. He said that there were 48 departed flights by this aircraft up to March 1, 2006.

Steven Isaacs called by the Administrator in rebuttal is an FAA ASI Policy Analyst. He reviews airspace problems. He has 3400 flight hours, including 1,000 in Cessna 172 aircraft. He has operated Mode S transponders. He said that the discrete code cannot be inserted in a Mode S transponder when it is in the off position, but it can be inserted when it is in the standby or on position. He noted that the checklist used by the Respondent recommended putting the transponder in standby after landing.

Kim Barnette called by the Administrator as a rebuttal witness is an Aviation Safety Inspector/Maintenance. He is experienced in electrical wiring maintenance and troubleshooting and has investigated over 100 fatal accidents and has performed several hundred field approvals for major repairs. He has also performed conformity inspections for airworthiness. He was accepted as an expert in general aviation maintenance.

He said he has reviewed the packages submitted with discovery, the exhibits, the aircraft registration packages, the violation history of the aircraft, and the performance tracking records for N724TX.

He said that the troubleshooting method employed by the Tarascios in attempting to locate a problem with the aircraft transponder, which involved pulling, tugging, and yanking on wiring is not recommended. That can break wiring harnesses, pins, and terminals. They are not designed to bear weight and loads. He said there is no way to simulate flight loading by reaching up

and pulling and twisting wiring.

Inspector Barnette identified two metal buss bars on the photograph Nicholas Tarascio said was taken about the time of the repair to the transponder, which shows a hole in one of the buss bars. He pointed out two metal buss bars had screws in them. He said that the hole in one was normal because there was no circuit breaker installed there. He said one buss bar was bent but that is not unusual to accommodate circuit breakers of different heights.

He said he saw no evidence of discontinuity such as pitting from arching or evaporation. He said he could not tell from the photograph which circuit breaker affected the transponder, but could not see a malfunction or improper connection on any of the circuit breakers. He said he saw no evidence of use of improper screws in 1995 to warp the buss bar to make a connection to a circuit breaker that could have caused the transponder not to transmit.

He said he had not been presented with the circuit breaker the Tarascios said they had replaced. He said he would have expected to see in the repair record the model number or other identifying markings on the circuit breaker used in the replacement. The repair record says that a new circuit breaker was installed. He said that all there is in the record is a brief description of the component, the date installed, and a signature. The description does not identify what kind of circuit breaker was

installed.

The parties agreed that no Form 337 is available for the installation of the transponder in 1995. There is no record until 2006 of a transponder malfunction.

He said that Michael Tarascio did two annual inspections in 2005 and 2006. No problem with the transponder was found in the 2005 annual inspection. He said there is no evidence of a transponder failure until 2006.

On cross-examination, Inspector Barnette said that the transponder would shut down if there was an interruption of power. He said that troubleshooting is difficult, and more difficult if the problem is intermittent.

The Respondent said that the photograph was taken in March or April 2007, but the statement was not made under oath.

Inspector Barnette stated that there is nothing to indicate any circuit breaker had been replaced recently.

Positions of the Parties

The Administrator contends that he has established a prima facie case that the Respondent operated N724TX on June 8, 2004, in the vicinity of the Gaithersburg Airport without complying with the requirements of FDC NOTAM 3/2126 when he did not continuously transmit a discrete transponder code, and the Respondent has failed to prove by a preponderance of the evidence his affirmative defense that a transponder malfunction was the cause of N724TX being tracked only as a primary target on

June 8th, 2004.

In support of his contention that the Respondent has not proven his affirmative defense of transponder malfunction by a preponderance of the evidence, the Administrator sites Administrator v. Zingali, NTSB Order Number EA-3597 (1992), in which the Board rejected a claim of a malfunctioning avionics system as the cause of the respondents operating in the Los Angeles terminal control area without authorization made more than a year after the incident as too remote in time to be persuasive.

And in Administrator v. Palmquist, 7 NTSB 476 (1988), the Board similarly rejected an affirmative defense of a mechanical malfunction which the respondent did not mention until seven months after the incident.

