RECORD OF CONVERSATION

Jim Silliman
Air Safety Investigator
Central Region

Date: April 25, 2012
Person Contacted: Mr. Rick Sharpe, Pilot
NTSB Accident Number: CEN12FA250

Narrative:

Kept rotor system turning until rescue boat arrived. Rescue pod arrived. Shut it down. Helicopter started to list.

Flight previous to this. Engine rolled back. Didn't go to manual. One engine was on during final.

Went to idle twice on us. Engine would roll back to idle. Engine switched back to other engine on EEC. Can go into manual and fly around.

Mechanic couldn't find anything wrong with it.

High rate of descent to platform. 70 feet. Main concern was to get away from the platform. I'm not sure which engine rolled back. I was trying to get away from the structure.

No low rotor rpm. I dropped collective too. It happened really quick. Trying to maneuver away from the rig. Dropping nose and pulling pitch to fly out. Flared out and put it in water. Drop nose and accelerate to fly away. Feel awful about putting helicopter in the water.

Kind of funny. Everyone was through dunker training. Helicopter started listing left and we started to move right. Sitting and waiting for the helicopter to sink before they got out. People were kind of frozen. More training for egress and lift raft training. Almost lost one of the rafts. Hang on to the lanyard. Dunker training. PRIMAL. Waiting for the helicopter to sink and fill with water first.

Airpseed into the rig. Last time. 20 to 25 knots. 60 to 40 knots to the rig. Last I saw it was 20 knots before the flare. Flared. Decreased pitch with power. Sound changed. The pitch of the engine changed. Reduction in power. A rollback.

Pulled collective. Rate of descent not good. Nosed over. No go-around. Approaching into the platform. A little crosswind of 30 degrees off the nose. Approach into platform to slide 2 – 3 of edge of platform.

Maneuvered off the platform for a clear shot to drop nose. Maneuvered clear of it. Drop nose. 3 – 4 seconds later, we're in the water.

Inbound heading was 190 degrees. Wind 220 degrees at 5 to 6 knots. Wind was pretty light. GPS had wind indications of 220 degrees at 5 to 6 knots. Garmin 500. UNS-GPS/FMS.

RECORD OF CONVERSATION

Jim Silliman
Air Safety Investigator
Central Region

Date: April 30, 2012
Person Contacted: Mr. Rick Sharpe, Pilot
NTSB Accident Number: CEN12FA250

Narrative:

Bell logs. Logging everything on Bell logsheet.
Weight and Balance. Was in the pilot handbook. Only in the POH.

Aircraft performed flawlessly. Engine kept helicopter running while in the water.

36 years of flying. 23 years with Rowan. 10,000 fixed wing. 2,000 hours of helicopter time. 660 hours in S-76. More in Bell 222. H-34, Hiller, S-61, and TH-55.

0600 – normal preflight. Checked weather. 0700 departure. Passengers showed up. Weather was not good. Ceilings. Departed 0830.

Topped off with 6 passengers. Burn 380 pounds of fuel per side.

Power assurance checks – record values? Only if maintenance required it. No power assurance checks.

No anomalies. Uneventful. New Iberia. It took about 1 hour and 40 minutes. We shut down and refueled. Topped off with 1,850 pounds of fuel. 200 pounds per passenger. 1,200 pounds. No luggage. No equipment.

Departed 1110. 45 minute flight. No indication of any problems.

Approaching the rig. Flew directly into the platform. Don't want to turn too much. Normal approach. Pulling. Losing power. Rate of descent picked up. Going to the platform would end in catastrophe. Decided to steer clear of the platform. I was going down as I cleared the platform and I pulled pitch and hit the water.

Flying right at the platform. I was not looking at airspeed. It was a normal decreasing airspeed approach. 60 to 45 knots. Nose high attitude in the flare. 8 degrees flare. Flatten out on the bottom.

Trajectory. We were going to hit 1/2 on the platform and 1/2 short of the platform.

How far from the platform when you heard the engine wind down? 60 feet roughly. Approach angle or rate of descent. 12 degree approach angle. 15 – 20 high. Just short of platform. Then flattens out and your over the zone.

