IN THE CIRCUIT COURT OF THE SEVENTH JUDICIAL CIRCUIT IN AND FOR VOLUSIA COUNTY, FLORIDA

JOHN CHARLES CAPRA, as Administrator of the Estate of ZACHARY MICHAEL CAPRA, Deceased

Plaintiff,

v.	CASE NO:
	CIVIL DIVISION
PIPER AIRCRAFT, INC.,	
Defendant.	
	/

COMPLAINT FOR DAMAGES AND DEMAND FOR JURY TRIAL

The Parties

- 1. This is a civil action against Piper Aircraft, Inc., brought by John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the Estate and on behalf of the survivors for wrongful death under the Florida Wrongful Death Act, §§ 786.16 21, Fla. Stat., whose damages exceed \$15,000.00.
- 2. On April 4, 2018, Zachary Michael Capra, decedent, was a resident of Florida, with an address of 3400 Yorktown, #5702, Port Orange, Florida, 32129.
- 3. John Charles Capra is the duly appointed, qualified, and acting Administrator of the Estate of their late son, Zachary, aged 25, who was tragically killed on April 4, 2018 in Daytona Beach, Florida, when the wing of the aircraft he was piloting separated; John Charles Capra's appointment was entered on August 9, 2018, by the Probate Division of the Circuit Court of Volusia County, Florida.
- 4. Plaintiff is the proper party to bring this action for Wrongful Death on behalf of the Decedent's Estate, survivors and potential beneficiaries.

- 5. Zachary Michael Capra's statutory survivors include John Capra (father), Janet Capra (mother), Candice Martinez (sister), and Jennifer Bloom (half-sister).
- 6. The defendant, Piper Aircraft, Inc. ("Piper"), is a corporation organized and existing under the laws of the State of Delaware, whose principal place of business is 2926 Piper Drive, Vero Beach, Florida 32960, and its registered agent is located at that location.

Jurisdiction and Venue

- 7. This Court has in personam jurisdiction over Piper pursuant to § 47.051, Fla. Stat., because Piper conducts its business within the State of Florida, thereby availing itself to the business opportunities here, advertising the availability of parts and information, shipping parts and literature into the state, and receiving money from those businesses in this state who order goods, services, and parts, and pay for them. In addition, Piper's principal place of business is in Florida.
- 8. Venue is proper in Volusia County, Florida, pursuant to § 47.011, Fla. Stat., because the causes of action alleged herein accrued in Volusia County, Florida.

Background of This Lawsuit

- 9. Embry-Riddle Aeronautical University ("Embry-Riddle") is focused on aviation education and preparation for aviation occupations, and in that connection, operates a flight school so that students may earn their pilots' certificates from the basic private pilot up to and including the Airline Transport Pilot, single and multi- engine land and instrument ratings.
- 10. Embry-Riddle selected certain single engine aircraft manufactured by Piper in Florida, where it has its principal place of business in Vero Beach, Florida.
- 11. One of those aircraft was the PA-28R-201, a single engine, 4 place aircraft with retractable landing gear ("the aircraft").

- 12. The aircraft had an FAA registration number of N106ER and was from new, owned, operated and maintained by Embry-Riddle in its flight school.
 - 13. The aircraft was manufactured by Piper in 2007 in Vero Beach, Florida.
- 14. The aircraft was required to be maintained by the FAA in accordance with the manufacturer's written instructions for continuing airworthiness and to be inspected periodically each 100 hours of use and annually.
- 15. Due to its use in the flight school, the aircraft was flown extensively by new pilots as well as experienced pilots, and as a result it had accumulated some 7,500 hours as an instructional aircraft while in the possession of Embry-Riddle.
- 16. This included thousands of landings by students of varying capability and hours as pilots, as well as thousands of hours of flights at low levels in turbulent flight conditions.
- 17. The training environment in Florida, well known to Piper, is particularly demanding because the weather is conducive to the rapid development of cumulus clouds (puffy white clouds) which, whether flown into them or below them, generate significant and continuous moderate turbulence.
- 18. Piper, because of its location in Florida, was more knowledgeable than any airplane manufacturer in America about the risks attendant to continuous operations in this hostile environment, not only because of the sheer volume of flight school operations, but also because of the number of hard landings that the aircraft, and others in its fleet, experienced on a regular basis.
- 19. Embry-Riddle, as part of its curriculum and flight school operations, established and operated a maintenance facility to provide both hands-on training and maintenance to its flight school aircraft.

