



## Phoenix Project Monthly Report for May 2015

From: vector/CSP

To: USCG Aviation Association; Phoenix Project COR

1. This monthly report is submitted IAW Contract CGAA-15-PTERODACTYL-00-FF.

2. Labor hours expended:

- Craig Simmons 148.0
- John Siemens 126.0
- Kristie Markham 77.5
- Ron McGough 40.8
- Dave Young 30.8
  
- **Total** 423.10

3. Expenditures:

- Consumable materials: \$1311.86
- Hangar rent \$500.00

4. Accomplishments:

- Successfully cannibalized floorboard from Aberdeen aircraft to replace the spongy corroded floor over the aft fuel cell. Treated minor corrosion and made flange repair on floorboard. Drilled out approximately 60 old floorboard nut plates (with sheared off aluminum floorboard bolts) and riveted in new nut plates. Laced fuel bladder to airframe with parachute chord, installed plumbing and fuel probes. Installed floorboard with new hardware. See photos.
  
- Main rotor blades arrived from Van Nuys and have been stored in the USCG Walmart warehouse.

- Removed all instruments, instrument panel, and seats from the cockpit. Instruments will be cleaned, and panel will be sanded and painted before reassembly. See photo.
- Towed aircraft to wash rack for a more thorough scrubbing of the cockpit and cabin. This was done to prepare for interior painting. Also completed cleaning removing Velcro glue from frames (Velcro held insulation blankets). See photo
- Fabricated T-58 engine sling from scrap steel. Sling is needed for installing engine on aircraft at Dulles, and for removing engine from shipping container. Obtained a spare T-56 (C-130) roll-over engine stand from LRS Product Line. Fabricated/welded brackets to adapt and install T-58 in T-56 stand. Engine is ready for corrosion control and cleaning. Engine has been degreased, pressure washed, bell mouth painted, bullet nose (starter cover) painted, and engine preserved with light oil. Roll-over stand was key to a good thorough cleaning. Engine will be placed back in the shipping crate in the near future. See photos.
- Removed tail wheel and tail strut. Removed all paint, primed, and painted strut with polyurethane. Reinstalled strut and tail wheel. (Tire still needs to be replaced).
- Removed cradle from aircraft. Lifting truss worked perfectly. Crane was provided by MRS Product Line. Cradle and tow bar for cradle has been stored at ALC's Walmart storage facility. See photo.
- Prepared aircraft for ALC media blast. Met with IOD and members from the media blast facility. Followed their preparation instructions; capping all external airframe lines, taped all vents, holes, windows, and identified all composite/Fiberglas. Towed CGNR 1426 from FBO to ACL blast booth on 19 May. Media blasting was complete 22 May. Towed aircraft back to FBO. See photos.
- Removed rust/corrosion from pilot and copilot seat frames.
- Procured new cabin Plexiglas cut by local vendor (\$150). Stop drilled crack in pilot's windshield. May replace pilot's greenhouse which we found to be slightly crazed. Cracked copilots greenhouse has been removed and replaced by a good one from the Aberdeen aircraft.
- Ordered/received aluminum sheet and rivets to fabricate airframe patches.
- Provided a spare base nut and retainer nut to First Flight machine shop for a quote to have tools made. Total quote \$550.00. Found another source (Scott Donely) who is willing to sell us his tools for \$250.00. Following receipt of a written quote, we intend to procure these tools. The tools are needed to remove the rotor head base nut and retaining nut to inspect and determine integrity of transmission main rotor shaft.

