



INTERVIEW SUMMARY

Elliott Simpson
Aviation Accident Investigator
Western Pacific Region

Interview Date: May 2, 2018
Person Contacted: Peter Balmer, [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Peter Balmer owns a Thunder Mustang (N167BP) which he maintains at the American Air Racing (AAR) hangar. He has known John Parker for many years - Mr. Parker is the Thunder Mustang, "guru".
- On the day of the accident, the photo mission was briefed prior to departure, and it was decided that Mr. Balmer would be flight lead on the first mission, with Mr. Parker the second in formation and Mr. Roscher following in his Bonanza as the photography platform.
- Mr. Balmer was at the fuel station on the other end of the airport at the time Mr. Parker got into his airplane and did not see him get in or out.
- The first flight was uneventful, and they landed without incident. The debrief was normal, and Mr. Parker appeared to be acting appropriately and nothing untoward was noted in his demeanor.
- There was nothing during the photo missions about John's performance that appeared unusual.
- The second flight departed early evening, and the decision was made for Mr. Parker to be the flight lead.
- After flying for about an hour Mr. Roscher in the Bonanza photo ship called for return to base. Mr. Balmer and Mr. Parker then coordinated for an overhead right break with a landing on runway 32.
- As they approached the field from the north, Mr. Parker transmitted a mayday call on the CTAF (122.7 MHz). Mr. Balmer replied with, "Say again John?" and Mr. Parker transmitted another mayday and declared his intention to land on runway 14.
- Mr. Parker sounded calm, as he usually does, but his microphone remained keyed intermittently for the remainder of the flight, and he could hear the typical loud background noises of the airplane.
- Mr. Balmer watched as N352BT circled the airport anticlockwise and appear to overshoot runway 14. He tried to follow him during the descent, and at no point did he see smoke or

vapors come from the airplane. He watched as it then rolled left, and right and rejoined the runway centerline while descending.

- It looked low, fast, and the approach was long as the airplane appeared to either float or touch down at the midfield position. As it reached the end of the runway, it flipped over in the adjacent gravel area.
- Mr. Balmer overflew N352BT, landed on Runway 32, parked the airplane, and ran to the accident site.
- Construction workers were at the sight, followed by the fire department a few minutes later, who began to work on releasing Mr. Parker.
- Fuel and fluid was leaking from the airplane, and he could hear pumps still operating. The canopy was bowed and broken, and he could see Mr. Parkers helmet against the ground. He watched Mr. Roscher approach and try to communicate with Mr. Parker, but he did not hear Mr. Parker say anything or move at any point.
- He became concerned that the fire department were not making fast enough progress and told them that they needed to work faster to recover him. He offered assistance lifting the right wing to gain access, and the group all tried, but with no measurable success as it was very heavy. He stood back and let the fire department work, as he felt he was emotionally invested in the situation and may not be making the most rational decisions.
- The fire department had wedges and airbags, but did not have a forklift truck, or any way to lift the airplane.
- Eventually Mr. Parker was extracted after the fire crew dug a hole in the gravel underneath him.



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Interview Date: May 2, 2018
Person Contacted: Donald Morgan, [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Mr. Morgan was in his hangar at Reno Stead Airport on the April 29, 2018 (Sunday before the accident), when the pilot, John Parker, and his son Russel Parker arrived in a golf cart.
- They all had a normal conversation, and John Parker was walking around the hangar.
- John was maneuvering between airplanes, and then leaned over to look at something.
- He then stood back up while turning around and a wing strut slightly blocked his view to the hangar door as he turned around. The strut was about 5 or 6 feet in front of him and would require him to move his head slightly to the right as he passed by.
- He fell onto his buttocks, and both Russel and Don reached in to grab his arm and slow his fall. They then helped him back up.
- He did not hit the ground hard nor did he hit his head.
- Mr. Morgan described it as more akin to a disorientation event or dizziness episode after standing up rather than a problem with John's legs.
- John was very embarrassed and irritated by what had happened, and he apologized.
- After a short time, John went back to the golf cart but was unable to lift his right foot high enough to get in, so he turned around, and stepped in with his left foot first.