- 20. The aircraft was inspected and maintained by that facility exclusively in strict accordance with the continuing airworthiness instructions of Piper.
- 21. The obligations of the maintenance facility were to follow the continuing airworthiness instructions of Piper, and because of the harsh operating environment, to take special pains and precautions to ensure that the inspections were detailed, complete and thorough, and carefully supervised and inspected by qualified, well-trained and disciplined aircraft and powerplant mechanics.
- 22. The aircraft had suffered no less than seven separate "hard landing" reports each of which required a careful and Piper-specified hard landing inspection.
- 23. In addition, Piper's inspection sheets and instructions required periodic, careful, deliberate, and thorough inspections every 100 hours and annually of wing attachment hardware including spar caps, attachment bolts and wing skins.
- 24. These inspections were especially critical because of both the history of this model aircraft of corrosion in the area of the wing attachment hardware but also wing separations due to operations in harsh environments similar to those in which Embry-Riddle operated the aircraft.
- 25. The maintenance logs of the aircraft reveal that Embry-Riddle made written entries consistent with compliance with both the hard landing inspections and periodic wing attachment inspections.
- 26. In each and every instance, the logbooks reveal a sign off by an aircraft and powerplant mechanic or a person with Inspection Authorization, including immediately prior to this accident, that the aircraft met the continuing airworthiness requirements, and was in compliance with the Federal Aviation Regulations in every respect.

- 27. On April 4, 2018, Zachary Michael Capra, a senior at Embry-Riddle embarked on his Commercial Pilot check ride with an Embry-Riddle selected FAA Designated Pilot Examiner.
- 28. A preflight examination was conducted in accordance with the requirements of the Pilot Operating Handbook ("POH"), and the student, Capra, and Designated Examiner commenced the check ride.
- 29. As the aircraft commenced its climb, the left wing suddenly fell off the aircraft, without which there was no ability to control the aircraft and it crashed to the ground killing both aboard.
- 30. The horror and fear of impending death for pilots from an in-flight breakup of their aircraft cannot be overstated as it is a pilot's worst nightmare come true.
- 31. Piper Aircraft Corporation designed the PA-28R accident aircraft and built serial number 2844137 in 2007, and was responsible as Type Certificate Holder for the Continuing Airworthiness Instructions for that aircraft model.
- 32. As the successor in interest to the legacy Piper Aircraft Corporation, Piper Aircraft, Inc. obtained all of the records, history, documents, FAA communications, accident history and corporate knowledge for the PA-28 series of aircraft and the PA-28R.
- 33. Part of that corporate knowledge was an accident in 1987 involving the wing off in flight of a pipeline patrol airplane killing the pilot.
- 34. As a result of the investigation of that crash by public authorities including the FAA and the NTSB, an Airworthiness Directive ("AD") was issued which required inter alia, the classification of Piper PA-28 aircraft into categories selected by Piper, which based on use and the conditions of such use, would or likely result in structural failure which in virtually every case results in death to the occupants of the aircraft.

- 35. The cause of the 1987 crash was a fatigue crack emanating from a bolt in the wing attachment fitting which remained undetected by maintenance personnel during inspections in accordance with the Continuing Airworthiness instructions of Piper.
- 36. The 1987 crash aircraft had accumulated some 7,500 flight hours at the time of the crash.
- 37. Inspections conducted of about 500 Piper aircraft subsequent to the AD resulted in the finding of two aircraft—in addition to the 1987 accident aircraft—which exhibited the same kind of fatigue cracks in the wing.
- 38. Piper took it upon itself to lobby the FAA to withdraw the Airworthiness Directive, which the FAA did, making the unilateral decision to risk the lives of every pilot and aircraft owner and accepting without notice or a vote that some owners and pilots would inevitably be killed as a result of high time aircraft fatigue wing failures.
- 39. For years prior to 1987, Piper knew that more than a hundred PA-28 aircraft had suffered in-flight structural failures resulting in the loss of life of hundreds of occupants.
- 40. Armed with that corporate knowledge of the flaws in its PA-28 aircraft which had killed so many, Piper nonetheless persisted in its public persona to deny the existence of a problem, rather blaming the pilots in each and every instance of structural failure.
- 41. Armed with the actual knowledge that failure to establish non-destructive inspection techniques could and would inevitably result in continuing in-flight break ups of its aircraft, Piper did nothing to inform owners, operators, pilots, mechanics and public authorities of the means to inspect for, locate and correct fatigue cracks before they matured into an inflight structural failure, but in fact, withdrew its own Service Bulletin on the subject years before this accident.