The Administrator notes that in the instant case, the Respondent did not seek to have his purported intermittent transponder malfunction repaired until over a year and a half after the incident.

The Respondent contends that the Administrator has failed to provide any evidence that he placed his transponder in the off or standby position during the first five minutes of the flight, or that he did anything to cause his transponder not to be detected by the secondary radar antenna during the flight.

The Respondent acknowledges that the Administrator did establish there were other reasons why his transponder may not have been detected by the secondary radar systems, other than a

malfunction of the transponder.

Respondent points to the testimony of the Administrator's expert witnesses, Mark Olsen and Robin Dooley, to the effect that there could be many reasons why a radar system or automation system does not receive a secondary target, including when the aircraft went below radar coverage, the transponder was inoperative or broken, or there was a transponder shadowing where the aircraft briefly was at an altitude at which the transponder was shielded from returning a signal back to the interrogator or the ground.

The Respondent contends that based on several instances of a general electrical failure in his aircraft after June 8, 2004, it is possible that a general electrical failure was the cause of his transponder not transmitting a discrete code on June 8th, 2004, and that the Administrator has failed to rebut that possibility.

The Respondent further contends that in January 2006, a year and a half after the incident at issue, he was informed by air traffic controllers in the New York terminal radar area that they had lost his transponder signal as he was about to land at the Farmingdale Airport, New York, and that subsequently two experienced mechanics found that the circuit breaker for the transponder he was using was the wrong size and was improperly installed so that electrical power to the transponder could be intermittently lost. The problem was corrected by installation of

the correct size circuit breaker, which established a solid electrical connection.

The Respondent argues that since he has provided an explanation that the failure of his transponder to transmit the discrete code was the result of a malfunction of the transponder, he has rebutted the inference of pilot carelessness citing Administrator v. Davis and Menecke, 1 NTSB 1517, 1520 to 21 (1970, not '71) which cites Administrator v. Hibbard, 1 NTSB 11 to 52 (1971). The Respondent argues that whereas here, a respondent's explanation is based on a malfunction of the aircraft and whereas here, the Administrator has not examined the aircraft subsequent to the incident, then the inference of carelessness has been rebutted.

Citing Administrator v. Clark, 2 NTSB 2015 (1976), the Respondent further argues that once he has raised an affirmative defense, as he has done in this case, it becomes incumbent upon the Administrator to rebut that defense, which the Administrator similarly has not done in this case.

Citing Administrator v. Dress, NTSB Order Number EA-5115 (2004), the Administrator argues that pilots are not held to a standard of strict liability, and here no evidence has been offered that he knew or should have known that his transponder was not working and he committed a violation.

Findings of Facts and Conclusions of Law

In Administrator v. Albert, NTSB Order Number EA-5235

(2006), the Board affirmed a 30 day suspension in a case in which the respondent was found to have operated his aircraft within an ADIZ without complying with the operating requirements, procedures, and special security instructions specified in the NOTAM.

In Administrator v. Tsegaye, NTSB Order Number EA-4205 (1994), the Board said in a footnote that the respondent must do more than present a prima facie case for an affirmative defense. The respondent must prove his affirmative defense by a preponderance of the evidence.

In Administrator v. Kalberg, NTSB Order Number EA-5240 (2007) at page 3, the Board in line with previous rulings said that when the Administrator presents a prima facie case of Respondent's violation or violations of the Federal Aviation Regulations, it is the Respondent's burden to prove his affirmative defense to the regulatory violations by a preponderance of the evidence. See e.g. Administrator v. Tsegaye, NTSB Order Number EA-4205 at footnote 7 (1994)(Respondent must prove his affirmative defense by a preponderance of the evidence); Administrator v. Gibbs, NTSB Order Number EA-5291 (2007) at 2; Administrator v. Donohue, Et Al, NTSB Order Number EA-5341 (2007) at 9.

