The
AirlineMonitor
A REVIEW OF TRENDS IN THE AIRLINE AND COMMERCIAL JET AIRCRAFT INDUSTRIES

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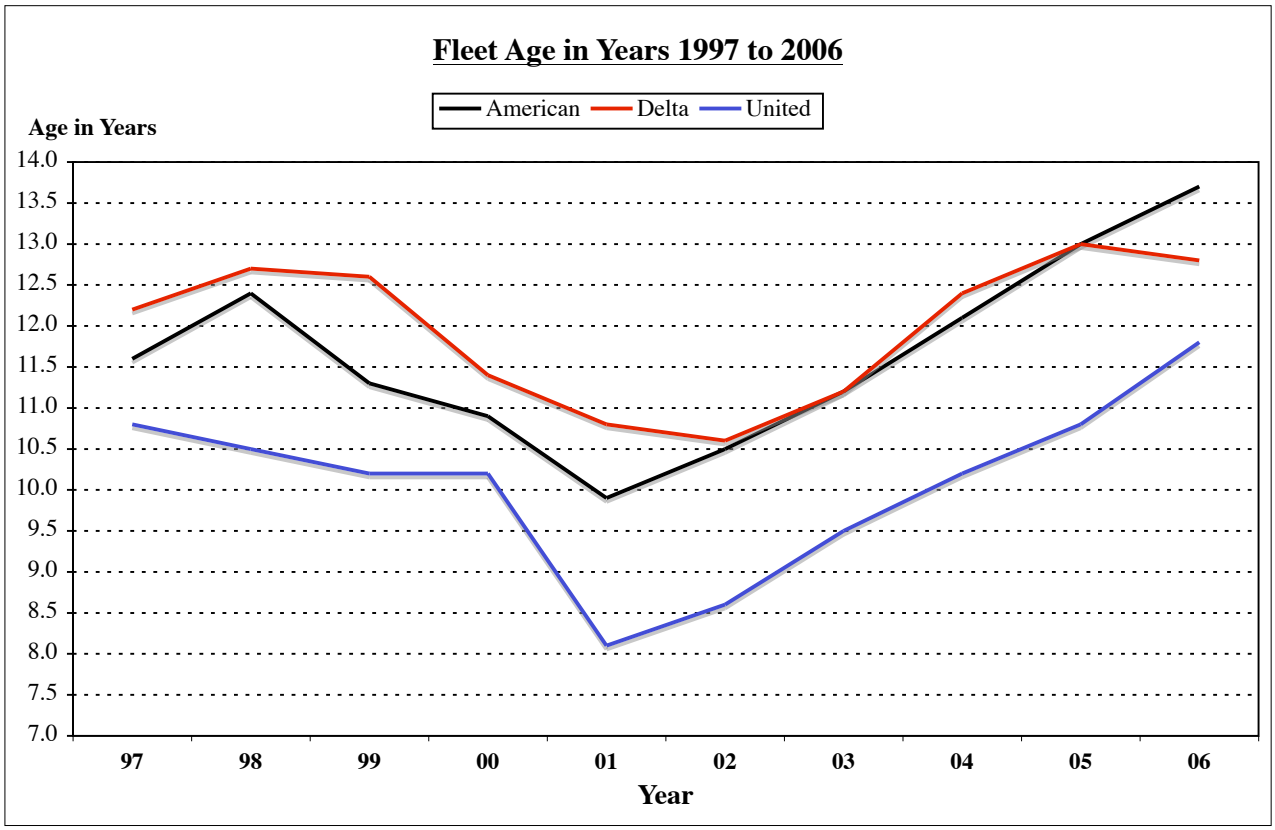
Fleet Age in Years 1997 to 2006
American
Delta
United
Age in Years
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
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97
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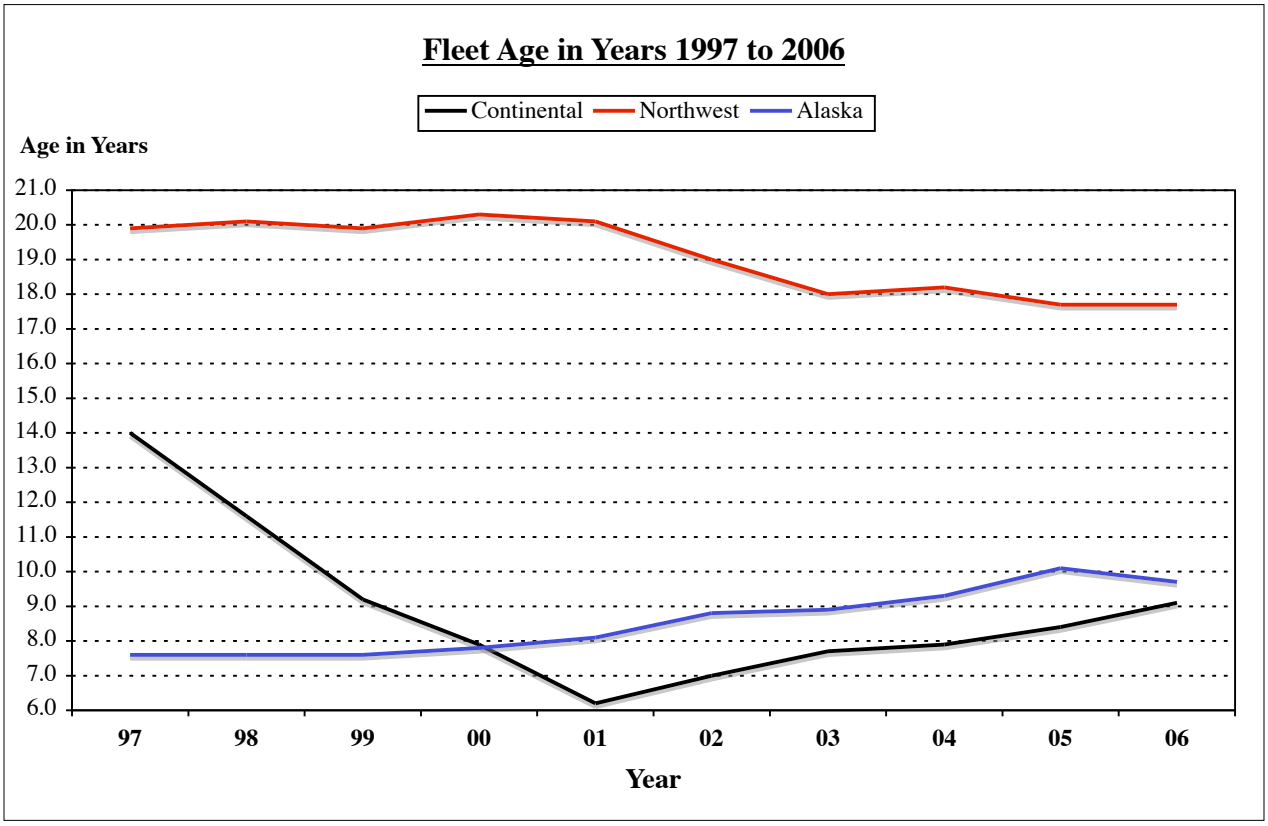
Year