- 42. Notwithstanding the non-stop incidents of in-flight structural failure of its PA-28 aircraft models, Piper remained mum on the subject except to blame others for its own grotesque misconduct.
- 43. The fatigue crack of the 2018 accident aircraft emanated from the same bolt and in the same location as the 1987 accident aircraft, and both accidents occurred within a few hundred flight time hours from one another.
- 44. Notwithstanding the actual findings from that accident, Piper did absolutely nothing to either re-check the loads calculations of the wing design, check for loss of torque on the attachment bolts or measure bolt hole elongation of the wing attachment, or provide a secondary load path any of which would have portended a future wing off.
- 45. The fruits of Piper's twisted reasoning to withdraw both its own Service Bulletin and the FAA's Airworthiness Directive on this critical subject came to realization when the Embry-Riddle aircraft lost its left wing, crashed to the ground killing Zachary Michael Capra.

The Accident Investigation

- 46. The NTSB investigates all fatal aircraft accidents in the United States.
- 47. The NTSB operates under a Party System which in this case allowed the following "parties" to the investigation: Embry-Riddle, the owner and operator of the aircraft; Piper, the aircraft manufacturer; and Lycoming, the engine manufacturer.
- 48. The NTSB does not permit representatives of the victims to participate in its investigations, just those likely to be defendants in the event of litigation.
- 49. Nonetheless, the NTSB quickly located the parts relevant to the wing failure: the wing attachments at the spar cap where metal fatigue failure through an attaching bolt hole allowed the attachment structure to weaken to the point of complete failure.

- 50. An NTSB metallurgical examination revealed a long pre-existing fatigue failure initiation at a bolt attachment hole which was an area of required detailed inspection at the 100 hour, annual and especially the hard landing inspection, but which would have been virtually invisible to Embry Riddle personnel conducting the inspections.
- 51. In fact, another PA-28R-201, owned and operated by Embry-Riddle, was found with a crack developing in the same place even though that aircraft too was inspected regularly by Embry-Riddle maintenance personnel, further confirming that the Piper continuing Airworthiness Instructions were flawed.
- 52. Other PA-28 aircraft examined after this accident, but maintained and inspected by others, failed to find a single crack.
- 53. Had the appropriate and effective inspections been recommended by Piper, and the general requirements of performance by manufacturers of aircraft to provide them been followed, the crack would have been located, and the wing replaced or repaired.
- 54. Given the number of hard landings reported, special steps should have been implemented by Piper who recommends use of this model in training fleets worldwide to ensure that even if the crack were missed at an inspection or two, it would have been found before the wing separated.
- 55. No special inspections or techniques were provided to Embry-Riddle by Piper on the aircraft even in the face of the well- known harsh operating environment of flight schools and history of hard landings.
- 56. In spite of the history of wing offs and in flight break-ups, Piper never provided a secondary load path for the wings of training aircraft so wing repairs or replacements could be made before tragedy struck again and again.

The Background of this Model Aircraft as to Embry-Riddle

- 57. Long ago, another PA-28 with a similar number of flight hours lost a wing while on pipeline patrol.
- 58. As a consequence of that loss, everyone in the industry became aware of a Safety Recommendation made by the NTSB which ultimately became an Airworthiness Directive ("AD") issued by the FAA to classify the severity of use of these PA-28 aircraft and depending on the hours of use and type of use, to remove the wings periodically for a careful inspection of the wing attachment bolt holes.
- 59. Compliance with that AD revealed only a few aircraft with cracks like the aircraft that crashed, so the FAA with Piper's encouragement, without inquiring of the operators just how they went about their classifications of use or inspections, rescinded the AD.
- 60. Nonetheless, the industry was aware that 7,500 hours of flying in a harsh environment could be dangerous for the PA-28 spar attachment.
- 61. In addition, Piper issued a Service Bulletin, inapplicable to the accident aircraft, but others of its type, requesting special attention be paid to corrosion of the spar attachments due to leaks of water into that critical area.
- 62. While knowing that such a risk exists, especially in salt water environments like Florida, there was no such Service Bulletin for the aircraft at the time of its manufacture or operation before this accident.
- 63. Worse, the repository of information about the 1987 accident, the Airworthiness Directive later withdrawn, the Service Bulletin rendered inapplicable to the accident aircraft and the knowledge of how to look for and discover fatigue cracks in the most critical component of the aircraft, the wing spar, was resident with Piper, and it did nothing.