I pulled away from the deck. No way to go forward. No clear access straight ahead. Touch and go around the side.

Helicopter was near zero airspeed. Maybe 1/2 way over the landing zone. We were going to hit the platform. Maybe 20 knots at 60 feet over the landing zone. Getting pretty slow. Pulling pitch. Flattening out. Banked back and left. Nudged down on collective.

Primal. Flare and down on collective. Nose cutter to the left. Aft on cyclic to get away from the platform. Steer clear. Pull pitch and drop nose and pull pitch.

Wasn't long before we hit the water. Slow motion. A couple of seconds. Rate of descent – wouldn't pull out of this. Pulling pitch before I hit water.

Hit the water. Aircraft fairly buoyant in the water. Tried to maneuver toward the supply boat. Had no directional control. Kept it buoyant. Popped the floats. Seemed like about 10 seconds. After I popped floats. Seas were 5 – 8 foot. Bobbing in the water. Kept rotor system going for at least 2 minutes.

I shut the helicopter down when the rescue pod was in front of me. The electronics were shorting things out.

Lower collective. It was listing to the left. All the bags inflated. Passengers moved to the right. Passenger ejected the door. Passengers were calm. They threw the survival package in the water but forgot to hold onto the lanyard. They got the lanyard. Deployed second raft. Aircraft was still listing. As soon as everyone was out safely, I jumped in the raft. The aircraft was on its side and capsizing.

Spool up sound. We didn't have power. Rate of descent picked up.

Roll back. Went to idle.

Ground idle setting? I can't tell you where it went.

In cruise flight, it seemed to roll back to flight idle. No alarms. Went from torque sharing to T5 sharing. Those engines were matched really well. Temp sharing – not a lot of torque slit.

Dual channel control. A – always in control. B- always trying to control.

Power rollback. No channel change from A to B.

Starting sequence. A to B and back to A. Any problems? Seen it before. Changed an EEC.

36 different fault codes. EECs.

When power lever is 55 degrees PLA. Stepper motor fuel valve and EECs talk to each other. EEC winds up, the other engine winds up.

Channel fault codes. Interrogates when there is weight on wheels.

Got back and couldn't find any fault codes. Hard to fix an intermittent problem. The mechanic didn't know what it was.

Switch from A to B. Just light. No audible signal. We didn't get a light or anything.

Rollback to 48 to 51% Ng, then engine out light. No sensor on EEC itself.

No torque rollback. Assume ground idle.

When engine loses power, the other engine goes higher.

No red engine out light. No blue manual reversion light.

You can tell something when the noise indicates something isn't going right.

The rate of descent was increasing and engine was winding up.

Not sure what engine it was. Didn't have power. Needed to get away from the platform.

April 13. Offshore Rig to Port Fourchon.

Got the indication. Got the rollback. No yaw. Autopilot on when it happened. Torque gauge going to OEI range. Immediately lowered collective. Switched off autopilot.

Probably 25 miles from Port Fourchon. #2 rollback. Torque going up. Temperature increased into the yellow arc. Lowered the collective to keep it out of OEI range. Engine still running. RPMs up. Engine still running. Switched torque sharing to T5 sharing.

Engine came back about 10 to 20 seconds later.

Got back to Port Fourchon. Everything ran smoothly. Hovering around for a little while. Got gas and flew over land. Drained some fuel for bad gas.

Monday morning the mechanic looked at aircraft and he couldn't find any fault codes.

Friday, we didn't return to Hobby; we went to Patterson, LA. Then 3 trips to the rigs and back to Hobby.

Monday, I didn't do anything. Switched from A to B. The mechanic didn't find any problems and there were no fault codes.

Over speed checks. No issues.

Discrepancy for maintenance. Told him verbally.

Pilatus PC-12, Gulfstream G-IV.

Mike is fixed wing.

RECORD OF CONVERSATION

Jim Silliman
Air Safety Investigator
Central Region

Date: May 16, 2012
Person Contacted: Mr. Rick Sharpe, Pilot
NTSB Accident Number: CEN12FA250

Narrative:

I called the pilot to clarify some details concerning engine power settings and loss of power indications.