Fleet Age in Years 1997 to 2006
Continental
Northwest
Alaska
Age in Years
21.0
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
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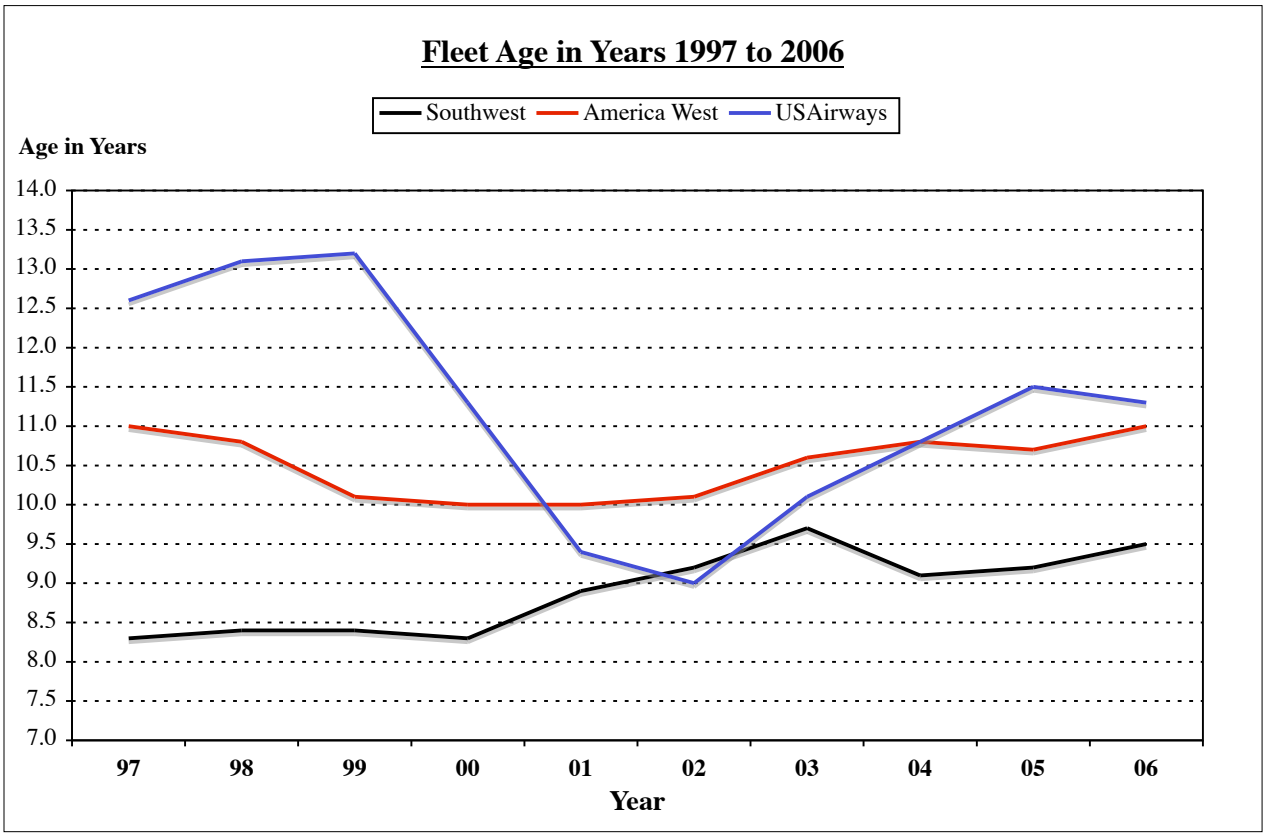
Year



