UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ENPAT, INC., a Florida Corporation, Plaintiff, v. HARRY SHANNON, Defendant.	**Case No.:** **6:10-cv-00084-GAP-KRS**

ENPAT'S SERVICE OF DISCLOSURE OF EXPERT TESIMONY PURSUANT TO Fed. R. Civ. P. 26(a)(2), SCHEDULING ORDER (DOCKET 16) AND ORDER GRANTING EXTENTION OF TIME TO DISCLOSE (DOCKET 39)

Plaintiff, Enpat, Inc., hereby serves their Disclosure of Expert(s) and their report(s) pursuant to Fed. R. Civ. P. 26(a)(2), attached.

DATED this 31st day of March, 2011.

BY: /s/ Stephen C. Thomas

Stephen C. Thomas
Florida Bar No. 0641006
Robert A. Lynch
Florida Bar No. 0026459
Hayworth, Chaney, & Thomas P.A.
202. N. Harbor City Blvd., Suite 300
Melbourne, Florida 32935
Phone: (321) 253-3300
Facsimile: (321) 253-2546
sthomas@hctlaw.com

rlynch@hctlaw.com

Attorneys for Plaintiff Enpat, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on March 31, 2011, I electronically served the foregoing upon:

Mark J. Young
Mark Young, P.A.
12086 Fort Caroline Rd., Unit 202
Jacksonville, FL 32225
Telephone: (904)996-8099
Facsimile: (904) 981-9234
Email: myyoung@myyoungpa.com

BY: /s/ Stephen C. Thomas

Expert Report of
Michael J. Dreikorn, Ed.D.

Issued: 03-31-2011

Regarding Enpat, Inc.

vs.

Harry Shannon

Case No. 8:10-cv-02013-VMC-AEP



Michael J. Dreikorn, Ed.D.
5697 Bay Point Rd.
Bokeelia, Florida 33922
www.ASDExperts.com

Table of Contents

I. QUALIFICATIONS 2

II. MATERIALS REVIEWED 2

III. THE LAKE LA-4 SERIES AIRCRAFT BACKGROUND AND DISCUSSION 3

IV. EXPERT OPINIONS 4

A. In response to potential cracking failures of wing spars on LA-4 series aircraft, and the pending issuance of AD 2000-10-12 by the FAA, REVO developed a modification kit to improve aircraft safety and reduce the financial burden on LA-4 series owners, by eliminating the need for repetitive inspections and inducing potential structural damage. 4

B. It is not uncommon for aircraft manufacturers to obtain patents for their FAA-approved designs. 7

C. Aircraft that are not compliant with the requirements of an applicable Airworthiness Directive are considered unairworthy 8

D. Within the civil aviation industry, preamble language is not considered enforceable or authoritative. 8

E. The modification kit produced by JCM Aerodesign Ltd. is a direct and equivalent infringement of the modification kit described in REVO SB B-79 and covered by U.S. patent number 6,328,260. 9

F. By installing the modification kit produced by JCM Aerodesign Ltd. on his own aircraft, and marketing, selling and installing JCM Aerodesign Ltd. kits to other aircraft owners, Harry Shannon infringed on U.S. patent number 6,328,260. 13

G. The FAA is required by statute (USC Title 49) to foster aviation safety. To accomplish this, the FAA has established a system of requirements, validation, verification, and oversight. The FAA's system includes assurance of design, production, maintenance, and operations. Under this safety system, FAA certificated mechanics and aircraft owners have the responsibility to ensure modifications are accomplished utilizing approved data and parts 14

Attachment A: CV & Compensation Schedule 19

Attachment B: Materials Reviewed 19

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

I. QUALIFICATIONS

Since 2002, I have owned and managed The IPL Group, LLC, located in Bokeelia, Florida. The IPL Group provides services to both governmental entities and private companies in the aviation, space and defense (AS&D) industries, for aircraft certification, engineering, production certification, regulatory compliance, quality assurance, maintenance activities, human factors, organizational performance, and other AS&D matters.

I have over 30 years of experience in the aviation, space, and defense industries, including airframe, engine and component design, production, repair, maintenance, overhaul and aircraft operations. I was the Assistant Division Manager (AIR-201) of the Federal Aviation Administration's Aircraft Certification, Production and Airworthiness division. In this role, my responsibilities included the development of national policy, FAA regulations, FAA advisory materials, and the regulatory compliance and enforcement of the U.S. civil aviation manufacturing system.

Subsequent to my role at the FAA, I was the Vice President of Quality and Regulatory Compliance for Pratt & Whitney. I was responsible for the quality, product integrity, and regulatory compliance of a global production and design system, that held approvals from the FAA, Defense Contract Management Agency (DCMA), National Aeronautics and Space Administration (NASA), and various foreign civil aviation authorities. Other professional and management positions included McDonnell Douglas and Northrop.

Throughout my professional career, I have maintained various FAA certifications, performed numerous aviation-related investigations, published books, and journal articles related to aviation quality, certification, and maintenance systems, and actively engaged in the development of industry standards related to quality, product verification methods, maintenance practices, and human factors. A more complete description of my professional background and compensation schedule is set forth in Attachment A.

II. MATERIALS REVIEWED

I was asked to evaluate regulatory requirements, and industry practices related to the design, certification, and installation of modification kits on civil aircraft. I was also asked to evaluate documents and testimony in the underlying matter and offer opinion and testimony as to possible infringement of intellectual property related to U.S. Patent 6, 328,260.

I reviewed certain Federal Aviation Regulations, Notice for Proposed Rule Making (NPRM), FAA Type Certificate Data Sheets, FAA Airworthiness Directives,

FAA Orders, FAA Advisory Circulars, FAA aircraft registration database, REVO Service Bulletins (SB), U.S. patent number 6,328,260 and related examination findings, and other publically available relevant information.

Additionally, I have reviewed deposition testimony and related exhibits. Attachment B provides a comprehensive inventory of the documents I have reviewed in this matter.

In rendering this opinion, I have taken into consideration my professional knowledge of the aviation industry, my knowledge of aviation patent processes, and my knowledge of Federal Aviation Regulations (FAR). I also applied my experience with the FAA, my knowledge of FAA product certification procedures, FAA certificate management activities, the civil aviation industry, aircraft maintenance and operation practices, and aviation business practices related to the protection of intellectual property.

III. THE LAKE LA-4 SERIES AIRCRAFT BACKGROUND AND DISCUSSION

Lake Aircraft is a manufacturer of amphibious aircraft that has a history that goes back to 1948. The first plane produced was the Colonial Skimmer. It was derived from an original design produced by Dave Thurston in 1946 when he was with Grumman Aircraft. Grumman never produced the design, but Thurston formed Colonial Aircraft as a side business to continue development.

Colonial's first amphibious aircraft, designated the "Colonial Aircraft C-1 Skimmer" and based on the original Grumman G-65 Tadpole design, first flew in 1948. Colonial grew to produce almost 50 of the C-1 and larger C-2 design before being sold in 1959, when it was renamed Lake Aircraft. At that time the first of the series of LA-4 aircraft design were released, enlarging the previous designs to a 180 horsepower, 4-seat aircraft, which was the basis for the entire line of aircraft that continues today. Over the years, the LA-4 has continued to grow with the 6 passenger, 250 horsepower LA-4-250 model (reference figure 1).

Lake aircraft produced in the 1960 - 1980 range are listed by the FAA as having been built by "Consolidated Aeronautics." With the exception of between 2004 and 2008, since the 1980's, the FAA-approved design has been owned by REVO, Inc. (REVO) and aircraft have been produced by Aerofab, Inc. REVO currently owns the FAA-approved design of the LA-4 series of aircraft. With regards to my opinions in this matter, the term REVO is used interchangeably to represent both REVO, Inc. and Aerofab, Inc.

In 1999, REVO received reports of cracking in the wing spar of LA-4 series aircraft. To remedy the potential of future cracks, REVO developed a modification kit that included doublers, fillers, and attaching hardware. REVO obtained both FAA

certification and U.S. Patent 6,328,260 for their modification kit. This kit was provided to their customers as Service Bulletin kit B-79, and as an action to satisfy FAA airworthiness directive 2000-10-22. On January 31, 2002, REVO assigned the rights to the subject patent to Enpat, Inc.[1]



Figure 1, Example of a Lake LA-4-250.

IV. EXPERT OPINIONS

A. In response to potential cracking failures of wing spars on LA-4 series aircraft, and the pending issuance of AD 2000-10-12 by the FAA, REVO developed a modification kit to improve aircraft safety and reduce the financial burden on LA-4 series owners, by eliminating the need for repetitive inspections and inducing potential structural damage.

1) In 1999, based on field reports, both REVO and the FAA were made aware of potential fatigue cracking in wing spars of LA-4-250 aircraft. As in most cases where there is an aircraft design issue, the FAA engages the support of the type certificate (TC) holder (REVO) to conduct analysis and to propose a solution. REVO invested approximately $1,000,000 "for the engineering design, analysis, development, and FAA approval and production of the wing spar modification kit."[2]

2) On June 12, 1999, REVO released Service Bulletin (SB) B-79. This SB provided a means of inspection, repair, and a modification kit in response the wing spar cracking issues. It is estimated that if the kit had not been

[1] Exhibit E, Affidavit of Armand Rivard, dated March 14, 2011
[2] Exhibit E, Affidavit of Armand Rivard, dated March 14, 2011

available, compliance through means of repetitive inspection would have incurred a cost of between $20,000 and $40,000.[3]

3) On October 06, 1999, the FAA issued a Notice for Proposed Rule Making[4] (NPRM) "to adopt a new airworthiness directive (AD) that would apply to certain REVO, Incorporated (REVO) Models Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, and Lake Model 250 airplanes. The proposed AD would require inspecting the left and right wing upper and lower spar caps and doublers for cracks, replacing any cracked parts and/or incorporating a modification kit depending on the extent of the damage, and reporting the results of the inspection to the Federal Aviation Administration (FAA). The proposed AD is the result of a report of a fatigue crack found at the second most inboard wing attachment bolt hole on one of the affected airplanes. Similar fatigue cracking has since been reported on seven more of the affected airplanes. The actions specified by the proposed AD are intended to detect and correct cracks in the wing spar caps and doublers, which could result in loss of the wing with consequent loss of control of the airplane."

   Prominently in the NPRM, a proposed solution is discussed. As "[r]elevant Service Information REVO has issued Service Bulletin B-79, dated June 12, 1999, which specifies procedures for accomplishing the following on the REVO Models Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, and Lake Model 250 airplanes: - inspecting the upper and lower wing spar doublers for fatigue cracks and corrosion; - inspecting the upper and lower wing spar cap angles for fatigue cracks and corrosion; - repairing or replacing any cracked or corroded parts or areas, as applicable; and - incorporating Aerofab B-79 kit on the wing spars."

4) As typical in an NPRM, the public is offered an opportunity to provide comment for FAA consideration. Comment may include support, rejection, and/or alternative means for the proposed language in the NPRM. Upon receipt of comments, the FAA engages a review process to determine relevance and appropriateness.

   On December 10, 1999, the Seaplane Pilots Association (SPA) provided the FAA comment to the NPRM, rejecting the need to install the B-79 modification kit. SPA describes its proposal as being based on Defendant's Harry Shannon's inspection experiments utilizing a borescope. Based on Shannon's testimony, he had personally spent thousands of dollars on borescope equipment to conduct the inspections

[3] Exhibit E, Affidavit of Armand Rivard, dated March 14, 2011; and Shannon 125:13-22

[4] FAA NPRM; Airworthiness Directives; REVO, Incorporated Models Lake LA–4, Lake LA–4A, Lake LA–4P, Lake LA–4–200, and Lake Model 250 Airplanes; Docket No. 99–CE–27–AD; 64 FR 54234 No. 193 10/06/99

and felt his method of inspection was adequate and capable of detecting cracks.[5] Shannon's approach does nothing to prevent cracking of a wing spar. But, rather simply facilitates possible detection of an existing crack utilizing expensive equipment and at scheduled inspection interval. This could potential allow for a catastrophic failure to occur between possible inspection intervals.

5) Per the subsequent NPRM announcement[6] on June 20, 2000, the FAA intended to release an airworthiness directive (AD) requiring inspection and modification to LA-4 series aircraft. This would make the REVO B-79 R1 modification kit a mandatory installation on all U.S. registered LA-4 series aircraft.

   For the most part, the FAA had rejected comments provided in response to the earlier NPRM, including Shannon's. One notable exception is the FAA eliminated the mandatory inspection of the spar cap, as no previous cracks had been identified in that location. As for other alternative inspection based approaches, the FAA provided the following:

   > "We do not concur that any of the alternatives alone are valid to meet the safety intent of this AD. Inspecting the wing spar doubler in accordance with the procedures in REVO, Inc. Service Bulletin B–79, dated June 12, 1999, assures the airworthiness of this component prior to installing the doubler kit (Aerofab B–79 kit). Installing this doubler kit gives the spar an adequate fatigue life and eliminates the need for repetitive inspections.
   >
   > We do not concur that cutting holes in the wing skin for inspections is an acceptable alternative because of the sensitive nature of the wing skin. We also do not concur with allowing repetitive inspections instead of mandatory incorporation of the Aerofab B–79 kit. Constant removal of the bolts could cause unnecessary damage. The FAA's policy is to require a modification when incorporation of that modification could eliminate or reduce the number of required inspections.
   >
   > We are not changing the AD as a result of these comments."

6) AD 2000-10-22 became effective on June 20, 2000. It provided for inspection activities to detect and correct cracks in the wing spars, which

[5] Shannon 102:17-103:10

[6] FAA NPRM; Airworthiness Directives; REVO, Incorporated Models Lake LA–4, Lake LA–4A, Lake LA–4P, Lake LA–4–200, and Lake Model 250 Airplanes; Docket No. 99–CE–27–AD; Amendment 39–11746; AD 2000–10–22

could result in the wing separating from the airplane with consequent loss of control; repair of any cracked parts, and installation of the REVO B-79 kit. Mandatory compliance was established within 50 hours time-in-service (TIS) or 12-months, facilitating the elimination of the unsafe condition presented in the AD without inadvertently grounding any of the affected airplanes.[7]

B. It is not uncommon for aircraft manufacturers to obtain patents for their FAA-approved designs.

1) The FAA affords no protection over the intellectual property of FAA design approvals. And, when granting an FAA design approval, the FAA makes no determination of intellectual property ownership.[8] As a result, it is not uncommon for third-parties to reverse engineer FAA-approved designs and make application to the FAA for their own design approval. Though this practice is common it is not necessarily safe or consistent with other U.S. laws, including U.S. patent laws.

   In many cases, reverse engineering does not provide for a complete understanding of manufacturing processes required to produce the parts contemplated by the original design approval holder. In most cases, reverse engineers do not have access to aircraft stress data and are making broad assumptions of the original design approval holder's engineering analysis processes.

2) The costs associated with conducting the original FAA design approval process, as done by REVO in this case, are much higher than those of reverse engineering. The FAA requires the original design approval holder to conduct analysis and testing of parts and components as an installed system. Whereas a reverse engineer may only need to show to the FAA that their part is equal to the original design holder's part.

   To safeguard against intellectual property infringements, it is common in the civil aviation industry of the U.S. for FAA design approval holders to secure U.S. Patent protection for their designs.

3) Based on my industry experience, I have firsthand knowledge that patents are routinely issued for aviation products and such is a common practice to protect intellectual property and preserve the opportunity to recover

[7] FAA AD 2000-10-22**;** Docket No. 99-CE-27-AD; Amendment 39-11746; RIN 2120-AA64; Airworthiness Directives; REVO, Incorporated Models Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, and Lake Model 250 Airplanes

[8] Reference Order by Judge Solomon Oliver, Jr.; U.S. District Court, Northern District of Ohio, Eastern Division; 1:08 CV 1565, 03/18/2011

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

engineering expenses related to the development, testing, and regulatory certification of civil aviation parts, including modification kits.

C. Aircraft that are not compliant with the requirements of an applicable Airworthiness Directive are considered unairworthy.

1) As provided in 14 CFR § 39, there is very clear and direct regulatory language that requires compliance to applicable ADs. The "FAA issues an airworthiness directive addressing a product when [they] find that:

   (a) An unsafe condition exists in the product; and

   (b) The condition is likely to exist or develop in other products of the same type design."[9]

2) "Anyone who operates a product that does not meet the requirements of an applicable airworthiness directive is in violation of this section [14 CFR § 39]."[10]

3) "If the requirements of an airworthiness directive have not been met, you violate §39.7 each time you operate the aircraft or use the product."[11]

4) As an example of violation frequency, if an aircraft owner is not in compliance with an applicable AD and flies his aircraft five times, he has violated 14 CFR § 39 five times. Civil penalties will be assessed by the frequency of violations and may include an exponential factoring.

D. Within the civil aviation industry, preamble language is not considered enforceable or authoritative.

1) Based on my training and experience in the civil aviation industry, and as an FAA official engaged in national rulemaking processes, preamble language is generally considered as not enforceable and carries primarily interpretive and/or background information value.

2) As a FAA certificated airframe and powerplant mechanic, with inspection authorization, and formally as an FAA designated airworthiness representative, my experience and training tells me that preamble language within the civil aviation industry is not enforceable or authoritative. As a certificated mechanic and inspector I would not consider U.S. Patent preamble language enforceable or authoritative.

[9] 14 CFR § 39.5
[10] 14 CFR § 39.7
[11] 14 CFR § 39.5

3) As matter of professional practice, I do not consider preamble language, including that provided in U.S. Patents as enforceable or authoritative and would not rely upon such to direct my professional decision making.

E. The modification kit produced by JCM Aerodesign Ltd. is a direct and equivalent infringement of the modification kit described in REVO SB B-79 and covered by U.S. patent number 6,328,260.

1) In review of both the REVO B-79 and JCM Aerodesign Ltd. modification kits, the JCM Aerodesign Ltd. kit is geometrically equivalent to that of REVO and described in U.S. Patent 6,328,260. This finding is based on side-by-side examination of both kits, including physical measurements and visual inspection. Aside from the JCM Aerodesign Ltd. kit having a chamfered edge on one end of each doubler, the two kits share the same physical design characteristics.

   A visual inspection found the two kits had difference in color tones on the doublers and different color tones in the primer of the fillers. Without conducting a destructive evaluation, the differences in coatings and surface treatment cannot be characterized. (Reference figure 2.)



Figure 2, REVO and JCM Aerodesign kits in side-by-side examination.

2) Examination of the kits also found the two kits shared the identical part numbering, with the exception that the JCM Aerodesign Ltd. parts had an "AC" prefix to the REVO part numbers. With regard to reverse engineered parts, such a part numbering practice is common in the civil aviation industry. This represents the reverse engineer's intent to show the parts are identical.

3) The U.S. Patent and Trademark Office (USPTO) issued an Inter Parties Reexamination Certificate on March 08, 2011, confirming all 14 claims of

Patent 6,328,260. The fact that JCM Aerodesign Ltd. was issued an FAA STC does not in any way diminish the patent rights of Enpat.

4) Based on the physical examination of the subject kits, my knowledge of reverse engineering practices in the civil aviation industry, FAA design certification processes, U.S. Patent Number 6,328,260 and USPTO reexamination and certification of the subject patent, the JCM Aerodesign Ltd. modification kit is a direct and equivalent infringement on at least claims 1, 2, 3, 4, 5, 6, 8, 9, 12, and 13 of U.S. Patent Number 6,328,260. A claim chart is provided table 1. Figure 3 displays the infringing JCM Aerodesign Ltd. modification kit.

Claim 1 of the '260 Patent	
A modification kit for retrofitting a wing spar on an amphibious airplane, said airplane having a root rib, and said wing spar comprising a wing-spar cap angle that is attached to a wing spar web, said wing spar web having an upper edge and a lower edge and an inboard end that attaches to said root rib, a first series of wing-attach bolt-holes that is provided in said upper edge and a second series of wing-attach bolt-holes that is provided in said lower edge of said wing spar web, wherein said root rib is angled relative to a vertical plane of said amphibious airplanes, and wherein said inboard end of said wing spar has an inboard-end angle that corresponds to an angle of said root rib, said modification kit comprising:	Preamble only; not an element of the claim.
Claim Element 1	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
an upper doubler-strap and an upper filler-strap;	Reference numeral 2A of Figure 3 indicates an upper doubler-strap. Reference numeral 2B of Figure 3 indicates an upper filler-strap.
a lower doubler-strap and a lower filler-strap;	Reference numeral 3A of Figure 3 indicates a lower doubler strap. Reference numeral 3B of Figure 3 indicates a lower filler-strap.
and a plurality of wing-spar attachment-bolts;	Reference numeral 4 of Figure 3 indicates a plurality of wing-spar attachment bolts.
wherein each said upper filler-strap and each said upper doubler-strap have a third series of wing-attach bolt holes that corresponds precisely with a first	Reference numeral 5A of Figure 3 indicates the third series of wing attach bolt holes in the upper filler-strap. Reference numeral 5B of Figure 3 indicates the third

series of wing-attach bolt-holes in an upper edge of a wing spar web, and said lower filler-strap and said lower doubler strap have a fourth series of wing-attach bolt-holes that corresponds precisely with a second series of wing attach bolt-holes in a lower edge of said wing spar;	series of wing attach bolt holes in the upper doubler-strap. Reference numeral 5C of Figure 3 indicates the fourth series of wing attach bolt holes in the lower filler-strap. Reference numeral 5D of Figure 3 indicates the fourth series of wing attach bolt holes in the lower doubler-strap.
wherein said upper and said lower doubler-straps have a doubler-protective-coating and said upper and said lower filler-straps have a filler-protective-coating, and	2A, 2B, 3A, and 3B have protective coatings.
wherein said upper doubler-strap has an upper inboard end angle and said lower doubler-strap has a lower inboard end angle.	Reference numeral 7A of Figure 3 indicates an upper inboard end angle. Reference numeral 7B of Figure 1 indicates lower inboard end angle.
Claim 2	**Where limitation can be found JCM Aerodesign Ltd. modification kit**
… wherein said upper and said lower doubler straps are made of 4340 steel.	Figure 3, Reference numeral 2A and 3A
Claim 3	**Where limitation can be found JCM Aerodesign Ltd. modification kit**
… wherein said upper and said lower doubler straps are heat treated to 180,000 psi	Figure 3, Reference numeral 2A and 3A
Claim 4	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… wherein said upper and said lower filler straps are made of 2024-T3 aluminum	Figure 3, Reference numeral 2B and 3B
Claim 5	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… wherein said upper inboard-end angle on said upper doubler strap is approximately 5°	Figure 3, Reference numeral 7A
Claim 6	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… wherein said lower inboard-end angle on said lower doubler strap is approximately 6°	Figure 3, Reference numeral 7B
Claim 8	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… wherein said filler protective coating includes a first coating that is an alodine conversion coating and a second	Figure 3, Reference numeral 2B and 3B

coating that is an epoxy primer.	
Claim 9	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… wherein each bolt-hole of said third and fourth series of said wing-attach bolt-holes in said upper doubler-strap, said lower doubler-strap, said upper filler-strap, and said lower filler-strap is free of said doubler-protective-coating and of said filler-protective-coating.	Figure 3, Reference numeral 5A, 5B, 5C, 5D
Claim 12	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… wherein said upper doubler-strap and said upper filler-strap each have a series of five rivet holes and said lower doubler-strap and said lower filler-strap each have a series of seven rivet holes.	Rivet holes are present after installation on the aircraft.
Claim 13	**Where limitation can be found on JCM Aerodesign Ltd. modification kit**
… further comprising a plurality of wing-attach bolts, a plurality of cap angle bolts, a corresponding plurality of nuts and washers for said wing attach bolts, and a plurality of rivets.	As shown in Figure 3.