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Interview Date: May 2, 3, 4, 2018
Person Contacted: Fred Roscher, [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Mr. Roscher is the owner of 51 Aero. He provided data logging, electrical and analytical services for American Air Racing (AAR). AAR was his first customer, and he had an agreement to keep his Thunder Mustang airplane in the AAR hangar.
- He maintained a close working relationship with John Parker and provided ongoing support and upgrades to the AAR and Blue Thunder II team.
- Mr. Parker was the sole proprietor of AAR and employed a crew of three which include Sean McLaughlin as paid intern mechanic, along with Rhonda Elwell and Mike Cummings, who were both mechanics.
- Mr. Parker held an AP/IA certificate, and both oversaw and signed off on all work performed, as the other mechanics did not hold FAA mechanic ratings.
- Mr. Parker also owned TM-1 Limited (Blue Thunder Racing), which N352BT was registered under.
- AAR performs maintenance work for all types of aircraft but specializes in the Thunder Mustang.

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- On the day of the accident, the plan was to perform a photo mission with N352BT and the Thunder Mustang (N167BP) owned by Peter Balmer.
 - Mr. Roscher was flying his Bonanza, which was used as the photography platform, and was carrying the photographer and another Thunder Mustang Pilot, Mathias Haid.
 - A third Thunder Mustang (owned by Mr. Haid) was scheduled to be in the flight, but due to maintenance issues it did not take part.
 - The first flight departed about 1500, lasted about 50 minutes, and was uneventful. After landing the team refueled and performed a debrief. The decision was made to have the photographer move to the back seat of the Bonanza for the next flight, and swap flight leads.

- Mr. Roscher observed Mr. Parker getting in and out of the airplane that day, he appeared normal. He is able to get in and out without assistance, generally someone accompanies him to provide support if needed.
- For the accident flight, the group departed about 1815.
- The flight was uneventful, and after flying for about an hour fatigue was starting to set in, and the decision was made to return to the airport.
- Mr. Roscher made the decision to have the group return.
- The group broke formation north of the airport, with Mr. Parker taking the lead back and Mr. Balmer off his wing.
- As Mr. Roscher approached the airport and joined the downwind leg for runway 32 he heard Mr. Parker call, "Mayday" on the CTAF. Mr. Balmer transmitted "what?", and Mr. Parker replied with another mayday call, stating that he was going to land on runway 14.
- Mr. Roscher was flying between 6,500 and 7,000 ft msl at the time and did not have a complete view of N352BT. A brief time later Mr. Balmer transmitted that he thought the airplane landed and flipped over, and that they need to land immediately. Mr. Roscher called Northern California Terminal Radar Approach Control and reported the emergency.
- Mr. Roscher landed on runway 32, and taxied the airplane back to the ramp, just next to the end of runway 14.
- He ran to the airplane, which was upside down and on the gravel to the right at the end of runway 14.
- He found three construction crew standing and watching. He knelt, looked under the canopy, and could hear Mr. Parker mumbling. He asked Mr. Parker if he could try to turn off any switches he could reach.
- Mr. Parker was still wearing his helmet which appeared to be jammed against the gravel, and he did not make any more sounds.
- He could hear pumps running and was trying to figure out what to do, when the fire department arrived.
- The fire department appeared to struggle with how to free Mr. Parker, and multiple methods were tried including using stepped wedges and inflatable jacks, but eventually they dug gravel out from under the airplane in the canopy area and pulled him free. The process took about 45 minutes.

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- With regards to the data logging systems on board N352BT, the airplane was equipped with an Electronics International MVP-50 engine monitor, a Grand Rapids technology EFIS, dual engine controllers, and a Garmin GPS 18x 5Hz GPS sensor.
 - These systems were all configured to port data to an onboard PAL (personalized aircraft logging) computer. The PAL recorded all parameters to its internal memory and sent a subset of the data in real-time via a downlink utilizing a wireless modem.
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- Regarding Mr. Parker's prior experience with forced landings and loss of engine power events in N352BT, he has had about five since 2003. All resulted in minor or no damage, and all occurred in the immediate airport and runway environment. All events took place during the Reno Air Races, except for one in the mid-2000's while attempting a distance record in Marysville, MD.
- None of the events were as the result of a failure of the serpentine belt, or any of its dependent components. One event involved the loss of a supercharger belt, which was configured utilizing a completely different belt and drive system.
- The last flight John Parker took prior to the accident occurred the day before, was in N352BT, and lasted about 30 minutes.