In Administrator v. Zingali, NTSB Order Number EA-3597 (1992), the Board said that the Administrator is not required to rebut an affirmative defense when he has established a prima facie

case, and a Law Judge does not need rebuttal evidence to conclude that the evidence submitted in support of an affirmative defense is inadequate.

NOTAM FDC 3/2126 requires certain operational procedures for the Washington, D.C., Metropolitan Area Air Defense Identification Zone:

1) The aircraft must be equipped with an operable two-way radio capable of communication with ATC on an appropriate radio frequency.

2) The flight crew establishes two-way radio communications with appropriate ATC facility before operating in the ADC and retains that capability while operating in the ADC.

3) The flight crew, prior to operating within Class B, C, or D airspace within the ADIZ receives a separate ATC clearance to enter Class B, C, or D airspace.

4) The aircraft is equipped with an operating transponder with automatic altitude reporting capability.

5) Prior to operating in the ADIZ, the flight crew obtains a discrete transponder code from the ATC.

6) The aircraft's transponder continuously transmits the ADC issued discrete transponder code while the aircraft is operating in the ADIZ.

7) Prior to operating an aircraft in the ADIZ, pilots must file their flight plan with an AFSS, must activate their flight plan prior to departure or entering the ADIZ, and must

close their flight plan on landing or leaving the ADIZ.

The radar evidence of record establishes beyond any question that the Respondent operated his aircraft in the Washington ADIZ for a period of approximately five minutes on June 8, 2004, after taking off from the Gaithersburg Airport in Maryland where the Respondent keeps his aircraft, without continuously transmitting a discrete transponder code, contrary to the requirements imposed in the NOTAM.

There is sufficient evidence to establish a prima facie case that the Respondent violated FAR Sections 91.13(a), 91.139(c), and 99.7 as charged in the complaint.

It was stipulated by the parties at the beginning of the hear that on or about June 8th, 2004, the Respondent operated as pilot-in-command a Cessna C-172M, identification number N724TX, during a flight in the vicinity of the Gaithersburg, Maryland, in airspace covered by NOTAM 3/2126, hereafter referred to as the Washington ADIZ.

Prior to operating the aircraft, the Respondent filed a flight plan with the Altoona Flight Service Station and requested and received from the Potomac TRACON a discrete transponder code of 5352 and a departure frequency.

National Capital Region Coordination Center, NCRCC, radar track history shows that N724TX was recorded as a primary target without a discrete transponder code from 23:29:32 through 23:34:18.

From 23:34:29 through 23:36:06, N724TX was recorded by radar as continuously transmitting discrete transponder code 5352, with the exception of the period from 23:36:06 through 23:36:30, 24 seconds. When the target was in coast mode, no radar signal was received.

Thereafter, from 23:40:20 through 23:43:57, N724TX was recorded by radar in the coast mode, with the exception of 23:41:19 and 23:43:57, when it was a primary target.

From 23:47 through 23:50:36, N724TX was recorded by radar as continuously transmitting discrete code 5352.

From 23:50:48 through 23:54:36, N724TX was recorded by radar as in coast mode with the exception of 23:54:36 when it was recorded as a primary target.

As shown by Exhibit A-5 at 23:15:46, N724TX contacted Potomac approach by radio requesting a clearance from Gaithersburg out of the ADIZ to Frederick.

At 23:16:02, Potomac approach instructed N724TX to squawk 5352, gave it the departure frequency of 128.7, and instructed it to remain clear of Bravo airspace.

At 23:16:12, N724TX correctly read back the clearance from Potomac approach, which Potomac approach acknowledged as correct.

At 23:16:23, N724TX radioed Potomac approach, "So, we'll be off in a minute."

There was no further radio communication on June 8,

2004, between N724TX and ATC.

Both the FAA's radar at Baltimore/Washington Airport and the array of radars monitored by the U.S. Customs showed that a primary target, an otherwise unidentified aircraft, subsequently identified as N724TX, departed from Gaithersburg Airport and from Runway 32 at 23:29:32, approximately 13 minutes after the Respondent told Air Traffic Control that he would be off in a minute. He was not squawking a discrete transponder code.