- Inventoried cabin insulation blankets provided by Cecil Loter. We have a complete set. Several blankets are discolored but can possibly be spruced up with fabric paint. Intend to discuss with Roger Connor. One blanket is torn but can be patched with one of the blankets that came with CGNR 1426. Ordered/received Velcro for attaching blankets to airframe. Velcro will be glued to aircraft frames, as it was originally. See photo.
- Ordered flat interior grey paint (Fed Standard 36232 as per the HH-52A paint drawing) from PPG Aerospace. Intend to paint interior (below the insulation blanket line), floor boards, aft bulkhead, and instrument panel. Fed Std 36232 is not a color stocked at ALC.
- Split the rim of a MLG wheel assembly obtained from the Aberdeen aircraft. Wheel was abrasive blasted, primed, painted, and built up with the original tire. Once inflated, the tire was found to be dry rotted and will have to be removed and replaced. The intent is make this wheel RFI, install it on the aircraft, make the next best wheel RFI, and keep the worst wheel as a spare. New or good used tires will be needed for all three wheels. See photo of current dry rotted tires.
- Cleaned Cecil Loter avionics rack, which was superior to the avionics rack from CGNR 126. Brought rack up to the configuration of the rack originally installed in the 1426. All avionics boxes have been cleaned and touched up with flat black paint. Rack has been populated with the avionics to verify which boxes are missing. See photo.
- Loading platform was media blasted and ready for paint.
- Stripped paint from all cabin emergency exits, primed, and painted. Paint was unsightly and in very poor condition. See photo.
- Missing tailwheel locking t-handle mechanism has been installed (obtained from the Aberdeen aircraft). Performed minor corrosion control and stabilized corrosion in the bilge under cockpit floor. Interesting to note that while in the bilge for t-handle installation, found names and dates written on the frames and panels. See photos.
- Nose search light housing assembly disassembled to strip paint from fiberglass housing. Housing contained many layers of cracked paint. Performed fiberglass repair to housing, reinstalled light assembly, and primed. Installed missing back plate on aft side of housing (obtained from Aberdeen aircraft). See photo.
- In summary, we had a very good month, with many accomplishments. We are very appreciative of ALC IOD for fitting CGNR 1426 into the schedule for media blasting. We received a call to bring the aircraft to ALC on 18 May (3 days earlier than anticipated). Our team was ready and worked hard to prep the aircraft as per IOD's instructions. Our USCG designated POCs (Gary Polaski and CWO Mike Mauro) have been extremely helpful. This month, we were provided a loaner tool box with metalsmith tools, and an engine stand. There have been no bottlenecks. I believe our diverse team is working very efficiently, using time wisely, and has been able to work on multiple

tasks simultaneously. Assuming we can schedule CGNR 1426 into paint in the December timeframe, I see no reason why we cannot complete this project on schedule.

5. Future Plans:

- Visit the Udvar-Hazy facility with Roger Connor to discuss assembly.
- Paint interior when paint arrives.
- Paint instrument panel, and reinstall.
- Place T-58 back in the shipping container.
- Mount transmission on mobile trailer. Remove rotor head for inspection, once tools are obtained. Begin cleaning of components.
- Begin installation of airframe patches.

*Craig Simmons*

Phoenix Project PM

vectorCSP



Removing floorboard over aft fuel cell from Aberdeen aircraft.



Flange repair (bonding edges of flange after minor corrosion repair).



Instrument panel removed for cleaning and paint.



Interior cleaning.



T-58 installed in T-56 roll-over stand for cleaning / corrosion control.



Pressure washing. Stator vane actuators cleaned with rotary stainless steel brush.



Removed from cradle by MRS Product Line.



Media blast booth



After media blast. Excellent job by ALC IOD!



Incomplete set of insulation blankets from CGNR 1426



Complete set of insulation from Cecil Loter parts. Some repair required.



