Factual Report – Attachment 1

**Interview Summaries** 

## **OPERATIONAL FACTORS**

CEN17FA168

Interviewee:	Zachary Daniel Forsberg
<b>Representative:</b>	None
Date / Time:	May 3, 2017 / 1105 Central Daylight Time (CDT)
Location:	Rico Aviation Hangar, Rick Husband Amarillo International Airport
Present:	Marvin Frantz, Michael Hicks - National Transportation Safety Board (NTSB);
	Chris McVay – Federal Aviation Administration (FAA)
Investigator:	Marvin Frantz

During the interview Zachary Forsberg stated the following:

He was the chief pilot of Rico Aviation, and had been in that position for one year. Prior to this position, he was a pilot for Rico for three and one half years. He is current in the company's CE-441 and PC-12 aircraft. He holds an ATP pilot certificate with multi-engine rating and commercial single-engine land rating. He holds a flight instructor certificate with a single-engine and instrument rating. He also holds an Airframe and Powerplant (A&P) certificate. He has about 3700 total flight hours, and estimated he had 200 hours in the PC-12. He is a Rico Aviation flight instructor in the CE-441 and Pilatus PC-12 aircraft. Regarding previous management experience, prior to Rico, he had owned and operated his own aerial advertising business, flying a CE-150 airplane.

His duties as chief pilot include pilot scheduling, monitoring pilot training and certification, checking on airplane maintenance, insuring the proper paperwork is in all airplanes, and monitoring pilot flight and duty times.

The company safety culture is don't push. They are always safety conscientious. The company does not have a formal Safety Management System (SMS). A risk-assessment worksheet is completed for all flights by the pilots. On the worksheet, pilots assign numerical values to identified risks, then add the numbers. If the result is a number over 10, the pilot had to call a company management person and discuss the flight. Pilots can talk to company personnel if any safety concerns arise. The company does not have a system where a pilot can anonymously report a safety concern. The company has a flight-refusal system known as "three to go, one to say no." It happens infrequently that a flight crew decides not to go. The go or no-go decision is transmitted to the medical dispatcher. The pilot does not have to explain his decision to management if he declines the flight. The pilot does not have to notify the company chief pilot or director of operations (DO) of his decision at that time. He may possibly have a non-threatening conversation with company management the next day. He (Mr. Forsberg) wondered if the risk assessment threshold should be lowered.

Calls for flights usually come from the dispatch tablet. A text goes out to the crew and the medical dispatcher. The medical crewmembers will call the ER to gather patient information. The pilot will check the weather for the proposed flight. Then both the pilot and the medical crewmembers discuss the flight and reach a go or no-go decision. If the decision is to go, the medical crew sets up the needed medical equipment in the plane, and the pilot prepares the plane and files a flight plan. The pilot then texts the medical dispatcher and the DO. The pilot files the flight plan and checks weather on ForeFlight. He will create the weight and balance sheet and print out two copies,

one to leave in the office, and another to take aboard the flight. Other information for the flight, such as weather, flight plan, and navigational log are taken on the flight on the pilot's i-Pad.

There are no company weather minimums outside of regulatory minimums. Sometimes with a new pilot, some company-prescribed, informal minimums may be imposed.

He had no knowledge of the accident until he was notified by the DO at about 0015. His last contact with the accident pilot was at crew change which occurred at 1900 that night. He had been the on-duty pilot. There is no formal crew-change briefing.

At crew change the day before the accident when the PC-12 had returned from Dallas, he informed the accident pilot that "the aircraft had been to maintenance for the autopilot, and was presumed repaired, but that it has clicked off a couple times on the return flight." This was mutually presumed to be due to turbulence. The accident pilot then left for Dalhart, spent the night with no flights, and returned in the morning to duty off.

In Amarillo, the pilot stays at a company-provided hotel during the time they are not on duty. The on-duty pilot and medical crewmembers stay at the Rico hangar at the airport. In Dalhart, where the plane is usually based, the on-duty pilot stays at a house with the medical crew for their shift (12 hours) and the off-duty pilot stays at an apartment. Both are provided by the company.

He noticed nothing unusual about the accident pilot's behavior during the 1900 shift change.

There is no flight release process involving management. It is up to the pilot.

He flew with the accident pilot about a week ago on a repositioning flight from Dalhart. He also flew with him after his initial PC-12 training. This was instructional flying for the purpose of preparing the pilot for the part 135 proficiency check (pc). He described the accident pilot as methodical and good at not overloading himself.

During these pc prep flights, he and the accident pilot had worked on properly managing and utilizing avionic tools available to the pilot. He didn't think the accident pilot had previous experience in glass-cockpit aircraft.

