

To all of you Batcats

A little history from the Lockheed Aircraft Service side

I came to know and love the birds you flew as my own in February of 1967; I was working at Lockheed Aircraft Service (LAS) Ontario, CA as a “radio & radar technician”.

I received an assignment to this new project called: “the Connie program” on the south side of the air field at Ontario. I worked on the program until the last 121 departed just over a year later.

A Flock of Sick Birds:

I saw my first 121 as it landed at Ontario International Airport, we had two runways then, one east-west and the cross runway. I was standing behind the propeller blast fence as it rolled into our compound, only three engines were running, one was feathered in-flight from DM, the landing gear had the safety pins locked in place, they came to us gear down. This 121 looked like a big humpback whale and wobbled on its stilt like legs, oil, and other unknown fluids were leaking out of this one everywhere, they all looked similar as they were ferried in from DM Tucson. You could see that time in the desert had not been kind to these graceful giants. At DM we had to rob several other aircraft just to get each aircraft ready to go. I think it took about 40 other aircraft to supply us enough instruments, electronics and mechanical parts, to get them airworthy!

Rip and tear time:

Our first thing we had to do get rid of the old Navy equipment, the radomes top and bottom, remove all the old wiring, remove all of the radio and radar equipment, instruments, seats and trim. We basically gutted the entire Navy bird, then sent them to onto the wash rack for a complete striping of all the paint, deicing boots were removed along with the props, cowling, elevators, rudders, flaps and nose radome, these babies were plucked clean.

The build up begins:

After the plucking and cleaning, each aircraft was inspected totally for any corrosion, and the holes from the top and bottom radomes were patched with new sheet metal. Internally all of the control surface cables were replaced and re-rigged, added were new de-icing boots, everywhere on the aircraft that a human could get to, was wiped clean and vacuumed, A/C and D/C inverters and regulators were replaced with new rebuilt ones, instruments were replaced and tested. The Flaps were rebuilt and actuators installed. The fabric on the elevators and rudders was replaced and primed for the camouflaged paint. The interior floor covering was done and the trimmers were installing curtains etc. the aircraft was looking new again. The came your equipment, the CICO, CIM, CIC plotter, and other console equipment, we received them at built up, except for the spectrum analyzer, tape recorders, the vendor tech reps brought those in later and installed them. We wired up the new 618T-3 HF radios, the Motorola FM-622's and the new Wilcox 807a VHF AM radios, one at the radio Ops position and one at the pilots

center console. We installed the OTPI indicators in the pilots glare shield and at the CICO station, along with the Romeo 8 cipher gear.

We installed and tested the: AN/ARC-27's UHF AM, AN/APN70 Loran, AN/APN22 radar altimeter, AN/ARN14 VOR receiver, AN/ARN18 Glide slope receiver, AN/ARN12 Marker receiver, AN/ARR52 VHF receivers, AN/APS42 RADAR, AN/ARN21 TACAN radio, AN/ARC51 UHF radios, AN/ARN6 ADF receiver, and a lot more that I can't remember. One special aircraft even had a new high power (1000 watt) UHF installed in the aft area of the ship, the blade antenna under the rear of the aircraft was painted bright red. I never heard or have seen any further information on that aircraft. Myself and Emilio (Del) Delgado personally replaced all of the HF long wire antennas on all of the Connie's, along with the ADF antennas.

The LAS build up crew is larger than I can remember but here are a few names I can remember and what position they held.

| | | |
|-------------------------|-------------------------------|--------------------|
| Radio & Radar Techs: | Aircraft Electricians: | Mechanics: |
| Al Armenta | Bill "Brutus" Arnse | Tom May |
| Lee Holguin | Harold Piercey | Interior Trimmers: |
| Gene Denton | Mike Iller | Rudy Fiero |
| Mike Wingate | Ivan Guy | Project Controller |
| Emilio Delgado | Aircraft Electrician Leadman: | "Speedy" Myers |
| Andy Vireen | Kenny Broagden | |
| Radio & Radar Inspector | Production Supervisor | |
| Tom Dee jr. | Clyde Pray | |

The Test Flight Program:

After we completed all of the electronic system implementation, we had to test everything on the ground, we technicians did our checks, the flight line folks did all of theirs, and when all of the squawks were fixed, and we went flying to test all components. I flew as the radio operator as I knew Morse code and could do position reports back to Lockheed LA during the test flights. Prior to the test flight program, all of the technicians had to go to Lockheed's Rye canyon facility for high altitude training and proper use of Oxygen equipment, and parachute safety familiarization.

The Lockheed test flight crew was as follows:

| | |
|---------------------|----------------------------|
| DW "Woody" Zumbro | Pilot |
| Butch Hayes | Co-pilot |
| Bob Even | Flight Engineer |
| Tom May | Flight Mechanic |
| Mike Wingate | Radio Operator |
| Lee Holguin | Radio & Radar Flight |
| Al Armenta | Radio & Radar Flight |
| Bill "Brutus" Arnse | Flight Electrician |
| Ivan Guy | Flight Electrician |
| Kenny Broagden | Flight Electrician Leadman |

The Test Flight Program: cont.