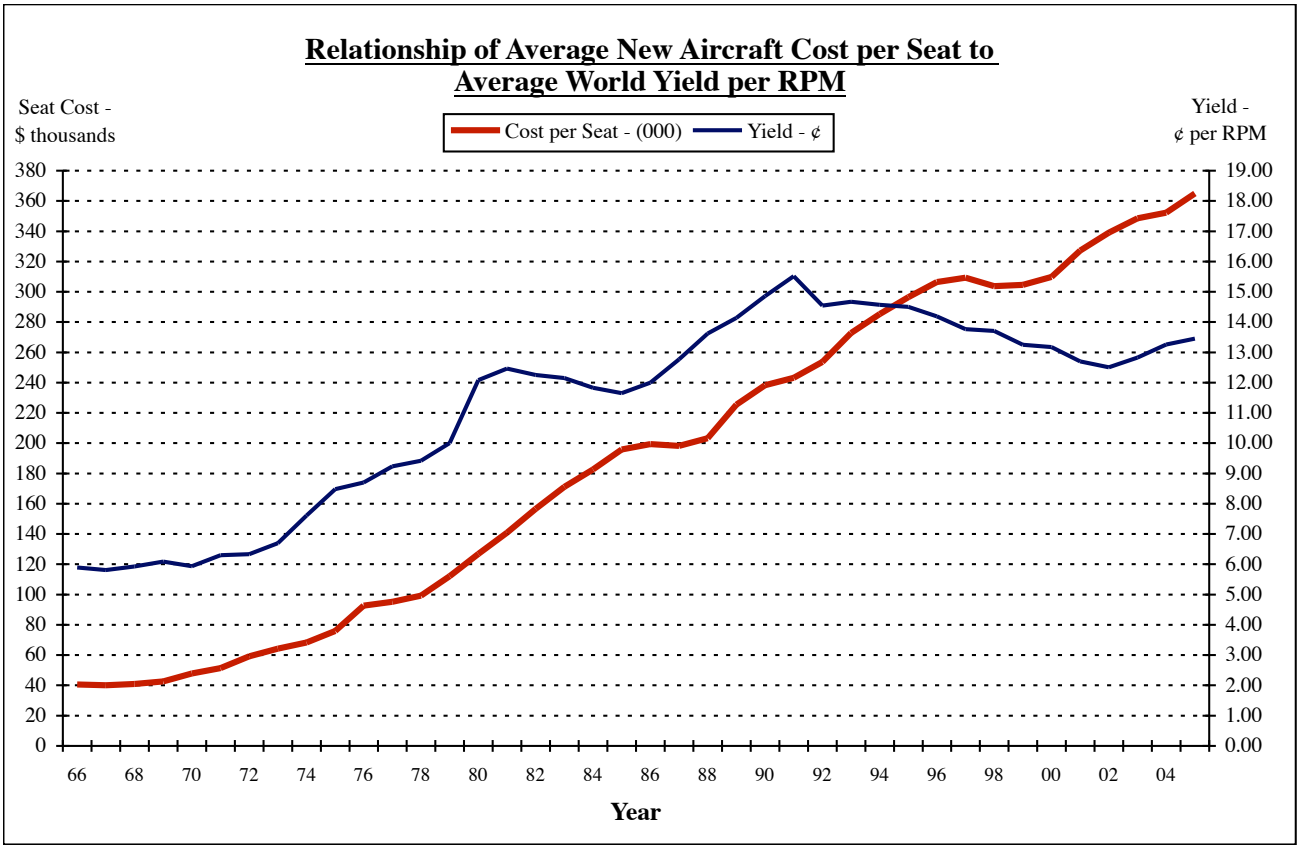
OLD SINGLE AISLE AIRCRAFT TO BE REPLACED
(excluding 757-200s)

