FOR NTSB INVESTIGATIVE PURPOSES

5305 Incident Report

Crew: Scott Wedemeyer (Pilot Flying-PF), J. Todd Hicks (Pilot Not Flying-PNF), Doug (maintenance). Callsign GLF16.

Date: Monday, 14 Feb 2011

Location: ATW, Landing Runway 30, RNAV/GPS Runway 30

Flight was a Completion 1 on 5305. Brief started at 0815. Ground ops were uneventful with the following writeups: exterior baggage door squeaks, pilot and co-pilot seat tracking, acoustic door chatter while taxi, printer inop, left hydraulic quantity of 5.0, right hydraulic quantity of 1.7, and occasional Trim 1-2 Fail that would self clear.
Taxi, engine run-ups and takeoff were normal.
The flight to the SAW area was normal. All in-flight checks went normal. Airborne writeups were FMS 1, Elev Trim 1-2 Fail (amber CAS message) and Mach Trim 2 Fail (blue CAS message). The autopilot disengaged during VMO checks and pitched nose down. The autopilot also disengaged from ILS go-around at Green Bay (KGRB).
After low approach from KGRB, Air Traffic Control (ATC) eventually cleared GLF16 direct to RNAV/GPS Runway 30 Initial Approach Fix SUDIE.
Flaps 10 degrees were selected at approximately 200 KCAS prior to APESE. Between APESE and ZUMUG (Final Approach Fix-FAF), 20 degrees flaps were selected. During this phase, the PF was adjusting the Enhanced Vision System (EVS) and a discussion about doing a VOR approach rendered a decision to full-stop the GPS due to trim and auto-pilot issues. Approaching glide slope, PF called for the gear down and landing checks. The gear came down with 3 green, no red. PNF also completed before landing checklists except for selecting full flaps to include arming ground spoilers, warning inhibit, pumping up Brakes/Hydraulics/Brake Accumulator to 3000 psi. Additionally, the PNF selected the Landing Mode on the Cabin Pressure Controller. Shortly thereafter, an amber L Hydraulic Quantity Low CAS Message came on inside the FAF. The PF selected the hydraulic synoptic page and noticed the hydraulic quantity decreasing. PF called for flaps full and PNF selected flaps full but no movement of flaps occurred so PNF re-selected 20 flaps. Shortly after, an amber L Hydraulic System Fail CAS message appeared. PNF pulled out the checklist and suggested a go-around. PF decided to land due to significant hydraulic leak and already in a landing configuration below 1000 feet above ground level (AGL) with prior autopilot/trim problems. PNF continued to access the L Hyd Fail checklist and turned on the Aux Pump at approximately 500 feet AGL. PF had throttles at idle and landed and felt it took a long time to get the nose down. PF selected right thrust reverser aft and began pressing brakes but felt no braking action and reached for the emergency brakes. PF visually saw the 3000 feet remaining board and decided it wouldn't be enough room to stop so attempted to go-around by advancing throttles to MCT and took hand off the throttles and put both hands on yoke and pushed forward to attempt to minimize drag and hold on runway until flying speed was obtained. PNF felt there wasn't enough runway to get airborne. PNF saw the throttles up but airspeed was stable at 100 KIAS and did not feel acceleration or see the airspeed start to increase. PNF pulled the throttles back. PNF made this decision to avoid a worst case

scenario of a runway departure at an even higher speed just as the engines were finally spooling up. PNF estimates approximately 1000 feet of runway remaining when throttles were pulled back with what felt to be no acceleration from the engines. At this time, PF reached up and deployed right thrust reverser and began steering airplane to the right to avoid obstacles. The aircraft departed the end of runway 30 at approximately 95 KIAS on runway heading near the centerline.
Aircraft veered right and eventually came to a stop after left main landing gear collapsed. Just prior to coming to a stop, PNF selected manual on the cabin pressure controller and opened the TROV. PNF shut down engines with fuel control and aircrew egresses the aircraft. Doug opened the main entry door and cautioned that the door will collapse which it did.

(R) [redacted]

John Scott Wedemeyer James Todd Hicks