On the flight on Friday, April 13th, he was in cruise flight when the #2 engine had a loss of power. The noticed that one of the torque needles was going into the OEI range when the other engine lost power. He reduced the collective to keep it from going into the OEI range and over temping. There was no torque on the #2 engine. The torque needles were split and no torque was registering on the torque gauge. The #2 engine was still operating because there was Ng but he was not sure what the Ng read. It might have been in the idle range, but he wasn't exactly sure where it was. He switched back and forth on the Torque matching and Temp matching switch, but it did not seem to have any effect. The #2 engine came back on line by itself. When it did, the #1 engine had a decrease in power. The entire event maybe lasted 10 – 15 seconds. After that, the #2 engine worked fine.

He landed at Port Fourchon and shut down the helicopter. He checked to see if there were any fault codes, but there were none. Everything seemed to be fine. Two more flights were conducted on Friday and a total of 3 flights were conducted on Saturday with no anomalies.

The accident flight occurred on Tuesday. The pilot heard a change in sound and a loss of power as he was on short final and in the flare to the rig. He did not characterize the sound as a change of engine noise or a change of transmission noise. He did not see a RED light, but was sure he would have noticed if it had been on.

He characterized the landing in the water as similar to a "Quick Stop" autorotation maneuver. He realized he was going to impact the water so he flared and pulled in pitch. He remembers seeing one of the needles going into the OEI range. Once in the water, he continued pulling pitch. He

attempted to maneuver the helicopter toward the boat, but he realized that he didn't have any tail rotor effectiveness. He did not look at the gauges and he did not see what the engine indications were. He did not shut down the engines until the rescue pod was near enough to make the recovery. Once in the water, the pilot deployed the aircraft floats.

Bill Hedrick stated that according to the witnesses on the oil rig, it took about 2 – 4 minutes for the rescue pod to recover the passengers into the pod. The pilot thought that was about right.

We had a discussion about the ditching, rescue, and recovery techniques and training.

The pilot thought the waves were about 5 feet. Some of the witnesses on the rig thought the waves might have been 8 feet. The pilot did not deploy the aircraft floatation prior to impact. One possible reason is that in prior ditchings, the floats quickly separated from the aircraft if they were deployed prior to water impact. He cited the Houston accident as an example.

The pilot made these observations about the passenger evacuation:

He stated that the passengers didn't panic, but they also were not reacting to the situation. He thought they might have gone "primal" in regards to their helo-dunker training. It seemed to him that the passengers were waiting for the helicopter to fill up with water before they got out of the helicopter. He had to tell them to get the rafts out, deploy them, and start exiting the helicopter. One of the passengers got the raft out but did not hold onto the lanyard, but somehow retrieved it.

He thought that the passengers should receive the helo-dunker training, but that they should also receive training to use rafts and egress procedures. Part of the raft training should include an emphasis on holding onto the lanyard.

RECORD OF CONVERSATION

Jim Silliman
Air Safety Investigator
Central Region

Date: May 1, 2012
Person Contacted: Mr.Michael Hyde, Pilot in Left Seat
NTSB Accident Number: CEN12FA250

Narrative:

13,000 hours in recip engines to jets.

6 years with Rowan. Flying fixed with aircraft. CJ-1, Dash 8, PC-12, Gulfstream G-IV.

Les Smith just retired in December. I'd flown once with Rick.

Nor formal training in helicopters. About 25 of left seat time in helicopters.

I was there if I was needed to turn it around and land it on a runway. No way would I attempt to land on a rig.

Accident flight. Approached the rig. Pitched up. Saw the rig going through the top of the windshield. Happened very fast. We were in the water very quick. Got the raft out. Got out.

500 – 1,000 feet. We were typically around 800 feet.

I can't see anything. Nose blocks my view. Can't see much from my side.

Pitched up. Started to flare. No horns. Didn't notice any gauges. Awestruck at first. Flare to water – less than 10 seconds.

April 13th flight. Friday night.

Left rig. About 10 minutes later one engine went to idle. The other went to OEI. Surged a little bit. A minute maybe less. The engine came back to normal. We continued to Port Fourchon.