The test flights last about eight hours each and it is interesting that you used the color codes for your orbits; we had one over San Nicolas Island that was called the white test orbit. This orbit started at San Nicolas Island and went northwest to Santa Rosa and San Miguel Islands, the US Navy had sonobuoys on the same frequencies as the ARR52 receivers, so we were able to do an actual test of the systems. The White test orbit was about 60 miles long and about 10 miles across, racetrack patterns all day long.

Our test day started just as your mission's did, a short briefing, then saddle up with wonderful flight lunches and of course our chest chute. The flight mechanics would watch all of the engines flight controls during our taxi to the compass rose, we verified all was ok then taxi off to the current active runway, several time we never got off the ground after the run up, as their was some mechanical flight squawk found. One such squawk was improper rigging of the ailerons, when the pilot turned the wheel left both went up and visa versa, not a good thing for flying, so back to the flight line and re-rig the aircraft properly. After that as the radio op I was always checking the flight controls. If and when we got off the ground, once we got in orbit then we started complete testing of all systems.

Typically it took at least three missions to prepare the aircraft for the Air force Flight inspection team. Then normally two more of the eight hour missions before the Air Force inspection team would accept the aircraft. I really enjoyed the Air Force pilots, there was a major that really liked to work the aircraft over, I especially like it when he did touch and goes , as by our union contract a touch and go was considered a flight hour, and we received an hour of flight pay extra. He did ten of them in two hours one day and at \$5.00/hour we were all quite happy. In 1967 that was great money! Another nice thing about the missions was that our pilot Woody Zumbro was a CFI, and all of us private pilots got a lot of right seat time flying the White test orbit, it was good multi-engine time, and gave the copilot a break from the flying duties

Many missions ended in an early return to base, mainly engine troubles, PRT's superchargers. We had just about every kind of emergency except fire. One of the main problems we had was with the nose gear hydraulics', the nose gear just would not come into lock with the normal hydraulics. Many times we had to pump the nose gear down, with the Copilots emergency pump. We were about to run out of extra hydraulic fluid on one test flight, we carried 25 extra gallons on these flight's. As the last 5 gallons was going in to aux input the gear came into lock. The Pilot had already made the decision that all non-essential crew members were going bail out over Ontario airport, an idea that I didn't relish at all. After we landed we abandoned the aircraft via the ditching rope in the rear of the aircraft, and got away as fast as possible, the entire front baggage compartment was filled with hydraulic fluid and we were afraid of fire. The aircraft looked like it was bleeding to death with all of the hydraulic fluid had blown back from the nose gear cylinder were a "b" nut had broken and started to leak, and the forward baggage compartment was full, from a broken line inside the compartment.

I found the glider incident real interesting as we had that same thing happen to one of the 121's at the end of a test flight, late in the day at dusk, just before touchdown all four propellers went into full feather, it was the hardest landing I ever had felt and we were

lucky Ontario had a 10,000ft runway, the Flight Engineer could not get them un feathered right away, and we had a long roll out and used up a lot of brakes and tires getting the bird stopped. The mechanics could never figure out what went wrong, it may have been the same 121 that became the glider. They spent days tearing apart the prop governor junction boxes, electrical, mechanical systems and nothing obvious was ever found.

Electronic failures:

The ARR52 receivers had a problem with the mechanical stepper switches, the springs in them would break and the radios wouldn't channel up. Martin sent out new springs and we spent many hours changing them.

We had a major problem with the glide slope receiver in one aircraft, the loss of signal flags failed to drop when signal was taken away. We found the Air Force shop doing the rework of the units had failed to set the flag drop out current properly, I rejected 15 units one day, and received the brunt of the production supervisors wrath for it, but this was a safety of flight item and there is no compromise here.

Other than a few HF couplers failing the production of these aircraft went very smooth.

Conclusion:

It was such an experience to work on the "Connie Program", and now to meet some of the folks that used what we worked so hard to produce. I am glad that I was part of a team that provided you all this aircraft, which I personally think is one of the most graceful and eye appealing aircraft ever built. I totaled my flight hours, and was quite amazed at the number, 1183 hours in the air as radio operator, 107 in the right seat. Most of the info contained is from my little black book of brains, that I carried on the project, I only wish that I had kept tail numbers of the aircraft, I worked on and flew as a test flight crew member on all of the 121's, I have a great affinity for them and those who flew in them.

Thanks to you Larry for the great web site, and a place for us all to meet.

Mike Wingate
Radio & Radar Technician

The "Connie Program"-Lockheed Aircraft Service 1967-1968 Ontario CA