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- The Thunder Mustang kit company (Papa 51) originally formed in the 1990's and went bankrupt around 1998-1999. The Thunder Mustang Builders Group (TBG) then got together and made financial contributions to help Papa 51 continue to manufacture parts, but again the company failed.
 - After the failure, the company assets went to TBG.
 - About 37 Thunder Mustang kits were originally sold, of which 3 were partial kits. Fifteen completed airplanes are currently flying.
 - Ryan Falconer designed and built the engines, but is no longer involved, and no longer provides support.
 - TBG spent the following years looking for another entity who would be willing to lead the kit production again, and about 2012 Dean Holt bought the assets with a plan to put it back into production. As of this interview, production had not been restarted.
 - Mr. Parker became the defacto Thunder Mustang expert.



INTERVIEW SUMMARY

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Aviation Accident Investigator
Western Pacific Region

Interview Date: May 3, 2018
Person Contacted: Kevin Singleton, [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Mr. Singleton is the managing member of Exotic Engines LLC. The company is composed of himself and another mechanic, Andrew Delafrance.
 - Exotic Engines manufactures and rebuilds specialized racing engines, primarily for marine and automobile use, and specializes in the Dodge Viper aluminum 10-cylinder engine.
 - The only aviation engines they work on are the experimental Falconer series.
 - The company was first introduced to the Falconer engine in 2013 through John Parker, when he had them perform dynamometer testing on the Falconer engines Mr. Parker had rebuilt.
 - The first time the company had rebuilt a Falconer engine was in 2015, for Mathies Haid, after his engine had experienced a catastrophic internal failure.
 - They have rebuilt about 10 Falconer engines since then, including the accident engine (serial number 12022), which was the transportation engine for N352BT, along with the race engine (serial number 12023).
 - In November 2015 they rebuilt the accident engine and Mr. Parker installed it in airplane.
 - Shortly after installation, it experienced a severe overheating event, and came back for a complete rebuild with many components ultimately being replaced.
 - The accident engine was then in operation during 2016, and 2017 and did not come back to the Exotic facility for any work.
 - Mr. Singleton is aware of the engine being removed from the plane two additional times following the final rebuild at his facility. Once prior to the Reno Air Races in 2016, and again prior to the Reno Air Races in 2017. Prior to the 2017 Reno race, the engine was partially disassembled by John. He was trying to transfer the cylinder heads and other components on the race engine (12023), but Mr. Singleton informed him that due to different component clearances, they would not fit. Mr. Parker then put the engine back together.
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- Regarding the rebuild procedures, he utilizes the Falconer Engine Manual, provided by Mr. Parker.
- A typical rebuild would require a complete disassembly, including the water pump pulley, and replacement of all nuts, bolts, screws, and ancillary hardware along with major components as needed.
- The water pump pulley bolts are fine thread, 5/16-24 alloy cap screws. The cap screws are rated slightly higher than a grade 8 bolt of the same size 150,000 psi vs. 170,000 psi. They are installed with Loctite 242 at a torque of 18 ft/lbs (dry – no oil).
- It is replaced at each overhaul, and blue Loctite is always used – there are no provisions for safety wire.
- The water pump pulley is a backside drive pulley, and typically inspected at overhaul, when the cap screws are always replaced.
- According to the engine build sheet, Mr. Singleton worked on overhauling the accident engine, but because of the time since overhaul, he does not remember the specifics of the build process.
- Mr. Parker was working on a new air inlet system in the airplane as well as adding 80mm throttle bodies. None of these changes had been tested on the dynamometer at Exotic and the engine was not mapped for that change.
- Mr. Parker, “did things his own way, rarely listened to advise.”
- Mr. Parker was having issues getting the inlet to fit, and he needed to remove the oil tank to get it in. Removal of these components may have necessitated removing the upper accessory drive and water pump pulley for access, but Mr. Singleton could not be sure.