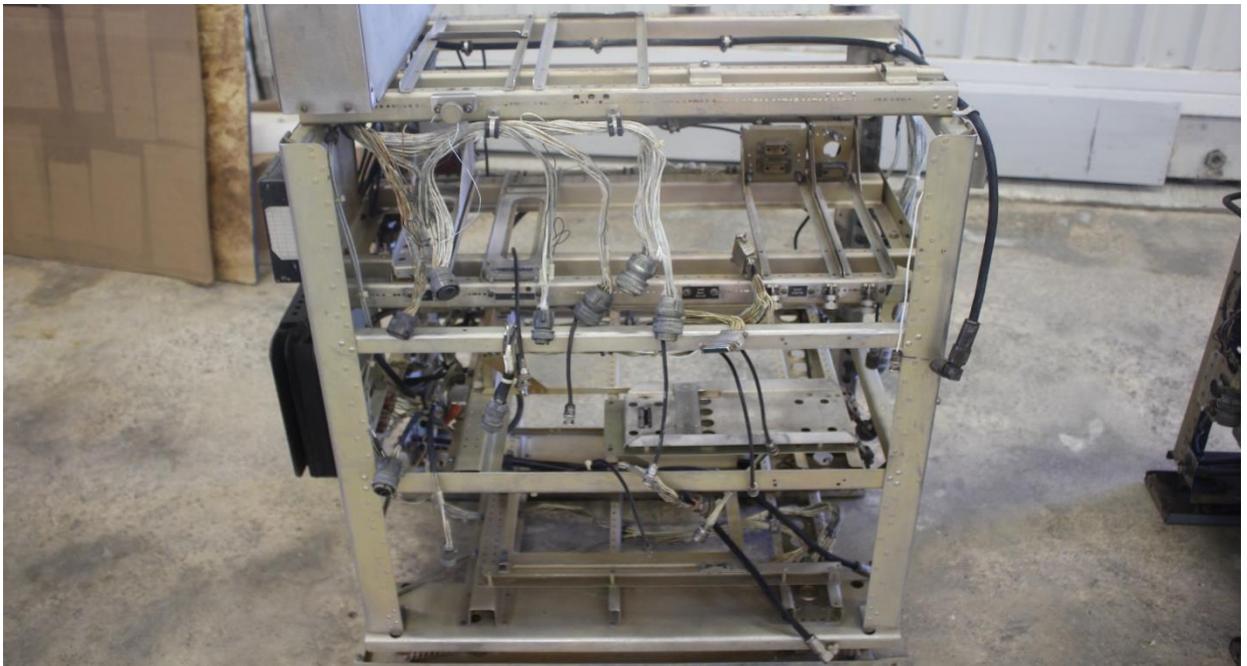
Tail wheel / Left main / Right main



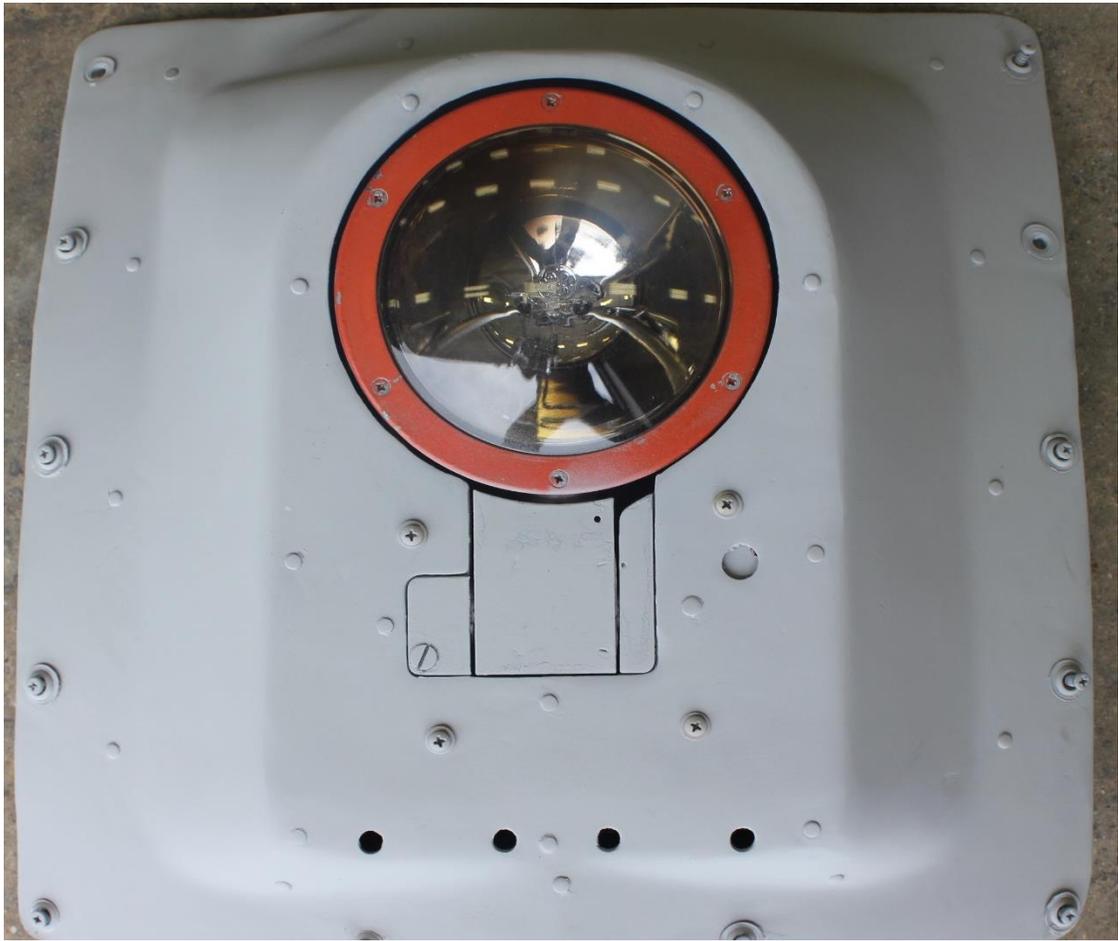
Left main sidewall, representative of all tires



Emergency exit painting



Cleaned avionics rack



Nose light housing; stripped 6+ coats of cracking paint



Names under flight deck discovered during tailwheel lock T-handle installation

Kilroy was here

AM3 Melvin March 27 1987 CMS # 149

AM3 Johnson

Hollingsworth  
ARSC  
5 Apr 76  
Overhaul

"Hollingsworth ARSC 5 Apr 76 Overhaul"

Lee Philips  
AE3  
AR&SC  
2-4-80

Lee Philips AE3 AR&SC 2-4-80