

Project Phoenix

Update 3 – June 14, 2015



Here's another progress report on HH-52A 1426. CAPT (ret) Ray Miller (Phoenix Project Manager); CAPT (ret) Mont Smith (CGAA Executive Director's Representative); and CAPT (ret) Tom King (Special Projects, VectorCSP) traveled by automobile to meet CWO4 (ret) Bill Kopp, (Director of Operations, VectorCSP); CAPT (ret) John Siemens (Technical Subject Matter Expert, VectorCSP); and CWO4 (ret) Craig Simmons (Technician, VectorCSP). We also gave interviews to, and encouraged photography of ongoing efforts by reporter Bill West of the Elizabeth City Advance newspaper. The idea was to promote interest in our project by citizens of the adjoining North Carolina counties, many of whom were either employed by USCG Aviation Repair and Supply Center or its modern day successor, the USCG Aviation Logistics Center. A great many former employees who worked the AR&SC H-52 Repair Line were directly involved in the Programmed Depot Maintenance (PDM) process. Their experience and advice is considered invaluable. In addition, their pride in overhauling each H-52 every 42 months was reflected in the operational availability and performance of the aircraft. We hope they will be moved to make donations toward the success of the Phoenix Project. Mr. West was given documentation regarding Update Number Two and what we know about the 1426's history.

We mentioned in the previous update that the month of June would see considerable metal and fiberglass repair aimed at fuselage and sponson corrosion control. Here, Craig Simmons is riveting a small patch on the starboard hull just aft of the sliding cabin door frame. In the adjacent picture, you



can see that the cabin step is severely corroded. In order to fully restore the step at PDM, the cabin floor would be removed and the unit's surrounding rivets would be drilled out. The fiberglass kick plate and metal step would be unbolted and replaced. In order to avoid unnecessary labor costs, Vector will address the exterior corrosion and make fiberglass repair, while simultaneously assuring that the step is structurally sound, without removing the cabin deck above the step. As you can see in the pictures below, Craig and John are seeking advice from ALC on methods for repair of aircraft skin (port side of cabin adjacent to emergency escape window). It is important to address skin that overlaps frames and stringers. Fiberglass repairs are complete on sponson noses and trailing caps.



Considerable work has been accomplished on the cabin interior. John Siemens fabricated a “like new” interior fuel tank access cover. The old cover, flange and gasket were severely corroded. The cabin



fuel tank access cover permitted Helicopter In-Flight Refueling (HIFR) by gravity feed nozzle from a WMEC or WHEC. You can easily see that the fitting in the HIFR well is in excellent condition. The

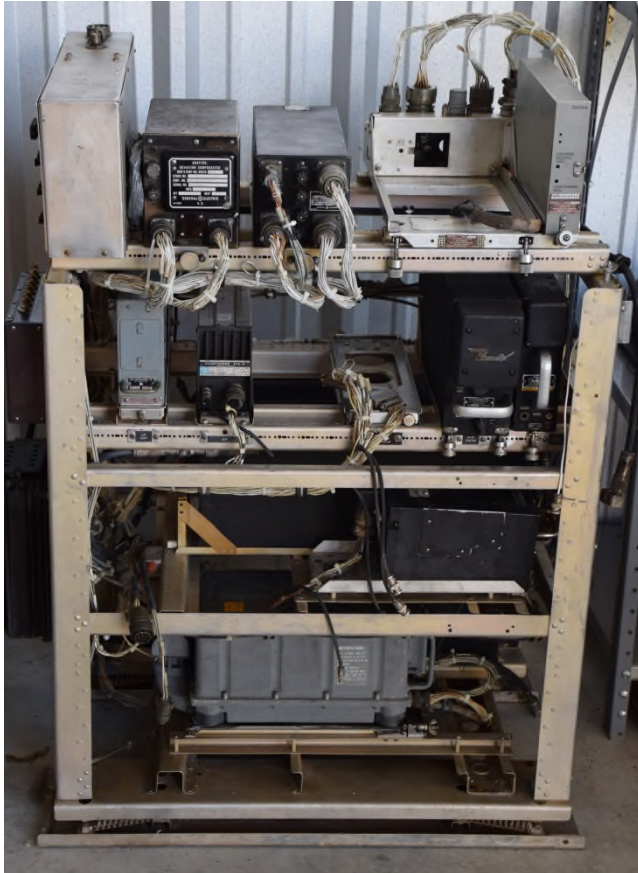


cabin deck and bulkheads are being prepped for painting in the near future. The plan is to re-paint the deck and surrounding bulkheads to a height of twelve inches with a gray paint matched perfectly to the original color. Above that height, the bulkheads will be “fogged” to eliminate “bleed through” from zinc chromate and to ensure conformity with existing paint in good condition. As you can see in the picture looking aft from the cockpit, bulkheads, anti-torque pedals and items like center console