RECORD OF CONVERSATION

Jim Silliman
Air Safety Investigator
Central Region

Date: April 27, 2012
Person Contacted: Mr. Dave Southard, Mechanic
NTSB Accident Number: CEN12FA250

Narrative:

The pilot called me on Saturday and left a message. I didn't get the message until Sunday.

The pilot flew on Saturday.

#2 engine went back to ground idle. 50 – 60% idle. Not sure.

No horns. Engine idled it back. No engine out horns. N1 horn – engine out warning about 30%.

Monday morning. Sign it off for Saturday? Probably not. Had him check the A and B codes.

Pulled #2 cannon plug on the #2 engine. Torque indication system. Didn't touch EECs.

Torque sensors. A year ago. A was switching to B. Trouble codes indicated torque system.

Didn't know how much he flew on Friday. 2 hours?

#2 rollback to 56%. #2 throttle quadrant. Manipulated and suddenly engine came back on line.

Saturday it flew with no problems. About 2 hours? To rig and back to shore. No flights on Sunday.

Monday. 1/2 to 45 minutes. A and B channel check. No fault codes. Cannon plugs and torque sensors. No engine run or flight check was conducted.

Pilot flew on Tuesday. I got there after they left. I got there around 8 am.

Maintenance logbooks. No write ups. Don't put things for engine in. Replaced the EECs. Put that in the airplane logbook.

Something I would do to do something. Last time an EEC problem. Dirty cannon plugs. Kind of a "Hail Mary." Didn't put that in logbook. It didn't seem to warrant a logbook entry.

We did not perform routing power assurance checks since before we got the S-76B. Bell 222s – trend monitoring.

Nothing requires power assurance. No trend monitoring. No required. Used to do it on a daily basis. We stopped about 2 months ago.

RECORD OF CONVERSATION

Jim Silliman
Air Safety Investigator
Central Region

Date: May 1, 2012
Person Contacted: Mr. Dave Southard, Mechanic
NTSB Accident Number: CEN12FA250

Narrative:

Zone inspection. 150, 300, and 600-hour inspections.

Minor maintenance inspections. 100 and 300-hour inspections. Do myself.

Big inspections. Taking it to Aero Aviation.

Spoke with the pilot on Sunday evening. He told me about the rollback. He flew Friday and Saturday. Zeroed out the trouble codes. There were none.

To say I had done something, I sprayed corrosion preventive on torque sensor cannon plugs. No change. No fault codes.

EEC – collective position resolver? 1,500 hour and annual inspection. Aero did the 3 year. Aero should have inspected it. Aero did the 3 year inspection. 3 year corrosion inspection.

We have not been doing a formal annual. We're using zone and hourly inspections.

I'd be surprised if we put on 1,500 hours since we've done them.

Alert Service Bulletin. 2,000 hour time frame.

Aero performed it in late summer or fall.

Over speed checks. Will detect fault with collective position resolver. Never done one myself.

Power assurance checks. Record it. Trend it. See margins. FOD dramatically changed trend.

N1 and NG – Compressor speed.
N2 and NF – Power turbine.

Compressor wash and turbine wash. Dirty – loss in your speed margin. Lose compressor efficiency.

Compressor turbine. Life of the blade. Sulfidation – corrosive attack to the CT blade

Power assurance checks. You'll see it. 60% and T5s matched. One engine way better – margins running down.

Turbine washes. Fuel nozzle cleaning. Haven't been doing turbine washes. Degradation of engine power. Engine has to work harder to produce the same power. Harder and faster.

Pilot. T5s quite well matched. He said the engines were quite well matched.

Never done SB change to Nf sensor.

Aircraft has original harness.

The EECs had small anomalies. Loose connector. Switched from A to B and then back to A. Resistance. Torque probes were okay. Torque cannon plugs getting flaky (?).

A & B then the Blue light comes on. Nothing rolls back the power.

Fuel control. Stepper motor. Four phase. Flags a fault code.

Stepper motor. Looking at resistance. Constantly measuring stepper motor wires. It will stay latched.