At 23:34:26, at an altitude of 1100 or 1200 feet, approximately five minutes later, the same aircraft began squawking the discrete transponder code 5352 which had been assigned to N724TX.

During that approximate five minute period while N724TX was airborne and operating in the ADIZ as a primary target, it did not squawk the discrete transponder code assigned to it as required by the NOTAM.

Mark Olsen, the Acting Director of Safety Investigations and Evaluations for the FAA was qualified as an expert in radar interpretation and in use of the RAPTOR program which he developed, displayed and analyzed radar data recorded by the Potomac TRACON's automated radar systems using the RAPTOR program and using the RAPTOR program presented radar data from the FAA's Baltimore radar showing that N724TX departed from Gaithersburg Airport on Runway 32 as a primary target, meaning it was not displaying a transponder code.

He said, and I find his testimony credible, that if the primary target is strong enough for the automation system to track it as it was here, and the radar still does not display a transponder signal, it can be assumed that the transponder was off, on standby, or malfunctioning. If the tracker can track the aircraft and the aircraft is transmitting a secondary or transponder signal, then the secondary signal will be displayed on the radar display.

The primary target, which was not displaying a secondary or transponder signal for five minutes after takeoff, proceeded to the north, then turned to the northeast, then turned to the east, then turned to the southeast, then turned to the southwest, then turned back to the airport and crossed the centerline of Runway 32. At that point, the aircraft, which up until then had not been squawking a transponder code, began squawking the discrete transponder code 5352 which had been assigned to N724TX at an altitude of 11 or 1200 feet.

I find that Mr. Olsen is a thoroughly credible expert witness and that the radar data and his analysis of it is reliable and shows that N724TX operated in the ADIZ in the vicinity of the Gaithersburg Airport for approximately five minutes without squawking the discrete transponder code 5352 assigned to it by Air Traffic Control as alleged in the complaint.

The U.S. Customs radar data corroborates the radar data recorded by the FAA's Potomac TRACON. Robin Dooley, the U.S.

Customs and Border Protection Deputy Director of National Security Missions and P3 Operations was similarly accepted as an expert in radar interpretation. I find him to be a completely credible expert witness.

U.S. Customs jointly monitors and tracks and attempts to identify aircraft that appear to be operating in the ADIZ without complying with the NOTAM, and actually launches aircraft in coordination with the Department of Defense to intercept and attempt to divert and identify aircraft it perceives to be in violations of the NOTAM.

U.S. Customs operates a mosaic of up to nine radars to interrogate the transponder code displayed by an aircraft through the secondary radar that displays transponder codes. A primary hit is a raw radar hit without the secondary portion displaying the transponder code. That could be the result of the secondary portion of the radar not operating or if the transponder is on standby or is inoperable and is not emitting a signal that can be picked up by the secondary radar. If the radar loses a signal, the radar goes into coast and the computer system continues to plot a virtual or dead reckoning track and is able to go back on a reciprocal to see if the aircraft has landed or it can be detected.

I find from Mr. Dooley's testimony which I find credible in every respect, that using the Dulles radar, U.S. Customs detected the aircraft subsequently identified as N724TX as a

primary target at 23:29:32. At 23:34:29 it began broadcasting the discrete code of 5352. During the preceding five minutes of flight, it was not broadcasting a discrete transponder code. The launch of Blackhawk helicopters was requested but was cancelled when the aircraft began broadcasting the discrete transponder code of 5352, and it was identified as N724TX.

I find, therefore, if the transponder in N724TX had been transponding a discrete code during that five minutes of flight on June 8th, 2004, it would have been picked up by radar because the signal was strong enough for radar to track the aircraft as a primary target.

Although the Respondent contends that ATC failed to inform him on June 8th, 2004, that his transponder was not working as required by FAA Order 7110.65, even assuming arguendo that ATC is required to do that, it was not reasonably possible in this instances because the Respondent did not at any time during the flight establish two-way radio communication with ATC, and ATC had no way to identify N724TX until after five minutes of flight it began transmitting the discrete transponder code assigned to it. Even after that, the Respondent did not establish two-way radio contact with ATC.

