

# Aviation World

By FRANK LESLIE

What makes airplanes wear out?

Well, engineers from Douglas Aircraft Co. working with Air Force experts hope to find out answers to this question during an intensive aircraft testing program now under way.

Aimed at keeping the AF fleet at maximum operational strength, the project also will be the most comprehensive ever conducted on planes.

Data will be used to predict "fatigue" or "wear out" life of aircraft and also to provide a firm basis for improving design for future planes.

Several other major aircraft manufacturing firms will participate in the program before its conclusion.

Carrying the bulk of test workload will be C-133 Cargomasters which now are in production at the Douglas Long Beach plant. The mammoth C-133 is the only plane able to air-freight a fully assembled Atlas ICBM.

Five complicated phases are included in the program—fatigue analysis and development of load spectrum; interim service loads, flight test of instrumented aircraft; airplane cyclic fatigue testing and recording of gust data.

Tests are expected to reveal where, how and why aircraft component fail or wear out; what causes the failures, and what can be done about it to assure longer useful life.

A highly-sophisticated Douglas-developed data handling system which will speed up test computations will be used extensively to pinpoint answers to fatigue problems.

The project is an outgrowth of a symposium held last fall in Dayton, O., which drew 700 experts from industrial, commercial and military fields.

Tulsa Douglas personnel will get a long-standing want fulfilled Tuesday when a DC-8 jetliner—No. 7 produced by the Long Beach plant—arrives here during a familiarization flight for Pan American Airways.

John Allen, genial plant general manager, has invited Chamber of Commerce board members, aviation committee members and press representatives for an hour-long flight starting about 1:30 p.m.

It will follow a luncheon for board members and other invited guests to be held at the Douglas plant.

Bet this is one luncheon meeting board members won't miss out on.



BOB PROVOST

nues were \$273,571,000—31 per cent greater than 1958. Operating income of \$26,310,000 set an all-time high and was up greatly from 1958's total of \$4,429,000.

Passenger load factor averaged 70.5 per cent—which Thomas said was the highest domestic average among major carriers.

Pleasant-mannered Bob Provost of the NPC display advertising department is marking time now until he gets a needed flight check as a final item required towards gaining his private pilot license.

The 17-year-old Central high senior began flying last summer with Robert E. Atchison, an American Airlines co-pilot, as his instructor.

Bob, son of Mr. and Mrs. J. R. Provost, 2725 E. 2d st., has been renting a Cessna 140 from Sportsmen's Flying service out at Harvey Young airport.

He has completed the FAA written exam and is waiting on test results. He figures the flight check probably can be completed within the next 2-3 weeks.

Bob plans to enter OSU in September to major in physics. But his flying won't be shunted aside at OSU since the Flying Aggies organization will offer plenty of opportunity to pursue his favorite avocation.