Table 1, Infringements on Patent 6,328,260 by JCM Aerodesign Ltd.

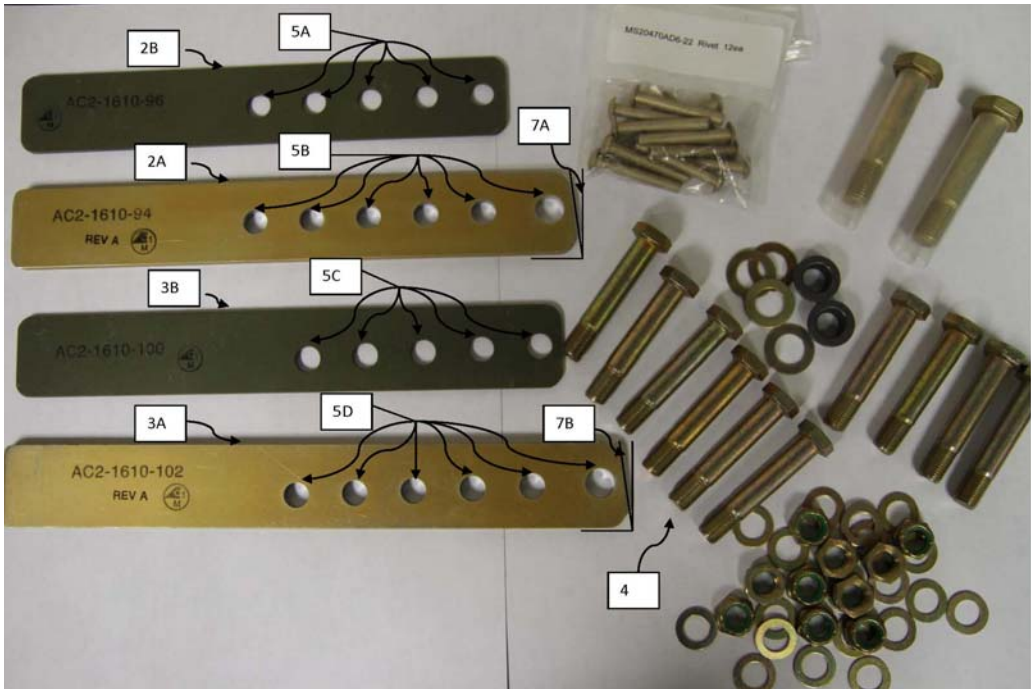


Figure 3, Infringing JCM Aerodesign modification kit.

5) Defendant Shannon also admits the JCM Aerodesign Ltd. modification kits are direct and equivalent infringements on Patent 6,328,260.[12]

F. By installing the modification kit produced by JCM Aerodesign Ltd. on his own aircraft, and marketing, selling and installing JCM Aerodesign Ltd. kits to other aircraft owners, Harry Shannon infringed on U.S. patent number 6,328,260.

1) Based on my opinion that the JCM Aerodesign Ltd. modification kit is a direct and equivalent infringement on U.S. Patent 6,328,260, to which Shannon agrees, any installation of JCM Aerodesign Ltd. modification kits on LA-4 series aircraft would constitute further infringements on the subject patent. Further, consistent with industry practice and as described in 14 CFR §39.9, it is my opinion that each and every time an infringing aircraft is operated it represents an additional infringement of the patent.

2) Shannon admits that if the patent is valid that he indeed infringed on Patent 6,328,260.[13] He also states that if the patent is indeed valid, Enpat has a right to enforce its patent rights.[14]

[12] Shannon 105:11-14, 106:12-15, 109:4-5, and 181:20-23

3) Shannon quantifies his infringements as an installation on his own aircraft and 26 installations on aircraft of other LA-4 series owners.[15]

4) Shannon admits that he sold 26 JCM Aerodesign Ltd. kits directly to other LA-4 series owners. He also admitted the JCM Aerodesign Ltd. kits were half the price of REVO kits,[16] and he that had informed other Lake owners of the price difference.[17]

5) Shannon admits to having firsthand knowledge of the patent at the time of its issuance,[18] having participated in the SPA NPRM response,[19] invested thousands of dollars in borescope inspection equipment,[20] and considered the 6,328,260 patent as a form of "extortion".[21]

6) By his own admission, Shannon knowingly and willing violated Patent 6,328,260 and induced, and materially supported others to do the same.

G. The FAA is required by statute (USC Title 49) to foster aviation safety. To accomplish this, the FAA has established a system of requirements, validation, verification, and oversight. The FAA's system includes assurance of design, production, maintenance, and operations. Under this safety system, FAA certificated mechanics and aircraft owners have the responsibility to ensure modifications are accomplished utilizing approved data and parts.

1) The complex multi-layered system of aviation safety for aircraft, designed by the FAA, necessarily encompasses many participants, both internal and external to the FAA.

   i. The FAA organization that is responsible for operations and design/production is the Office of Aviation Safety (AVS). The Office of Aviation Safety reports directly to the FAA Administrator and is the organization responsible for the certification, production approval, and continued airworthiness of aircraft; and certification of pilots, mechanics, and others in safety-related positions.

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[13] Shannon 154:1-3
[14] Shannon 174:1-2
[15] Shannon 34:4-6
[16] Shannon 34:14
[17] Shannon 149:3-4
[18] Shannon 149:19-22
[19] Shannon 102:2-6
[20] Shannon 103:2
[21] Shannon 72:11

ii. Under the Office of Aviation Safety, the FAA's Aircraft Certification service (AIR) has the responsibility for ensuring aeronautical designs and production systems meet regulatory and safety requirements. The three major organizations within the FAA's Aircraft Certification service are the Engineering and Production Divisions, and the four Directorates.

1. The FAA Engineering Division (AIR-100) is responsible for establishing national policy on matters related to FAA-approved designs.

2. The FAA Production and Airworthiness Division (AIR-200) is responsible for establishing national policy for FAA-approved production systems and oversight of the global FAA-approved production systems.

3. There are four FAA Directorates within the FAA's Aircraft Certification service. They are the Large Aircraft Directorate (ANW), the Small Aircraft Directorate (ACE), the Rotorcraft Directorate (ASW), and the Engine and Propeller Directorate (ANE). Each Directorate is responsible for deploying national policy and regulations within the scope of their expertise. Designs and production systems are approved at the Directorate level.

iii. Also under the Office of Aviation Safety, the FAA's Flight Standards service (AFS) has the responsibility for ensuring the operational safety of aircraft; including private aircraft and airlines. Though there are various Divisions within the Flight Standards service, there are two major organizations – the Headquarters function and seven Regional Divisions (Alaska, Central, Eastern, Great Lakes, Southern, Southwest, and Western Pacific).

1. The Headquarters organization establishes national policy and standards for certification and oversight of airmen, air operators, air agencies, and designees. It also is responsible for overall analysis of safety data related to operational aircraft.

2. The seven Regional Divisions oversee the operations of aircraft and airmen within their geographic area of responsibility. Within the Regional Divisions resides the responsibility for oversight of individual aircraft, pilots, mechanics, and maintenance and repair facilities. The oversight of FAA-approved repair stations that perform

cargo conversions falls under the jurisdiction of the various regional directorates of the Flight Standards service.

iv. Manufacturers fall under the oversight of the Aircraft Certification service and play an important role in aviation safety.

1. Each manufacturer that designs products for the civil aviation industry must ensure its designs meet applicable FAA requirements. The system-wide rules for design compliance are promulgated from the Engineering Division. The four Directorates develop design requirements for the products within their scope of expertise. They also approve manufacturer's design verification and validation test reports and witness testing.

2. Each manufacturer that produces products under certification of the FAA must meet the production system requirements promulgated by the Production and Airworthiness Division (AIR-200). The cognizant Directorate will ensure each manufacturer meets the prescribed system requirements prior to the initial delivery of product, as well as provide sustained oversight for the life of the manufacturer's FAA production certification (e.g., Production Certificate and Parts Manufacturer Approval). This approval and oversight is performed at a local level, in smaller FAA departments referred to as Manufacturing Inspection District Offices (MIDO).

3. FAA design approval holders must comply with design rules promulgated by the FAA Engineering Division (AIR-100) and the various Directorates. The types of design approvals include Type Certificate (TC), Supplemental Type Certificate (STC), Parts Manufacturer Approval (PMA), and Technical Standard Order Authorization (TSOA). Complete aircraft, engines, and propellers will be issued a TC, whereas changes to a TC, parts, and components may be issued an STC, PMA or TSOA. For example, in this matter REVO holds the TC for the LA-4 series of aircraft, whereas JCM holds an STC for its infringing modification kit.

4. When manufacturers perform repair, maintenance, and modification activities, they are not doing so as manufacturers, but rather fall under the oversight responsibilities of the Flight Standards service (AFS) and the cognizant Regional Divisions. The responsibility of

approval and oversight is further delegated to a local office of the FAA referred to as Flight Standards District Office (FSDO).

5. Under the rules of the FAA, manufacturers must constantly comply with regulatory requirements for the design, production control, maintenance control, and reporting of malfunctions and defects. These reports flow to the applicable MIDO and/or FSDO offices where they are reviewed and FAA action is engaged.

v. FAA-certified mechanics and FAA-approved repair stations fall under the oversight of the FAA's Flight Standards service and also play a critical role in ensuring civil aviation safety.

1. Aircraft mechanics and authorized inspectors are certified under the oversight of the Flight Standards service. Application and sustained oversight are accomplished through the local FSDO.

2. Certificated mechanics and authorized inspectors are required to comply with FAA rules for performance, which include responsibilities for verifying the airworthiness of aircraft prior to authorizing the return to service.[22]

3. FAA-certified repair stations also fall under the oversight of the Flight Standards service.[23] Application and sustained oversight are accomplished through the local FSDO and are independent of any FAA production approval the applicant may hold.

4. The Federal Aviation Regulations are clear in the requirement for maintenance to be performed in accordance with the manufacturer's maintenance manual or instructions for continued airworthiness.[24]

vi. FAA-certified pilots also fall under the oversight of the FAA's Flight Standards service and play the most critical role in ensuring civil aviation safety.

[22] 14 CFR § 43
[23] Many OEMs also hold FAA repair station certificates. However, the FAA certifies and oversees each type of certificate independently. Flight Standards is responsible for repair stations, whereas Aircraft Certification is responsible for TC/PC oversight.
[24] 14 CFR § 43.13 and 14 CFR § 43.15

1. Pilots-in-command have the final say in determining if an aircraft is airworthy or not. If a pilot feels that an aircraft is not safe for operation, then it is his responsibility to not fly. However, pilots rely on the FAA's system in making there determinations of safety. This includes professional advice provided by FAA certificated mechanics and inspectors.

vii. The responsibilities of aircraft owners and operators also fall under the oversight of the FAA's Flight Standards service and play a critical role in ensuring civil aviation safety.

1. It is the responsibility of owners/operators of aircraft to ensure aircraft are maintained in such a fashion that airworthiness is assured. This includes ensuring that only approved parts are installed on aircraft by authorized persons and that maintenance is conducted in an approved fashion.

viii. The above description of the U.S. civil aviation safety system is based in regulation, executed in policy, and described in guidance materials.

ix. Within the above described regulatory scheme, there is no mention of U.S. Patent law, as the FAA does not concern itself with intellectual property rights. It is the responsibility of the installer and aircraft owner to ensure the parts they are installing meet all regulatory requirements, not just those of the FAA.

x. In review of the documentation associated with the installation of JCM Aerodesign Ltd. kits, produced during discovery, there are several abnormalities that cause me to suspect the JCM Aerodesign Ltd. kits may not be airworthy.

1. Though JCM Aerodesign Ltd. possesses an FAA design approval, there is no evidence that they possessed the appropriate production certifications to produce the parts.

2. JCM Aerodesign Ltd. is a Canadian company obtaining a U.S. STC, without the benefit of technical assistance from the U.S. TC holder.

3. As required by FAA regulations,[25] Canadian Aviation Regulations,[26] and international bilateral agreements

[25] 14 CFR § 21
[26] Canadian Aviation Regulation § 561.10

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

between the U.S. and Canada,[27] there is no evidence that the installed JCM Aerodesign Ltd. kits were provided with an authorized statement of conformity/authorized release certificate.

xi. If it is determined that the JCM Aerodesign Ltd. parts were indeed produced outside of an FAA approved production system, all such installations would be considered unairworthy. In addition to the repetitive infringements on Patent 6,328,260, each infringing LA-4 series owner will have also committed repetitive violations of 14 CFR § 39.

I reserve the right to supplement these opinions, specifically the right to rebut any opinions provided by opposing experts. I declare, under oath, that the foregoing is true and correct.

Dated, March 31, 2011, in Bokeelia, Florida.



Dr. Michael J. Dreikorn

ATTACHED DOCUMENTS

Attachment A: CV & Compensation Schedule

Attachment B: Materials Reviewed

[27] Implementation procedures for airworthiness covering design approval, production activities, export airworthiness approval, post design approval activities, and technical assistance between authorities; Under the Agreement between The Government of the United States of America and The Government of Canada for Promotion of Aviation Safety; Revision 1

Responsive. Credible. Relevant.

EXPERT REPORT OF DR. MICHAEL J. DREIKORN
In Case No. 8:10-cv-02013-VMC-AEP
ATTACHMENT A
CURRICULUM VITAE
03/31/2011

Name: Michael J. Dreikorn

Address: 5697 Bay Point Rd., Bokeelia, FL 33922

DoB: 08/05/1961

Area of Expertise: Complex issues related to quality and regulatory compliance in design, production, maintenance, supply-chain, and certification in the Aviation, Space, and Defense industry.

Education: EdD Human Resource and Organizational Development; The George Washington University (2009)

UTC Executive Program (Certificate); Darden School of Business, University of Virginia (2002)

MS Management; Friends University (1994)

BS Professional Aeronautics; Embry-Riddle Aeronautical University (1988)

Employment: 2009 – Present ASD Experts; Expert Support for the AS&D Industry, Principal Partner

2002 – Present The IPL Group, LLC; Aerospace and Defense Consulting, Auditing, Training, and Engineering; President

1998 – 2002 Pratt & Whitney; Aircraft Engines and Space Propulsion; Vice President Regulatory Compliance

1995 – 1998 Federal Aviation Administration; Production and Airworthiness Division; Assistant Division Manager

1995 – 1995 Edge Technologies; Advanced Positioning/Sensor Systems; Director Quality and Operations

1991 – 1994 Buderus Sell Aviation; Commercial Aircraft Interior Structures; Director Quality and Operations

1987 – 1991 McDonnell Douglas Aircraft; T-45 and Commercial Programs (MD-90/MD-11); Branch Manager – Quality; International Quality Procurement Specialist

1987 – 1987 Northrop Electronics Division; MX Missile Program, Clean-Room Quality Engineer

1983 – 1983 Airspur Helicopters (Commuter helicopter operations based at LAX); Airframe and Powerplant Mechanic

1980 – 1987 US Army (Helicopter Operations, Maintenance, and Inspection)

Certificates: US Department of Labor: Journeyman Helicopter Mechanic (1986 - Present)

Federal Aviation Administration: Airframe and Powerplant Mechanic (1983 - Present)

Federal Aviation Administration: Inspection Authorization (1987 - Present)

Federal Aviation Administration: Designated Airworthiness Representative – Unlimited Manufacturing Ratings (DAR) (2003-2008)

International Register of Certificated Auditors: Lead Auditor – Aerospace Quality Management Systems (1993-1999)

Special Appointments:

Appointed by the Secretary of the Navy to the Expert Consulting Team to the Secretary of the Navy Advisory Committee to Investigate U.S. Navy Acquisition Processes (2009)

Leader of Blue Ribbon Investigation Panel for the Lycoming Engines Crankshaft Failures (2002-2005)

Professional Awards:

The William Goeller Award of Excellence; The Aviation, Space & Defense Division of the American Society for Quality (03/2009)

Listing of Publications:

- What's on the horizon. More changes in the air for the U.S. aviation industry (Quality Progress, November, 2009) Journal Article

- Exploring the application of process mapping in the ontological engineering of a Body of Knowledge of the Supplier Quality Engineer profession (The George Washington University, December 5, 2008) Dissertation
- Operationalizing Communities of Practice (Chief Learning Officer, October 2007) Journal Article
- The Synergy of One: Creating High Performing Sustainable Organizations through Integrated Performance Leadership; (Quality Press 2004) Book
- Turbulence Forecasted for AS&D Industry: (Quality Progress, March 2004) Journal Article
- ASQ Comment on Columbia Shuttle Accident Report (Quality Progress, September 2003) Journal Article
- Aviation Industry Quality Systems: ISO9000 and The Federal Aviation Regulations; (Quality Press/TSI, 1995) Book

Listing of Major Conference Presentations:

- Understanding and Managing Changes in the Aviation Industry; The 18th International Conference of the Israel Society for Quality (Nov 2010); Tel Aviv, Israel
- "The Synergy of One" as it Applies to the Aerospace Industry; 17th Annual International Conference on ISO 9000 (Mar 2009); Orlando, Florida
- The Ageing AS&D Workforce: Developing a Process-Based Body of Knowledge for the AS&D Industry; 2008 Conference on Quality for the Space and Defense Industries (Mar 2008); Cape Canaveral, Florida
- Leading in a Climate of Change (Keynote Address); American Society for Quality – Management Division Conference (Feb 2008); Orlando, Florida
- Managing Value Stream Risk; Society of Automotive Engineers AeroTech Congress (Sep 2007); Los Angeles, California
- Applying Root Cause and Corrective Action in the Aerospace and Defense Industry; NASA Quality Leadership Forum (Mar 2007); Cape Canaveral, Florida
- Developing an Industry Certification Scheme: An update to the Development of the Aviation, Space & Defense Body of Knowledge **;** 2007 Conference on Quality for the Space and Defense Industries (Mar 2007); Cape Canaveral, Florida
- Integrating Reliability and Building a Safety Culture: Systems and People; 2006 Aviation Week Lean Six Sigma Forum (Nov 2006); Phoenix, Arizona
- Managing Knowledge in the Aviation, Space, and Defense Industry; NASA Quality Leadership Forum (Sep 2006); Los Angeles, California
- The Aviation, Space & Defense Body of Knowledge**;** 2006 Conference on Quality for the Space and Defense Industries (Mar 2006); Cape Canaveral, Florida

- Body of Knowledge for the Quality Practitioner; American Society for Quality World Quality Congress (May 2006); Milwaukee, Wisconsin
- Integrated Knowledge Management; American Society for Quality World Quality Congress (May 2005); Seattle, Washington
- Waiting for the Right Queue: Cultivating a Quality Culture That Could Keep The Maritime Industry Afloat; American Society for Quality World Quality Conference (May 2005) Seattle Washington
- Leading for Performance; Korea 2005 International Aviation Symposium (May 2005); Seoul, Korea
- Applying AS9100B; NASA Quality Leadership Forum (Dec 2004); Lake Buena Vista, Florida
- Cost Effectiveness and Productivity: Focusing on Safety, Reliability, Maintenance and Cost Effectiveness in Today's Environment (Panelist)**;** 2004 Civil Aviation Safety Symposium (Sep 2004); Dallas, Texas
- Leading for Integration**;** 2004 Civil Aviation Safety Symposium (Sep 2004); Dallas, Texas
- VISION Process, Centers, and Networks; American Society for Quality World Quality Congress (May 2004); Toronto, Canada
- The Synergy of One; American Society for Quality – Management Division Conference (Mar 2004); Orlando, Florida
- Introducing Integrated Performance Leadership; American Society for Quality World Quality Congress (May 2003); Kansas City, Missouri
- Leading for Sustainable Performance; American Society for Quality – Flight into the Future Conference (Oct 2003), Van Nuys, CA
- Achieving Competitive Advantage; 7th Annual Florida Sterling Quality Conference (Jul 1999); Orlando, Florida

Professional Affiliations

- Society of Naval Architects Quality Committee – Founding Member (2010-present)
- Performance Review Institute – Nadcap (SAE): Board Member (1998-2002)
- KPMG Quality Registrar: Technical Advisory Committee (1996-2002)
- American Society for Quality: Senior Member (1993-present)
  - Aviation, Space & Defense Division: Board Member (1996-2006); Chairman (2001-2006); Executive champion for the Body of Knowledge (BoK) development project (2005-present)
- International Aerospace Quality Group – Founding Council Member (1998-2002); Member (1998-present)

- The Aviation, Space & Defense Learning Institute – Founder/Executive Director (2005–present)
- Society for Organizational Learning (at MIT): Founding Research Committee Member (1998-2002); Member (1998-2009)
- Government and Industry Quality Liaison Panel: FAA representative for implementation of Single Process Initiative (1996-1998)
- American Institute for Aeronautics and Astronautics: Senior Member (1993-present)
- Aeronautical Repair Station Association: Member (2004-present)
- Society for Automotive Engineers: Member (2007-present)

Prior Testimony (3):

- Raytheon Co. vs. Anixter, Inc.; August 24-25, and September 30, 2010, Arbitration Trial Testimony in Tucson, AZ (Represented Anixter through Cozen O'Connor); American Arbitration Association, Case No.: AAA 76 125 Y 000158 JMLE
- Skurka Aerospace vs. Eaton Aerospace; December 15-16, 2009, Federal Trial Testimony in Cleveland, OH (Represented Skurka through Port Wright Morris and Arthur, LLP); U.S. District Court Northern District of Ohio Eastern Division; Case No. 1:08-CV-01565
- Huck International, Inc. vs. Southwire Company; March 24-26, 2004; Arbitration Trial Testimony in Los Angeles, CA (Represented Huck Intl/Alcoa through Leboeuf, Lamb, Greene & McRae, LLP) Judicial Arbitration and Mediation Services

