

Book Review – Air Force Technical Order C-141-B-1

Review by Chris Hope, Master CFI



And now, for something entirely different. Regular readers of this e-magazine know that I normally take this space to review a book on some aviation topic – sometimes fiction, sometimes the retelling of a historical aviation event, sometimes a biography. But an Air Force tech order?

Military aviation buffs will immediately recognize the title, but maybe by the more common name- the “dash-one”. For Air Force pilots, an aircraft “dash-one” is the common name for the Pilot’s Operating Handbook (POH). And this “dash-one” relates to an aircraft that took me all over the world during the early 1970’s.

I came across this manual as a .pdf file recently while looking for something totally different, and I had to download and reminisce. And I thought that it might be fun to compare this POH to one that most pilots use in conjunction with their Cessna 172 or other small plane. (And for those of you who are ready to accuse me of divulging military secrets here, please settle down. The venerable C-141 left the Air Force inventory ages ago.)

The Lockheed C-141 Starlifter, with its four jet engines, came into the Air Force

inventory in the mid-1960’s, and was the Air Force’s first turbojet cargo aircraft. It replaced the Lockheed C-124 Globemaster, known affectionately by those who flew it as “Old Shakey”. The Viet Nam war was

in full swing at that time, and the C-141 it gave the Air Force the ability to move men and cargo from the west coast to Viet Nam in about eighteen hours versus the previous three to four days. Lockheed used a lot of their design know-how from the C-130, a shorter cousin with four turboprop engines, a plane still in use.

So how does the 141 “POH” stack up against a civilian single-engine POH? I just happen to have a POH available for the new Cessna 162 Skycatcher (another aircraft about to become a small footnote in aviation’s history.)

The two aircraft are quite a bit apart in scale. The Skycatcher weighs in at a maximum gross weight of 1,324 lbs., carries 144 lbs. of fuel (24 gallons) and cruises at 109 knots. The Starlifter had a maximum gross weight of 325,000 lbs., carried 153,352 lbs. of fuel (26,000 gallons), and cruised at Mach .767, or about 500 knots. But a Cessna pilot would immediately recognize the layout of the dash-one.

Over the years, manufacturers of general aviation aircraft have moved the various chapters around in their manuals. The current agree-upon format is that the aircraft description is found in Section 7. Normal procedures are found in Section 4, and Emergency

Procedures in Section 3. Operating Limitations are covered in Section 1. (This whole layout makes no sense to me – but that’s the way it is.)

The C-141 description is found in section 1. Section 2 is Normal Operating Procedures, and Section 3 is devoted to Emergency Procedures. And Operating Limitations are found in Section 5

The Skycatcher POH includes the Performance Charts in Section 5 and the Weight and Balance info in Section 6. The 141 POH has all of that info as well. However, because there are a lot of charts for both sections, they are both found in a separate volume.

Both manuals go into some detail concerning the various systems – engines, fuel, electrical, flight instruments, etc. It just happens that the 141 has four engines to the Skycatcher’s one. The Skycatcher has two fuel tanks, one in each wing. The 141 has ten, two per engine and two extra, for five in each wing.

Ironically, a pilot from one aircraft would be right at home in the other when looking at the instrument panel. Instead of round dials for the airspeed indicator, the altimeter, vertical velocity indicator and the engine instruments, the current fashion for all new aircraft is to use vertical scales on either side of the attitude and heading indicators. The 141, in the 1960’s, was one of the first aircraft to use that type of display, although now the instruments are all encompassed in one screen that looks like a basic iPad. In the 1960’s of course, a computer would have filled the entire flight deck, so they used mechanical instruments. But the look is identical. And ditto for the engine instruments which are shown in the middle of instrument panel.

Checklists are a bit different. Yes, there is still an exterior inspection, a “Before Starting Engines” checklist, an “Engine Start” checklist, etc. And the emergency checklists both include “Engine Fire on Start”, “Loss of Electrical Power in Flight”, and all of the others. It is just that there are more systems on the big plane, so there are more things to go wrong.

And for us small plane drivers, the emergency procedures for loss of an engine are fairly straight-forward –land where you can. The 141 can land with one or two engines not functioning, so the manual goes into a lot of detail on how to deal with those situations. And they discuss how to handle an emergency go-around with the loss of an engine. Although I chuckle at the procedure for a go-around with the loss of two engines: *“Always plan a two-engine approach so that a go-around will not be required.”*

And with the larger aircraft there comes a larger crew. Instead of a crew of just the pilot, the C-141 carried a minimum



of four (two pilots and two flight engineer-mechanics), and often added a full-time navigator (what G-A pilots would not want that luxury) and two loadmasters to look after the weight and balance, any cargo, and any passengers. So, there are checklists for all of those folks as well.

And in an emergency, those extra crew members are great to have. After

“Maintain aircraft control. Analyze the situation”, there is this caution:

Take coordinated corrective action. Commands must be clear and concise. Although many in-flight emergencies require immediate corrective action, difficulties and can be compounded by the tempo of the pilot’s commands and hurried execution of the crew.”

That sounds like some advice that is good for all pilots.

The Starlifter flew all over the world for over fifty years. I salute the men and

women who flew the plane, and all who worked to keep the crews safe. And I salute the men and women who still carry on that tradition.



This book, unlike most that I review, is not readily available. But I will send a copy to anyone interested. Enjoy.

Chris loves to read, write, and fly, but not necessarily in that order

You can reach him at: TheHopesChris@gmail.com

And here are more favorites: www.ChrisHopeFAAFlightInstructor.com/books/books.html