He had heard no specific comments on the accident pilot from the instructor who had provided initial PC-12 training to the pilot.

He thought the accident pilot had good airplane-handling skills, and he used the autopilot normally. Typically, a pilot would engage the autopilot at 1000ft above the ground after take-off, or when comfortably established in the climb. This was probably the accident pilot's autopilot engagement point.

He had no social involvement with the accident pilot, and had no knowledge of any personal or medical issues the pilot may have had. He thought the accident pilot did not have either a good or bad reputation among other pilots and medical crewmembers.

The highest number he has seen in a risk assessment he had conducted for himself was a five or a six. The average risk assessment value is a three or four.

He assumes that Rico gets calls for flights that other operators had refused. Rico does not have any awareness of other operator's refusals for weather. After a flight is accepted, the flight nurse communicates with the hospital and informs them of the flight's estimated time of arrival, which the nurse gets from the pilot. The DO is only involved because he sees the initial text requesting the flight.

TAC Air handles the airplane here in Amarillo. They will bring it out of the hangar while the crew is preparing for the flight. In Dalhart, there is no hangar, so if bad weather is forecast, and the plane is in Dalhart, they will reposition it to the hangar in Amarillo.

At Rico, the DO, chief pilot, and each PIC can exercise operational control.

The accident pilot had good knowledge of the airplane's autopilot, but he could fly fine without it. The challenge he had with the autopilot was making sure it was properly configured, such as arming and capturing courses and altitudes.

He had flown the PC-12 since it arrived at the company in June 2016. There was a continuing issue with the plane's autopilot. It would often disconnect unexpectedly, triggering a master warning tone. It would require the pilot to reset the system by pushing the autopilot test button, then reengaging the autopilot. There was a period of maybe 2 months when it seemed like the problem was fixed, then it returned. The autopilot is the only problem, avionics-wise, with the aircraft.

The sound that was produced when the autopilot failed was the master warning sound. This is different from the normal tone which is heard when the autopilot is disconnected by the pilot. The autopilot failure and disconnecting was the only time he ever heard the master warning tone in the airplane. He never heard a warble, (stuck trim) sound. No tones were heard over the airplane's speaker, only in the headsets. The only way to stop the tone when the autopilot failed was to push the autopilot test button.

There was an issue initially with the number one generator on the plane. It would go offline and not reset. The generator control unit was replaced and the issue was corrected.

When a pilot discovered a maintenance discrepancy, he would write it up and MEL it if possible. The DO would become aware because he sets up the needed maintenance. The chief pilot has no involvement in setting up maintenance. The DO does not get excessively concerned over an airplane that is out of service for maintenance. There is no pressure on pilots not to write up maintenance items.

If a pilot has concerns about the weather, he may call the chief pilot to talk about it. He had no experience with a pilot calling with a value of 10 on a risk assessment.

He thought the PC-12 had been to maintenance maybe 3 times for the autopilot issue. Sometimes, the autopilot would work for a while, then fail again. He had no knowledge of what actions

maintenance personnel had taken to try to fix the autopilot. A mechanic would write something like "replaced part", or "could not duplicate" etc. The flight director would still work when the autopilot failed.

The interview concluded at 1220.

Interviewee:	Teryn Babb-Ampson
<b>Representative:</b>	Dylan Babb-Ampson, husband
Date / Time:	May 3, 2017 / 1305 CDT
Location:	Rico Aviation Hangar, Rick Husband Amarillo International Airport
Present:	Marvin Frantz - NTSB; Chris McVay - FAA; Zachary Forsberg - Rico
	Aviation, LLC
Investigator:	Marvin Frantz

During the interview, Ms. Babb-Ampson stated the following:

She was a flight nurse and also acted as a medical dispatcher for Rico Aviation. She is still flight qualified, and had been working as a medical dispatcher for over a year.

When she comes on duty as a dispatcher, she makes initial contact with the pilot and medical crew. The pilot may give her a weather outlook for the day. She checks tablet status to ensure they are ready for a flight. Some flight requests come over the tablet and sometimes she receives a direct call for a flight. In that case, she lets the crew know. She gets patient information from the hospital, and may arrange ambulances for patient transfer. Throughout a flight, she is in contact with the crew via text message each time they are on the ground. She can also send a text message to them in flight using the spidertracks system that each airplane is equipped with. Most flight requests come over the tablet. The crew will evaluate the request, both medically and weather-wise, to decide whether to go on the flight or not. Anybody can turn down a flight. Turn-downs are documented, but not required to be reported to management. She may or may not know if other operators have turned down a flight. Only if the requestor tells Rico while she is on a phone call with them would she know. Often hospitals contact multiple operators and will question them all in a very short time frame, trying to see which one can respond the quickest or which one will not turn the flight down for weather if weather is a factor. The first operator to say yes and with the shortest response time gets the flight. On occasion, she could overhear other hospital staff through the phone talking to other EMS operators trying to find service for their patient. She was not aware if any other operators had turned down the accident flight before Rico agreed to it.