Prior Deposition (6):

- Raytheon Co. vs. Anixter, Inc.; August 10, 2010, Deposition in Tucson, AZ (Represented Anixter through Cozen O'Connor); In American Arbitration Association, Case No.: AAA 76 125 Y 000158 JMLE
- Skurka Aerospace vs. Eaton Aerospace; December 08, 2009, Deposition in Cleveland, OH (Represented Skurka through Port Wright Morris and Arthur, LLP); U.S. District Court Northern District of Ohio Eastern Division; Case No. 1:08-CV-01565
- Romeo Bravo, Inc, et al. vs. Lycoming Engines; 13 February, 2008; Class action certified in the Eastern District of California; Deposition in Cleveland, Ohio (Represented Lycoming Engines through Ryan & Fong, LLP; and Jones Day, LLP)
- Dean & Weiler vs. Raytheon Aircraft Company; November 06, 2006; Deposition in Ft. Myers, Florida (Represented Raytheon Aircraft Company through Martin, Pringle, Oliver, Wallace & Bauer, LLP)
- New Piper vs. Textron Lycoming; May 23 2006; Arbitration filed in Pittsburg, PA; Deposition in Taipei, Taiwan (Represented Textron Lycoming through Jones Day, LLP)

- Huck International, Inc. (division of Alcoa) vs. Southwire Company; March 19, 2004; Judicial Arbitration and Mediation Services in Los Angeles, California (Represented Huck Intl/Alcoa through Leboeuf, Lamb, Greene & McRae, LLP)

Prior Expert Reports/Affidavits (26)

- The United States of America *ex rel vs. The* Boeing Co., et al. ; Declaration on 03/23/2011 (Represented Relators through Clausen Miller, LLP); U.S. District Court for the District of Kansas; In Civil Action No. 05-1073-WEB
- Scott vs. MD Helicopters, Inc.; Expert Report on 02/21/2011 (Represented Scott through Monsees, Miller, Mayer, Presley and Amick, P.C.); U.S. District Court, Middle District of Florida; Case 8:09-CV-00986-VMC
- The United States of America *ex rel vs. The* Boeing Co., et al.; Declaration on 02/11/2011 (Represented Relators through Clausen Miller, LLP); U.S. District Court for the District of Kansas; In Civil Action No. 05-1073-WEB
- The United States of America *ex rel vs. The* Boeing Co., et al. ; Expert Report on 12/22/2010 (Represented Relators through Clausen Miller, LLP); U.S. District Court for the District of Kansas; In Civil Action No. 05-1073-WEB
- Skurka Aerospace vs. Eaton Aerospace; Expert Report on 12/13/2010 (Represented Skurka through Port Wright Morris and Arthur, LLP); U.S. District Court Northern District of Ohio Eastern Division; Case No. 1:08-CV-01565
- Eagle Helicopter AG vs. McTurbine, Inc et al.; Expert Report on 11/18/2010 (Represented McTurbine through Brown, Dean, Wiseman, Proctor, Hart, & Howell L.L.P); In the United States District Court, Southern District of Texas, Corpus Christi Division, Civil Action No.: 09-262
- Paullus vs. McTurbine, Inc et al.; Expert Report on 06/25/2010 (Represented McTurbine through Hartline, Dacus, Barger, Dreyer & Kern, L.L.P); In the Court of Law No. 2, Nueces County, Texas, Cause No.: 08-60524-2
- Raytheon Co. vs. Anixter, Inc.; Expert Disclosure on 06/18/2010 (Represented Anixter through Cozen O'Connor); In American Arbitration Association, Case No.: AAA 76 125 Y 000158 JMLE
- BCM Majestic Corp. vs. PATS Aviation, LLC; Expert Report on 04/28/2010 (Represented BCM through Conner & Winters, LLP); In the United States District Court for the District of Delaware, Case No.: 1:09-CV-0058-SLR
- Cherry et al., vs. Lycoming Engines et al., Expert Report on 04/08/2010 (Represented Lycoming Engines through Cozen O'Connor); In the Circuit Court of the County of Chesterfield, Virginia, Case No.: CL-09-11981
- Pridgen et al. vs. Lycoming Engines et al.; Affidavit on 03/15/2010 (Represented Lycoming Engines through Cozen O'Connor); In the Court of Common Pleas of Philadelphia County; July Term 2001; Case No. 003838 and 004008
- McCarty vs. Precision Airmotive et al.; Expert Report on 11/09/2009 (Represented Lycoming Engines through Banker Lopez Gassler P.A.); In the Twelfth District

Judicial Court in and for Sarasota County, State of Florida; Case No. 2006CA4596NC

- Skurka Aerospace vs. Eaton Aerospace; Supplemental Affidavit on 05/27/2010 and Affidavit on 11/04/2009 (Represented Skurka through Port Wright Morris and Arthur, LLP); U.S. District Court Northern District of Ohio Eastern Division; Case No. 1:08-CV-01565
- Melissa Air vs. Big Sky Aviation, et al.; Expert Report on 06/02/2009 (Represented Melissa Air through L. Duffy, PA)
- Stewart vs. Precision Airmotive, et al.; Expert Report on 05/04/2009 (Represented Precision Airmotive through Perkins Coie); Court of Common Pleas Philadelphia County; 2007; Case No. 003200
- Berenholz (Titov) vs. Precision, et al.; Expert Report on 19 February, 2009 (Represented Precision Airmotive through Perkins Coie); Court of Common Pleas of Philadelphia County, March Term 2007, Case No. 001017
- Estate of Robert James Little, et al. vs. Piper Aircraft Company, et al.; Expert report on 16 January, 2009 (Represented Precision Airmotive through Perkins Coie); U.S. District Court Central District of California, Case No. CV 07-1815 VFB(FFMx)
- Estate of John O. Swanstrom, et al. vs. Teledyne Continental Motors, et. al.; Affidavit on 03 October, 2008 (Represented Continental through McKenna, Long & Aldridge, LLP); Circuit Court of Mobile County, Alabama, Case No. CV-04-730
- Estate of Michael Young, Deceased, et al. vs. Precision Airmotive, Lycoming Engines, et al.; Expert report 30 September, 2008 (Represented Precision and Lycoming through Perkins Coie; and Wiles, Boyle, Burkholder & Bringardner Co., LPA); Cuyahoga County Court of Common Pleas, Ohio, Case No. CV 07 618137
- Romeo Bravo, Inc, et al. vs. Lycoming Engines; Expert report 25 January, 2008; Class action certified in the Eastern District of California (Represented Lycoming Engines through Ryan & Fong, LLP; and Jones Day, LLP)
- Nenov vs. Richardson, Weinstein, Chromalloy Gas Turbine Corp., and Sequa Corp.; Expert report July 06, 2007 (Represented Nenov) U.S. Dept. of Labor Administrative Court
- Dean & Weiler vs. Raytheon Aircraft Company; Expert report 25 August, 2006; (Represented Raytheon Aircraft Company through Martin, Pringle, Oliver, Wallace & Bauer, LLP)
- Bradley Haubrich, et al. vs BTS Enterprises, Inc, et. al; Expert report June 15, 2006 (Represented Textron Lycoming through Cowles & Thompson, LLP) 67th Judicial District Court of Tarrant County, Texas
- New Piper vs. Textron Lycoming; Expert report May 15, 2006; Arbitration, (Represented Textron Lycoming through Jones Day, LLP)
- Michael Robinson vs. Textron Lycoming; May 15, 2006 (Represented Textron Lycoming through Hagerty & Brady, LLP) U.S. Federal Court in New York

Compensation

- I am being compensated $365 per hour in this matter.

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

ASD EXPERTS
Responsive. Credible. Relevant.

EXPERT REPORT OF DR. MICHAEL J. DREIKORN
In Case No. 8:10-cv-02013-VMC-AEP
ATTACHMENT B
DOCUMENTS REVIEWED
03/31/2011

A. Documents Reviewed:

Court Documents

- *Enpat, Inc. v. Harry Shannon,* United States District Court, Middle District of Florida; No. 8:10-cv-02013-VMC-AEP; Defendant's Answer and Counter Claim; Filed 10/04/2010
- *Enpat, Inc. v. Harry Shannon,* United States District Court, Middle District of Florida; No. 8:10-cv-02013-VMC-AEP; Plaintiff's Response to First Interrogatories; Filed 03/07/2011
- *Enpat, Inc. v. Harry Shannon,* United States District Court, Middle District of Florida; No. 8:10-cv-02013-VMC-AEP; First Amended Complaint and Demand for Jury Trial; Filed 03/16/2011

Depositions

- Deposition of Harry Shannon; dated 02/04/2011

Affidavits

- Affidavit of Armand Rivard; dated 03/14/2011

U.S. Patent and Trademark Office Documents

- U.S. Patent 6,328,260 B1, issued 12/11/2001
- U.S. Patent 6,328,260 C1, issued 03/08/2011

FAA Related Publications

- FAA Type Certificate Data Sheet 1A13
- 49 U.S.C.; Subtitle I; Chapter 1; Department of Transportation
- 14 CFR Part 21 Certification Procedures for Products and Parts
- 14 CFR Part 23 Airworthiness Standards: Normal, Utility, Acrobatic, and Commuter Category Airplanes
- 14 CFR Part 39 Airworthiness Directives
- 14 CFR Part 43 Maintenance, Preventative Maintenance, Rebuilding, and Alteration
- 14 CFR Part 65 Certification: Airmen other than Flight Crewmembers
- 14 CFR Part 91 General Operating and Flight Rules
- 14 CFR Part 145 Repair Stations
- 14 CFR Part 183 Representatives of the Administrator
- Advisory Circular 20-77A; Use of Manufacturers' Maintenance Manuals; dated 04/06/2007
- Advisory Circular 20-114; Manufacturers' Service Documents; dated 10/22/1981
- Advisory Circular 21-43, Production Under 14 CFR 21, dated 10/16/2009
- Advisory Circular 65-30A; Overview of the Aviation Maintenance Profession; dated 11/09/2001
- FAA Administrator's Fact Book, Sep 2010
- FAA Order 2150.3B; FAA Compliance and Enforcement Program; dated 10/01/2007
- FAA Order 8100.8C, Designee Management Handbook; dated 02/15/2008
- FAA Order 8110.4C; Type Certification; dated 08/14/2008
- FAA Order 8110.54; Instructions for Continued Airworthiness; dated 07/01/2005
- FAA Order 8110.101; Type Certification for Military Derivative Aircraft; dated 09/07/2007
- FAA Order 8110.103; Alternative Methods of Compliance (AMOC)
- FAA Order 8120.2F; Production Approval and Certificate Management Procedures; 01/30/2009
- FAA Order 8120.2E; Change 2 incorporated; Production Approval and Certificate Management Procedures; dated 07/23/2008
- FAA Order 8130.2F; Airworthiness Certification of Aircraft and Related Products; dated 01/15/2010
- FAA Order 8620.2A; Applicability and Enforcement of Manufacturer's Data; dated 11/05/2007
- FAA Order 9550.8; Human Factors Policy; dated 10/27/1993
- FAA Aircraft Registration Database
- FAA Airworthiness Directive Manual FAA-IR-M-8040.1B, dated 05/28/2008
- FAA Airworthiness Directive 2000-10-22
- FAA Airworthiness Directive 2002-21-05
- FAA NPRM 64 FR 54234, No. 193 10/06/99; Docket No. 99-CE-27-AD
- FAA NPRM Docket No. 99–CE–27–AD; Amendment 39–11746; AD 2000–10–22
- Improving the Continued Airworthiness of Civil Aircraft: A strategy for the FAA Aircraft Certification Service, 1988 (ISBN: 0-309-52299-4)

- The FAA and Industry Guide to Product Certification, 2nd Edition, Sep 2004
- Implementation procedures for airworthiness covering design approval, production activities, export airworthiness approval, post design approval activities, and technical assistance between authorities; Under the Agreement between The Government of the United States of America and The Government of Canada for Promotion of Aviation Safety; Revision 1

Transport Canada Related Publications

- CAR Part V - Standard 509 – Export Airworthiness Certificates for Aircraft
- CAR Part V - Standard 561 – Approved Manufacturers

REVO Documents

- REVO SB B-79
- REVO SB B-79 R1

Internet Resources

- www.aircraftinnovation.com/maintenance/sb79.html
- www.FAA.gov
- www.lakeflyers.com
- www.seaplanes.org

REVO, Inc.

SERVICE BULLETIN B-79

June 12, 1999
Effective

NOTE: SUPERCEDED BY B-79 R1

Engineering Approval

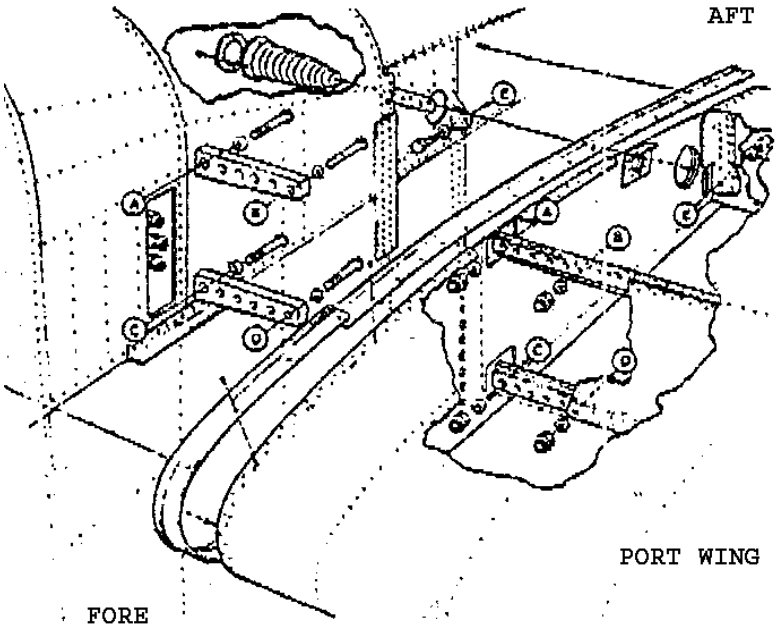
Subject: Wing Spars

Effectivity: All LA4, LA4-200, Lake Model 250

Compliance: Within the next 25 hours or 12 months, whichever comes first.

Description: During the replacement of corroded spar doublers, cracks have been detected in some spar cap angles in the area of the wing attach fittings. This service bulletin provides instructions for inspection and corrective action. Part numbers affected are:

2-1610-015 and 2-1610-016	upper spar cap angles
2-1610-075 and 2-1610-076	lower spar cap angles
2-1610-061 or 2-1610-081	upper spar doublers
2-1610-063	lower spar doublers



Procedure:

(1) Remove wings in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision).
(2) Inspect upper and lower wing spar doublers in accordance with the "Inspection" instructions below, and
(3) Inspect upper and lower spar cap angles in accordance with the "Inspection" instructions below.
(4) If no cracks are detected, proceed directly to step (6).
(5) If cracks or corrosion are detected in either the spar doubler or spar cap angle, make repairs in accordance with "Repair" instructions below, then proceed with step (6).
(6) (a) Install Aerofab B-79 kit in accordance with the "Kit" instructions below, and
(b) Reinstall wings in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision).

REVO, Inc.

SERVICE BULLETIN B-79

Inspection:

(1) Spar Doubler Inspection

(a) Clean the upper and lower spar doublers to the paint, inside the wheel well, from the wing root to the second rib outboard of the wing root (item 1, Fig 2), using a detergent or mineral-based solvent. (CAUTION: Do not use chemicals or abrasive materials which can damage the paint.)

(b) Using a strong tight source and a 3x magnifying glass, inspect the cleaned area of the upper and lower spar doublers for cracks or corrosion. Proceed to 10x magnification if a crack is suspected.

(2) Spar Cap Angle Inspection

(a) Using a #21 drill bit from inside the wheel well, drill the heads off and punch out the shanks of the first (5) AN470AD5 rivets from the upper spar doubler, and first (7) AN470AD5 rivets from the lower spar doubler counting outboard from the end of each wing attach fitting.
(CAUTION: Use care not to damage wiring and tubing in the wing root area.)

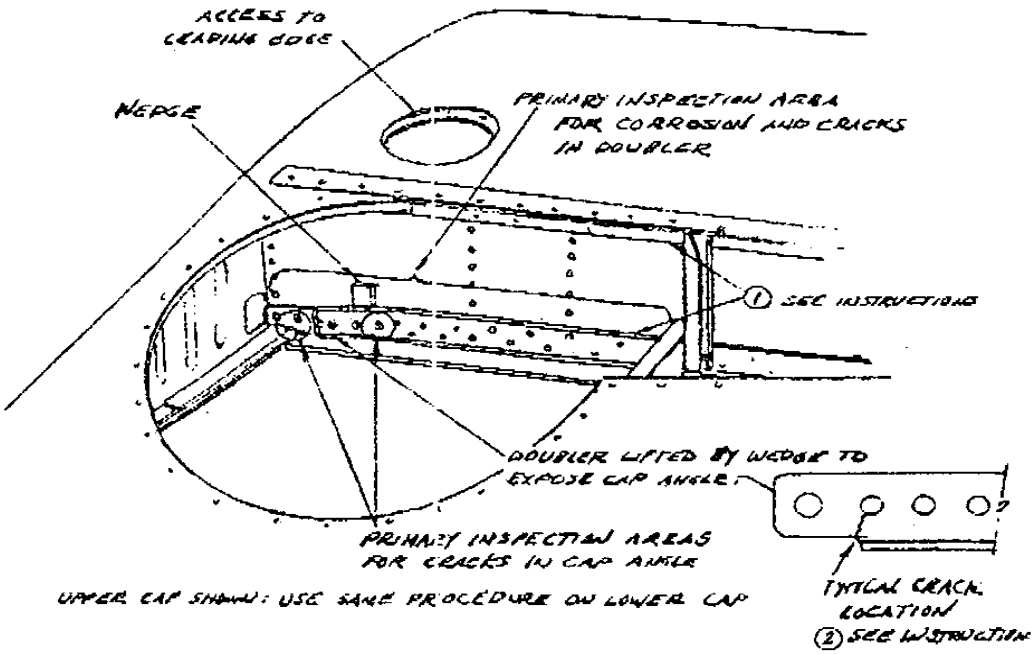
(b) Use a wooden wedge, or non-metallic equivalent, to pry up each doubler no more than 1.25 inch at the wing root rib. (CAUTION: Do not use metal objects such as screwdrivers, as this will damage the cap angle and doubler.)

(c) Clean and inspect the exposed portions of each spar cap angle from the wing root to the outboard wing attach bolt hole, in accordance with AC43.13-1b Chapter 5, Section 5, paying particular attention to the vertical face of spar cap angle, and across the thickness of the vertical leg where the horizontal leg is cut away (cutout radius near the second outboard bolt hole), and around each bolt hole. (Item 2, Fig. 2)

(d) Clean inspection area in accordance with AC43.13-1b, Chapter 5, Par. 5-63(k). Alodine bare aluminum, prime, and repaint as required.

(e) Remove wedges

FIGURE 2.

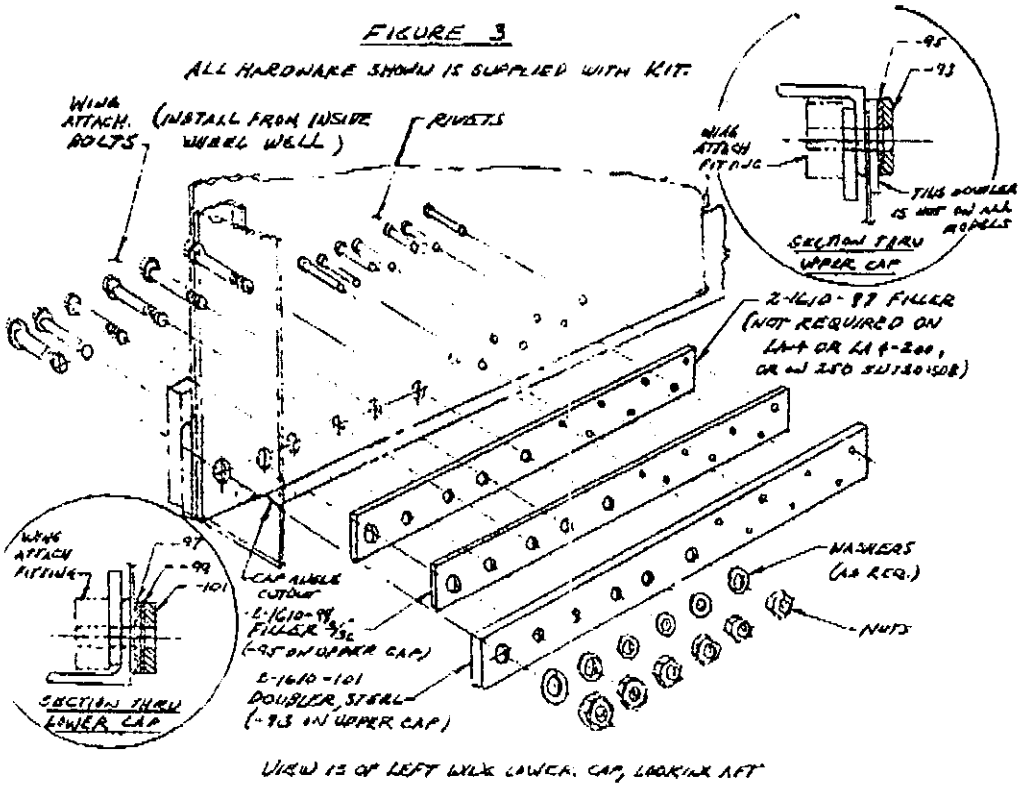


REVO, Inc.

SERVICE BULLETIN B-79

Kit:

(1) Order B-79 kit by aircraft serial number and aircraft total time.
(2) With the wing removed in accodance with step 1 of "Procedures", install the filler and doubler assembly in accordance with Fig. 3, by temporarily installing the two AN6 bolts, AN960 washers, and AN365 nuts (supplied in the kit) to align and clamp the doubler kit securely in place at the #2 and #6 outboard bolt holes.
(3) From the wheel well, back drill the doubler kit through the rivet holes created in "Inspection" step (2)(a) using a #21 drill bit, then open up each of the holes (to accommodate the new larger rivets) by using a #10 drill bit.
(4) Remove doubler kit, clean area of chips and burrs, then prime the area where the kit will be installed and inside the new rivet holes.
(5) When the primer is dry, reinstall doubler kit using the same temporary hardware used in "Kit" (2) above, and install the new AN470AD6 rivets (supplied in SB-79 kit) in the holes made in "Kit" step (3).
(6) Remove the temporary hardware installed in “Kit” step (5).
(7) Repeat steps (2) through (6) until both double kits have been installed on each wing,
(8) Complete the maintenance record entries required by FAR Part 43.



