

Notes

THE CRITERIA used here to define ageing airliners are turbine-powered aircraft with accommodation for at least 30 passengers (or for a similar freight capacity), and built more than 15 years ago (before 1 January, 1980). The 1995 *Flight International* Ageing-Airliner Census covers 38 turbine-powered passenger and cargo aircraft types, designs with very few examples still flying being omitted*.

New this year are the Ilyushin Il-86, the first of the McDonnell Douglas (MDC) MD-80 series and the Yakovlev Yak-42.

Reference is included to older jet airliners in storage and notes (where available) recent usage for many types. Both elements are derived from records collated by London, UK-based Airclaims and for the Russian types by Shannon-based Russian-aviation specialist Paul Duffy.

This information, covering whole fleets, includes notes for strictly older examples of those machines with high numbers of cycles (flights completed) — the accepted industry criteria for recording structural age. That data, from Aviation Research & Support (ARS) of Rugby, UK, show the rate at which the most intensively used turbine airliners are "ageing". Whole-fleet-

use data are for all aircraft in revenue service (ie, not in storage or non-airline operation) and indicate utilisation (hours and cycles) over recent 12-month periods.

Biographical notes list those variants of basic designs in service for more than 15 years and identify fleet leaders by calendar age, hours flown and cycles. Original design life is shown for these types. In rare cases, such as those of the Lockheed L-188 Electra and Convair CV-580/600/640, no design life was ever set. Information on dimensions, weight and accommodation is conservative, giving the higher value where there are alternatives. Quoted maximum weight is that of take-off.

Data are taken from official and unofficial sources, including *Flight International* records. For many types listed, Airclaims is the primary source for details of fleet leaders, numbers in service and for individual aircraft service-entry dates. ARS has provided additional data, while information on former Soviet designs comes from Paul Duffy and Airclaims. Inevitably, census information does not match identically data held in other international aviation databases, if only because of differing definitions and standards of currency. We welcome input from alternative sources,

including manufacturers, operators and airworthiness authorities.

*Types omitted because of few numbers still in service: Hawker Siddeley Trident 1E, 2E, 3B (ten, one operator — China United Airlines, all pre-1979), BAC VC10/Super VC10 (28, but no airline), Vickers Vanguard V.950F (two), General Dynamics/Convair 880 (one), Dassault Mercure (six), Canadair CL-44 (nine), Shorts Belfast (two), VFW.614 (four), and Bristol Britannia (one) believed to be in service with Trans Service Airlift in Zaire. It was built some 35 years ago.

NOTES ON TABLES

To show the age of the fleet (from service-entry or year of build), the status of fleet leaders is shown — almost always different aircraft — in cycles (flights), hours flown and age, relative to the current design life. Population is given by type, collectively for pre-1968 aircraft and by year of build for 1968-78. Data are scant for many older designs — especially turboprops, Soviet designs and cargo aircraft.

Some types are not supported by the original manufacturers, and US operators are no longer required to file utilisation information.

Stage 3 restrictions for noise emissions.

It is not unreasonable to assume that a DC-10-30 could see active service for 28 years from new. On this basis, the last serving aircraft would retire around the year 2009. The calculated breakdown of the type and numbers in service today is outlined below as follows:-

Model:	No in service: (as of 1995)
DC-10-30	157
DC-10-30F	12
DC-10-30CF	22
TOTAL: All DC-10-30	191

NB The quantities above are approximate and do not include the 59 DC-10 CFs produced for the US Air Force as KC-10 tankers. Some of the above total may be in temporary storage.

The table below illustrates a forecasted retirement profile of the DC-10 30:

YEAR	Qty in service:
1999	191
2000	180
2001	145
2002	116
2003	97
2004	85
2005	73
2006	59
2007	34
2008	9
2009	0

(Source: Lundkvist)

NUMBER OF JET AIRLINERS IN SERVICE, BY YEAR OF BUILD

	pre-1969	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Supersonic													
BAC/Sud Concorde	-	-	-	-	-	-	-	4	4	1	3	1	-
Widebodies													
Boeing 747	-	15	58	47	20	20	21	24	22	15	35	-	-
MDC DC-10	-	-	1	15	47	39	44	33	15	6	16	39	40
Lockheed TriStar	-	-	-	2	14	25	37	19	12	8	6	9	22
Airbus A300	-	-	-	-	-	-	5	11	15	8	11	23	34
Ilyushin Il-86	-	-	-	-	-	-	-	-	-	-	-	4	2
Long-range narrowbodies													
MDC DC-8	173	65	28	7	3	-	-	-	-	-	-	-	-
Boeing 707	103	18	4	2	1	7	9	2	4	1	-	-	-
Ilyushin Il-62*	1	-	-	6	2	3	6	10	14	17	12	13	12
Medium-range													
Boeing 720	2	-	-	-	-	-	-	-	-	-	-	-	-
Boeing 727	373	60	44	12	36	76	81	75	58	62	120	128	133
Tupolev Tu-154*	-	-	-	5	7	11	23	33	56	65	60	58	70
MDC MD-80 series	-	-	-	-	-	-	-	-	-	-	-	-	12
Short-range													
Sud Caravelle	16	4	2	1	1	-	-	-	-	-	-	-	-
BAC One-Eleven	44	19	8	6	4	-	-	-	2	4	2	-	4
MDC DC-9	353	106	42	27	16	21	36	36	33	2	19	34	18
Boeing 737	82	89	28	15	21	11	36	43	33	23	41	74	98
Fokker F28	2	4	8	14	7	10	5	9	11	11	8	7	8
Yakovlev Yak-40*	13	18	23	31	48	58	64	69	70	67	30	25	10
Tupolev Tu-134*	1	1	2	8	8	25	46	46	39	46	52	39	40
Yakovlev Yak-42	-	-	-	-	-	-	-	-	1	1	1	-	11
Cargo													
Ilyushin Il-76M/T*	-	-	-	-	-	-	2	-	3	7	9	10	4

Source: Airclaims, London; tel: +44 (181) 897 1066, fax: +44 (181) 897 0300.

*Other sources: Russian aircraft — Paul Duffy, Shannon, Ireland; tel/fax: +353 (161) 471170.