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Interview Date: May 2, 2018
Person Contacted: Mathias Haid, [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Mr. Haid is a friend of Peter Balmer, who introduced him to the Thunder Mustang airplane.
- He purchased a Thunder Mustang with the intention of moving it back to his home in Europe, but he enjoyed the environment and comradery in Reno so much, that he kept it there, and it remained in the American Air Racing (AAR) hangar.
- Mr. John Parker performed the maintenance on the airplane.
- On the day of the accident, his airplane was to be the third for the photo shoot, but due to electrical problems he could not fly it, and instead flew as a passenger in Mr. Fred Roscher's Bonanza.
- Mr. Parker appeared irritated at his decision not to fly his airplane.
- Mr. Haid did not see Mr. Parker exit or enter the airplane. He did see the mechanic Sean setup the ladder for him to get into the airplane, which is standard procedure for Mr. Parker.
- The first flight was uneventful, and on return the decision was made for him to swap with the photographer and sit in the front seat.
- The group had a break, and upon returning the 2nd flight was briefed. Mr. Parker seemed irritated during the briefing that the Bonanza's maximum speed was still too slow for the Mustang to fly in a stable manner. It was not unusual for Mr. Parker to be a little "gruff", so this seemed appropriate.
- Mr. Haid reported that Mr. Parker seemed to not be flying with his usual level of precision and was not coming in as close as he should have. This was unusual, although not entirely unexpected as they were flying into the sun, and subsequently Peter Blamer offered to take the lead.
- They all departed and flew to the north and proceeded to fly formation while the photographer took pictures from the rear seat. The decision was made during the briefing for the Bonanza to fly straight and level, while the Mustang's flew by.

- After about 1:15 of flight, the decision was made by Fred and he to end the mission, and the other pilot's agreed. The group was fatigued – typically photo missions last about 45 mins.
- They all returned to the airport, and while on the left downwind leg for runway 32 Mr. Haid heard a mayday call. He asked Mr. Roscher if he heard the call, and when he looked outside he could see Mr. Parkers airplane high and to their right. He then lost sight of him.
- They then landed and jumped out of the airplane and ran to the accident site. He could hear pumps operating and fluid leaking from the airplane, which he presumed to be fuel.
- The group which included Peter Blamer and the runway construction crew tried to lift the airplane up at the wing, but it was too heavy.
- The fire department arrived, and began to assess the scene, but did not appear to be in a hurry. After 20 minutes little progress had been made, and one of the fire crew members commented that the pilot had been upside down for so long that his survival at this point was unlikely.
- After about 35 minutes the fire crew had dug a hole in the gravel and were able to extricate Mr. Parker. At no point did he hear Mr. Parker, or see him move.
- The microphone for N352BT appeared to have been keyed throughout the emergency descent, and Mr. Haid recalled hearing a coughing sound over the CTAF at some point but could not say for sure if this was during the descent, or after the airplane had nosed over.



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Interview Date: May 2, 2018
Person Contacted: Mike Cummings – [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Mike is an independent contractor, with experience in automotive maintenance. He owns and operates a smog and repair station. He does not hold an FAA mechanics certificate.
- He works part-time for John Parker on an as-needed basis. His work consists of airplane repair and fabrication, and this work is always performed in close partnership with John, who ultimately inspects and signs off on the work.
- He has known John for 15 years and has not observed any mental change in him during that period, and physically he is typical for someone who is 80 years old.
- He is aware of knee surgery being performed a few years prior, and possibly back surgery 8-10 years ago. He is not aware of any recent medical issues.
- He did not talk to John on the day of the accident, but had dinner with him the night prior, when he appeared to be in good spirits. His son Russel was there, and they discussed in detail the photography work to be performed on the day of the accident.
- Having heard about the accident from Fred Roscher, he arrived at the airport at 1950. He went directly to runway, and the airplane was on its back and John was trapped.
- The fire department was already on scene, surveying and looking for guidance and input on how to lift the airplane safely. They asked about removing fuel and disconnecting the electrical system.
- He was not able to check John's condition, as a paramedic was already in position.
- Once the airplane was jacked up, a member of the fire department said there was no pulse, and John was eventually extracted from the airplane about 45 minutes after the accident.
- Mike felt that it took a very long time for the fire department to get John out.
- He has never had to replace the water pump on a Falconer engine before, John was the only person he was aware of who ever changed the water pump.