REVO, Inc.

SERVICE BULLETIN B-79

Repair:

(1) Instructions for spar doubler repair

(a) If any cracks are detected, the spar doubler must be replaced with factory new parts in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision).

(b) If corrosion is detected:

(i) Corrosion may be removed in accordance with AC43.13-1b Chapter 6, Sections 6-8 to a maximum depth of 0.025". Upon removal of the corrosion, clean repair area in accordance with AC43.13-1b Chapter 5, Par. 5-63(k). Alodine bare aluminum prime, and repaint as required.

(ii) Spar doublers exceeding these corrosion limits must be replaced with factory new parts in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision).

(2) Instructions for spar cap angle repair

(a) If corrosion is detected:

(i) Corrosion may be removed in accordance with AC43.13-1b Chapter 6, Sections 6-8 to a maximum depth of 0.018". Upon removal of the corrosion, clean repair area in accordance with AC43.13-1b, Chapter 5, Par. 5-63(k). Alodine bare aluminum, prime, and repaint as required.

(ii) Spar cap angles exceeding these corrosion limits must be replaced with factory new parts, by Aerofab or a facility authorized by the factory to perform this repair.

(b) If cracking is detected:

(i) One crack in the cutout radius near the second outboard bolt hole may be repaired by proceeding directly with "Procedure" step (6).
(NOTE: contact Aerofab Engineering if a crack is detected elsewhere)

(ii) Spar cap angles exhibiting more than one crack must be replaced with factory new parts (by Aerofab or a facility authorized by the factory to perform this repair) then proceed with "Procedure" step (6).
(NOTE: two cracks in the same area specified in "Repair" (2)(b)(i) are considered as one under certain circumstances. Contact Aerofab Engineering if more than one crack is detected.)

REVO, Inc.

SERVICE BULLETIN B-79 R1

June 12, 1999
Effective

January 5, 2000
Revised

Engineering Approval

Subject: Wing Spars

Effectivity: All LA4, LA4-200, Lake Model 250

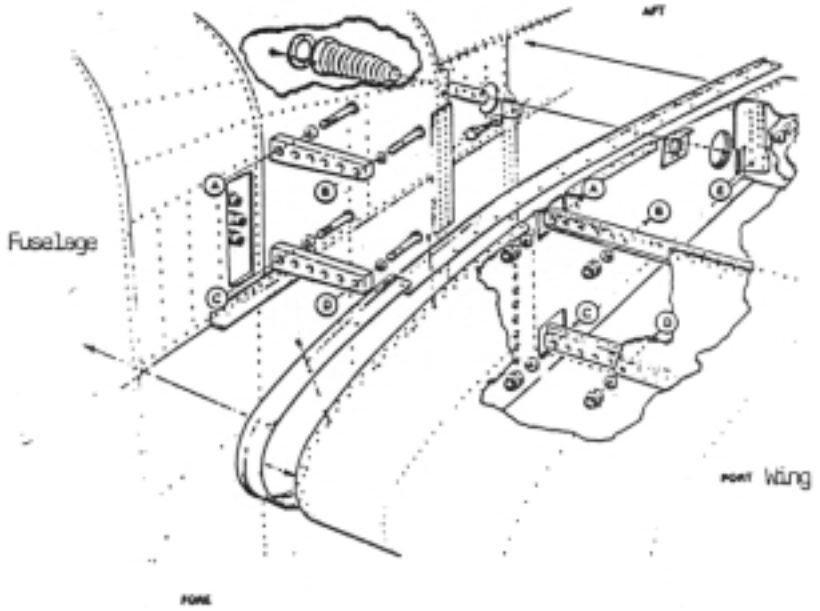
Compliance: Within the next 25 hours or 12 months, whichever comes first.

Description: During the replacement of corroded wing spar doublers, cracks have been detected in spar cap angles in the area of the wing attach fittings. This service bulletin provides revised instructions for inspection and corrective action, and supersedes service bulletin B-79. Part numbers affected are as follows:

Inspection:

2-1610-015 and 2-1610-016	upper spar cap angles
2-1610-075 and 2-1610-076	lower spar cap angles
2-1610-061 or 2-1610-081	upper spar doublers
2-1610-063	lower spar doublers

(1) From inside the wheel well, clean the upper and lower spar doublers and adjoining structure to the paint, using a detergent or mineral-based solvent. (CAUTION: Do not use chemicals or abrasive materials which can damage the paint.)
(2) Using a strong light source and a 3x magnifying glass, inspect the exposed areas of the upper and lower spar doublers and adjoining structure for damage, cracks, and corrosion. Proceed to 10x magnification or dye penetrant inspection if cracking is suspected.
(3) If damage, cracks, or corrosion is detected on any parts, make repairs in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision), then proceed with step (4).
(4) If no damage, cracks, or corrosion is detected, install B-79 kit as specified below.



SERVICE BULLETIN B-79 R1

Installation: (1) One kit is required for each wing (2 kits per aircraft). (See Appendix A for kit lists.)
Order B-79 kits by aircraft model number, serial number, and aircraft total time:

LA-4 series	(1)	B-79-LA4L	Left Wing Kit
	(1)	B-79-LA4R	Right Wing Kit
250 series	(1)	B-79-250L	Left Wing Kit
	(1)	B-79-250R	Right Wing Kit

(2) Remove weight from the wing attach fitting by supporting the aircraft's weight along the hull with a suitable cradle or block system, then jacking the wings up slightly to support the aircraft and remove some of the weight of the wings. (There are several ways to accomplish this, but the intent is to relieve some load on the wing attach bolts to facilitate removal.)

(3) Remove the bottom inboard wing inspection cover to gain access to the leading edge side of the wing attach hardware. (Identify wires and lines on the leading edge side of the spar, for reference.)

(4) From inside the wheel well, remove the first (5) AN470AD5 rivets from the upper spar doubler, and the first (7) rivets from the bottom spar doubler, counting outboard from the end of each forward wing attach fitting.
(CAUTION: Use care not to damage the spar assembly, wiring, and lines.)

(5) Remove the nuts and washers from one forward wing attach fitting and remove (4) of the (6) wing attach bolts.
(CAUTION: Do not remove all bolts completely.)
(Note: some wing attach bolts may be installed from the leading edge side. If bolts are installed this way, remove the bolts one at a time and reinstall them from the wheel well side so that there are two evenly spaced bolts in the wing attach fitting.)

(6) Through the inboard wing inspection hole, install the appropriate B-79 filler(s) (not the steel doubler) to the forward side of the spar as shown in figure 2.
(Note: Ensure that the filler(s) part number faces forward, and that the filler(s) lay flat along the spar without riding on rib flanges.)
Temporarily secure these parts to the spar with at least two wing attach bolts and nuts to ensure proper alignment with the spar.

(7) From the wheel well, back drill the B-79 filler(s) with a #21 drill bit, through the holes created in step (4). Remove the hardware securing the filler(s), remove the filler(s) from the aircraft, and clean the area as required.

(8) Assemble the B-79 filler(s) and doubler on a work bench as shown in figure 2, then clamp the kit with at least two bolts in the same hole locations used in step (6).
(Note: Insure that the filler(s) and doubler are properly assembled to face forward.)
Using a #21 cobalt drill bit, carefully drill the doubler using the filler(s) as a drill guide, then open the holes with a #10 cobalt drill bit. Disassemble the kit and debur the holes. Prime fillers and doublers as required to cover scratches and tooling marks (not inside the wing bolt holes).

(9) (Note: Inspect each wing attach bolt hole before new bolts are installed, in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision)).
Through the inboard wing inspection hole, reassemble and install the B-79 filler(s) and doubler (as shown in figure 2) with the new bolts and washers contained in the B-79 kit. Lubricate the bolts and install them one at a time, without the nuts (starting from the inboard end).
(Note: Verify proper filler installation - the doubler must lay flat along its entire length.)
(Note: At no time should there be fewer than one bolt in the wing attach fitting.)

(10) Trim as required, then install, AN470AD6 rivets as shown in fig. 2.
(Note: AN3 bolts of proper length, AN960-10L washers, and AN365-1032 nuts, may be substituted for the AN470AD6 rivets. These should be installed from the leading edge side.)

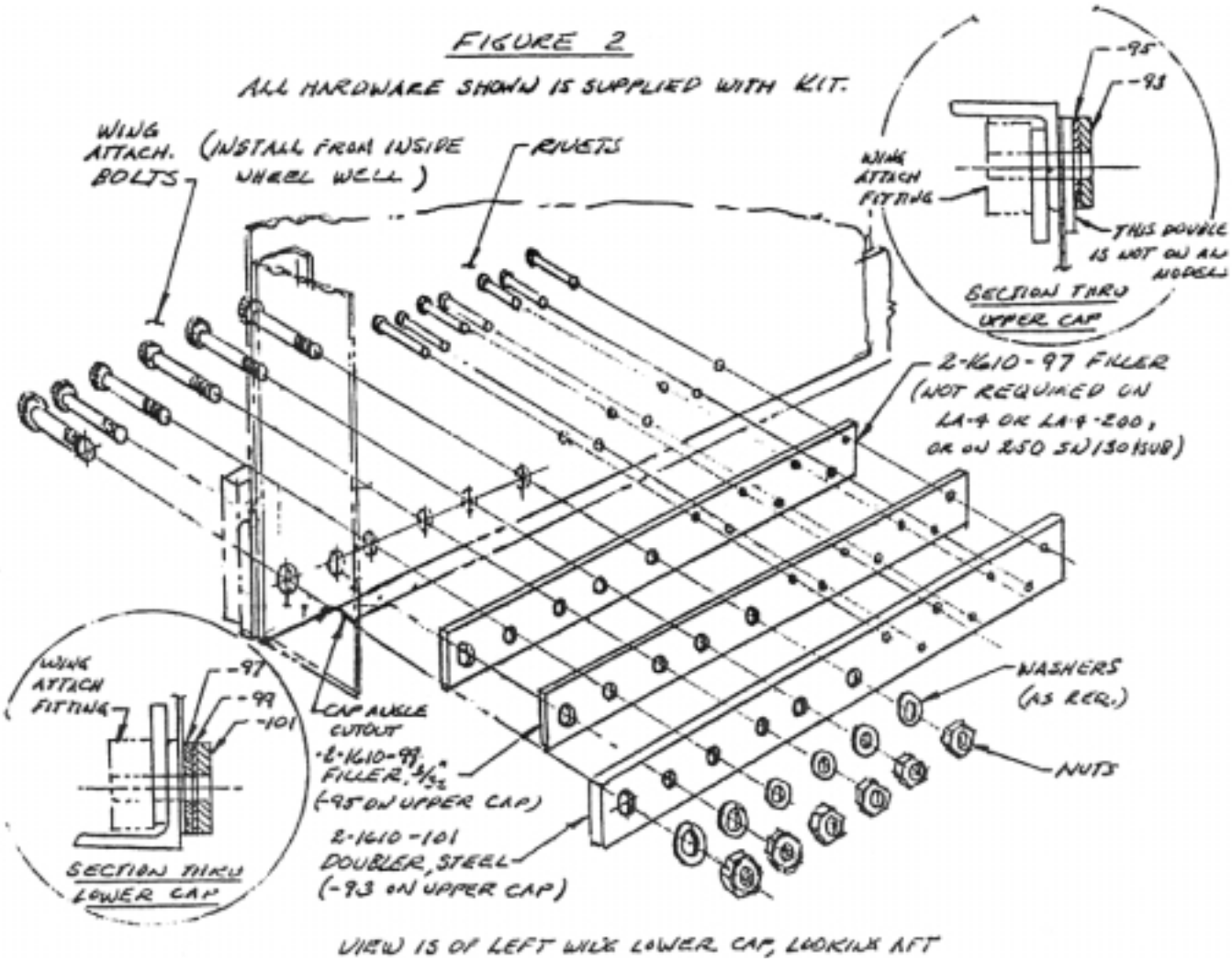
(11) Install washers and nuts on the wing attach bolts and torque in accordance with Lake Aircraft's Maintenance Manual, Revision 1, dated June 17, 1999 (or later revision).

(12) Repeat steps (5)-(11) at the other wing attach fitting.

(13) Repeat steps (3)-(12) on the other wing.

(14) Perform final inspection, perform gear retraction test, reinstall the inspection covers, remove the aircraft from supports and jacks, and complete paperwork as required by FAR Part 43.

SERVICE BULLETIN B-79 R1



SERVICE BULLETIN B-79 R1

Kit List	B79-LA4L	B79-LA4R	B79-LA4R	B79-LA4R
Bolts	(10) NAS464-6A24 (2) NAS464-7A24	(10) NAS464-6A24 (2) NAS464-7A24	(10) EWSB22-6A25 (2) EWSB22-7A25	(10) EWSB22-6A25 (2) EWSB22-7A25
Washers	(20) AN960-616L (4) AN960-716L	(20) AN960-616L (4) AN960-716L	(20) AN960-616L (4) AN960-716L	(20) AN960-616L (4) AN960-716L
Nuts	(10) AN364-624 (2) AN364-720	(10) AN364-624 (2) AN364-720	(10) AN364-624 (2) AN364-720	(10) AN364-624 (2) AN364-720
Rivets	(12) AN470AD6-22	(12) AN470AD6-22	(12) AN470AD6-22	(12) AN470AD6-22
Fillers	(1) 2-1610-95 (1) 2-1610-99	(1) 2-1610-96 (1) 2-1610-100	(1) 2-1610-95 (1) 2-1610-99 (1) 2-1610-97	(1) 2-1610-96 (1) 2-1610-100 (1) 2-1610-98
Doublers	(1) 2-1610-93 (1) 2-1610-101	(1) 2-1610-94 (1) 2-1610-102	(1) 2-1610-93 (1) 2-1610-101	(1) 2-1610-94 (1) 2-1610-102
Instructions	(1) SB-79 R1	(1) SB-79 R1	(1) SB-79 R1	(1) SB-79 R1

Appendix A

AFFIDAVIT OF ARMAND RIVARD

STATE OF FLORIDA

COUNTY OF OSCEOLA

After being duly sworn, **ARMAND RIVARD**, affirms under oath and states as follows:

1. I currently reside in 1396 Grandview Blvd, Kissimmee, 34744 Osceola County, Florida.

2. I was the sole owner of Revo, Inc. ("Revo") from its inception (long before 1999) though the end of 2010, and am still an owner of Revo.

3. I am also the former sole owner of Aerofab, Inc. ("Aerofab").

4. Revo has owned the type certificates for Lake Aircraft since at least before January 1, 1995.

5. In or about 1999, it was discovered that a number of specific Lake Aircraft models experienced cracks in the wing spars which were identified to the Federal Aviation Administration (FAA) and which were considered by the FAA to potentially cause wing separation from the aircraft.

6. The FAA issued a Notice of Proposed Rule Making (NPRM) on October 6, 1999 requiring certain repetitive inspections and repairs of the affected aircraft, including dye penetrant inspections, to correct the wing spar cracking problem.

7. The repetitive inspection and repair of the wing spar structure on the affected Lake Aircraft in accordance with the NPRM was anticipated to cost $20,000 to $40,000 per airplane due to the high risk of wing damage.

8. In order to reduce the burden of anticipated expense for the wing spar modification on Lake aircraft owners, Aerofab undertook to design a wing spar modification kit as a less expensive alternate for compliance with the AD.

9. The Aerofab costs exceeded one million U.S. dollars ($1,000,000) for the engineering design, analysis, development, and FAA approval and production of the wing spar modification kit.

10. Aerofab took a loan from Revo for the full amount of the cost of engineering design, analysis, development, FAA approval, and production of the wing spar modification kits.

11. Revo expected sales of the wing spar modification kits though Aerofab to repay the full amount of the loan.

12. After reviewing the engineering design and analysis data developed by Aerofab, the FAA issued Airworthiness Directive 2000-10-22 effective June 20, 2000 (the "AD") incorporating the Aerofab -designed wing spar modification kit as a less expensive method of ensuring resolution of the wing spar cracking problem: the aircraft affected were Lake Aircraft designated as Lake model LA-4; LA-4A; LA-4P; LA-4-200 and LA-250 airplanes. A copy of the AD is attached to this Affidavit as Exhibit A.

13. The inventors of the wing spar modification kit, employees of Aerofab, sought and obtained patent protection for the kit, U.S. Patent Number 6,328,260 (the "260 patent").

14. The '260 patent was assigned by the inventors to Revo prior to its issuance.

15. The FAA required that Aerofab ensure that the wing spar modification kits be available to the Lake Aircraft owners in quantities sufficient to outfit the fleet in the United States on or about the time the AD went into effect, causing Aerofab significant costs by requiring Aerofab produce a full fleet of wing spar modifcation kits in compliance with the FAA requirement.

16. The wing spar modification kits were fabricated for sale to Lake Aircraft owners by Aerofab in accordance with the FAA requirement, under license from Revo, and using funding provided by Revo in the form of the aforementioned loan.

17. The wing spar modification kit was priced by Aerofab so that Revo would recoup the money it loaned to Aerofab for the engineering design, analysis, development, FAA approval, and production of the wing spar modification kits, while saving Lake aircraft owners the expense and risk of the more complicated original FAA recommended procedure.

18. However, after Aerofab began selling the wing spar modification kits, at least one company began to sell virtually identical kits ("Knock Off Kits") at a significantly lower price than the Areofab price.

19. The Knock Off Kit manufacturers were able to price their wing spar modification kits at a significantly lower price than Aerofab because they did not have to

recoup the costs of engineering design, analysis, and development of the wing spar modification kits as Aerofab had done.

20. Aerofab was sold by Affiant in or about September 2002 still owing approximately $917,000 to Revo for the engineering design, analysis, development, FAA approval, and production of the wing spar modification kits.

21. The models of Lake Aircraft covered by the AD are currently out of production, and have been since June 2004.

22. There are at least 500 affected Lake Aircraft in the United States.

23. All or substantially all of the affected Lake Aircraft in the United States have been modified by installation of a wing spar modification kit in order to be air worthy in accordance with the AD.

24. Very few, if any, affected Lake Aircraft remain to be modified to come into compliance with the AD.

25. Because the affected Lake models are out of production, and because most, if not all, affected Lake aircraft in the United States have been modified to be in compliance the AD, Revo cannot anticipate sales of kits in the future.

26. Of the approximately 500 Lake Aircraft in the United States, it is my estimate that 200 to 375 of them now contain and use wing spar modification kits fabricated by manufacturers who were not under any license from Revo (i.e., Knock Off Kits).

27. Aerofab is the only entity or person who has ever been licensed under the '260 patent to produce the wing spar modification kit for sale in the United States.

28. Revo has attempted to enforce its patent continually since at least 2002 in order to recoup its loss.

29. Revo met with organized resistance from the Lake Aircraft owner community when it attempted to enforce the '260 patent, frustrating Revo's attempt to recover its investment in the engineering design, analysis, development, and FAA approved Areofab spar modification kit.

30. Revo is not experienced in patent enforcement.

31. Revo assigned the '260 patent to Enpat, Inc. on January 31, 2002 in an attempt to finally recoup all, or at least a portion, of its investment in the engineering design, analysis, development, and FAA approved spar modification kit.

32. Under the assignment to Enpat, Revo will receive a portion of all damages recovered by Enpat for enforcement of the patent.

FURTHER AFFIANT SAYETH NOT.

DATED this 14 day of March, 2011.

By: _____
Armand Rivard

SWORN TO AND SUBSCRIBED before me this 14 day of March, 2011, by Armand Rivard, who is personally known to me or who provided Fl. Dr. Lic as identification, and who did take an oath.

_____
NOTARY PUBLIC
STATE OF FLORIDA AT LARGE
My commission expires:

JACQUELINE E. BUNGO
Notary Public - State of Florida
My Commission Expires Feb 21, 2012
Commission # DD 752135
Bonded Through National Notary Assn.

EXHIBIT "C"

Airworthiness Directive

Federal Register Information

Header Information
DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 34065 5/26/2000]

Docket No. 99-CE-27-AD; Amendment 39-11746; AD 2000-10-22

RIN 2120-AA64

Airworthiness Directives; REVO, Incorporated Models Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, and Lake Model 250 Airplanes
PDF Copy (If Available):

Preamble Information
AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule; request for comments

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain REVO, Incorporated (REVO) Models Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, and Lake Model 250 airplanes. This AD requires you to: inspect the left and right wing upper and lower spar doublers for cracks; replace any cracked parts; and incorporate a modification kit. This AD is the result of a report of a fatigue crack found at the second most inboard wing attachment bolt hole on one of the affected airplanes. Similar fatigue cracking has since been reported on seven more of the affected airplanes, including incidents where the fatigue cracking occurred on airplanes with less than 500 hours time- in-service (TIS). The actions specified by this AD are intended to detect and correct cracks in the wing spars, which could result in the wing separating from the airplane with consequent loss of control.

DATES: Effective on June 20, 2000.
The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation as of June 20, 2000.
The Federal Aviation Administration (FAA) must receive any comments on this rule on or before July 28, 2000.

ADDRESSES: Submit comments in triplicate to the FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-27-AD, 901 Locust, Room 506, Kansas City, Missouri 64106.
You may get the service information referenced in this AD from REVO, Incorporated, P.O. Box 310, One High Street, Sanford, Maine 04073. You may examine this information at FAA, Cen

EXHIBIT VII
A Shannon
2.4.11

Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-27-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Mr. Richard B. Noll, Aerospace Engineer, FAA, Boston Aircraft
Certification Office, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone: (781) 238-7160; facsimile: (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

What caused this AD? This AD is the result of a report of fatigue cracks that were found at the second-most inboard wing attachment bolt hole on a REVO Lake Model 250 airplane. The cracks were detected during wing repair where the wing spar and wing skin were disassembled. Further analysis indicated that the cracks initiated at a machined notch at the flange termination point of the spar cap.

The REVO Models Lake LA-4, Lake LA-4A, Lake LA-4P, and Lake LA-4-200 airplanes are of the same type design as the Lake Model 250 airplanes. Fatigue cracking similar to that of the above-referenced report has been found on seven more of these airplanes.

What is the potential impact if FAA took no action? Cracks in the wing spars, if not detected and corrected in a timely manner, could result in the wing separating from the airplane with consequent loss of control.

Has FAA taken any action to this point? We issued a notice of proposed rulemaking (NPRM) to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain REVO Models Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, and Lake Model 250 airplanes. We published this NPRM in the Federal Register on October 6, 1999 (64 FR 54234). The NPRM proposed to require you to accomplish the following:

- inspect the left and right wing upper and lower spar caps and doublers for cracks;
- replace any cracked parts;
- incorporate a modification kit if damaged past a certain level; and
- report the results of the inspection to FAA.