The potential catastrophic consequences of a launch of law enforcement or military aircraft to intercept the Respondent's aircraft while it was not broadcasting the discrete transponder code are evident. The launch of military and law enforcement

aircraft could have resulted in the downing of the Respondent's aircraft.

I do not find that the several periods of time during which his aircraft went into coast or dead reckoning on the radar after starting to broadcast the discrete transponder code on June 8th, 2004, indicates anything other than that the aircraft may have gone below radar coverage, was shielded from returning the transponder signal, or did a stop and go landing.

The Respondent has raised as an affirmative defense that his failure to continuously transmit a transponder signal was an inadvertent and unknown error caused by a malfunctioning of his transponder. He contends that he has met his burden of proving his affirmative defense by a preponderance since the Administrator's expert witnesses admitted that it could have resulted from a transponder malfunction, and that the burden, therefore, shifts to the Administrator to rebut the evidence he has presented of a malfunctioning transponder.

I find there are two problems with these arguments. First, I find that as a matter of credibility that the evidence of a transponder malfunction presented by the Respondent as an affirmative defense is unreliable, unsubstantiated, and inconclusive. It does not meet his burden of proving his affirmative defense by a preponderance of the evidence.

Second, as made clear by the Board in Administrator v. Zingali, supra, the Administrator is not required to rebut an

affirmative defense.

The Mode S transponder that the Respondent used in N724TX was part of a test collision avoidance system installed by the FAA in the aircraft in 1995. The collision avoidance function of the system is no longer supported by the FAA. However, the Mode S transponder that is part of the system remains functional and is the transponder that has been used continuously by the Respondent and the co-owners of the aircraft since 1995. It was the transponder in use on June 8th, 2004, and at all other times relevant to this case.

Since installation of the Mode S transponder in 1995, the Respondent and his partners have kept N724TX at the Gaithersburg, Maryland, Airport, which is located within the Washington, D.C., ADIZ, and all flights by N724TX to and from that airport have been subject to the conditions and procedures required by the NOTAM as discussed above.

No evidence has been presented that N724TX failed to transmit a discrete transponder code at any other time then on June 8th, 2004, while operating in the Washington, D.C., ADIZ. There is no evidence of, or any claim by the Respondent, that the Mode S transponder failed at any time during the nine years or so that it was installed until June 8th, 2004.

The Respondent contends that had he known sooner of the incident that Air Traffic Control was not receiving a discrete transponder code from his aircraft he would have taken steps to

find out what the problem was. However, the credible evidence establishes that he apparently did find out some five weeks later that Air Traffic Control was saying that it had not received a discrete transponder code in his aircraft, but he did nothing at any time after that until January 2006 to have his transponder checked.

To the contrary, on January 5th, 2005, the transponder was tested and certified for flight as is required biannually. And in 2005 an annual inspection was performed and no problems were detected with the aircraft's transponder or electrical system.

The Respondent testified that the only other specific incidents of transponder failure occurred in January 2006 as he was about to land at the Farmingdale Airport, New York. He said that Air Traffic Control told him that it had lost his transponder signal, but said that was okay as ATC was about to terminate radar service and cleared him to land. The Respondent provided no other details to corroborate this incident.

He stated that after he landed he turned the aircraft over to Michael Tarascio, owner of Air East Airways, an aircraft maintenance business specializing in general aviation aircraft for an annual inspection and told him to find out why the transponder had failed. He said that a couple of months later Michael Tarascio told him that an inappropriate circuit breaker had been installed in the original installation in 1995 and that over time

vibration may have caused a screw attaching the wiring to the buss bar and circuit breaker to have backed out.

However, I find the Respondent has not presented any evidence sufficient to establish by a preponderance that in January 2006 there was a loss of a transponder signal to ATC due to a transponder failure. Even assuming arguendo that ATC did report a lost of transponder signal to the Respondent as he testified, that the loss of the transponder signal occurred because of a transponder malfunction, is nothing more than one possibility among a number of other equally plausible possibilities.

