NOTICE

The Air Carrier Aircraft Utilization and Propulsion Reliability Report is produced by the Aviation Data Systems Branch of Flight Standards Service. It is compiled from data received from Federal Aviation Administration (FAA) district offices which has been furnished by individual air carriers. The report is based solely on data received following the month of activity.

Information in this report may be duplicated. Direct all correspondence to:

DOT/Federal Aviation Administration Flight Standards Service Aviation Data Systems Branch, AFS-620 P.O. Box 25082 Oklahoma City, OK 73125

GLOSSARY

<u>Air Carrier</u> - any citizen of the United States who undertakes, whether directly or indirectly or by a lease or any other arrangement, to engage in air transportation. The holders of an Air Carrier Operating Certificate include domestic air carriers, flag air carriers, supplemental air carriers, scheduled helicopter operators, and commuter air carriers.

<u>Air Commerce</u> - the intrastate, interstate, overseas, and foreign carriage of persons or property for compensation or hire, including carriage of mail, or the operation or navigation of aircraft in the conduct or furtherance of a business or vocation.

<u>Air Transportation</u> - the interstate, intrastate, overseas, and foreign carriage of persons or property by common carrier for compensation or hire.

<u>Commercial Operator</u> - an operator other than air carrier, who conducts operations in air commerce carrying persons or property for compensation or hire. These operators are issued an Operating Certificate.

- 1. Airplanes with a passenger seating capacity of 20 or more or a maximum payload of more than 6,000 pounds conduct operations under Federal Aviation Regulations (FAR) Part 125.
- 2. Airplanes, with a passenger seating capacity of less than 20 and a payload of less than 6,000 pounds, and rotorcraft conduct operations under FAR Part 135.
- 3. Scheduled intrastate common carriage of aircraft with a passenger seating capacity of 30 or less and a payload of 7,500 pounds or less, conduct operations under FAR Part 135. Aircraft with a passenger seating capacity of more than 30 and a payload of more than 7,500 pounds conduct operations under FAR Part 121.

<u>Commuter Air Carrier</u> - an operator who, under FAR Part 135, conducts scheduled passenger carrying operations with a frequency of at least five round trips per week on at least one route between two or more points according to a published schedule, utilizing aircraft with a passenger seating capacity of 30 or less and a maximum payload of 7,500 pounds.

<u>Domestic Air Carrier</u> - an operator who, under FAR Part 121, conducts scheduled operations within the 48 contiguous states and the District of Columbia, utilizing aircraft with a passenger seating capacity of more than 30 or a payload of more than 7,500 pounds.

Flag Air Carrier - an operator who conducts scheduled operations under FAR Part 121 to any point outside the 48 contiguous states and the District of Columbia, utilizing aircraft with a passenger seating capacity of more than 30 or a payload of more than 7,500 pounds.

Supplemental/Scheduled Cargo Air Carrier - an operator performing non-scheduled passenger (charter) operations and scheduled or non-scheduled all-cargo operations under FAR Part 121, utilizing aircraft with a passenger seating capacity of more than 30 or a payload of more than 7,500 pounds.

Codes are listed below for each authorized type of operation.

DFG	Domestic and Flag (Passenger/Cargo)
DOM	Domestic (Passenger/Cargo)
SCO	Supplemental (Cargo Only)
SUP	Supplemental (Passenger/Cargo)
CMA	Commuter (Passenger/Cargo)
ODA	On-Demand Fixed Wing (Passenger/Cargo)
ODCF	On-Demand Fixed Wing (Cargo Only)
CMR	Commuter Rotorcraft (Passenger/Cargo)
ODR	On-Demand Rotorcraft (Passenger/Cargo)
ODCR	On-Demand Rotorcraft (Cargo Only)

DATA INFORMATION

The class of aircraft is shown in the upper left corner of the report pages. The class of aircraft is the method of propulsion, i.e., turbine (turbojet and turbofan), turboprop, reciprocating (air transport and normal/utility), and helicopter turboshaft.

Aircraft and Engine Manufacturer and Model

Information is presented alphabetically by aircraft manufacturer code. The aircraft models, and engine manufacturer and models are grouped within each aircraft manufacturer category.

Air Carrier Designator

This column lists the unique designator code of the operator. A listing of designators with the names of operators is also provided.

Number of Aircraft

This is obtained from the reporting document, AC Form 8320-1, Air Carrier Aircraft/Engine Utilization Report.