REVO Service Bulletin B-79, dated June 12, 1999, includes the procedures necessary for you to accomplish the proposed inspection and modification.

Was the public invited to comment? The FAA offered interested persons the opportunity to participate in the making of this amendment. The following paragraphs present the comments received on the NPRM. Also included is FAA's response to each comment, including any changes incorporated into the final rule based on the comments.

Comment Issue No. 1: Wing Spar Cracking Does Not Warrant AD Action

What are the Commenters' Concerns? Numerous commenters question FAA's justification for issuing an AD. Several commenters do not believe our service difficulty database provides accurate information. A few commenters recommend that we conduct additional research on the cause of the wing spar cracks and determine if the cracks are unique to a particular configuration of the affected airplanes. Other commenters propose various causes of the cracks, including:

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

- installation of auxiliary fuel tanks in the wing floats;
- increased braking power in the Model Lake LA-4-200 and Lake Model 250 airplanes; and
- the presence of corrosion.

What is FAA's Response to the Concerns? We do not concur that the AD is not justified. We began our investigation of the wing spar cracks on the affected airplanes when the Australian Civil Aviation Safety Authority reported cracks in both the spar cap and doubler in the lower spar of a Lake Model 250 airplane. We then received several reports of similar cracking from personnel of maintenance and repair facilities that were working on the affected airplanes. Reports indicated that both the upper and lower spars were cracked. These subsequent reports did not specify corrosion damage. All of the wing spar cracks initiated at a machined notch at the flange termination point of the spar cap at the second-most inboard wing attachment bolt hole.

We also initiated laboratory examinations of the cracked spars. These examinations revealed that fatigue caused the cracks and were associated with the roughness of the notch area. The certification basis for the affected airplanes did not require an evaluation of fatigue characteristics. A database of either analytical results or test data does not exist. However, we performed a fatigue analysis of the affected airplanes in the notch area in developing the proposed inspection compliance times. Our analysis of this situation included working with the manufacturer to develop inspection procedures for the spar doublers and spar cap angles and a modification (doubler kit) for the wing spar. We then determined that enough information existed to implement AD action in order to assure the continued airworthiness of the affected airplanes. Thus, we issued an NPRM to propose inspections for cracks and repair, replacement, and modification, as necessary.

We are not changing the AD as a result of these comments.

Comment Issue No. 2: Do not Require the Spar Cap Inspection
What are the Commenters' Concerns? Several commenters recommend that FAA not require the spar cap inspection in accordance with REVO, Inc. Service Bulletin B-79, dated June 12, 1999. The commenters offer the following explanations for eliminating this inspection:

- accomplishing the inspection could cause damage to the spar cap/doubler;
- the number of personnel with the expertise necessary to accomplish the inspection is limited;
- the fluorescent dye penetrant inspection is difficult to implement and is less effective than a visual or borescope examination; and
- there are limited maintenance/repair facilities capable of conducting the inspection.

What are FAA's Responses to the Concerns? We concur that the spar cap inspection is not necessary. The inspection of the spar cap was intended to look for additional cracks outside of the notch area. We are eliminating the spar cap inspection from the AD for the following reasons:

- the cracks detected on the previously-referenced airplanes developed in the notch area and not in the spar cap; and
- we have received several additional reports of airplanes with cracks in the notch area and nowhere else.

We are only requiring a visual inspection of the wing spar doublers instead of a dye penetrant inspection. REVO, Inc. has revised Service Bulletin B-79 (R1 - Revised January 5, 2000) to incorporate the visual inspection change.

Comment Issue No. 3: Provide Alternatives to the Proposed Requirements

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

What are the Commenters' Concerns? Several commenters recommend alternative methods of compliance to meet the safety intent of the AD. These alternatives are:

- accomplish the inspection utilizing borescope procedures;
- accomplish the inspection utilizing visual procedures;
- only inspect the bolt holes;
- cut inspection holes in the wing skin; and
- allow repetitive inspections instead of requiring the incorporation of the Aerofab B-79 kit.

What is FAA's Response to the Concerns? We do not concur that any of the alternatives alone are valid to meet the safety intent of this AD. Inspecting the wing spar doubler in accordance with the procedures in REVO, Inc. Service Bulletin B-79, dated June 12, 1999, assures the airworthiness of this component prior to installing the doubler kit (Aerofab B-79 kit). Installing this doubler kit gives the spar an adequate fatigue life and eliminates the need for repetitive inspections. We do not concur that cutting holes in the wing skin for inspections is an acceptable alternative because of the sensitive nature of the wing skin.

We also do not concur with allowing repetitive inspections instead of mandatory incorporation of the Aerofab B-79 kit. Constant removal of the bolts could cause unnecessary damage. The FAA's policy is to require a modification when incorporation of that modification could eliminate or reduce the number of required inspections.

We are not changing the AD as a result of these comments.

Comment Issue No. 4: Eliminate Certain Airplanes From the Applicability of the AD
What are the Commenters' Concerns? Several commenters request that FAA not include the Model Lake LA-4 airplanes in the applicability of the final rule AD. The commenters state that the applicability should be based on the weight, auxiliary fuel, and brake differences of the airplanes.

One commenter concurs with the applicability of the NPRM.

What is FAA's Response to the Concerns? We have determined that this AD should apply to the Model Lake LA-4 airplanes. The service difficulty database clearly shows the need to address the wing spar condition on the Model Lake LA-4-200 and Lake Model 250 airplanes. The Model Lake LA-4 airplanes are included because:

- the wing/spar attachment design is the same as the Model Lake LA-4-200 airplanes;
- the gross weight is only 200 pounds less than the Model Lake LA-4-200 airplanes; and
- these airplanes have been in service longer than the Model Lake LA-4-200 airplanes.

For these reasons, we have determined that the Model Lake LA-4 airplanes are also susceptible to wing spar fatigue cracking and the AD must apply to these airplanes.

We are not changing the AD as a result of these comments.

Comment Issue No. 5: Revise the Methods of Incorporating the Doubler Kit
What are the Commenters' Concerns? Several commenters suggest revisions to the Aerofab B-79 doubler kit. These suggestions include:

1. revising the rivet removal method;
2. utilizing bolts instead of rivets;

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

3. retaining the original bolts for the Model Lake LA-4 airplanes; and
4. redesigning the doubler.

What are FAA's Responses to the Concerns? We concur with these suggestions, as follows:
1. We concur and will require accomplishment in accordance with Revo, Inc. Service Bulletin B-79 R1, Revised January 5, 2000. This revised service bulletin incorporates the proposed rivet removal methods;

2. We concur. Revo, Inc. Service Bulletin B-79 R1, Revised January 5, 2000, allows the use of AN3 bolts, and accomplishment of the AD is required in accordance with this service bulletin;

3. We do not concur that you may retain the original bolts for the Model Lake LA-4 airplanes. The new design configuration of the wing spar caps with the doublers requires longer bolts than originally utilized; and

4. We do not concur with the need to redesign the doubler. Incorporation of the doubler kit on the affected airplanes restores wing spars to their required strength if a crack is present in the notch area of a spar cap. Incorporation of the doubler kit also provides the strength and stability to prevent future fatigue cracking.

Comment Issue No. 6: Difference Between the Proposed AD and the Service Bulletin
What are the Commenters' Concerns? Two commenters note a difference between the service bulletin and the proposed AD, regarding the dye penetrant inspection procedure. One of these commenters also points out that ASTM E1417-95 was referred to as ASTM E1417-99 in the NPRM.

What is FAA's Response to the Concerns? We concur that there is a difference between the dye penetrant inspection procedure proposed in the NPRM and that contained in the original service bulletin. When the AD and service bulletin differ, the AD takes precedence. In addition, FAA received a revision to the ASTM document (E1417-99 from E1417-95) after preparing the NPRM.

However, as discussed previously, FAA is not requiring the dye penetrant inspection.

Comment Issue No. 7: Do not Include the Reporting Requirement
What is the Commenters' Concern? Seven commenters recommend that FAA not require the reporting requirement for the dye penetrant inspection. These commenters state that this proposed requirement is irrelevant to the safety of the aircraft.

What is FAA's Response to the Concern? We concur. As discussed previously, FAA is not including this inspection in the AD, so there is no need for the reporting requirement.

We are not including the reporting requirement in the AD. Comment Issue No. 8: Inspect the Spar Caps and Doublers for Corrosion Any Time a Wing is Removed

What are the Commenters' Concerns? Six commenters request that FAA require inspection of the of spar caps and doublers for corrosion any time a wing is removed. The commenters recommend this inspection from the roof rib to the first rib outboard or to the inboard fuel tank.

What is FAA's Response to the Concerns? We do not concur. We have not received any record of wing corrosion on the affected airplanes. The actions in this AD address the unsafe condition.

We are not changing the AD as result of these comments.

EXHIBIT E ENPATS MARKMAN MOTION
6:11-cv-00084-GAP-KRS

Comment Issue No. 9: Redesign the Wing Attachment
What are the Commenters' Concerns? One commenter recommends a redesign of the wing attachment area to correct the unsafe condition. Another commenter suggests that the manufacturer conduct a test of the wing/fuselage attachment area.

What is FAA's Response to the Concerns? We have determined that incorporating the doubler kit restores the wing spars of the affected airplanes to their required strength and addresses the unsafe condition referenced in this AD. We will evaluate any data pertaining to a redesign of the wing attachment area or other alternative method of compliance, as long as it is submitted in accordance with the procedures included in this AD.

We are not changing the AD as a result of these comments.

Comment Issue No. 10: The FAA Underestimated the Cost Impact
What are the Commenters' Concerns? Two commenters state that FAA underestimated the costs of implementing the actions proposed in the NPRM. Another commenter states that the cost impact analysis is inadequate because it is designed to address transport category airplanes and not general aviation aircraft. This commenter suggests that the costs of accomplishing this AD could exceed $5,000 per airplane.

What is FAA's Response to the Concerns? We do not concur that the cost analysis is inadequate. The cost impact as proposed in the NPRM is $4,920 per airplane ($2,400 for the inspections and $2,520 for the modification). However, we are not requiring wing removal and a dye penetrant inspection in the AD. We are now only requiring a visual inspection of the wing spar doublers (with replacement if found cracked) and modification. This reduces the time and cost necessary to accomplish the inspection from approximately 40 workhours per airplane to approximately 1 workhour per airplane.

Comment Issue No. 11: Withdraw the AD
What is the Commenter's Concern? One commenter requests that FAA withdraw the NPRM because the service bulletin is effective.

What is FAA's Response to the Concern? We do not concur. The only way we can assure that all affected airplane owners/operators accomplish the actions in a service bulletin is through the issuance of an AD.

We are not changing the AD as a result of these comments.

Comment Issue No. 12: Change the Compliance Time
What are the Commenters' Concerns? Several commenters request an extension to the compliance time. The commenters state that the available repair/maintenance facilities could not accomplish the work on all affected airplanes within the proposed compliance time.

One commenter recommends requiring repetitive inspections of the bolt holes and only requiring the doubler kit if cracks are found during an inspection.

Two commenters request a reduction in the compliance time to 25 hours time-in-service (TIS) to coincide with the service bulletin. This commenter refers to an incident where the wing spar was cracked on an affected airplane with less than 300 hours TIS.

What is FAA's Response to the Concerns? Since issuance of the NPRM, we have received

information regarding wing spar cracks on an airplane with 270 hours TIS. We also have additional reports of wing spar cracking on airplanes with 556 hours TIS and 538 hours TIS.

Based on this information, we do not concur with the request to extend the compliance time. We are reducing the compliance time although not to coincide with the service bulletin. We have determined that the wing spars on all of the affected airplanes should be inspected within 50 hours TIS or 12 months after the effective date of the AD (whichever occur first), regardless of the total number of hours currently accumulated on the wing spar. The NPRM proposed to allow low time airplanes to reach 500 hours total TIS on the wing spar before requiring inspection and modification. Because the latest reports show that cracking could occur prior to 300 hours TIS, we have determined that the 50-hour TIS or 12-month compliance time will eliminate the unsafe condition presented in this AD without inadvertently grounding any of the affected airplanes.

We do not concur with allowing repetitive inspections instead of mandatory modification. Constant removal of the bolts could cause unnecessary damage. The FAA's policy is to require a modification when incorporation of that modification could eliminate or reduce the number of required inspections.

The FAA's Determination and Follow-up Action
What have we decided? After careful review of all available information related to the subject presented above, including the above-referenced comments, FAA has determined that:

- the changes to the proposed AD as described in the above comment disposition should be incorporated; and
- AD action should be taken to incorporate these changes to detect and correct cracks in the wing spar doublers, which could result in the wing separating from the airplane with consequent loss of control.

What is our next action? Since the change in the compliance time increases the burden on the owners/operators of the affected airplanes over what was proposed in the NPRM, we are required to allow the public additional time to comment on the AD.

Because additional reports show the cracks are occurring in the wing spar doublers on the affected airplanes with less hours TIS than initially expected, FAA finds that notice and opportunity for public prior comment are impracticable. Therefore, good cause exists for making this amendment effective in less than 30 days.

What does this AD require? This AD requires you to accomplish the following:
- inspect the left and right wing upper and lower spar doublers for cracks;
- replace any cracked parts; and
- incorporate a modification kit.

What procedures must you use to accomplish this AD? You must use the procedures in Revo, Inc. Service Bulletin B-79 R1 - Revised January 5, 2000, to accomplish this AD.

What is the compliance time of this AD? At whichever of the following that occurs first:

- Within the next 50 hours time-in-service (TIS) after June 20, 2000 (the effective date of this AD); or
- On or before June 20, 2001 (12 months after the effective date of this AD).

Why is the compliance in both hours TIS and calendar time? The fatigue cracks on the wing spar doublers of affected airplanes may have already initiated and could be further developing on the low-usage airplanes as well as high- usage airplanes. Utilizing the dual compliance times would assure that

EXHIBIT E ENPAT'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

cracks in the wing spars are detected on all affected airplanes in a timely manner without inadvertently grounding any of the affected airplanes.

Comments Invited

This action is in the form of a final rule and the FAA did precede it with notice and opportunity for public comment. However, the change in compliance time, as described above, has changed because of information received since the notice. FAA is issuing the information in this final rule without prior notice because an urgent situation concerning safety of flight exists. However, FAA is still inviting comments on this rule. You may submit whatever written data, views, or arguments you choose. You need to include the rule's docket number and submit your comments in triplicate to the address specified under the caption "ADDRESSES." The FAA will consider all comments received on or before the closing date. We may amend this rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether we need to take additional rulemaking action.

The FAA is re-examining the writing style we currently use in regulatory documents, in response to the Presidential memorandum of June 1, 1998. That memorandum requires federal agencies to communicate more clearly with the public. We are interested in your comments on whether the style of this document is clearer, and any other suggestions you might have to improve the clarity of FAA communications that affect you. You can get more information about the Presidential memorandum and the plain language initiative at http://www.plainlanguage.gov.

The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. You may examine all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that summarizes each FAA contact with the public that concerns the substantive parts of this AD.

If you want us to acknowledge the receipt of your comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 99-CE-27-AD." We will date stamp and mail the postcard back to you.

Regulatory Impact

These regulations will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, FAA has determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a significant regulatory action under Executive Order 12866. We have determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If FAA determines that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, we will prepare a final regulatory evaluation. You may obtain a copy of the evaluation (if required) from the Rules Docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation

EXHIBIT E ENPAY'S MARKMAN MOTION
6:11-cv-00084-GAP-KRS

Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES
1. The authority citation for part 39 continues to read as follows:
Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]
2. FAA amends Section 39.13 by adding a new airworthiness directive (AD) to read as follows:

Regulatory Information

2000-10-22 REVO, INCORPORATED: Amendment 39-11746; Docket No. 99-CE-27-AD.

(a) What airplanes are affected by this AD? This AD applies to the following model and serial number airplanes, certificated in any category; that incorporate any of the wing spar part numbers (or FAA-approved equivalent part numbers) that are specified below the airplane models and serial numbers:

Affected Airplanes

Model	Serial Numbers
Lake LA-4	246 through 421, 423 through 429, 445, and 446
Lake LA-4A	244 and 245
Lake LA-4P	121
Lake LA-4-200	422, 430 through 444, and all serial numbers after 446
Lake Model 250	1 through 232

Wing Spar Part Numbers Incorporated

Wing Spar Parts	Part Numbers
Upper Spar Cap Angles	2-1610-015 and 2-1610-016
Lower Spar Cap Angles	2-1610-075 and 2-1610-076
Upper Spar Doublers	2-1610-061 and 2-1610-081 and 2-1610-065
Lower Spar Doublers	2-1610-063 and 2-1610-083

(b) Who must comply with this AD? This AD applies to anyone who wishes to operate any of the above airplanes on the U.S. Register .

(c) What problem does this AD address? The actions of this AD are intended to detect and correct cracks in the wing spars, which could result in loss of the wing with consequent loss of control of the airplane.

(d) What actions must I accomplish to address this problem? To address this problem, you must accomplish the following:

ACTION	WHEN	PROCEDURES
(1) Inspect the left and right wing upper and lower spar doublers for cracks.	At whichever of the following that occurs first: (i) Within the next 50 hours time-in-service (TIS) after June 20, 2000	In accordance with the Inspection section of Revo, Inc. Service Bulletin B-79 R1 - Revised January 5, 2000.

	(the effective date of this AD); or (ii) On or before June 20, 2001 (12 months after the effective date of this AD).	
(2) Replace any cracked wing spar doubler with a new part that incorporates the same part number (or FAA-approved equivalent part number).	Prior to further flight after the required inspection.	In accordance with the applicable maintenance manual.
(3) Incorporate Modification Kit B-79.	Prior to further flight after the required inspection.	In accordance with the Kit Installation section of Revo, Inc. Service Bulletin B-79 R1 - Revised January 5, 2000.

(e) **What if I need to replace a wing on my airplane?** After the effective date of this AD, you may not install a wing on any of the affected airplanes, unless one of the following exists:

(1) The wing is new from the factory; or

(2) The inspection, applicable replacement, and kit incorporation requirements of this AD have been accomplished at the time of installation.

(f) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Boston Aircraft Certification Office (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Boston ACO.

Note: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(g) Where can I get information about any already-approved alternative methods of compliance? Contact Mr. Richard B. Noll, Aerospace Engineer, FAA, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone: (781) 238-7160; facsimile: (781) 238-7199.

(h) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(i) Are any service bulletins incorporated into this AD by reference? Actions required by this AD must be done in accordance Revo, Inc. Service Bulletin B-79 R1 - Revised January 5, 2000. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from REVO, Incorporated, P.O. Box 312, One High Street, Sanford, Maine 04073. You can look at copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(j) When does this amendment become effective? This amendment becomes effective on June 20, 2000.

Footer Information

Issued in Kansas City, Missouri, on May 17, 2000.
Michael Gallagher,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

Comments

UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ENPAT, INC., a Florida Corporation, Plaintiff,	
v.	Case No.: 6:11-cv-00084-PCF-KRS
HARRY SHANNON, Defendant.	

VOLUME I
(Pages 1 - 155)

DEPOSITION OF HARRY SHANNON
Taken on Behalf of the Plaintiff

DATE TAKEN: February 4, 2011
TIME: 9:30 AM - 5:50 PM
PLACE: 202 N. Harbor City Boulevard, Suite 300
Melbourne, Florida 32935

Examination of the witness taken before
Vicki Humphries, Court Reporter
and Notary Public, State of Florida at Large

King Reporting Service, Inc.
14 Suntree Place, Suite 101
Melbourne, Florida 32940

APPEARANCES

FOR PLAINTIFF

STEPHEN C. THOMAS, ESQUIRE
KELLY G. SWARTZ, ESQUIRE
Hayworth, Chaney & Thomas, P.A.
202 N. Harbor City Boulevard, Suite 300
Melbourne, Florida 32935

FOR DEFENDANT

MARK J. YOUNG
MARK YOUNG, P.A.
12086 Ft. Caroline Road, Suite 202
Jacksonville, Florida 32225

INDEX OF DEPOSITION
OF HARRY SHANNON

	Page No.
Direct Examination by Mr. Thomas	4
Cross Examination by Mr. Young	216
Redirect Examination by Mr. Thomas	242
Recross Examination by Mr. Young	250
Certificate of Oath	252
Certificate of Reporter	253
Errata	254
Witness Review Letter	255

I N D E X O F E X H I B I T S

PLAINTIFF EXHIBITS

NO.	DESCRIPTION	REFERRED TO
A	Airworthiness Directive	16
B	Photograph	106
C	Certifications	21
D	Patent	127
E	Lake Central Air Services Fax	127
F	Rockwell Service Letter	164
G	Postings from Bulletin Board	183

DEFENDANT EXHIBITS

NO.	DESCRIPTION	REFERRED TO
A	Drawing	221
B	List of Components	237

WHEREUPON:

HARRY SHANNON,

a DEFENDANT herein, acknowledged having been duly sworn, and testified upon his oath as follows:

THE WITNESS: I will.

MR. THOMAS: Good morning. My name is Stephen Thomas. I represent the plaintiff in this case that we're going to be taking your deposition in today, Enpat. And I think we need to go around the table here and identify everybody in the room. I'm an attorney representing the Enpat, Inc.

MS. SWARTZ: I'm Kelly Swartz. I'm also an attorney representing Enpat, Inc.

MR. YOUNG: I'm Mark Young representing Defendant Harry Shannon.

THE WITNESS: I'm Harry Shannon, the Defendant.

DIRECT EXAMINATION

BY MR. THOMAS:

Q Just some things to get started with. First off, have you ever had your deposition taken before?

A Yes.

Q When was that please? First of all, how many times has that happened?

A Once.

Q Can you tell me when?
A It would be approximately 14 years.
Q 14 years?
A 14 years ago.
Q What was the subject of that deposition?
A I believe the subject of that one had to do with a bankruptcy or a pleading of a bankruptcy nature, something like that.
Q It didn't have anything to do with aircraft or maintenance of aircraft or that sort of that?
A It had to do with an aircraft company, but not the actual maintenance or anything like that.
Q Other than that, you haven't had your deposition taken before?
A Not to my knowledge.
Q Since it's been a while, I'll go ahead and just kind of put some rules out so we're all on a level playing field. You have been sworn in by the court reporter, and she's going take your deposition here today. I'm going to ask questions. Your attorney Mr. Young is here to represent you in this depo.
Later on when we read the transcript, we're going to assume that the answers you give are accurate, truthful and complete. So having said that, and the fact that you're under oath, if you do want to back up

and, you know, if I ask a question, you answer it, and you feel like you need to add to it, please do that. We're going to assume later on that the answers are complete.