- 64. Piper in the face of evidence of fatigue failures at the wing attachment bolt holes, took no special steps to ensure that there would be no in-flight separations of wings in the future.
- 65. Neither the General Aviation Revitalization Act of 1994 nor the Florida Statute of Repose are applicable to this loss given that the aircraft was not 18 years old from date of first delivery nor was it ten years old as well.

The Damages Claimed

- 66. Zachary Michael Capra was a licensed pilot, destined to become an airline pilot.
- 67. His course work at Embry-Riddle was completed and indeed he would have received his FAA Commercial Pilot's certificate on the very day of the accident had it not occurred.
- 68. Zachary Michael Capra's immediate future was the awarding of a Bachelor of Science Degree in Aeronautical Science, which ultimately was awarded posthumously.
- 69. Zachary Michael Capra's vocational history included service with the United States Navy and an honorable discharge.
- 70. Every conceivable impediment to a lifetime of employment as an airline pilot was overcome and in an environment of airline pilot shortages at the time of his death, his employment in his chosen career was guaranteed.
- 71. Zachary Michael Capra is survived by his mother and father who have lost his bounty of care, comfort, companionship, and likely support during their old age and are suffering unrelenting grief from his loss, and thought of how he suffered during his last moments here on earth, and his sisters who were dependent upon him for care, comfort, guidance, affection, solicitude and tutelage.
- 72. Zachary Michael Capra's fear of impending death is unspeakable as every pilot knows that the in-flight separation of a wing is a doomsday sentence such that no matter what step,

was or could be taken to save himself, it was an exercise in futility and that death was a certainty by hideous mutilation.

- 73. Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendant Piper Aircraft, Inc., for:
 - a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;
 - b. Damages for the loss of Zachary Michael Capra's companionship, instruction, and guidance;
 - c. Damages for the loss of Zachary Michael Capra's earnings;
 - d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;
 - e. Damages for medical or funeral expenses due to Zachary Michael Capra's death;
 - f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;
 - g. Costs of suit.

The Causes of Action

COUNT I (NEGLIGENCE)

Plaintiff incorporates by reference paragraphs 1 through 73.

74. Piper owed duties to the Plaintiff to act as a reasonably prudent manufacturer, designer, seller and distributor of the subject aircraft and its airworthiness.

- 75. In addition to the duties imposed by common law, Piper was subject to duties imposed by regulatory law.
 - 76. Piper was negligent in the following breaches of its duties of care:
 - a. Failing to issue adequate continuing airworthiness instructions for the PA 28R aircraft;
 - b. Failing to revise the Piper Maintenance Manual and checklists to provide for NDI of the critical bolts holding the wing to the wing carry through structure;
 - c. Failing to properly evaluate the causes of the 1987 wing off accident;
 - d. Failing to properly test the wing attachment fittings after the 1987 accident;
 - e. Failing to properly evaluate the structural strength of wing attachment of the PA-28 aircraft models;
 - f. Failing to issue re-torqueing instructions for the wing attachment bolts on the PA-28 aircraft models;
 - g. Failing to provide for periodic inspections of the wing attachment structure for aircraft operated in harsh environments;
 - h. Failing to provide an alternate load path for the wing spar of the PA-28 aircraft models;
 - i. Failing to life limit wings on PA-28 aircraft models;
 - j. Failing to issue a modified Service Bulletin taking into account the non-stop in-flight breakup of PA-28 models;
 - k. Failing to properly and adequately reevaluate the structural calculations for the resistance to fatigue of the Piper PA-28 model wing attachment structure;

