

## WORKHORSE (contd.)

a 30-seat airplane should operate profitably with 16 passengers. With the DC-3 our break even load factor is about 75%. And, you can't render good service to the public when your system load factor is much above 60% in a short haul type operation because in order to attain that you will be turning away passengers during peak traffic periods. Without a good DC-3 replacement, all local service airline operations will forever require subsidy.

We need more comfort. Our passengers are becoming accustomed to pressurization, air conditioning, quiet cabins, level floors, and a higher, smoother ride. They don't want to worry about bursted ear drums and stifling heat. If we don't please them, they will go to our competitor.

We need an airplane that can be loaded quickly and easily at intermediate points. This ties in with economy and speed. For example, over a 500 mile route stopping at six intermediate points a 200 MPH airplane will average, terminal to terminal, 166 MPH if each stop requires only 5 minutes. If the airplane is difficult to load and each stop required 15 minutes this average speed drops to only 124 MPH. In effect then, because of the longer loading time required, your airplane would be 42 MPH slower than would be the case if it were designed for rapid loading. To accomplish this, the passenger and cargo doors should be close enough to the ground to permit loading without climbing on high stands or ladders. It must also be possible to start engines without the use of battery carts or power generators.

We need an airplane that will operate safely from relatively small airports. Lengthening runways is an expensive undertaking and at several places on our system it is almost impossible because of surrounding terrain. The ability to operate in and out of small airports will also mean lower landing speeds and better maneuverability. This will enhance safety.

We need an airplane that will carry a greater load. Several segments of our routes have developed to the point where we can regularly use more space than is available on the DC-3. We should be able to get a 30-35 passenger airplane without much if any more cost than would be a new 24-passenger airplane.

There are many other improvements we need and can expect such as easier maintenance, improved flight characteristics, simplified weight and balance, and other items too numerous to mention here. All of this adds up to a safer more efficient airplane.

Unfortunately, no manufacturer in the United States has, as yet, come forward with an airplane approaching these requirements. I am still hopeful, however. In the meantime, two foreign companies have developed airplanes which come fairly close to meeting these specifications. One is the Handley-Page "Herald", built in England and the other is the Fokker "Friendship" built in Holland. Both are high wing airplanes, both are pressurized and have fully retracting tricycle landing gear.

The "Herald" has four 900 HP conventional piston engines and a standard seating capacity of 36 passengers. It is a very "roomy" airplane, quiet and comfortable. I had a chance to fly in this one during the Farnborough Aircraft Show. It has excellent small airport characteristics with very rapid acceleration and fast climb. The cockpit should be a little larger. It is not much, if any, bigger than the cockpit of the DC-3. The manufacturer claims a cruising speed of 215 MPH but I am afraid this is a little optimistic.

There is an abundance of room for cargo, baggage, buffet, lavatory and carry on luggage racks. Step-door for passenger entrance is available and the forward cargo door is about waist high above the ground.

The current price of the "Herald" is approximately \$375,000 and delivery could be expected in about 2-1/2 years. The company has orders for about 26 "Heralds" as of September 9 from airlines in Australia and South America. It appears to be a very well designed, well built and quite sturdy airplane.

The Fokker "Friendship" F-27 is powered by two Rolls-Royce "Dart" turbo prop engines of approximately 1650 HP each. This is the same engine installed in the Viscount. It is a 32-passenger airplane. The cabin is not as roomy as the Herald, and high density type seats would have to be used throughout. Oddly, the cockpit has much more room than the Herald cockpit. Loading doors are about waist high.

It is expected to cruise at about 260 MPH but will require longer runways than the Herald. It is a mighty good looking airplane and while it is not yet flying it should have very good flight characteristics. The first one is scheduled to fly in December and deliveries at \$500,000 each, could be expected in about three years.

Fairchild Aircraft has obtained the license to build the "Friendship" in the United States if orders justify their going into production.

Before a decision can be reached as to what type aircraft we will eventually buy to replace our DC-3s we need to gather considerable additional information. In addition to these two aircraft we will continue to study Convair possibilities. With this airplane, however, we would have to abandon some of our best stops or operate with very severe weight restrictions at those fields. Furthermore, the loading time required is greater than with even the DC-3. Operating cost is so high that the break even load factor is almost as high as the DC-3.

Consequently, no immediate action is contemplated. Equipment replacement is a major step and we must make the right decision. However, it is important that we make the decision as rapidly as possible.

In the meantime we will continue to make the good old DC-3 Pacemakers as comfortable and efficient as possible. There's still a lot of life in them and we can "sell" them with complete confidence. We want the next airplane we get to make the same good name for itself as did the DC-3.

T. H. DAVIS

## COLD COMFORT

The Middle East is a spawning ground for small, short-lived airlines. Not long ago in Baghdad, an American salesman, bound for an out-of-the-way desert spot, was just getting settled on an airplane when the pilot walked through the cabin and announced that he would not fly the ship without an engine change. All the passengers disembarked. An hour later they were again told to get aboard. "Do we have another plane?", the American asked the steward.

"Oh, no," the man replied.

"Did they change the engine?"

"Oh, no," came the reply.

"We changed the pilot."