If we need to take a break, we will. I'm guessing in a couple of hours we'll probably take a short break. Under the federal rules we have seven hours for the deposition. And since we're getting started about 9:30 -- when we start and stop I'd like to record the time, if you could. And my watch says it's 9:35 now, and we've been in about five minutes. I think we started at 9:30. We'll record the time when we stop and start again to make sure we'll get our full sevens in. I'm not saying it will take seven hours. I'm just saying that's what the rule allows.

If you don't understand a question that I ask, please ask me to repeat it. I'll be happy to do that. If I mutter or if it's just not a very good question or you don't understand it. Because we'll also assume that when I've asked a question, you understand what I've asked.

Let's just get some things out of the way. What is your personal address please?

A My what?

Q Your personal address?

A 7209 Crystal Beach Road, Winter Haven, Florida 33880.
Q How long have you lived at that address?
A Approximately 15 years.
Q Are you currently employed?
A Yes.
Q And who is your employer please?
A Amphibians Plus, LLC.
Q Is that your company?
A Yes.
Q So you're an owner of Amphibians Plus, LLC?
A Yes.
Q Are there any other owners of Amphibians Plus?
A No.
Q Just generally what is the business Amphibians Plus engages in?
A We repair aircraft.
Q Strictly Amphibians --
A No.
Q -- or all kinds? How long has Amphibians Plus been in business?
A Amphibians Plus, LLC has been in business approximately 14 months.
Q Was it known by another name before that?
A It was known as Harry Shannon doing business

as Amphibians Plus.

Q You basically set up a business entity here recently, not too long ago?

A Yes.

Q Where is that, where is Amphibians Plus' primary place of business?

A Bartow Municipal Airport.

Q How long have, either as yourself doing the DBA, or as Amphibians Plus, LLC, all told, how long have you been operating out of the Bartow airport there?

A Approximately 15 years.

Q Were you employed prior to coming to Bartow and operating as Amphibians Plus?

A Define employed.

Q Did you have a job?

A I worked for myself prior to coming to Bartow.

Q Self employed?

A Self employed.

Q As self employed what did you do?

A During that period I fixed airplanes, aircraft mechanic.

Q How long did you work self employed as an aircraft mechanic? This is prior to coming to Bartow.

A Amphibians Plus operated approximately two years, I want to say, prior to coming to Bartow. In

other words, Harry Shannon DBA.

Q Where did you do that?

A Kissimmee.

Q Did you work as an aircraft mechanic prior to that two-year period in Kissimmee?

A Yes.

Q Where did you work as a mechanic?

A Lake Aircraft.

Q Where was that location?

A 606 North Dyer Kissimmee.

Q That's at the Kissimmee Airport?

A Yes.

Q How long did you work for Lake Aircraft?

A Approximately five years.

Q Now I've lost track. We've gone back how many years now? Can you tell me what year you started working for Lake Aircraft?

A 1987.

Q While at Lake did you have a supervisor?

A No.

Q You pretty much directed your own activities then?

A I directed my department.

Q What was your title at Lake?

A Service manager.

Q What duties did you have as service manager?
A Supervise the mechanics to maintain the aircraft either owned by Lake or customer aircraft.
Q So that was a maintenance function?
A Yes.
Q Were you involved in the building of the airplanes, the original builds or just the maintenance after they were built and delivered?
A Maintenance.
Q Who did you answer to at Lake?
A Armand Rivard.
Q He was the owner of the company, is that correct?
A I believe he was.
Q I'll just get some definitions out on the table today so that later on when we read the transcript, it's all clear what we're talking about.
You've already mentioned Mr. Rivard and Lake Aircraft. So I assume when we speak of Armand Rivard or Mr. Rivard, you know who I'm talking about, correct?
A Yes.
Q Lake Aircraft, we certainly know who that company is, correct?
A Yes.
Q During the course of the deposition I'll make

reference to the lawsuit. When I do, I'm talking about this action that we're currently engaged in where Enpat has filed a complaint against you for patent infringement. So --

A Would you repeat that please?

Q Sure. As we go through the deposition today I'll refer to the lawsuit. And when I do, I'm talking about Enpat, Inc. versus Harry Shannon, the lawsuit we're here today. I know there have been other -- there are other lawsuits pending, and there was a prior lawsuit, too, that was dismissed along the way some years ago. So today when I talk about the lawsuit, I'm talking about the current lawsuit that we're here in the deposition of today. Is that clear?

A That's clear.

Q When I mention the patent today, I'm going to make reference to the US Patent 6,328,260. And later on we're going -- I'm just going to slide it across the table -- later on we're going to go through it in some detail. When I talk about the patent, that's the patent that I'm talking about. Hopefully that will be clear as well.

I guess one other thing I should say is if you have to answer a question yes or no, if you could please go ahead and articulate yes or no so the court reporter

can take that down.

A I will try to do that.

Q It's a personal habit we all have. If I ask you to please answer the question yes or no, please don't take offense at that. I'm just trying to make sure that the record is clear.

Later on today we're going to refer to some other things. I'm going to refer to the REVO kit, and we're also going to be talking about a Canadian kit. I want to make sure when we talk about those kits, we know what we're talking about. So when I talk about the REVO kit, that will be the kit that was available from REVO to modify the wings in accordance with a service bulletin that was out. I want to make sure that that is clear when I talk about the REVO kit, that's what we're talking about. Is that okay?

A Okay.

Q And when we talk about the Canadian kit, we'll be talking about a kit that was very similar that was manufactured by a Canadian company.

MR. THOMAS: Is it JCM?

MS. SWARTZ: JVC.

MR. THOMAS: JVC?

MS. SWARTZ: JCM?

MR. THOMAS: Let's look it up. JCM I believe.

MS. SWARTZ: I think you're right.

MR. THOMAS: JVC makes tape recorders and such. Just so there is no confusion about the Canadian kit, Kelly will look it up.

So having said all of that, we'll verify the identity of the kit.

MS. SWARTZ: It's JCM.

BY MR. THOMAS:

Q You're familiar with the JCM kit, correct?

A Yes.

Q We'll just call it the Canadian kit for purposes of the deposition so that we're all clear about what that is.

You said you ran the maintenance department at Lake Aircraft, is that correct?

A Yes.

Q Did you have people working for you in that capacity?

A Yes.

Q How many?

A Typically five.

Q Do you recall the identities of those individuals?

A A few, but not all.

Q How many models of these Lake aircraft did

Lake make, different models? I guess when I say that, I mean basic models. I realize you could probably get some options on some of the models, but the basic models.

A Basic models consisted of C-1, C-2, LA-4 LA-4-200 and the LA-250.

Q Do you have knowledge as to how many of each model was made?

A Not of each model, no.

Q Do you have any idea as to how many total were made by Lake over the years?

A Between 800 and 1,000, I would say. Maybe a little more than that, but not much.

Q These are flown internationally, correct? In other words, are aircraft in the US and aircraft outside the US operating, to your knowledge?

A Yes.

Q Now, some of this will just be general history. In the business that you currently operate, Amphibians Plus, you do maintenance and repair of Lake aircraft, correct?

A Yes.

Q Do you currently work on all five of these models?

A I'm not sure about the C-2, but we have worked

on pretty much all models of Lakes.

Q Could you briefly describe for me, you know, what is a C-1, for instance, start with that? I'd like to get a differentiation between the models.

A C-1, if my memory is correct, is a two-place Lake, 180 horsepower, excuse me, 150 horsepower. The C-2 is a derivative. Actually all of these aircrafts are derivatives of the C-1. C-2 is a larger wing. I don't remember a horsepower change on it.

The LA-4 is a derivative of the C-2 with a 180 horsepower. Technically a four seat airplane. The LA-4-200 is a derivative of the LA-4, a 200 horse aircraft. The LA-250 a derivative of the LA-4-200, which is a 250 horse. I believe it was certificated as a six-place aircraft.

Q Do you know who currently holds the type certificates for all four of those models?

A I believe that REVO holds the type certificate.

Q When we talk about installing either the REVO kit or the Canadian kit to comply with the Airworthiness Directive that we'll talk about later today, but I think you know what I mean when I say the Airworthiness Directive.

A I'm familiar with the Airworthiness

Directives.

Q The AD that applies to the Lake aircraft, does it apply to all models of Lake or just a subset of the models?

A No.

Q Which models does the AD apply to?

A To the best of my knowledge, the AD applies to the LA-4, LA-4-200, and the LA-250.

Q Not to the C-1 and not to the C-2, to the best of your knowledge?

A To the best of my knowledge, no.

Q Since we have mentioned the Airworthiness Directive, we're going to make this an exhibit. I'd like for you to take a look at this, and this will be Exhibit A.

A How much do you want me to look at it?

Q Look at it until you're familiar enough with it that you can answer some questions about it.

A If I can refer to it during the questioning?

Q Absolutely. It's there for you to look at.

A All right.

Q Do you recognize that document?

A I recognize the format of an Airworthiness Directive, and this is AD -- I'm looking for the number. Different prints have different layouts.

Q Would the AD number be the AD number that's reflected on the first page there, AD-2000-10-22?
A Yes.
Q It's kind of hard to find on that page. Have you seen this AD before?
A Yes.
Q What does this -- what is the subject of this AD?
A The subject of the AD is to correct a condition of cracks or potential cracks in the wing of certain models of the Lake Amphibian.
Q Are the models listed on the face of the AD?
A Yes.
Q Which models are they please?
A The affected aircraft are the LA-4, the LA-4A, the LA-4P, LA-4-200, the Lake Model 250.
Q Thank you. Now, you gave me some -- you gave me five different models, and some of those numbers I see in that list you just gave off the Airworthiness Directive. I'd like to look at them again. The LA-4, that first one listed there, you had mentioned that's the 180 horsepower four place Lake, correct?
A Yes.
Q The LA-4A, is that -- you didn't mention that before -- but is that just a derivative of the LA-4?

A Yes.
Q What is the A model, what is the differentiation there?
A A couple of airplanes had a different, I believe, landing gear configuration. A few were built as seaplanes, not Amphibians. And I think there were a total of like three. Two of these aircraft and the LA-4P was another example of a "one of" derivative of the basic LA-4 models.
Q So the LA-4A and LA-4P were basically LA-4s with some mod to the airplane?
A Some unique change that warranted a differentiation in the type certificate data sheet.
Q The other one here, the LA-4-200, you mentioned before is 200 horse four-place aircraft?
A Correct.
Q Then the 250 is the 250 horse six-place aircraft? Okay. So reading the face of this, would this AD apply to either the C-1 or C-2 models as far as you can tell?
A It does not appear to.
Q Are you familiar with an Airworthiness Directive similar to this that does apply to the C-1 and the C-2s?
A I think there are, but I would want to refer

to documents to say here now.

Q Since I'm a layperson when it comes to FAA regulations and Airworthiness Directives, could you please explain what is the impact of an Airworthiness Directive? What does it cause us to do when we get an Airworthiness Directive?

A An Airworthiness Directive is effectively a federal law that says certain actions will be taken relative to, let's call it a repair, alteration, or operation of certificated aircraft.

Q So looking at this specific AD, well, let me back up and say, if you do not -- if an aircraft owner does not comply with an Airworthiness Directive, what are the ramifications of that?

A In some cases, none.

Q What's the range of ramifications that could result from not complying with an Airworthiness Directive?

A That's a very broad question, sir.

Q Well, give me a broad answer.

A I prefer not to. If you're not operating your airplane, then there's zero ramifications of not complying with an AD. That's one.

If the aircraft is operating, then the owner is responsible to see that the aircraft has -- its AD is

complied with in a timely matter.

Q Is there a date for a compliance?

A Typically there is.

Q Is there a date for compliance on this particular AD, the one in front of you?

A Let's look and see. Yes, there is a date for a compliance.

Q Thank you. Where is that reflected in the AD? It's hard to see the page number.

A We'll go for paragraph D as in Delta.

Q Is there a page number? Okay. This is at the bottom of looks like page nine.

A The bottom of what appears to be page nine.

Q So there's a table there that says "Action, When and Procedures," is that the table you're referring to?

A That's correct.

Q So the date for compliance appears to be "Within the next 50 hours time-in-service after June 20th, 2000," is that correct?

A That's the beginning of the compliance period.

Q Or, "On or before June 20th, 2001"?

A Correct.

Q Correct? Is that telling us then that no matter what the Airworthiness Directive must be complied

with prior to June 20th, 2001?

A For the aircraft to be airworthy, yes. Let me rephrase that. For the aircraft to be airworthy relative to this AD. Compliance with this AD does not necessarily render an airplane airworthy.

Q I understand there may be other issues. Do you hold any FAA certifications?

A Yes.

Q Please list them for me.

A My I refer to them?

Q Sure, just let us know what you're referring to.

A I'm referring to those FAA certifications that I carry in my wallet.

Q I assume we can get a copy of these?

A I would think that might be possible.

Q We have a copy machine. If you don't mind, we can copy them while we're here.

A Most of this information would be --

MR. YOUNG: Let's mark it as confidential.

MR. THOMAS: We can. I assume that certifications are public knowledge, but we can mark it as confidential if you like.

MR. YOUNG: Thank you.

A Yes, do that. The first certification was an

airframe power plant certificate, which is basically a mechanic's license. Although this is a second certification received from the FAA was an inspection authorization. This particular license is renewed currently every two years.

The next certificate I got was a pilot's certificate with appropriate ratings. This one reflects that I'm a commercial pilot with airplane single engine land and sea, airplane multi-engine land, and demonstrate English proficiency. And I believe it also includes an instrument airplane rating, and also a certified flight instructor. That certificate also renews every two years.

MR. THOMAS: Thank you very much. If we could take these, could you get these copied?

MS. SWARTZ: Sure.

BY MR. THOMAS:

Q Now, you mentioned one of those is a mechanic's certification?

A Yes.

Q And one was an inspection authorization, is that what you called it?

A Yes.

Q An IA?

A Yes.

Q Referring to the mechanic's certification, what does that allow you to do, that certification?

A In a very basic sense it allows me to inspect and repair aircraft, and return to service after doing those inspections and repairs, certain inspections and repairs.

Q Is there a limitation on the inspections you can do as a mechanic?

A Yes.

Q What is that limitation?

A It varies with my familiarity with the equipment, what maintenance library I have, and that sort of thing. What you're not qualified to work on, you shouldn't work on.

Q Is there a limitation to the type of aircraft you can work on on your mechanics certification? I'm thinking here in broad terms. For instance, you know, everything from the airliners down to the --

A Actually I think no. No.

Q So the only limitation is your own knowledge of the aircraft itself?

A Not exactly limited to one's knowledge, but you have to have the infrastructure to do it properly.

Q In other words, referring back to the big example of a jet airliner, a 737 let's say, if you

didn't have the tooling and equipment to do the work, then you wouldn't do the work?

A Typically not.

Q But there's nothing specific in the mechanic's certification itself that would prevent you from doing that work, it's more what your capabilities, are is that correct?

A Capabilities and training.

Q What does the inspection authorization certification allow you to do?

A Perform annual inspections, progressive inspections, approve return to service after a major repair alteration.

Q How long -- I don't have a copy of your mechanic certification here, it's being copied -- but when did you first become certified as a FAA mechanic?

A The date on the license being copied is 1967. There's a possibility of being certified before that because that license reflects the airframe rating. And if my memory is correct of that period, I received the power plant rating approximately six months prior to that date.

Q But at least as far back as 1967 you were --

A As least as far as 1967.

Q Have you had any gaps in your certification

since then?

A No.

Q When did you first become certified with the IA certification?

A This would be have been '73, 1973.

Q Have you had any gaps in that IA certification since then?

A No.

Q The issue that is addressed by the Airworthiness Directive that's in front of you -- can we go ahead and mark that Exhibit A -- when did you first become aware of the issue that is addressed by this Airworthiness Directive?

A It's been a few years, but '98, '99.

Q How did you become aware of it?

A Cracks were being discovered in certain areas of the wing spar on the Lake Amphibian.

Q Was it a particular model that had the issue or pervasive throughout all of the models?

A The first model that we were aware of was the LA-250.

Q How were those cracks discovered in that first 250, do you recall?

A The first instance, I believe, was a report from the Australian equivalent of our FAA.

Q Was that report made to Lake Aircraft?
A Undoubtedly it was. Typically a manufacturer is contacted regarding such information.
Q Was that something that was uncovered, do you know, during like in an annual inspection?
A I think it was uncovered during a repair.
Q What year was that again? I didn't write the year down.
A '98, '99.
Q What steps did Lake Aircraft take after they received that notice?
MR. YOUNG: Objection calls for speculation.
BY MR. THOMAS:
Q Please speculate.
A I don't know.
Q Do you have any knowledge at all of any steps they took to either inspect other airplanes or analyze the situation?
A I have no knowledge of what Lake did to pursue that issue.
Q Were you employed at Lake at the time?
A No.
Q Was this before your employment at Lake?
A No.
Q Or after you left Lake?

A After.
Q Have you spoken with anyone about the work, if any, that Lake did to address the issue that's addressed in that AD?
A Repeat the question.
Q Have you spoken with anybody about actions that Lake took to address the issues in that AD?
A Have I spoken with anyone about actions that Lake took to correct the issue? That's possible.
Q Well, tell me what you know about the relationship between -- When we say Lake Aircraft, there's REVO, Inc., you're familiar with REVO, Inc?
A Yes.
Q When we say Lake Aircraft, we're really talking about REVO, Inc., correct?
A No.
Q Okay. Tell me the difference.
A My memory is that Lake Aircraft was a service, sales and marketing arm. REVO, Inc. is the type certificate holder.
Q Well, then I'll ask the same question about REVO, Inc. Do you know if REVO, Inc. took any action as a result of being notified by the Australian version of the FAA that there were cracks discovered in a LA-250?
A To my knowledge, initially, no.

Q You qualified that by saying initially. Did they eventually take some action?

A We have an AD as Exhibit A.

Q I'll just go ahead and say it. REVO developed a kit to address this issue that was discovered with these cracks, correct?

A Can we include Aerofab in the REVO umbrella?

Q Sure, if you will define for me what you mean by Aerofab and the relationship with REVO.

A I believe Aerofab was an entity licensed by REVO to produce the parts and to produce the Lake Amphibian.

Q Eventually REVO offered a kit for sale? Sorry, Aerofab offered a kit for sale?

A My memory is Aerofab offered a kit.

Q That kit was meant to provide aircraft owners with a way of complying with the Airworthiness Directive; is that correct?

A Repeat that.

Q The kit that was offered by Aerofab was intended to aid aircraft owners in complying with this Airworthiness Directive, correct?

A Yes.

Q The Airworthiness Directive we're talking about is Exhibit A?

A Yes.
Q To your knowledge, did Aerofab sell any of these kits they offered for sale?
A Yes.
Q Do you know how many?
A No.
Q Do you have any speculation as to how many?
A Why should I speculate?
Q The only reason I ask is, sometimes when I ask a direct question, I can tell that you're very careful with your answers --
A Yes.
Q -- sometimes we don't know the exact answer, but we know approximately the answer. I was just trying to get to, do you have any idea approximately?
A If I had to guess, I would think approximately 300.
Q How did you come up with that number? I realize you said it was a guess, but do you have any basis for that?
A How many I sold, how many aircraft were in the initial compliance.
Q Let's talk about how many you sold. Did you sell these kits?
A Yes.

Q Did you sell them through your business there at the Bartow airport?
A Yes.
Q When you say you sold them, were you a -- did you have some sort of license to sell these kits?
A Yes.
Q Do you have a document or set of documents that memorializes that license?
A No. I have a retail sales license with the County of Polk County.
Q So you purchased kits from Aerofab and resold them; is that correct?
A Yes.
Q When you did that, did you mark them up any?
A Yes.
Q How much was your markup?
A I don't remember.
Q What did you buy them for?
A I don't remember.
Q What did you sell them for?
A More than I bought them for.
Q How many kits did you sell?
A An estimate of about 40.
Q I want to make sure the testimony is clear. These are 40 Aerofab kits?

A Forty Aerofab kits. And this would be 40 aircraft because we haven't defined kit.

Q That's right, we need to define kit. When you say 40 aircraft, there's my understanding there's one kit per wing required; is that correct? So when we say kit, we need to identify what we're saying when we say kit? What do you call a kit?

A I call a kit enough to comply with the AD on the aircraft, which includes two wings.

Q Each wing has an upper and a lower doubler and filler-strap, and so forth, correct?

A Yes.

Q When -- Let me back up and ask it a different way.

Did you order the Aerofab kits as you needed them, as aircraft owners come to you for the mods, or did you order them in bulk to build an inventory?

A Initially prior to the availability of kits we collected and forwarded deposits to Aerofab in anticipation of the forthcoming kit. Those people -- and this has been a couple of years -- but those people, I believe, had a locked-in price or something to benefit from doing that.

Q When you say those people, you mean those aircraft owners?

A Aircraft owners that I did business with.

Q So there was a backlog at the beginning it sounds like, a back order?

A No, we never -- The initial kits, in other words, the FAA wanted to time the issuance of the Airworthiness Directive in conjunction with the availability of a kit to comply with that AD. The FAA, I don't think, had a desire to ground aircraft without a means to remedy the reason for that grounding. Okay?

So deposits, you know, some customers made deposits. Some customers didn't. These were forwarded to Aerofab giving us, in theory, a priority on when we could receive a kit out of that production. And then when the kit was actually ordered, it was ordered against a serial number and was paid for.

Q I understand. And eventually when the kits became available, they filled the order, and then what happened?

A The kits were shipped to people who could install kits. Sometimes they were shipped to owners, and the kits got installed.

Q Did you yourself install any of these Aerofab kits on Lake aircraft?

A Yes.

Q How many, do you know?

A No.
Q Approximately?
A Probably I would have been an active participant in the first five to ten.
Q When you say an active participant, does that mean this would have be five to ten aircraft owners who came to you to have the kits installed as a mechanic?
A Correct.
Q Did you do any more than that in the years following or is that the limitation, five to ten, that you actively participated in?
A When we say actively participated in, we're referring to with my hands physically installing the kit.
Q Okay. Did you have employees who had their hands on these kits?
A Yes, I did.
Q When I say you, let me refer to your company or your employees, you or anybody under your supervision or control. How many kits did that group of people install?
A Aerofab kits, like I mentioned, 40.
Q Forty total? Okay. That's --
A That's 40 aircraft.
Q I understand, 40 airplanes. We talked briefly

about the kit that was available from JCM, the Canadian kit?

A Yes.

Q How many of those kits did you yourself or those under your supervision or control install?