- 1. Failing to consider the consequences of fatigue failure and taking all necessary precautions for the safety of owners and operators;
- m. Failing to properly and adequately assess the risk to owners, operators and pilots of a wing failure and taking all steps to prevent it;
- n. Assuming for pilots, aircraft owners and operators the risk of certain death as a consequence of failing to take required precautions to prevent wing attachment failure;
- o. Corrupting the public investigation of aircraft accidents so as to hide the actual causes of in-flight wing separation instead blaming the pilots in each and every instance when it knew that its structural deficiencies and negligence were the sole causes;
- p. Failing to fix the wing attachment geometry, structure and components to put an end to the wing separations;
 - q. Failing to adopt the correct wing attachment bolt torque;
 - r. Failing to properly and adequately torqueing the wing attachment bolts;
- s. Hiding the truth behind wing failures in PA-28 aircraft models from aircraft owners, pilots and operators by requiring confidentiality orders in litigation so the sordid history of design and manufacturing failures are never known to the users of these aircraft or public authorities; and,
- t. Violating the public trust as a manufacturer of aircraft by being dishonest about the structural integrity of aircraft it built and was responsible for accurate, effective and thorough maintenance instructions.
- 77. As a direct result of the negligence of Piper, the fatigue crack from a bolt hole in the wing attachment structure migrated, enlarged and caused a complete separation of the left wing

killing Zachary Capra, who with his FAA Designated Examiner. Both were entirely free of any conceivable contributory negligence or contribution to the accident whatsoever.

WHEREFORE, Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendants Embry Riddle Aeronautical University and Piper Aircraft, Inc., for:

- a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;
- b. Damages for the loss of Zachary Michael Capra's companionship, instruction, and guidance;
 - c. Damages for the loss of Zachary Michael Capra's earnings;
- d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;
- e. Damages for medical or funeral expenses due to Zachary Michael Capra's death:
- f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;
 - g. Costs of suit.

COUNT II (FRAUDULENT MISREPRESENTATION

Plaintiff incorporates by reference paragraphs 1 through 77.

78. Piper, through its own employees called Designated Engineering Representatives, represented to public authorities and the public at large that the PA-28 series of aircraft were structurally sound, and in spite of the frequency of in-flight breakups were not flawed, but were the victim of incorrect pilot operation.

- 79. Piper Aircraft's fraudulent representations and knowledge constituted the following:
 - a. Piper knew at all times that such representations made in magazines, public statements, statements to the FAA and NTSB, statements made to the media, in litigation and otherwise were absolutely false;
 - b. Piper knew at all times that corrosion which it blamed for cracks in the wing attachment microstructure had little or nothing to do with the problem, but rather fundamental flaws both in design, selection of materials and maintenance instructions were the sole cause of the break-ups and wing off accidents;
 - c. Piper knew at all times that by removing its Service Bulletin from the public and lobbying the FAA that an Airworthiness Directive with expensive inspections were unnecessary, it had ignored the continuing in-flight failures of its PA-28 aircraft wings, and worse, that it decided unilaterally that some people would have to die if the inspections were not made especially in high time aircraft operated in harsh environments;
 - d. Piper knew that failure to re-torque the wing attachment bolts would result in their loosening over time, thus causing fretting of the surface which is well known and was well known to Piper to initiate fatigue cracks;
 - e. Piper also knew that the same bolt hole was the initiator of the fatal fatigue cracks thus a much simpler but effective NDI could eliminate the risk of death from wing separations, but instead chose to stonewall the information it had to correct the problem; and,

- f. Piper knew that the failure to be honest with the public it would sentence aircraft occupants to the worst possible death; falling to their demise in an aircraft that could no longer fly waiting for the inevitable death by mutilation.
- 80. Piper made such representations with the intent to induce public authorities and the public at large to act upon them.
- 81. As a direct and proximate result of the fraud, concealment and misrepresentation by Piper, Zachary Michael Capra was killed just as Piper knew he would, or another like him would be.

WHEREFORE, Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendants Embry Riddle Aeronautical University and Piper Aircraft, Inc., for:

- a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;
- b. Damages for the loss of Zachary Michael Capra's companionship, instruction, and guidance;
 - c. Damages for the loss of Zachary Michael Capra's earnings;
- d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;
- e. Damages for medical or funeral expenses due to Zachary Michael Capra's death;
- f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;

g. Costs of suit.

COUNT III (FRAUDULENT CONCEALMENT)

Plaintiff incorporates by reference paragraphs 1through 81.