She had talked on the phone and by text message to the accident pilot on the day of the accident. She noted nothing out of the ordinary. He sounded happy. He texted her "Clovis is a go." She had known the accident pilot since he started at Rico, but she had not flown with him. She had heard no talk among other medical personnel regarding health or personal issues the accident pilot may have had. He had no particular reputation among the medical crews. Once, after a particularly bumpy flight, the accident pilot had called her and said "we're done." He had decided to stop flying that day because of turbulence. This was about a month ago. She was aware of no concerns among crews about maintenance in general. The PC-12 had been to Denton recently for autopilot repairs. The DO had then flown his daughter and grand-daughter back to Amarillo in the plane.

She thought that the PC-12 was the newest plane that Rico had and thought it was in good condition. She was not aware of any continuing maintenance issues with that plane. She knew of a handful of weather turn-downs in her 8 years at Rico.

The request for the accident flight had come from Plains Regional Medical Center in Clovis, New Mexico. The first contact was at 2248, but at that time the hospital did not have a receiving physician, so the flight was on hold. At 2334, a second call came and the flight was accepted by Rico.

Medical crewmembers can say no to flight for any reason, including their discomfort with the weather. She thought medical crewmembers mostly have high confidence in the pilot's ability to make good decisions about the weather. She was only scared in flight twice: once during an encounter with turbulence in Albuquerque and another time during a low-visibility approach when she couldn't see the ground, but she trusted the pilot.

She thought the accident pilot was about average in his risk aversion regarding weather.

She was aware of a flight on the Tuesday before the accident when a medical crewmember had an unusual experience when flying with the accident pilot. He had made some unusual turns, and was up and down out of the clouds. These were comments from the medical crew.

The interview concluded at 1420.

Interviewee:	Richard Sanford Coon
<b>Representative:</b>	None
Date / Time:	May 3, 2017 / 1445 CDT
Location:	Rico Aviation Hangar, Rick Husband Amarillo International Airport
Present:	Marvin Frantz - NTSB; Chris McVay - FAA; Zachary Forsberg - Rico
	Aviation, LLC
Investigator:	Marvin Frantz

During the interview, Mr. Coon stated the following:

He was the president, founder, and Director of Operations (DO) for Rico Aviation. He had started the company over 20 years ago. He holds an ATP pilot certificate with a CJ2 type rating, and with private pilot privileges for rotary wing and airplane, single-engine sea. He has 12500 flight hours and about 100 hours in the PC-12.

His duties are keeping the company together and on track. The chief pilot does pilot scheduling. He and the chief pilot monitor pilot flight and duty time. The majority of the time, they are notified of a flight by a three-R text from the hospital which goes to the pilot, medical crewmembers, and the medical dispatcher. The medical crew call the hospital while the pilot does weather checks. The crew then decides if the flight is a go or a no-go. The rule is it takes 3 to go, one to say no. If a pilot declines a flight, he does not necessarily have to inform him immediately, but he would have a conversation with the pilot later, maybe the next day. Reasons for weather declines are variable. He has 100% confidence that no-goes are ok with pilots.

Rico uses John Morris as a Pilatus instructor to satisfy insurance requirements. He provides three days of ground school and then flight training in the airplane. After that, pilots fly with him (Mr. Coon) or the chief pilot to get comfortable with the plane, to fly better. They fly an unspecified period of time with the DO or chief pilot until they are "ready to go."

The accident pilot had his part 135 proficiency check on December 21, 2016. He had started ground school in November.

When hiring pilots, he looked for experience, type of experience, and the quality of the person. The accident pilot had a good resume, was a gold-seal flight instructor, had 5700 hours of flight time in different airplanes, and was a good guy. He had conducted a pre-hire flight with the accident pilot. He was aware of no difficulties that the accident pilot had had in his PC-12 training. He had heard no comments, either good or bad, about the accident pilot. He was not aware of any personal, medical, or health issues the pilot may have had. Jonathon (a company flight nurse) has information about a clearance issue the accident pilot. He was sure the accident pilot. He knew of no other comments from the medical staff about the accident pilot. He was sure the accident pilot had turned down a flight for weather in the past. He had flown with the accident pilot maybe a month ago on a repositioning flight. He also flew with him after his proficiency check. He noted no areas that needed extra training. He would not have turned the accident pilot loose if he wasn't ready.