				Aircraft on Order			
Airline	Airplane Type	Number in Fleet	Average Age - Years	Airplane Type	Number	Open Demand	Options
American	MD-80	301	17.0	737-800	47	254	
Delta	MD-80	116	16.4	737-800	60	46	21
United	737-300	64	18.2	A-320	19	45	
	737-500	30	15.0	A-319	23	7	
Continental	737-300	48	20.2	737-700	35		
				737-900	24		
Northwest	DC-9	110	35.0	CRJ-900	36		96
				EMB-175	36		36
Alaska	MD-80	25	14.9	737-800	37		4
Southwest	737-300 / 500	219	15.6	737-700	114		115
America West	737-300	26	18.3			26	
USAirways	737-300	29	19.0	A-320 family	52	17	255
	737-400	40	16.7				

THE AIRLINE MONITOR COMMERCIAL AIRCRAFT DATA

NUMBER OF YEARS OF REVENUE NEEDED TO EQUAL THE PRICE OF A NEW AIRPLANE

Data for the Year:	1965	1975	1985	1990	2000	2005
Airplane Type:	707	727-200	MD-80	A-320	737-800	737-800
Operating Factors - Flight						
Speed per Flight Hour	450	450	450	450	450	450
Seats per Aircraft	150	145	145	150	160	160
Utilization - Hours per Day	8.75	8.75	8.75	8.75	8.75	8.75
ASMs - millions	215.6	208.4	208.4	215.6	230.0	230.0
Load Factor - % (World average)	59.9	58.2	64.5	66.5	71.5	74.9
RPMs - millions	129.1	121.3	134.4	143.4	164.4	172.2
Yield - ¢ per RPM (World average)	5.73	8.48	11.65	14.86	13.17	13.45
Annual Revenue - $ milion	7.4	10.3	15.7	21.3	21.7	23.2
Estimated Airplane Price - $ million	7.1	9.5	24.0	33.5	41.0	50.0
Years of Revenue needed to equal the Airplane Price	***0.96***	***0.92***	***1.53***	***1.57***	***1.89***	***2.16***
Cost per Seat - $ (thousands)	47.3	65.5	165.5	223.3	256.3	312.5



THE AIRLINE MONITOR COMMERCIAL MARKET FORECAST

COMPARISON OF THE TIMING OF KEY EVENTS IN AIRCRAFT EQUIPMENT CYCLES
(Peak to Trough with each Cycle beginning in the Year when Orders Peaked and ending in the Year when the Backlog began to rise.)