- 82. Piper concealed or failed to disclose a material fact concerning the defects known by Piper of the defective aircraft.
 - 83. Piper knew or should have known the material fact should be disclosed.
- 84. Piper knew their concealment of or failure to disclose the material fact would induce others, including Zachary Michael Capra, to act upon the misrepresentations.
- 85. Piper had a duty to disclose the existence of the fatigue failure known by Piper that caused the wing separation of the aircraft;
 - 86. Zachary Michael Capra detrimentally relied on the misinformation.
- 87. As a direct result of Piper's fraudulent concealment of this material fact, by Piper, Zachary Michael Capra was killed just as Piper knew he would, or another like him would be.

WHEREFORE, Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendants Embry Riddle Aeronautical University and Piper Aircraft, Inc., for:

- a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;
- b. Damages for the loss of Zachary Michael Capra's companionship, instruction, and guidance;
 - c. Damages for the loss of Zachary Michael Capra's earnings;
- d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;

- e. Damages for medical or funeral expenses due to Zachary Michael Capra's death;
- f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;
 - g. Costs of suit.

COUNT IV (STRICT LIABILITY) Plaintiff v. Piper Aircraft, Inc.

Plaintiff incorporates by reference paragraphs 1-87.

- 88. Piper is a manufacturer and seller within the law of strict liability.
- 89. The accident aircraft was designed, manufactured and sold in an unreasonably dangerous and defective condition, which resulted in the crash killing Zachary Michael Capra.
- 90. The dangerous defects which caused this accident existed at the time the aircraft was manufactured and first sold.
- 91. The defects were unreasonably dangerous and included a failure to have everything necessary to make it safe, including but were not limited to:
 - a. Defective and unreasonably dangerous wing attachment;
 - b. Defective and unreasonably dangerous wing attachment bolt torque;
 - c. Defective and unreasonably dangerous maintenance and inspection instructions regarding inspection of wing attachments;
 - d. Defective and unreasonable dangerous design of the wing attachment components;
 - e. Defective and unreasonably dangerous and deficient wing attachment design and structural analysis;

- f. Defective and unreasonably dangerous design without an alternate load path;
- g. Defective and unreasonably dangerous manufacturing techniques including the failure to ensure that wing attachment bolt torque was uniform and could remain as designed;
 - h. inadequate and dangerous structural construction;
 - i. inadequate structural engineering;
- j. inadequate and dangerous pilot operating manual, flight manual, and lack of warnings regarding the inadequacy of the aircraft;
- k. inadequate and dangerous selection of materials that were so light and under-designed as to allow for in-flight break-ups;
- l. inadequate and dangerous testing that failed to reveal the defects in the airframe;
- m. inadequate and dangerous management and oversight to correct known or suspected dangerous design and construction of the aircraft;
- n. Defective and unreasonably dangerous and inadequate wing attachment bolt torque during manufacture;
- o. inadequate inspection, maintenance, repair, and structural repair instructions;
- p. the incorporation of defective materials, construction; and inadequate design, engineering, and testing; and
 - q. the failure to adequately warn of the aircraft's defects.
- 92. None of the defects were known to or knowable by Zachary Michael Capra.

- 93. There were many alternate designs that were commercially reasonable alternatives to the defective and dangerous design of the wing attachment structure of the PA-28 aircraft models.
 - 94. Reasonable alternative designs include, but are not limited to:
 - a. Less complicated wing attachment structure with fewer wing attachment bolts but of higher strength.
 - b. Fewer holes in the wing attachment structure.
 - c. Bolt torque that removes the opportunity for the bolt to loosen and cause fretting fatigue.
 - d. NDI techniques in high stress attachment areas to locate fatigue cracks before they become catastrophic.
 - e. Application of secondary load path design techniques to provide a fail-safe structure in the event of fatigue cracking.
 - f. Wing bolt removal inspections for high time harsh environment operations.
 - g. Life limiting wing attachment structure.
 - h. Change of wing attachment structural materials impervious to corrosion and repeated exposure to fatigue.
- 95. As a direct result of the defective and unreasonably dangerous design and construction of the PA-28R aircraft models, including the accident aircraft, Zachary Michael Capra suffered an unspeakable death.

WHEREFORE, Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendants Embry Riddle Aeronautical University and Piper Aircraft, Inc., for:

- a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;
- b. Damages for the loss of Zachary Michael Capra's companionship, instruction, and guidance;
 - c. Damages for the loss of Zachary Michael Capra's earnings;
- d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;
- e. Damages for medical or funeral expenses due to Zachary Michael Capra's death;
- f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;
 - g. Costs of suit.