The autopilot on the Pilatus had been a problem since day one. Many components had been replaced but it would still kick off in flight. A new autopilot computer was installed, and the problem did not reappear for several weeks, but it did return eventually. Recently, the Greenpoint maintenance facility replaced a trim adapter. After the replacement, he and the avionics expert from Greenpoint conducted a test flight and did two approaches in Denton. The autopilot worked ok. He then flew to Dallas Love field, then to Amarillo and the autopilot worked perfectly. It did click off on the way back from Dallas, but that was due to turbulence. He wasn't sure, but he didn't think that he had previously had autopilot disconnects due to turbulence.

He had talked to the accident pilot the evening of the accident, about 30 minutes before he went on duty to let him know that the on-duty pilot would be late coming back from a flight to Denver.

Prior to the most recent autopilot problem, there were 6-7 weeks of no problems with the autopilot.

He was aware that Rico had chosen to fly the accident flight.

Prior to the autopilot work done at Greenpoint, several other maintenance shops had done work on the system trying to solve the problem. This included work in Kansas City just prior to Rico's

purchase of the plane and work done 2 or 3 times at Meacham Field in Ft. Worth. After this work, the autopilot worked for 1, 2, or 3 weeks, then the problem happened again.

When the autopilot disengaged during his recent return from Dallas he did receive the normal autopilot disconnect aural warning. He did not mention this event (the turbulence disconnect) to the accident pilot. The flight director continued to work after the autopilot disconnected, both when it was due to turbulence and when it was because of the continuing problem with the system.

All pilots and the director of maintenance have operational control at Rico along with the DO and chief pilot.

In his experience flying with him, he thought the accident pilot would rather hand-fly the airplane than use the autopilot.

When the autopilot failed (not a routine disconnect due to turbulence) he would hear the same tone (or the word "autopilot") that would occur in a normal, turbulence related disconnect.

The interview concluded at 1550.

Interviewee:	Jonathan Braswell
<b>Representative:</b>	None
Date / Time:	May 3, 2017 / 1603 CDT
Location:	Rico Aviation Hangar, Rick Husband Amarillo International Airport
Present:	Marvin Frantz - NTSB; Chris McVay - FAA; Zachary Forsberg - Rico
	Aviation, LLC
Investigator:	Marvin Frantz

During the interview, Mr. Braswell stated the following:

He had been a flight nurse at Rico Aviation since August 2013.

Flights start with either a call from the DO directly or via a text called a triple-R, on the tablet. When a call comes in, the flight nurse will call the medical facility to find out about the patient, while the pilot checks the weather for the departure point, arrival point, and any return-to-base flight that may be required. The medical crewmembers then gather the needed equipment and get ready to go. When they get a call or text, they typically take 3-5 minutes to do medical and weather evaluations and to decide whether or not to take the flight. Then they take another 10-15 minutes preparing before they are ready for engine start. All three crewmembers must decide to go. Medical crewmembers have high confidence in the pilot's ability to make a safe decision based on the weather. A medical crewmember can say no to a flight for any reason. All crewmembers are concerned about one-another. They watch out for each other.

He had flown with the accident pilot 20-24 times. The most recent was on the Tuesday night before the accident. The flight included Lubbock but he could not recall the other airports.

He did recall one unusual incident with the accident pilot. After a normal start and take-off, he noticed a sudden change in altitude during the climb. The plane went quickly from a climb to a decent. The rest of the flight was smooth. After landing, the accident pilot explained that he forgotten to get a clearance, so he had to stay out of the clouds. This was why he had to descend quickly as soon as he realized he did not have a clearance.

He had not noticed any personal issues with the accident pilot. He called his wife frequently, and it seemed they had a good relationship. He knew the accident pilot's brother was struggling with cancer, but the pilot seemed accepting of that fact. He helped out readily around the crew house in Dalhart and he liked to cook for the crew when he was on duty there.

As a medical professional, he had no cause for concern about the accident pilot's health. He had no contact with him outside of work. He had heard nothing from other crewmembers about the accident pilot.

The company uses a HITS form for crewmembers to report safety issues and issues with medical equipment.

Once in his time at Rico a pilot was fired because of concerns and complaints by medical crewmembers. The company emphasizes the importance of treating the medical personnel on the same level as the pilots, making them full members of the crew.

The accident pilot had turned down a flight for weather in the past. It was a collective decision by the crew, due to nearby storms. It was the crew's decision, and the accident pilot was okay with that.

He thought the pilots do not feel any pressure to go on a flight. He had never argued with any pilot about going. The company had a three to go, one to say no policy. He feels like crewmember's concerns are always addressed and no one would hesitate to come forward if they had a safety or other concern.

The interview concluded at 1645.