FIRST CYCLE		
YEAR	EVENT	% Decline from Peak
1965	Peak Orders (758)	
1966		
1967	Deliveries exceed Orders & Backlog Declines	
1968	Peak Deliveries (731)	
1969		
1970		
1971	Trough Orders (181)	*76.0*
1972	Trough Delivery (223)	*69.5*
	Orders exceed Deliveries & Backlog Increases	
	Cycle Turns Up	
1973 to 1977	Orders averaged 270 a year and deliveries 289. Not a strong recovery.	
	Number of Surplus Aircraft Peaked from 1974 to 1976	

SECOND CYCLE		
YEAR	EVENT	% Decline from Peak
1978	Peak Orders (676)	
1979		
1980	Peak Deliveries (442) Deliveries exceed Orders & Backlog Declines	
1981		
1982	Trough Orders (198)	*71.0*
1983		
1984	Trough Delivery (265)	*40.0*
1985	*Orders exceed Deliveries & Backlog Increases*	
	Cycle Turns Up	
1986 to 1988	Significant growth in both orders and deliveries. A real expansion period.	
	Number of Surplus Aircraft Peaked from 1981 to 1983	

THIRD CYCLE		
YEAR	EVENT	% Decline from Peak
1989	Peak Orders (1,199)	
1990		
1991	Peak Deliveries (831) Deliveries exceed Orders & Backlog Declines	
1992		
1993		
1994	Trough Orders (328)	*72.4*
1995	Trough Delivery (483) and	*41.8*
	Orders exceed Deliveries & Backlog Increases	
	Cycle Turns Up	
	Seven year cycle - first two were 8	
1996 to 1999	Significant growth in both orders and deliveries.	
	Number of Surplus Aircraft Peaked from 1991 to 1993	

FOURTH CYCLE		
YEAR	EVENT	% Decline from Peak
2000	Peak Orders (1,583)	
2001	Peak Deliveries (1,166) Deliveries exceed Orders & Backlog Declines	
2002	Trough Orders (580)	*63.4*
2003	Trough Delivery (894)	*23.3*
2004		
2005	*Orders exceed Deliveries & Backlog Increases*	
	Cycle Turns Up	
	An unusually quick six year cycle. Deliveries declined less than in earlier cycles.	
	Also no growth years before the next order peak.	

PROJECTED FIFTH CYCLE		
YEAR	EVENT	% Decline from Peak
2006	Peak Orders (2,250)	
2007	Deliveries exceed Orders & Backlog Declines	
2008	Trough Orders (650)	*71.1*
2009		
2010	Peak Deliveries (1,350)	
2011		
2012	Trough Delivery (900)	*33.3*
2013	*Orders exceed Deliveries & Backlog Increases*	
	Cycle Turns Up	
2014 to 2016	An eight year cycle followed by steady growth in deliveries.	

PROJECTED SIXTH CYCLE		
YEAR	EVENT	% Decline from Peak
2017	Peak Orders (2,800)	
2018		
2019	Peak Deliveries (1,900)	
2020	Deliveries exceed Orders & Backlog Declines	
2021	Trough Orders (900)	*67.9*
2022	Trough Delivery (1300)	*31.6*
2023		
2024	*Orders exceed Deliveries & Backlog Increases*	
	Cycle Turns Up	
2025 to ?		