Based on the credible evidence of the witnesses Mark Olsen and Robin Dooley, among the reasons that ATC could have lost the transponder signal from N724TX, in addition to a transponder failure, are that the aircraft went below radar coverage or that there was a transponder shadowing when the aircraft was briefly in an altitude at which the transponder was shielded from returning the signal back to the interrogator on the ground.

In addition to the fact that the Respondent has presented no evidence from Air Traffic Control corroborating that it had lost the transponder signal for this aircraft on this occasion, neither does the Respondent claim that he recycled or reset his transponder or did anything else at either Air Traffic Control's request or on his own initiative while in the air to confirm that his transponder was or was not operating properly.

As this incident is an integral part of the Respondent's affirmative defense that his failure to transmit a transponder signal in June 2004, some one and a half years earlier was the result of a similarly malfunctioning transponder, the burden of proving by a preponderance of the evidence that there was a related transponder failure in January 2006 rests on him. Here the evidence of a transponder malfunction at that time based on a radio message from Air Traffic Control is inconclusive at best.

Respondent, however, further claims that he immediately following the January 2006 incident when he landed, turned his aircraft over to Michael Tarascio and his son, Nicholas Tarascio, two mechanics who customarily worked on his aircraft, for an annual inspection. He reported to them the failure of the transponder and asked them to correct the problem.

Several months later Michael Tarascio told him they had found that there was a loose wire connection to an improper sized circuit breaker which had been connected to the transponder in question at the time of its installation in 1995, and they had replaced the circuit breaker with a proper sized circuit breaker and that had fixed the problem.

I find that neither Michael Tarascio nor Nicholas Tarascio are credible witnesses. I observed their demeanor as witnesses and heard their testimony. I found their testimony at times to be vague and evasive and completely lacking in plausibility or any corroboration. They were not able to provide

the part number of the replacement circuit breaker they said they had installed, nor did they produce at the hearing the circuit breaker they said that had been removed. Michael Tarascio was not even able to identify the circuit breaker he said was replaced from the photograph of the circuit breaker's buss bar and wiring behind the dash of the aircraft.

At the outset I find that Nicholas Tarascio who said he performed the work on the transponder and who said he is an A&P mechanic on direct examination did not disclose until cross-examination that his mechanic's certificate was suspended at the time he allegedly worked on and found a problem with the Respondent's transponder. I find his apparent willingness to allow the false impression to stand that he was the holder of an A&P certificate at that time has a substantial adverse impact on his credibility. As he did not hold a valid A&P certificate at the time, he could not have lawfully worked unsupervised on the Respondent's aircraft.

While his father Michael Tarascio said he supervised his son's work, it is an open question as to how close his supervision was considering his apparent unfamiliarity with the electrical wiring and circuit breakers behind the aircraft dash and the fact that Nicholas Tarascio said it took eight and a half hours of testing before he located the problem with the transponder. That Michael Tarascio stood looking over his son's shoulders for eight and a half hours is simply not credible.

Nicholas Tarascio testified that he performed electrical continuity tests on the transponder and checked the wiring and connections, but found everything tested correctly. He said he traced the wiring harness and found all the connections were solid. It was not until eight and a half hours of testing, he said, that he began tugging on the wiring harness and moving it around and was able to get the power to the transponder to turn on and off depending on how he pulled the harness. Even assuming arguendo that Nicholas Tarascio was able to induce a malfunction of the transponder in this fashion, I find it more likely than not that manhandling the wiring harness in the fashion he described induced a discontinuity in the electrical circuit to the transponder where one did not exist before.

In this regard I fully credit the testimony of Aviation Safety Inspector/Maintenance Kim Barnette, a rebuttal witness called by the Administrator, who was accepted as an expert in general aviation maintenance and is highly experienced in electrical wiring, maintenance, and troubleshooting, to the effect that the troubleshooting methods employed by Nicholas Tarascio that involved pulling, tugging, or yanking on wiring are not recommended. His testimony is eminently logical that treating the wiring in that fashion could break wiring harnesses, pins, and terminals. He said they are not designed to bear weight and loads, and there is no way to simulate flight loading by reaching up and pulling and twisting the wiring.