Fleet Aircraft Time

This is the total number of hours flown for the reporting month. This information is also obtained from AC Form 8320-1.

Daily Utilization Hours

The daily utilization hours represents the average daily flight time and is calculated as the fleet aircraft time divided by the number of days in the reporting month and rounded to the nearest hour.

Fleet Engine Hours

This is the total engine hours for the reporting month and is obtained from AC Form 8320-1.

Engine TBO and Hot Section Inspection Period

The engine Time Between Overhaul (TBO) and Hot Section Inspection (HSI) periods may be entered as hours, cycles, or as one of the following programs.

- 1. Condition Monitoring (CON MON) a maintenance process for items that have neither "hard time" nor "on condition" maintenance as their primary maintenance process. CON MON is accomplished by appropriate means available to an operator for finding and solving problem areas.
- 2. Engine Heavy Maintenance (EHM) normally includes HSI plus other engine specified areas.
- 3. Hard Time a preventive primary maintenance process. It requires that an appliance or part be periodically overhauled in accordance with the air carrier's maintenance manual or be removed from service.
- 4. Logical Information Based on Reliability (LIBRA) a total maintenance program based on daily analysis of fleet operation.
- 5. On Condition (OC) a preventive primary maintenance process. It requires that an appliance or part be periodically inspected or checked against some appropriate physical standard to determine whether it can continue in service.
- 6. Performance Monitoring (PER MON) a systematic collection of data used to determine deterioration of an appliance, system, or part of an aircraft to a point where corrective action is required to prevent an impending failure.
- 7. Reliability Program (REL PRO) a supplement of an air carrier's total maintenance program which essentially is a set of rules and principles for managing maintenance processes.

Engine Shutdowns and Removals

Rate per 1000 hours data is calculated as the number of shutdowns divided by the number of engine fleet hours, and the number of engine removals divided by the number of engine fleet hours.

Three Month Acft/Eng Data

This is calculated by using the current month's figures plus the previous two months' totals.

ABBREVIATIONS

Airframe Manufacturers

А	Airbus Industrie
AE	Aerospatiale
AS	Aerostar Aircraft Corp. of Texas
В	Boeing Airplane Company
BA	British Aerospace
BE	Beech Aircraft Corporation
BN	Britten Norman Ltd.
С	Cessna Aircraft Corporation
CA	Construcciones Aeronauticas, S.A. (CASA)
CL	Canadair Ltd
CV	General Dynamics Corporation
DC	McDonnell Douglas Corporation
DH	DeHavilland Aircraft Co., Ltd.
DO	Dornier-Werke G.M.B.H.
EM	Empresa Brasiliera de Aeronautica S/A
F	Fairchild Industries
FH	Hiller Aviation
FK	Fokker Aircraft B.V.
G	Grumman Aircraft Engineering Corporation
GA	Gulfstream Aerospace Corporation
GV	Government Aircraft Factories
HB	Bell Helicopter Textron
L	Lockheed Aircraft Corporation
LR	Gates Learjet Corporation
M	Martin-Marietta Corporation
MU	Mitsubishi Aircraft International, Inc.
ND	Nord Aviation, S.A.
PA	Piper Aircraft Corporation
PT	Partenavia Costruzioni Aeronautiche S.P.A.
SA	Saab-Scania AB
SH	Short Bros. Limited
SK	Sikorsky Aircraft Division
SN	Societe Nationale Industrielle Aerospatiale (SNIAS)
SW	Swearingen Aviation Corp.
WL	Westland Helicopters Limited
YS	Mitsubishi Heavy Industries, Ltd. (Nihon)

Engine Manufacturers

ALSN Allison Gas Turbine Operations (GMC) ARCH Airesearch Mfg. Company of Arizona

CONT Teledyne Continental Motors
GART Garrett Turbine Engine Company

GE CFM International, S.A.

LYC Avco Corporation, Lycoming Division

PWA Pratt & Whitney Aircraft

RR Rolls-Royce Limited

TMCA Turbomeca

WAD Curtis-Wright/Marquette, Inc.

Other Abbreviations

ACFT Aircraft DESIG Designator

CON MON Condition Monitoring
EHM Engine Heavy Maintenance

ENG Engine HR Hours

HSI Hot Section Inspection

INSPT Inspection

LIBRA Logical Information Based on Reliability

MFG Manufacturer

NUM Number

OC On Condition

PER MON Performance Monitoring REL PRO Reliability Program

REM or REMOV Removals
SD Shutdowns

TBO Time Between Overhaul

UTIL Utilization