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Interview Date: May 2, 2018
Person Contacted: Rhonda Elwell— [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Rhonda is a mechanic at American Air Racing (AAR) and an assistant to John Parker.
- She does not hold an FAA mechanics certificate.
- She has been employed at AAR for 10 years and works about 30 hours per week.
- On the day of the accident, John arrived at his typical start time between 0930-1000. He had worked the day prior to the accident also.
- He appeared in usual spirits, and nothing was untoward about his behavior.
- In the 10 years she has known John, his personality remained the same. She was never privy to any health issues, but he always appeared to be in good shape for someone of his age. He showed typical aging symptoms, but no rapid decline.
- He flew in 352 for short a time the day before the accident, but she is not sure if he flew over the weekend.
- Rhonda has no recollection of ever replacing a water pump on a Falconer engine.



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Interview Date: May 2, 2018
Person Contacted: Russel Parker, [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Russel Parker is the son of the pilot, John Parker.
- American Air Racing consisted of John, and two other employees Rhonda Elwell and Sean McLaughlin.
- Russel was not aware the flight was going to happen that day.
- He last saw his Father the Sunday prior, when they had dinner together. He was in good spirits that day, and very happy.
- He described his father as a high-energy personality, always "100 % ready to go."
- His father's wife passed away 3 years ago, and he lives on his own, so it would be very hard getting a 72-hour history.
- Russel was not aware of his father having recent medical issues, although he was the type of person who would not reveal medical concerns.
- He was 80 years old, but he did not appear to be experiencing any recent degradation in his performance, although he was the kind of person who could be in great pain but would never tell you.
- In the last 10 years, he has had knee replacement surgery, and a spinal injury which required a laparoscopic procedure. He also had skin cancer at some point, and he had discussed colon or prostate cancer in the past.
- On Sunday, while in the hangar, his father had an issue with his knees and stumbled after maneuvering around the hangar. He was assisted by Russel and Don Morgan, and had slight trouble walking, he was also unable to lift his foot up into a golf cart. It was Russel's understanding that he can sometimes experience these issues if he is standing for too long, but he was back to normal soon after.



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Elliott Simpson
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Interview Date: May 14, 2018
Person Contacted: Sean McLaughlin – [REDACTED]
NTSB Accident Number: WPR18FA131

Narrative:

- Sean is a paid intern, currently an engineering student, and he is working towards his A&P certificate.
- He typically works about 40-50 hours per week at American Air Racing (AAR), and then 20 hours during the school semester. He has been with AAR for about 1 year.
- His role at AAR is primarily that of a mechanic. He usually works alongside Mr. Parker, and when he works on his own Mr. Parker inspects and signs off on his work.
- Typically, as on the day of the accident, he helps Mr. Parker getting into the airplane. He uses a step ladder, and helps Mr. Parker setup his parachute, and buckle himself into his seat. Mr. Parker was wearing a parachute on the day of the accident.
- Mr. Parker seemed in good spirits and was having fun flying that day, he often has stiff knees due to prior injuries, and is a little slow getting into the airplane, which is why Sean helps. This was no different on the day of the accident.
- Mr. Parker seemed his usual self that day. Sean has not noticed any change in Mr. Parker's physical or mental performance over the year that he has known him.
- Sean has never worked on the water pump before, nor has he ever seen Mr. Parker remove the pulley or pump. The accessory case components remain with each engine, and the serpentine belt is the only thing removed during engine removal and swaps.
- The only time he has ever touched the water pump pulley was during the disassembly as part of the investigation with the NTSB investigator-in-charge.
- With regards to hangar FOD, Sean and Rhonda generally sweep the hangar floor, and any unusual components found are brought to the attention of Mr. Parker. Sean has never seen broken pulley bolts on the floor.