He further credibly testified that from the photographs of record, he saw no evidence of a discontinuity such as pitting or arching or evaporation and he saw no evidence of use of improper screw in 1995 that caused the buss bar to warp and to break the electrical connection to the circuit breaker.

Finally Inspector Barnette stated that after examining the photographs offered by the Respondent, he saw nothing to indicate any of the circuit breakers had recently been replaced.

Further, Michael Tarascio, whose testimony was vague at time and largely unsubstantiated by written records concerning replacement of the circuit breaker, admitted that he had performed an annual inspection on N724TX in 2005 and had found no problems involving the transponder. He said he checks all of the wiring during an annual inspection.

Further, he acknowledged an invoice for work performed on the Respondent's aircraft dated 1/13/05, reflecting that a required two-year test of the Mode S transponder and static system had been performed by a company called Prop Air Aviation without finding any problem with the transponder. The test was required in order for N724TX to fly IFR.

The Respondent testified that as was his habit, he turned on the transponder before takeoff on June 8th, 2004, and he had no way of knowing that radar was not picking up his discrete transponder code. He admitted that he did not establish two-way radio communication with Air Traffic Control after takeoff.

However, the Respondent did not testify that he had a firm recollection that he turned on the transponder on that occasion, only that it was his habit to do so. The position of the transponder in the dash panel is such that it is not visible to the pilot from his normal position in the left hand seat, and, therefore, the pilot could not see if the transponder was being interrogated without shifting his position.

While operating in the air traffic pattern at Gaithersburg, it is eminently logical that extra vigilance would be required of any pilot to see and avoid other traffic, leaving the pilot little time to lower his head from the horizon to check on the transponder. The Respondent did not testify that he made that kind of a check.

The Respondent admitted that he did not establish two-way communication with Air Traffic Control after he was airborne, nor did he notify Air Traffic Control at the moment that he began taking off. But nevertheless, he contends that Air Traffic Control should have notified him immediately that his aircraft was not transmitting a discrete transponder code.

The fallacy of that argument is that Air Traffic Control had no way of knowing that the Respondent was airborne. His aircraft was first identified by radar as a primary target without transmitting the discrete transponder code or any transponder code for five minutes after it became airborne as 23:29:32. N724TX operated by the Respondent had obtained a radio clearance from

Potomac TRACON to take off and was assigned a discrete transponder code at 23:16:12. The Respondent acknowledged the clearance and said he would be off in a minute. However, he did not take off in a minute or anything close to that. He was not picked up as a primary target for another 13 minutes. As the Respondent, for whatever reason, did not establish two-way radio contact with Air Traffic Control after takeoff, the controllers had no way of reasonably knowing that the primary target that was being picked up by radar without transmitting a discrete transponder code was N724TX, the aircraft that Air Traffic Control had last heard from on the ground some 13 minutes earlier. That was not determined until five minutes later when the primary target suddenly began transmitting the discrete code of 5352.

Further casting doubt on the Respondent's affirmative defense is that other than the two uncorroborated instances of transponder failure that he claims, there is no record of a transponder malfunction involving the Mode S transponder he was using in more than 10 years since its installation.

The Respondent relies on several instances of a general electrical failure in his aircraft not long after June 8, 2004. That, he argues, raises the possibility that there could have been a general electrical failure which would have stopped the transponder from transmitting on June 8, 2004, and the Administrator has not rebutted this possibility. That, however, is nothing more than conjecture unsupported by any evidence. The

Respondent did not testify that he experienced a general electrical failure in his aircraft on June 8, 2004, or that he brought his aircraft to a mechanic for repair after he landed that day or at any other day within a reasonable time period after June 8, 2004. Thus, I find there appears to be no history of a general electrical failure that might explain the failure of his aircraft to transmit a discrete transponder signal on June 8, 2004.