A Twenty-six.

Q Twenty-six aircraft?

A Twenty-six aircraft.

Q Why did you install 40 of the Aerofab and 26 of the Canadian, why not just install all Aerofab kits?

A There was a price differential between the two kits.

Q What was that differential?

A Approximately half.

Q This is the Canadian kits were approximately half the price of the Aerofab kits?

A Yes.

Q Do you recall what the Canadian kit cost you?

A No.

Q You mentioned the Aerofab kits becoming available at a certain time. Did the Canadian kit's availability precede that time or they became first available after the Aerofab kits were available?

A They were available after the Aerofab kits.

Q Do you recall how long a period that was?

A I'm not positive, but eight months to a year.
Q I want to make sure I have this right. Aerofab offered a kit for sale, become available at a certain time, and approximately eight months to a year later, JCM offered a kit for sale at about half the price of the Aerofab kit; is that correct?
A Essentially, yes.
Q Do you recall when you installed the first Canadian kit?
A No.
Q Do you have any records that would indicate when you --
A With some digging that could be probably developed.
Q As a mechanic, are you required to keep -- when I say required by the FAA -- to keep documentation that identifies what work you've done on aircraft?
A I'm assuming are you saying am I required to retain documentation of what work I've done on aircraft?
Q Yes.
A No.
Q I would also expand that to include not just you but those under your supervision?
A That's correct. They are not required to.
Q Do you keep documentation that identifies what

work was done on which airplanes over the years?
A Some we do. Some we don't.
Q When you say we, do you mean your company?
A We company, yes.
Q How many employees total does your company have?
A It varies between six and eight.
Q Do you have an administrative assistant or a clerk that helps you keep your records straight?
A I have someone who helps me with paperwork, yes.
Q What is their name please?
A That's my wife.
Q What is her name please?
A Cathy.
Q Does she have a middle name?
A Ann.
Q Is it Catherine Ann or Cathy Ann?
A No, Cathy.
Q Cathy with a K or with a C?
A C.
Q I'll ask this question, it may seem obvious, but do you live with Cathy?
A Yes.
Q How long has she worked in your business? All

along the way?
A All along.
Q You're looking at me and kind of nodding your head, but all along the way?
A All along the way.
Q Would she have knowledge as to where records would be kept regarding work that was done on Lake aircraft by --
A She might.
Q You said you might have some documentation regarding this. Where would those documents -- Are we talking paper documents?
A Typically paper.
Q Any of these documents stored in computer form, electronic form?
A Typically not. There's obviously some in a computer because we do use a computer, but our long-term records are not computer records.
Q Got it. Where would these paper documents be stored?
A Typically Bartow airport.
Q You have an office there?
A Yes.
MR. THOMAS: I want to take a quick break for only like 60 seconds, maybe two minutes.

(Off the record at 10:22 AM.)

(On the record at 10:28 AM.)

BY MR. THOMAS:

Q Mr. Shannon, we asked your attorney to provide to us documents in response to a request to produce that we served on some date. I'm not sure what the date was. It looks like it was -- These are the answers. We had responses on January 7th. I think the request went out beginning of December.

MS. SWARTZ: Mid November.

BY MR. THOMAS:

Q One of the categories of documents requested were documents related to the subject matter of the litigation. And you've indicated that you have documents available that are related to the installation of these kits on Lake aircraft?

A Yes.

Q In your possession?

A Yes.

Q Did you provide these documents to your attorney?

A No.

Q Were you aware that we had asked for documents related to the subject matter of the litigation?

A Who did you specifically ask for those

documents?

Q The request is to you as a party, but of course we had to submit that through your attorney.

A Please look at the document.

Q Are you saying that you are not in possession of these documents?

A No, I'm not saying that.

Q Why weren't the documents provided? Let me have that back please? I'll take the stickers off. This is the response, this is the response, not the original request.

A This is the response?

Q Uh-huh.

A Then I think what I need to see is the original request.

Q Okay. Well, tell me why they weren't provided please?

A You asked the wrong entity.

Q Who did we ask?

A I don't remember, but it wasn't me.

Q Okay. Then tell me, identify for me please, the entity who is in possession of these documents?

A Amphibians Plus, LLC.

Q You're saying that even though that is your company, that you have knowledge of the documents, and

you know where they're located, are you saying that they're not in your possession or control?

A No, I'm not. I'm saying you did not ask Amphibians Plus, LLC for the documents.

Q Oh. Well, that's -- Okay. Well, then let's ask this question: Let's go back to request number one since this is the game we're going to play.

Request number one is, "All communications to or from any party or non party related to the subject matter of the litigation."

Does Amphibians Plus have such documents that relate to communication to or from any party or non party relating to the litigation?

A There may be a few notes on that, but that's really sketchy.

Q What do you mean by "sketchy"?

A You said any communication. I don't log all phone calls or communications or conversations or whatever for --

Q Did you read the definition of communication that came with the request?

A Yes, I did.

Q You did?

A Yes.

Q Pretty clearly defined in there, wouldn't you

agree?

A I'm not questioning your definition of communication. I'm commenting on the amount of documentation we have regarding communication.

Q What is your comment on the amount of documentation?

A Very little.

Q Did you provide any of it?

A Did I provide any of it?

Q Yes.

A No.

Q Why?

A You didn't ask the right entity for any of the information.

Q Let's go to number two. "All documents evidencing that the patent at issue here, the '260 patent, is invalid or unenforceable."

A You made a statement, sir.

Q Does your company have documentation responsive to that request?

A Yes.

Q Did you provide it?

A No.

Q For the same reason as you stated a few minutes ago?

A You didn't ask the correct company.
Q Request number three, "For all affirmative defenses --
A For all of what?
Q Affirmations defense, these are defenses you've raised in your answer to the complaint. "Provide all documents providing a factual basis for raising an affirmative defense." These are the defenses of non infringement, et cetera. Does the company have such documentation?
A It may have some. I'm not an attorney, so I don't know what documents will accurately provide those defenses.
Q So I think what you're saying is -- Well, we'll just go through the rest of these. Request number four was the same request for all of the counterclaims that were raised in your answer, all of the documents that you have. The same answer for that, if the company had them?
A The company may have documents; but again, I'm not an attorney, so I wouldn't know what documents would apply to that.
Q Are there any other owners of your company other than you?
A No.

Q You're the sole owner of the LLC, it's a single member LLC; is that correct?
A Yes.
Q Member managed?
A Yes.
Q Up until about, correct me if I'm wrong, about 14 months or a year ago you were operating as a sole proprietor?
A Yes.
Q Doing business as, you were under a DBA, the same company name, but just it was DBA?
A Yes.
Q Was that a registered fictitious name?
A To my knowledge, yes.
Q Do you have an attorney who handles your corporate affairs?
A No.
Q Did you register your LLC personally yourself?
A Yes.
Q Through sunbiz.org?
A Yes.
Q Does the company maintain records that would reflect what you paid for kits whether Aerofab or Canadian in their file?
A Typically, yes.

Q Does that documentation exist in your company's file?
A I can't guarantee it because some of these documents you're asking for are a number of years old.
Q Have you looked for them?
A But typically they would be there.
Q Have you looked for them?
A I have not.
Q Does the Amphibian Plus, LLC records contain information regarding what you sold the kits for?
A Technically, no.
Q Why did you qualify it by saying technically?
A Because Amphibians, LLC has not sold any kits.
Q Let's back up then. Is there any documentation in the Amphibians Plus files regarding any sale of any kit for any reason by anyone at any time?
A Yes.
Q Have you looked for this documentation?
A No.
Q Have you personally communicated -- and when I say personally, whether yourself personally, or as an employee or owner of Amphibians Plus, LLC, when I say personally, I mean you with your own personal fingers, used e-mail communication to communicate about any aspect of the subject matter of this lawsuit with

anyone?

A Yes.

Q Is your attorney aware that you've communicated with others by e-mail concerning this lawsuit?

A You would have to ask the attorney.

Q Have you told him that you have?

A Have I told him that I have? I may have referred to e-mailing individuals regarding the content of the lawsuit.

Q Have you forwarded e-mails to him that were originally e-mail between you and someone else regarding the lawsuit that you then forwarded to the attorney?

A That's possible. I'm not going to guarantee it.

Q Would you agree that -- can I have that back -- would you agree that an e-mail between you and another individual regarding the subject matter of the lawsuit would fall under the definition of our request to you for copies of all communication regarding the lawsuit?

A Say that again please.

Q Would you agree that an e-mail between you and another individual would fall under the definition of communication as requested by our firm to you in the

request for production?

A It could. Again, I'm not an attorney.

Q But you have such e-mail, correct?

A If they're in hard copy, I have the potential of having them.

Q Why do you limit that to hard copy?

A Say again.

Q Why do you qualify that by saying, "if they're in hard copy"?

A I'm not gentle on computers.

Q Describe what you mean by you're not gentle on computers?

A I have physically damaged computers rendering them inoperative holding communications that I can't access.

Q Communications regarding the subject of the lawsuit?

A That's possible.

Q Describe the event you're talking about or if it's a plurality of events describe the events you're talking about.

A I have physically beat upon a computer rendering it inoperative in a moment of distress.

Q When was the last time this happened?

A I think I damaged a piece of equipment about

three weeks ago.

Q Describe the equipment please.

A That was just a keyboard and a mouse, so. But we're going back six or eight months, maybe a little more than that.

Q Was this a computer that you damaged six or months years ago, the CPU itself?

A Say again. It's a laptop, so yes.

Q The data on the hard drive in that laptop, did you recover the data?

A No.

Q Where is that laptop today?

A I don't know.

Q Was it your personal laptop or did it belong to your company?

A I'll say company because it stayed at the company.

Q You don't know where it is today?

A I'm not sure if I threw it away.

Q Is there anybody else who would know the answer to that question?

A Probably I'm the one. I'd just have to look in the office to see if it's still there. I kept the keyboard as an example to myself that I shouldn't do this.

Q Why did you destroy this computer?
A I was angry.
Q Why were you angry?
A To tell you truth, I don't remember.
Q It seems like a significant event to destroy a piece of equipment like that. You can't remember why you were angry?
A It could be something someone said. I don't remember the specific event, but the computer does.
Q Did you have a backup of the data that was on that hard drive?
A No.
Q Do you regularly back up your computer data?
A No.
Q What computer program do you use for e-mail? Let me back up and ask that a different way. What computer program did you use on that laptop for e-mail?
A I'm not sure if that's a good question. Via Internet Explorer I access AOL.com.
Q So you have an AOL e-mail account?
A Yes.
Q We would just normally call that web-based e-mail.
A I'm not a computer expert either.
Q What is your -- Do you have multiple e-mail

addresses?
A There are some, but the e-mail address I use is typically one e-mail address.
Q What is that e-mail address?
A HD Shannon at AOL.com.
Q How long have you that e-mail address?
A As long as I've had e-mail.
Q How long has that been?
A Fourteen, 15 years.
Q Okay. Did you replace that laptop with another computer?
A Yes.
Q Did you get a new laptop?
A Yes.
Q Have you used that laptop to e-mail any person about the subject matter of this lawsuit?
A Probably, yes.
Q And for that e-mail do you have hard copies of some or all of that e-mail?
A Perhaps some.
Q Why didn't you provide that to us in response to our request for production?
A The request for production asked for those communications from a specific entity. That specific entity was not me by that description.

Q You're saying that when the request was made to you personally that --

A The request was not made to me personally.

MR. THOMAS: Do we have the request here? This is the response.

MS. SWARTZ: Uh-huh.

MR. THOMAS: Do we have the request?

MS. SWARTZ: No.

BY MR. THOMAS:

Q Let's make sure that we're talking about -- Let's make sure we understand what entities you seem to be making a distinction between. There is you personally, correct, you are being personally sued in this lawsuit?

A That's correct.

Q Correct?

A I believe my name is on it.

Q When you say we did not ask the correct entity, who would be the correct entity?

A I guess me.

Q Then you're saying that we never asked you --

A No, you didn't.

Q -- for communication regarding the subject matter of this lawsuit?

A That's correct.

MR. YOUNG: Would you like to take a one-minute timeout so that you and I can have a discussion off the record?

MR. THOMAS: Sure.

(Off the record at 10:46 AM.)

(Back on the record at 10:51 AM.)

BY MR. THOMAS:

Q Going back to the destroyed computer, the laptop that you talked about --

A Uh-huh.

Q -- how long had you utilized that laptop for e-mail communications?

A A year, year and a half.

Q Did you have a computer prior to that laptop that you used for e-mail communications?

A Yes.

Q Was that also a laptop?

A No.

Q So it was a desk top computer?

A Yes.

Q PC or a Mac?

A PC.

Q Where did that computer physically reside?

A On my desk.

Q At your office or at your home?

A At my office.
Q Was that an asset of the company or personal asset?
A Company.
Q Where is that computer today?
A I don't know.
Q Did you back up the data from that computer?
A No.
Q How long had you had that computer?
A Probably about five years, six years.
Q Did you utilize that computer to access and communicate through your AOL e-mail account?
A Yes.
Q Did you print out any of the e-mail utilizing that computer relative to subject matters, the subject matter, of the lawsuit?
A That's possible.
Q Where would those printouts be?
A I have a legal box about that long with data relative to not this lawsuit but actions relative to the patent. Typically I would put them in that banker box.
Q And that banker box resides where please?
A At the office.
Q If I were to issue or our firm were to issue a request for production for the documents in that

banker's box, if we were to issue that to you personally, would you tell me that's not in your possession or control?

A No.

Q So you would produce those documents?

A Yes.

Q The documents that we received in response to our request, did they come from that box?

A I'm not sure what documents you received.

Q Did you provide those documents to your attorney, the banker box documents?

A He has been exposed to some of the documents in the banker box. I don't know what specifically was used in response to that request.

Q Who decided which documents in that banker box were responsive to our request, did you decide that?

A Not really because as stated earlier the request was not -- the request for production of documents did not name my company or me.

Q I think with the discussion we just had we can clarify the question a little bit. The improperly named company that request --

A Okay.

Q -- that was a subpoena that went to your company. Let's put that to the side for a minute.

A Okay.
Q Separate and apart from that we issued a request for production on you personally as a defendant in this lawsuit. We have your response to it right here.
A I don't -- Can we --
Q No, let's just go ahead and keep going.
A Excuse me, I can't consult with my attorney?
Q Actually in a deposition you cannot turn to your attorney for coaching. Just answer the questions honestly.
A It's not a matter of answering the questions honestly. It's the way I interpreted what I received.
Q If there's a problem with the way I'm asking the questions, we can work that out to clarify. That's what I was trying to say before.
A Okay.
Q There was a request for documents, part of the discovery in the lawsuit that went from our lawyer's firm to your attorney, I believe it was on the very same day we had the scheduling conference back in November, correct?
MS. SWARTZ: Within two days if not the same day.
BY MR. THOMAS:

Q That was to you personally, that request. We have your attorney's response here, and he did provide some documentation to us eventually. My question for you is: You mentioned a banker's box. Did you provide the banker's box materials to your attorney?

A No.

Q So he could respond to our request, not the subpoena that was improperly named, but our request for documents?

A No.

Q Has he had an opportunity to go through that box at your place, at your office?

A I'm going to say yes.

Q Is it fair to say that there are documents in that box, that banker box, that resides in your office that are related to the subject matter of the lawsuit?

A Yes.

Q And I think you told me a few minutes ago, in response to my question, that if we requested that from you personally as part of the lawsuit, that you would provide those documents to us?

A Yes.

Q My question is: Why didn't you do that in the beginning when we first asked for them?

A The request that I received, the sheet of

paper that said, I believe, it's production request or request to produce, or something like that at the top of the sheet, did not have me or my company on that sheet of paper. That sheet of paper was delivered via a subpoena, but that sheet of paper did not have me or my company on it.

Q That's the subpoena we're talking about, and we're not -- you're going back to the subpoena. And what we're saying is, let's put the subpoena to the side for a minute. There was another request made earlier for all documents made relative to the lawsuit?

A The only request I saw was that one made out, like I said, to another entity, and did not include me.

Q Okay. All right. Are you saying that before you saw that subpoena that had the company improperly named, before that, you did not know of any request for documents from you?

A That is correct.

Q That is the first time that you knew that you were being asked to produce documents?

A That is correct.

MR. THOMAS: When did the subpoena get served?

MS. SWARTZ: I couldn't tell you without looking. I can go check the records.

MR. THOMAS: Would you just check that? You

might want to just grab the pleading file.

(Pause in proceedings.)

BY MR. THOMAS:

Q Our records show that the subpoena that we're talking about that you say was where your company was misidentified was served on November 23rd. Does that sound about right, right around Thanksgiving?

A Possibly.

Q And just so that we get this out on the record, what was wrong with the naming of the company in that, do you recall? You said your company was improperly named, improperly identified?

A Yes.

Q How was it improperly identified?

A I could -- the document is probably in that banker's box, and I could pull it, and I could read it, but it was not me.

Q If the subpoena were addressed to Amphibians Plus, LLC, would that properly identify your company?

A Yes.

Q Now, you said that you had e-mailed others about the subject matter of the lawsuit, correct?

A Yes.

Q Using your AOL e-mail account?

A Yes.

Q With whom did you communicate via e-mail about the subject matter of this lawsuit?

A That's a relatively broad question. I can recall, and we're going to define subject matter as having anything to do with the lawsuit?

Q Related to the subject matter of the lawsuit, correct, the patent the modification, et cetera.

A Mark Rodstein, Elton Townsend, Mark Young. I can see his face, but I can't think of his name right now. It's possible some my customers, you know, in the communication of it. Possibly Ward House.

Q Any others you can recall?

A Say again?

Q Any others that you can recall?

A Not specifically.

Q Paul Furnee, did you communicate with him via e-mail regarding the subject of the lawsuit? Furnee is, I believe, F-U-R-N-E-E.

A It's possible. I have communicated with Mr. Furnee via e-mail, but I'm not positive that the subject of that is in there; but yes, let's include him for safety's sake.

Q Have you, since the time this complaint was served on you, have you deleted any e-mail from your AOL account that addressed the subject matter of this

lawsuit?

A It's possible.

Q Were you warned at any time to not delete such e-mail because it would be potential evidence in the case?

A No.

Q Do you normally let e-mail accumulate in your AOL account? In other words, after you've received an e-mail on a particular subject, do you read it and just let it set there, or do have a routine habit of deleting e-mail?

A Some stay. Some I delete.

Q Let's go one by one through these. Mark Rodstein, who is he please?

A Mark is a customer. Mark is the -- I'm going to use the word president or principal of the Lake Amphibian Flyers Club.

Q Where does he live?

A Broadly, Florida. I can't think of the town right now. He used to be in Boca, but he has since moved a relatively short distance.

Q He's a Lake aircraft owner?

A Yes.

Q How long has he been a Lake aircraft owner to your knowledge?

A Sixteen, 18 years.
Q Does he have a kit installed on his airplane?
A Yes.
Q Do you know if it's a Canadian kit or Aerofab kit?
A I don't know.
Q Did you install the kit on his airplane?
A I probably did.
Q Do you recall when you would have done that?
A Probably from the issuance of the AD to a period of one to two years subsequent.
Q Is it possible that there are records maintained by either you or by your company that would identify the source of the kit?
A Yes.
Q And those records would be in the banker box?
A No.
Q But they would be located somewhere in the office there in Bartow?
A Somewhere in the office, typically.
Q What was the nature of your communication with Mr. Rodstein regarding the lawsuit, just generalize please?
A Status of the lawsuit.
Q Did you discuss litigation strategy with Mr.

Rodstein?

A You're asking -- You're using a term that I don't fully understand, that term being, "litigation strategy."

Q I'll rephrase. Did you discuss with him actions that he or you felt should be taken during the course of the lawsuit?

A Again, you're asking another level. You said actions that should be taken. I discussed with him actions that I was taking.

Q Which actions did you discuss with him?

A Basically that I planned to I'm going to say contend the lawsuit.

Q Did you discuss theories of defense?

A That's possible, but only on a very non-lawyer level of discussion. And I just thought of another name for the e-mail list.

Q Who is that please?

A Harry Lawrence.

Q Going back to Mr. Rodstein, did he express opinions to you as to the validity of the lawsuit?

A No.

Q Did you express opinions to him as to the validity of the lawsuit?

A Yes.

Q What was that opinion or those opinions?
A I don't feel the patent is valid.
Q Did he express any opinions to you as to the validity of the patent?
A I don't recall.
Q Did you discuss with him location of documents relative to the lawsuit?
A No.
Q Have you spoken with him on the telephone about this lawsuit?
A Yes.
Q When was the last time you spoke with him?
A Perhaps three weeks ago.
Q What was the nature of that discussion please?
A An oil filter he had sent me for examination.
Q Have you spoken to him on the phone about the lawsuit?
A There's a good chance, yes.
Q Has Mr. Rodstein is it mister or doctor, by the way?
A Mister, to my knowledge.
Q Do you know what his occupation is?
A No.
Q If he has one? Has he contributed financially to your defense of this lawsuit?

A Yes.
Q How much?
A I don't know. Somewhere there's a list.
Q Somewhere there's a list?
A Yeah.
Q So more than one person has contributed to your defense in this lawsuit?
A Yes.
Q How many individuals?
A Between one and 200.
Q Between one and 200 people?
A Individuals.
Q How many corporate entities have contributed to your defense?
A I don't know.
Q Who maintains the list of the identities of the individuals who have contributed to your defense?
A My office.
Q Well, your office, I asked you who, so your office is not a response.
A It could be the part-time girl or my administrative assistant Cathy.
Q Who is also your wife?
A Who is also my wife.
Q Who is the part-time girl?

A My daughter-in-law.
Q What is her name please?
A Crystal.
Q What is her full name please?
A Crystal Shannon.
Q Does she reside there in Bartow?
A No.
Q Where does she live?
A Winter Haven.
Q What is her address?
A I would have to refer to my phone.
Q You can refer to your phone if you have it with you.
A I do.
Q Do you have the address there on your phone?
A I had it turned off.
Q Oh, you're waiting for it to boot up?
A I'm waiting for it to boot.
Q While we're waiting for your phone to boot, of these 100 to 200 individuals who have contributed to your defense, do you communicate with these individuals regularly?
A Not regularly.
Q Do you give them a status of the lawsuit, at any point along the way have you given them the status

of the lawsuit?

A Actually, I'm going to say I need to amend something that I said because the contributors to this particular lawsuit probably are not that numerous. They would be less than 50 is my estimation. Okay?

Q Okay.

A But we've had contributions for other actions regarding this issue.

Q You mean the other lawsuits that have been filed by Enpat here in Florida?

A That as well as the reexamination.