THE AIRLINE MONITOR COMMERCIAL AIRCRAFT MARKET FORECAST

DEVELOPMENT OF THE WORLD JET AIRCRAFT FLEET - 1958 TO 2025

Year	Total Airline Fleet as of: Jan 1	Total Airline Fleet as of: Dec 31	Increase in the Fleet *(A)*	*Percent Change*	Aircraft held by Non-Airline Owners and Retired to Scrap: Brokers & Mfg. #	Other * Owners	Retired /Scrap	Total *(B)*	Total Deliv-eries *(A+B)*	*Deliv-eries % of 1/1 Fleet*	Net Orders	Backlog	*Backlog % of World Fleet*
History:													
1958-1989		8,314	8,314		210	445	1,554	2,209	10,523		13,094	2,571	
1990	8,314	8,912	598	*7.2*	0	19	53	72	670	*8.1*	843	2,744	*28.6*
1991	8,912	9,326	414	*4.6*	328	(2)	91	417	831	*9.3*	405	2,318	*22.4*
1992	9,326	9,992	666	*7.1*	(39)	28	134	123	789	*8.5*	434	1,963	*17.9*
1993	9,992	10,514	522	*5.2*	3	9	117	129	651	*6.5*	333	1,645	*14.3*
1994	10,514	10,991	477	*4.5*	(86)	(5)	134	43	520	*4.9*	328	1,453	*12.2*
1995	10,991	11,377	386	*3.5*	(47)	(4)	148	97	483	*4.4*	628	1,598	*13.1*
1996	11,377	11,805	428	*3.8*	(77)	12	129	64	492	*4.3*	1,079	2,185	*17.3*
1997	11,805	12,332	527	*4.5*	(10)	(31)	190	149	676	*5.7*	1,226	2,735	*20.9*
1998	12,332	12,969	637	*5.2*	24	9	269	302	939	*7.6*	1,452	3,248	*23.6*
1999	12,969	13,713	744	*5.7*	153	(5)	213	361	1,105	*8.5*	1,089	3,232	*22.1*
2000	13,713	14,612	899	*6.6*	3	(10)	204	197	1,096	*8.0*	1,583	3,719	*23.9*
2001	14,612	15,115	503	*3.4*	292	63	308	663	1,166	*8.0*	882	3,435	*20.9*
2002	15,115	15,580	465	*3.1*	186	(33)	351	504	969	*6.4*	580	3,046	*17.9*
2003	15,580	16,132	552	*3.5*	52	1	289	342	894	*5.7*	802	2,954	*16.8*
2004	16,132	16,816	684	*4.2*	(32)	24	240	232	916	*5.7*	886	2,924	*16.0*
2005	16,816	17,590	774	*4.6*	(78)	26	195	143	917	*5.5*	2,244	4,251	*22.4*
2006p	17,590	18,199	609	*3.5*	49	5	326	380	989	*5.6*	2,250	5,512	*28.0*
Total: 1958 - 2006					931	551	4,945	6,427	24,626		30,138		
Forecast													
2007	18,199	18,856	657	*3.6*	66	5	372	443	1,100	*6.0*	1,000	5,412	*26.5*
2008	18,856	19,685	829	*4.4*	(35)	5	401	371	1,200	*6.4*	650	4,862	*22.9*
2009	19,685	20,751	1,066	*5.4*	(246)	5	425	184	1,250	*6.4*	900	4,512	*20.5*
2010	20,751	21,722	971	*4.7*	(74)	5	448	379	1,350	*6.5*	1,300	4,462	*19.5*
2011	21,722	22,072	350	*1.6*	601	5	144	750	1,100	*5.1*	1,000	4,362	*18.3*
2012	22,072	22,838	766	*3.5*	1	5	128	134	900	*4.1*	900	4,362	*17.7*
2013	22,838	23,727	889	*3.9*	(127)	5	133	11	900	*3.9*	1,300	4,762	*18.7*
2014	23,727	24,922	1,195	*5.0*	(156)	5	156	5	1,200	*5.1*	1,800	5,362	*20.3*
2015	24,922	26,170	1,248	*5.0*	(21)	5	168	152	1,400	*5.6*	1,900	5,862	*21.2*
2016	26,170	27,496	1,326	*5.1*	(29)	5	198	174	1,500	*5.7*	2,000	6,362	*21.9*
2017	27,496	28,887	1,392	*5.1*	(20)	5	223	208	1,600	*5.8*	2,800	7,563	*24.9*
2018	28,887	30,368	1,480	*5.1*	63	5	252	320	1,800	*6.2*	2,800	8,562	*26.8*
2019	30,368	31,921	1,554	*5.1*	56	5	285	346	1,900	*6.3*	2,200	8,863	*26.4*
2020	31,921	33,279	1,357	*4.3*	102	5	336	443	1,800	*5.6*	1,600	8,662	*24.7*
2021	33,279	33,812	534	*1.6*	364	5	397	766	1,300	*3.9*	900	8,263	*23.0*
2022	33,812	34,965	1,152	*3.4*	(320)	5	463	148	1,300	*3.8*	1,000	7,962	*21.7*
2023	34,965	36,325	1,361	*3.9*	(82)	5	516	439	1,800	*5.1*	1,400	7,563	*19.9*
2024	36,325	38,175	1,849	*5.1*	10	5	536	551	2,400	*6.6*	2,700	7,862	*19.7*
2025	38,175	40,097	1,922	*5.0*	32	5	541	578	2,500	*6.5*	3,200	8,562	*20.5*
Totals:	2007-2025				185	95	6,122	6,402	28,300		31,350		
	1958-2025				1,116	646	11,067	12,829	52,926		61,488		

p = preliminary

* This catagory includes Private Operators & Government Agencies (ex. 234 U.S. military aircraft).

 # Inventory in the hands of brokers and manufacturers. The negative numbers are aircraft moving back to airline service or being scrapped.

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