Without any credible corroborating evidence of an intermittent transponder malfunction, I find the Respondent has not proven his affirmative defense by a preponderance of the evidence that on June 8th, 2004, a malfunctioning transponder in his aircraft was the reason his aircraft did not transmit the discrete transponder code assigned to it while operating in the Washington ADIZ as alleged in the complaint.

There being no credible evidence of a malfunctioning transponder at any time since it was installed in 1995, and conversely every indication that it would have operated correctly on June 8th, 2004, if it was turned on, and would have been picked up by radar, I find the Administrator's evidence is sufficient to prove by a preponderance of the evidence that the Respondent failed to comply with the operating requirements and procedures described in the NOTAM when operating in the Washington ADIZ by failing to turn on his transponder until after approximately five minutes of flight on June 8th, 2004. There is no other reasonable

explanation for the admitted failure of N724TX to transmit the discrete transponder code assigned to it for five minutes after takeoff while operating in the Washington ADIZ on June 8th, 2004.

Citing Administrator v. Davis and Menecke, supra, which in turn cited Administrator v. Hibbard, supra, the Respondent contends that any inference of pilot carelessness in his case has been rebutted because his explanation of the alleged violations is based on the malfunction of the aircraft, in this case the transponder, and the Administrator has not examined the aircraft. The cases cited by the Respondent, however, do not reflect current Board precedent and do not support his contention.

The cases he cites are distinguishable because unlike in those cases, the instant case does not involve an event classified as either an incident or an accident, and the Respondent's aircraft was never made available to the Administrator to check. In Davis and Menecke, supra, the aircraft involved in that case was a commercial airliner which struck trees in an aborted landing and was, in fact, subjected to tests after the incident. In Hibbard, the aircraft was still resting in a snow bank where it had crashed and was available to the FAA for inspection.

Here the Administrator was not provided with any reasonable or timely notice that the Respondent was claiming transponder failure, nor did the Respondent offer to provide the Administrator with a timely opportunity to examine his aircraft. In any event, no authority has been presented that the FAA has a

duty to track down and conduct tests at its own expense on an operable aircraft not made available to it by the owner, especially where it does not have reasonable or timely notice that the pilot is claiming a malfunction as a defense to an alleged violation of Federal Aviation Regulations. The FAA does not operate maintenance facilities for the repair of civilian aircraft. Maintenance of the aircraft is the responsibility of the owner.

As already noted, the Respondent has the burden of proving his affirmative defense by a preponderance of the evidence after the Administrator has established a prima facie case of pilot carelessness. Administrator v. Kalberg, supra.

Further, the Administrator is not required to rebut an affirmative defense when he has established a prima facie case. Administrator v. Zingali, supra.

Here the Administrator has established a prima facie case that the Respondent violated Federal Aviation Regulations as charged by radar primary and secondary evidence that establishes that the Respondent's aircraft was airborne for approximately five minutes in the Washington ADIZ before it began transmitting a discrete transponder code as required by the NOTAM.

In the absence of proof by a preponderance of his affirmative defense presented by the Respondent that his transponder was malfunctioning on June 8th, 2004, carelessness by the Respondent by either failing to turn on his transponder or

leaving it in standby before takeoff are the only reasonable inferences that can be drawn. The evidence simply does not show that there are two equally plausible conclusions, one that supports the Administrator's case, and the other that refutes it.

I find that the Administrator has proven by a preponderance of the evidence that the Respondent violated Federal Aviation Regulations as charged in the complaint.

Upon consideration of all the substantial, reliable, and probative evidence of record, I find that the Administrator has proven by a preponderance of the evidence that the Respondent violated FAR Sections 91.13(a), 91.139(c), and 99.7.

Order

Accordingly, it is hereby ordered that the Administrator's Order is affirmed and the Respondent's appeal is denied.

EDITED AND DATED ON
JANUARY 5, 2008

William A. Pope, II
Administrative Law Judge