Q The reexamination. So is it fair to say this 100 to 200 individuals you're talking about, are they all Lake aircraft owners?

A Maybe not all, but the vast majority.

Q So is it fair to say they're acting as a group in the reexamination and the defense of these lawsuits?

A It's not my prerogative to say that they are acting as a group.

Q I think what you said was, and if this mischaracterizes your testimony, please stop me, there are approximately one to 200 people who have contributed to either the reexamination or the current round of lawsuits that have been filed by Enpat; is that correct?

A Yes.

Q Yours being the chief among them you said with something less than 50 had contributed to your defense personally; is that correct?

A Correct.

Q Do you have the address there for Crystal?

A We're working on that. 330 Avenue B, Northeast, Winter Haven, Florida 33881.

Q Thank you. What is the total amount of dollars that has been contributed by others to your defense?

A This is an estimate because I haven't reviewed the numbers for a total.

Q I understand.

A Seventy-five, 85,000.

Q Why would these individuals contribute to your defense, what is in it for them?

A You're asking me to make a decision regarding other people's opinions.

Q No, I'm asking you to tell me why in your opinion they would do this?

A I guess they want me to succeed in the defense of the patent of the suit.

Q Is that because they feel at some point they may be a subject of a lawsuit as well?

A That could be, but I don't know if that's

their motivation.

Q Is that because the issues in this lawsuit would be virtually identical in the issue in any lawsuit filed against them?

A It could be.

Q Do you think they see you as typical of being -- that the issues that you face here are typical of the issues they would face in a lawsuit?

A It's possible that they do.

Q Over this patent?

A It's possible.

Q Is there, among the group that has contributed to your defense, is there one among them who is a leader of sorts?

A No. Well, most of these people, as we mentioned earlier, are Lake owners. Maybe not all, but most.

Q Have these individuals not only contributed money, but have they contributed their thoughts and opinions as to how the lawsuit should be conducted?

A There have been comments, yeah, do this, do that, and so forth, but that's, let's call it idle conversation. I have not relied on that group for legal counsel.

Q When they communicate with you, is that

primarily through e-mail?

A No. Checks come in the mail.

Q Checks come in the mail?

A Yes.

Q But other than, you know, receiving checks through the mail when you have communication with them, typically how is that done?

A I'm going to say an outbound e-mail by me or a verbal communication when people are gathered.

Q Have there been gatherings to discuss the lawsuit?

A No, not specific gatherings to discuss this lawsuit.

Q Bad question, as you're pointing out and smiling. Has the lawsuit been discussed during a gathering of these individuals?

A Yes, it has.

Q When was the last time that happened?

A I'd have to look. But it's going to be, I think, it was the last Lake Amphibian Flyers Club gathering at River Ranch, Florida. I want to say March, but don't hold me to it because it's been a moving target here lately.

Q March of 2010?

A That may be correct. It may be in here. I'm

not sure. It depends on how far back it goes.
Q Sure, if you can find it.
A I don't see it.
Q Approximately March of 2010?
A Approximately March.
Q How many people were there at that gathering at River Ranch in March?
A Approximately 150.
Q All Lake aircraft owners?
A The vast majority.
Q So this was a fly-in of types?
A Yes.
Q And what was the nature of the discussions that occurred regarding this -- This lawsuit didn't exist at this time.
A At that time there was a status report on the reexamination.
Q What was the status of the re-exam at that time, do you recall?
A Let's wait. The counsel I had at that time said wait.
Q So as a group the Lake aircraft owners at that were anticipating the outcome of the re-exam, waiting?
A Yes. Actually, no. I don't think the group truly understood the status of the reexamination.

Q Well, what did they misunderstand?
A Basically they thought it was over.
Q When you say it was over, you mean they thought the patent had been invalidated?
A The status of the patent at that point in time appeared that it was invalid.
Q This was prior to the appeal of the re-exam, is that correct?
A Say again?
Q That's okay. I'll withdraw the question.
A Okay.
Q Prior to that date, that March of 2010 fly-in date, was the subject of the lawsuit or the reexamination, because at that time the lawsuit didn't exist, was it discussed among the aircraft owners, the Lake aircraft owners as a group?
A You said of the group or as the group?
Q When the group of aircraft owners convened themselves --
A There was a point of discussion of the reexamination prior to that fly-in as well.
Q Generally since the re-exam was filed because you told me that a number of these people contributed to the filing of the re-exam --
A Correct.

Q -- so from the date the re-exam was filed was the reexamination discussed between the Lake aircraft owners when they met as a group?

A Yes.

Q Now, the reexamination was filed, my records show, July 15th, 2002, does that sound about right?

A It sounds about right.

Q So going back as far as mid 2002, is it fair to say that the Lake aircraft owners operated as a group with respect to defending themselves against the enforcement of this patent?

A No.

Q Why is it not fair to say that?

A Not everybody contributed.

Q Not everybody contributed, but a number of the aircraft owners did operate as a group?

MR. YOUNG: I'm going to object because it calls for speculation about what the --

MR. THOMAS: I understand, but it's still discoverable.

A Say again?

BY MR. THOMAS:

Q Your opinion is still discoverable. The speculation is still discoverable.

A Okay.

Q Let me go back and make sure I have the answer to the question on the record. Going back as far as mid 2002, there was a group of Lake aircraft owners who did operate as a group, maybe a subset of the total, in defending themselves against the enforcement of this patent; correct?

A Yes.

Q The general feeling among the Lake aircraft owners as to whether this patent should be enforceable is what please?

A Extortion.

Q Is that pretty much a universal opinion? I realize you can't speak for everyone.

A A majority opinion.

Q A great majority, fair to say?

A A majority opinion.

Q Okay. We're going to move on to Elton Townsend. Describe for me who is Elton Townsend please?

A To my knowledge, Elton Townsend is the principal of Lake Central Air Services located in Muscogee, Ontario, a long-time Lake sales and service facility.

Q Is he a mechanic, FAA certified mechanic?

A No.

Q He's not an IA either?

A No.
Q What have been the nature of your discussions with Mr. Townsend regarding the lawsuit?
A We have mutually worked towards terms of -- mutually worked towards the determination of invalidity of the patent.
Q So he's assisted in this endeavor?
A Yes.
Q To invalidate the patent?
A Yes.
Q How long has he participated with you in attempting to invalidate the patent?
A When was the patent issued?
Q December 11, 2001.
A December 11, 2001.
Q So you've had knowledge of this patent since the date it was issued, is that correct?
A Yes, maybe not the exact day.
Q But close enough?
A Yes.
Q Is that generally true of the Lake aircraft owner community?
A Speculation. I'd say within a year's frame, yes, but to the day, not necessarily.
Q Is Mr. Townsend an aircraft owner?

A Yes.
Q Do you know what model he owns?
A I think he owns a LA-4.
Q Does he have a kit installed on that aircraft?
A I would think he does, yes.
Q Any idea which kit it would be?
A I'm pretty sure it's the Canadian kit.
Q Who would have installed that kit, to the best of your knowledge?
A Lake Central Air Services.
Q His company?
A His company.
Q So he has an FAA certified mechanic?
A No, he does not.
Q How would he install a kit or have the kit installed not being --
A He's in Canada, Muscogee, Ontario.
Q So it would be the Canadian authority who would --
A That's affirmative.
Q Does he ever fly his aircraft into the United States, to your knowledge, or has he ever, to your knowledge?
A To my knowledge, no.
Q Did he participate in the March 2010 fly-in at

River Ranch?

A No.

Q Are there other fly-ins throughout the year in other places in the country, other Lake Aircraft fly-ins?

A There are other Lake Aircraft fly-ins.

Q Do they happen periodically on a regular basis?

A Typically annually.

Q Where are those places?

A Two primarily, one at River Ranch -- or let's rephrase that Florida because there's been other locations. And Killarney, Ontario.

Q Now, you mentioned a company with relation to Mr. Townsend. I didn't write it down, but does Mr. Townsend own that company?

A Yes, to the best of my knowledge.

Q So if we just refer to that as Mr. Townsend's company would that clearly identify it for purposes --

A The company is Lake Central Air Services.

Q Does Lake Central Air Services perform, or to your knowledge, have they performed the installation of these kits, whatever the source, on any Lake Aircraft on any other Lake Aircraft other than Mr. Townsend's?

A Yes.

Q How many roughly speaking?
A I don't know.
Q Is it possible that US owners would have flown their airplanes to Mr. Townsend's company to have these kits installed and fly them back into the country?
A Yes.
Q If they do that, is it required that Mr. Townsend's company or he personally meet the FAA certifications or is it required that they meet the Canadian certifications?
A It depends on the nature of the repair. There is some bilateral between the two countries relative to the alteration or repair of the aircraft.
Q Does the bilateral agreement apply to the AD and the installation of the kit in response to the AD?
A Yes.
Q So Mr. Townsend doesn't need to have an FAA certification to install these kits on US owned airplanes?
A That is correct.
Q Is Mr. Townsend's company still in business up there in Canada?
A Yes.
Q Now, I'm going to move on. You had mentioned communication by e-mail with Mark Young. Is that your

attorney here today?
A Yes.
Q You mentioned Ward House. Who is Ward House please?
A A Lake owner.
Q Live in Florida?
A No.
Q Where does he live?
A I want to say Georgia.
Q Did he have a kit installed on his airplane?
A Yes.
Q Did you install it?
A I don't think so. I'm not positive, but I don't think I did.
Q When you say you, I mean you or your company?
A I don't think we did that one. I can't guarantee it, but I don't think we did that particular kit.
Q So you're not sure? Okay. Do you have records? When I say you again, are there records that either you have possession of or your company has possession of that would indicate whether or not you did install a kit on Mr. House's airplane?
A Yes.
Q Those records would be in your Bartow

facility?
A Yes.
Q What was the nature of your communication with Mr. House regarding the subject matter of the lawsuit?
A An alternate to the '260 patent kit.
Q What do you mean by alternate to the '260 patent kit?
A A non-infringing kit.
Q Is there such a kit?
A Not yet.
Q So you're talking about coming up with a non-infringing kit, developing one?
A It's a possibility we're discussing.
Q When was the last time you spoke with Mr. House regarding this topic?
A Yesterday or the day before.
Q Was that by telephone or e-mail?
A E-mail.
Q What specifically would the kit -- Let me back up. Strike that.
What features of this non-infringing kit, in your opinion, would make it non infringing?
A Qualifying that I am not a patent attorney, we're investigating the possibility of a non-angled or non-end-angled kit.

Q We're talking about the five or six degree angle that's at the end of the --

A Let's call it a non-angled end board to the kit.

Q And in your opinion that would make such a kit, if it were not angled, it would take it outside the scope of the claims of the '260 patent?

A I think that's possible.

Q Have you engaged a patent attorney to give you an opinion on that?

A Not yet.

Q Have you produced any of those kits yet?

A No.

Q Would that kit -- and I'm going to ask a layman's question, so we may stumble a bit here -- would that kit fall within the FAA approval that exists for the Aerofab kit or would you have to seek FAA approval of such a non-angled kit?

A FAA approval would have to be sought.

Q Do you have any idea what that would cost?

A No.

Q Is there some engineering and analysis that would have to go along with that approval?

A Yes.

Q Have you spoken with any engineers to provide

that analysis to you?
A Yes.
Q Who have you spoken with please?
A Ward House.
Q He's an engineer?
A Yes.
Q He's qualified to do the analysis then?
A No.
Q Have you spoken to anyone who's qualified to produce the analysis to satisfy the FAA requirements for the non-angled kit?
A No.
Q Here's a question then, why at this point in time would it be in anyone's interest to produce a non-infringing kit if all of the aircraft have already been modified?
A All the aircraft have not been modified.
Q Do you have knowledge as to how many of the aircraft have been modified?
A How many aircraft have what?
Q How many of the aircraft remain to be modified?
A No.
Q How do you know that all of the aircraft have not been modified?

A I have possession of a non-modified aircraft.
Q These are non-flying aircraft?
A Yes.
Q So they're not airworthy?
A That's correct.
Q How many non-airworthy Lake aircraft are there out there that would be in need of such a kit?
A I don't know.
Q Do you have a speculation?
A With access to the NPRM that may be determined.
Q What is the NPRM please?
A Notice of Proposed Rulemaking.
Q How often, roughly speaking, do you communicate with Mr. House about this non-infringing kit?
A Once a month.
Q By the way, is it Mr. House or Doctor House? I don't know.
A Mister.
Q And for what period of time have you been communicating with him roughly once a month?
A Beyond the litigation issue, a number of years. Relative to the litigation issue probably -- actually the service of this suit is what motivated.

Q Did you know Mr. House prior to being served the lawsuit?
A Yes.
Q Did he contribute to your defense?
A I'm not sure.
Q Did he contribute to the reexamination?
A I'm not sure. It's possible.
Q Moving on. Harry Lawrence, you mentioned Harry Lawrence. Who is Harry Lawrence?
A Harry Lawrence is a Lake owner.
Q Live in Florida?
A Yes.
Q Where in Florida please?
A Broadly Orlando.
Q Somewhere in the Central Florida area?
A Central Florida.
Q And do you know what model Lake Mr. Lawrence owns?
A LA-4-200.
Q Does his aircraft have a kit installed?
A Say again?
Q Does his aircraft have a kit installed?
A Yes.
Q Do you know which kit it is, the Aerofab, Canadian or some other kit?

A Yes.
Q Which kit is it?
A The Canadian kit.
Q So he has a Canadian kit? Okay. When was the last time you spoke with Mr. Lawrence about this lawsuit, any of the subject matter of this lawsuit? Let me ask the question a different way: When was the last time you communicated with Mr. Lawrence regarding the nature of the lawsuit?
A Potentially two months.
Q What was the nature of that discussion?
A I want to say it was defense strategy.
Q Do you recall exactly what about the defense strategy you discussed, communicated about?
A No.
Q Was that via e-mail?
A I don't think so. Harry and I have e-mailed because I've also e-mailed with Harry relative to aircraft maintenance issues. They have been interspersed, but most of the strategy discussion was verbal.
Q Okay. Has Mr. Lawrence contributed either to the re-exam or to your defense or both?
A He may have, but I don't actually recall if he is one of the contributors.

Q How did -- you mentioned it's a number of people who have contributed, we'll just limit it to your defense -- how did the word get out to the aircraft owners that they should contribute to your defense, I mean, how did this come about?

A You speak to a few, you e-mail a few, it multiplies. There's a bulletin board Lake specific.

Q Were there calls to contribute to your defense going out on the bulletin board?

A There could have been. I'm a very rare participant on the bulletin board.

Q How does one get access to the bulletin board?

A You have to be a Lake Amphibian Flyers Club member.

Q Someone in the flyers club would give then a person access to the bulletin board?

A Yes.

Q I assume it's password controlled?

A Yes.

Q You have to have a password to get into it?

A Correct.

Q Do you know how many members there are in the Lake Amphibian Flyers Club?

A No.

Q Any rough idea?

A Two, three, 400. I'm not sure.
Q Besides the bulletin board and e-mail, are there any other written forms of communication that you've had with anyone else about the nature of this lawsuit?
A I'm trying to recall if I've written any letters about it, and I may have, but . . .
Q Would you have copies of those letters if you had written them?
A If I had, I typically would retain a copy.
Q Would those be at the Bartow facility or at your home?
A Probably the Bartow facility.
Q Would you consider those to be in your possession and control?
A Yeah.
Q Mr. Furnee, we mentioned Mr. Furnee. Have you communicated with Mr. Furnee about the issues in this lawsuit at any time?
A Yes.
Q When did you last communicate with Mr. Furnee about the issues in this lawsuit?
A I think I visited Mr. Furnee six, eight weeks ago.
Q At that time did you discuss the lawsuit then?

A In casual ways, yes.
Q What was the nature of that discussion please?
A I believe his words also used the word extortion.
Q So he thinks the lawsuit is extortion?
A No.
Q He thinks enforcing the patent is extortion?
A Yes.
Q Who is Paul Furnee?
A Paul Furnee.
Q Does he have an occupation?
A I'm sure he does, yes.
Q You don't know what he does for a living?
A I'm not sure. Sometimes visible means of support is not evident. Paul is associated in some way with a company called Aircraft Innovation and Repair.
Q What does Aircraft Innovation and Repair do?
A They may repair aircraft.
Q Including Lake aircraft?
A Including Lake aircraft.
Q Has Paul Furnee installed kits on these airplanes, on Lake aircraft, in response to the AD, to your knowledge?
A We have to define install. Mr. Furnee is not a certificated mechanic. Perhaps Aircraft Innovation

and Repair can install the kit, but it has to be returned to service by someone certified.

Q Such as yourself?

A Such as myself.

Q They would have to have somebody come out and inspect the airplane before it could return to service, is that correct?

A In a broad sense of summary that doesn't exactly summarize the regulations, but yes.

Q Tell me exactly what would have to happen if Mr. Furnee went to install a kit on an airplane.

A Work performed on an aircraft has to be done by or under the supervision of a mechanic.

Q Okay.

A Certain work done within that scope has to be returned to service by an IA.

Q Okay. For this particular work that's covered under this AD, does that have to be returned to service by an AI?

A No.

Q So a --

A I'm saying it's not mandatory depending on the kit.

Q Is there a distinction in the kits that --

A Yes.

Q -- would require it for one kit and not for another?
A Yes.
Q What is that distinction?
A Supplemental type certificate.
Q What does that mean?
A It typically means an approved change to the original type certificate of the airplane, i.e., supplemental type certificate.
Q Just so that I'm clear because again I'm a layperson.
A I understand. I'll try to keep you from falling.
Q Thank you. If one goes to install an Aerofab kit on a Lake aircraft pursuant to the AD, is an STC, a supplemental type certificate, required in that instance?
A No.
Q Why?
A That kit was produced by the manufacturer of the airplane and typically requires, I'm going to say, a logbook entry by a certificated mechanic. At least that's my interpretation of the regulations relative to that particular part and kit.
Q To be clear, again this falls under the AD, if

a certificated mechanic installs an Aerofab kit, that certificated mechanic can sign off on the logbook, and there's nothing further that needs to be done as far as filing an STC? If that's the right way to say it.

A That would be my opinion, yes.

Q Now differentiate what happens when a non-Aerofab kit is installed on an airplane.

A The non-Aerofab kit, let's rephrase it, the Canadian kit comes with an STC, a supplemental type certificate, providing the eligibility of the installation of that kit on aircraft covered under the AD.

Q Okay. And it comes with that STC because the Canadian company sought approval for the STC some time ago; is that correct? Or it acquired the STC some time ago?

A Backing up a little bit. A mechanic can do anything he cares to do to an aircraft so long as it's done in accordance with approved or acceptable data. Okay? Factory kit and documentation in the AD creates the approval basis for installation of that kit on a certificated airplane.

The Canadian kit, the documentation of that kit, is a supplemental type certificate, which becomes the approved, in this case, the approved data to install

it on a type certificate airplane.

Q Okay.

A And it has to be a United States STC.

Q Okay. So that's -- Okay, got it. So can a certificated mechanic install the Canadian kit?

A Yes.

Q And return the airplane to service?

A No.

Q How does the airplane return to service once he's installed the Canadian kit?

A A document typically called Form 337 is executed, and then an IA determines conformance of the installation in accordance with the STC.

Q What happens with that 337?

A A copy goes to the airplane. A copy goes to the FAA.

Q When you say it goes to the airplane, does that mean it goes to the logbook, or the aircraft?

A In some manner, flight manual, logbook, but aircraft records.

Q Is it true that the 337 does not always make its way to the FAA records?

A I would say yes.

Q Any idea how often that happens?

A No.

Q But there are some airplanes out there flying around which have a Canadian kit, possibly, which do not have a 377 on record at the FAA?

A It's possible.

Q In your experience, when you've had opportunity, if you have had, to look at records over the years, just in general, have you known instances where this situation has occurred where a 337 should have been filed with the FAA, but for one reason or another either didn't get filed or was maybe misplaced?

A I have seen that occur.

Q Okay. Thank you. A question about annual inspections. If you're the owner of an airplane, you have a logbook, is it required -- are annual inspections required, let's limit this to Lake aircraft, are they required by the FAA for that plane to remain airworthy?

A Yes.

Q Who is qualified to do those inspections? Do you have to be an IA to do that?

A Yes.

Q As an IA when you look at that airplane, do you also review the logbook for the airplane?

A Typically, yes.

Q As an IA do you look at the FAA records to see which ADs would apply to that particular airplane either

before or during the inspection process?

A Typically, yes.

Q Is it the IA's job to ensure that the ADs have been complied with?

A No.

Q Is it anybody's job to make sure the --

A Yes.

Q Whose job is it?

A Technically it is the owner's responsibility to know the status of the ADs. In reality the IA, shall we say, helps the owner create that status.

Q Is it fair to say that most of these owners have other occupations and may be distracted to the point where they may not be aware of all the ADs that apply to their airplane?

A Yes.

Q So it's really the IA who has superior knowledge regarding which ADs apply?

A Yes.

Q So you're providing guidance as an IA to an owner then; is that correct?

A That's correct.

Q Which ADs apply, and then which ones have been complied with?

A Correct.

Q How do you ensure that an AD has been complied with as an inspector?

A You can use the logbooks, previous maintenance entries. You can use previous AD lists if they are documented properly. You can use physical inspection of the aircraft.

Q Okay. Is it fair to say that inspection of the aircraft, an inspection of the logbooks, collectively,is a superior method of ensuring that the AD has been complied with as compared to reviewing 337s and the FAA records?

A Yes.

Q Thank you. You mentioned an AD list a minute ago.

A Yes.

Q What is an AD list?

A The regulations, and what I'm referring to is what's called Federal Aviation Regulations FARs, I believe the wording loosely says an owner has to have a status of the ADs that could affect his airplane. And to do that it's typically put in list of tabulation.

Q It's listed for the owner's convenience so he can look at his aircraft type and see which ADs apply?

A It's listed for that individual airplane what ADs apply.

Q So there's a record that's an FAA maintained record?

A No.

Q That's his own maintained record?

A Yes.

Q Once you've inspected an airplane and ensured compliance with an AD, do you make a notation in the logbook so that next year when you, say you go to inspect the same airplane on the annual inspection, you don't cover the same ground, and then have to go back again and ensure compliance with an AD you already ensured compliance with last year?

A That list can be very handy.

Q Is it a requirement -- Well, let me back up and lay a predicate. When the AD is complied with for one of these aircraft, a logbook entry is required; is that correct?

A Yes.

Q Does that logbook entry necessarily, should it -- rephrase -- should that logbook entry include the identification of the source of the kit?

A It should.

Q Thank you. We've mentioned the Aerofab kit today, and we've mentioned the Canadian kit, the JCM kit, for which there was a supplemental type