are clean and in acceptable condition, showing a mere patina of fair wear and tear – as an H-52 would

appear in service on the flight line. The original damaged magnesium heater ducting (above left) will be replaced with a duct in great shape from the Aberdeen Girls/1398. We toured a T-Hangar where many of the sub-assemblies are being re-conditioned in preparation for re-installation in the near future. The avionics rack is 95% complete, missing only the AN/ARM-25 TACAN and a VHF transceiver. Incidentally, this rack, in pristine condition, was obtained from a parts stash in Cochise, Arizona by Ptero Cecil Loter. Above (right) you see an upper shock mount for the radio rack, which had a



tendency to large amplitude vibrations in flight. John Siemens showed us the original avionics



rack, which revealed a major area of burnished wear after a shock mount had evidently failed while the aircraft was in service. You can also see the gyro tilt table, which has been immaculately restored.





We are hoping for an active duty AST to volunteer to undertake repair or replacement of the cyclic, collective, and anti-torque pedal boots, as well as seat cushions, auxiliary float bag covers, troop seats and SAR board. Craig Simmons showed us the rotor head removal tools, which (used in conjunction



with a long steel bar to create 300 foot-pounds of torque) enabled VectorCSP to remove the rotor head from the splined transmission rotor shaft. Dampener boots and pitch change rod end covers will be inspected and renewed as necessary. "Tea kettle" hydraulic reservoirs will be drained. The "Jesus

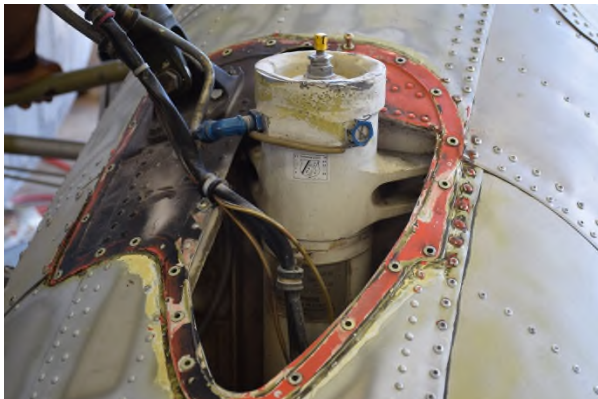


nut" and main transmission mounting bolts will soon undergo magnaflux Non-Destructive Inspection (NDI) to ensure safety when the helicopter is suspended from the NASM Udvar-Hazy facility overhead. The T-58 engine has been cleaned to restoration standards and will be sprayed with water displacement WD-40 and boxed awaiting final re-assembly of the aircraft. The transmission will be power-washed a second time and attention to corrosion will be given to the upper third of the

housing (swash plates, linkages, braces and hydraulic actuators. The remaining units on the accessory section (generators, hydraulic pumps, etc.) are in acceptable condition. Walking back to the FBO hangar, we saw both pilot's and co-pilot's "greenhouse" windows had been replaced and the co-pilot's windscreen crack had been stop-drilled. Corrosion control around windshield wiper mounts was addressed using a fix typically employed in the past by AR&SC. Both cyclic sticks showed evidence of chemical decomposition due to sunlight. We discussed several methods of restoration that will be discussed with Roger Connor, the NASM helicopter curator.



We inspected the horizontal sponson struts, which had been media-blasted and appeared to be in perfect condition and paint-ready. The Schrader valve atop the right main landing gear was free of corrosion and only needs layered paint removal. This update demonstrates that the 1426 restoration



is proceeding on schedule and under budget. However, we need your donations! Please send your check or money order to:

Treasurer
Coast Guard Aviation Association
Post Office Box 940
Troy, VA 22974-0940