COUNT V (NEGLIGENT FAILURE TO WARN)

Plaintiff incorporates by reference paragraphs 1 through 95.

- 96. Piper is liable to the Plaintiff for negligent failure to warn of an inherent danger in the use of the aircraft because Piper knew, or by the exercise of reasonable care should have known, of the potential danger in the use of the aircraft due to the defects which were known by Piper or which reasonably should have been known by Piper.
- 97. Piper, in the reasonable course of business, should have been able to foresee the possible uses of the aircraft by its customers as well as the potential danger or injury which could result from such use, including but not limited to the death of Zachary Michael Capra.

98. As a direct result of Piper's failure to warn of the inherent danger of the aircraft's defect and failure to warn of the inherent danger in the use of the aircraft due to the defect, the aircraft crashed killing Zachary Michael Capra.

WHEREFORE, Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendants Embry Riddle Aeronautical University and Piper Aircraft, Inc., for:

- a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;
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 - c. Damages for the loss of Zachary Michael Capra's earnings;
- d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;
- e. Damages for medical or funeral expenses due to Zachary Michael Capra's death;
- f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;
 - g. Costs of suit.

COUNT VI (Breach of Express and Implied Warranties)

Plaintiff incorporates by reference paragraphs 1 through 98.

99. Piper is liable to the Plaintiff for breach of express and implied warranties as it warranted that the accident aircraft was airworthy and free of defects when it was manufactured, providing express and implied warranties of fitness and merchantability in that:

- a. When the aircraft was manufactured and sold it was unreasonably dangerous and defective;
- b. The defendant by itself or in concert expressly and/or impliedly warranted that the aircraft was airworthy and free of defects in materials and workmanship;
 - c. The aircraft was not fit for the particular purpose, to wit safe flight;
- d. The aircraft was not of fair or average quality when built and sold because normal use triggered an in-flight separation of its wing;
- e. The aircraft failed to incorporate an adequate factor of safety into its design; and
- f. The material selection of components in the aircraft's wing attachment structure was defective as the assembly was prone to cracking and failure.
- 100. Zachary Michael Capra was the intended beneficiary of these warranties and they ran to him.
- 101. Zachary Michael Capra relied upon the representations of Piper or the skill and judgment of Piper upon express warranty or warranty of fitness for a particular purpose.
 - 102. Piper was on notice of the breach of warranty.
- 103. As a direct result of the breaches of express and implied warranties, the aircraft crashed killing Zachary Michael Capra.

WHEREFORE, Plaintiff, John Charles Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands judgment against Defendants Embry Riddle Aeronautical University and Piper Aircraft, Inc., for:

a. Damages for the future loss of support and services of Zachary Michael Capra from the date of his death;

- b. Damages for the loss of Zachary Michael Capra's companionship, instruction, and guidance;
 - c. Damages for the loss of Zachary Michael Capra's earnings;
- d. Damages for mental pain and suffering from the date of Zachary Michael Capra's injury;
- e. Damages for medical or funeral expenses due to Zachary Michael Capra's death;
- f. Damages for loss of prospective net accumulations to the estate of Zachary Michael Capra; and;
 - g. Costs of suit.

DEMAND FOR JURY TRIAL

Plaintiff, John Capra, as Administrator of the Estate of Zachary Michael Capra, Deceased, on behalf of the estate, the survivors, and/or the beneficiaries, demands trial by jury as to all counts and issues so triable.

Dated this 4th day of March, 2019.

SMITH, BIGMAN & BROCK, P.A.

JEFFREY E. BIGMAN

Florida Bar No.: 063347

ADAM J. CAMPBELL Florida Bar No.: 123509

Post Office Box 15200

Daytona Beach, Florida 32115 Telephone: (386) 254-6875

Primary e-mail: jbigman@daytonalaw.com Secondary e-mail: Eservice@daytonalaw.com

and

Arthur Alan Wolk, Esq.
THE WOLK LAW FIRM
1710-12 Locust Street
Philadelphia, PA 19103
(215) 545-4220 Telephone
(215) 545-5252 Facsimile
arthurwolk@airlaw.com
(Pro Hac Admission Pending)