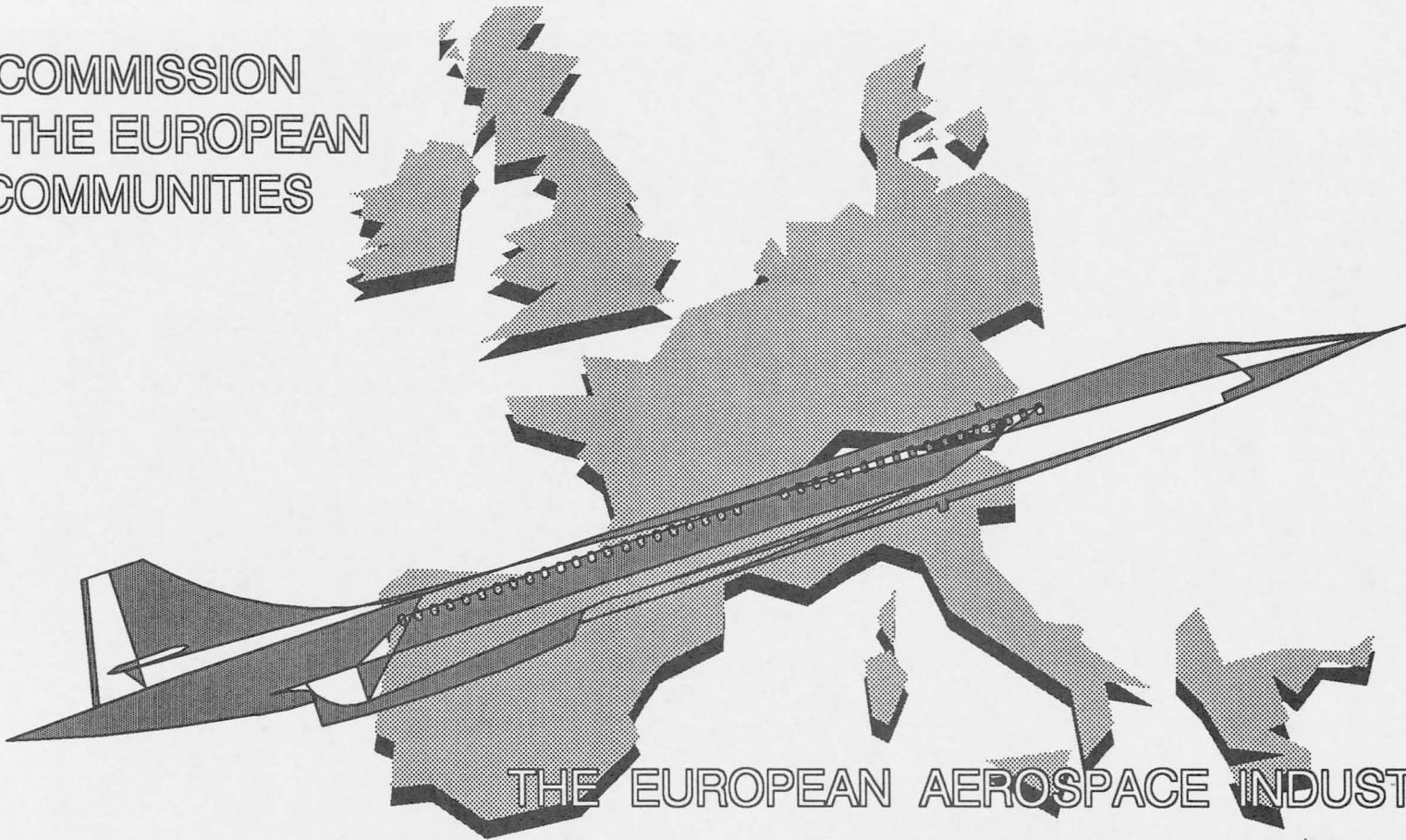


COMMISSION  
OF THE EUROPEAN  
COMMUNITIES



THE EUROPEAN AEROSPACE INDUSTRY  
Trading Position and Figures

1991

**COMMISSION  
OF THE EUROPEAN  
COMMUNITIES**

Directorate-General  
Internal Market and Industrial Affairs

III/6802/91-EN

Brussels, 1st March 1991.

**The European Aerospace Industry  
Trading Position and Figures**

(Commission Staff Working Paper)

---

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## PREFACE

We have the pleasure to present you with the 1991 edition of the document

*The European aerospace industry - Trading position and figures*

This document is based on the most relevant statistics available to the Commission of the European Communities on the world aerospace industry.

The Directorate-General for the *Internal Market and Industrial Affairs* has been compiling and collating these statistics since 1972.

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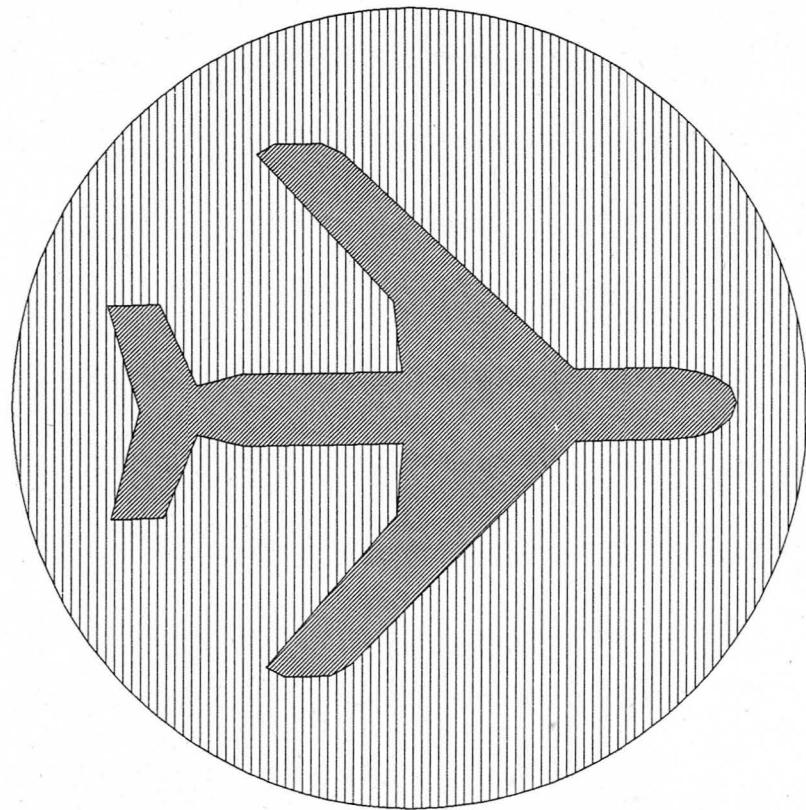


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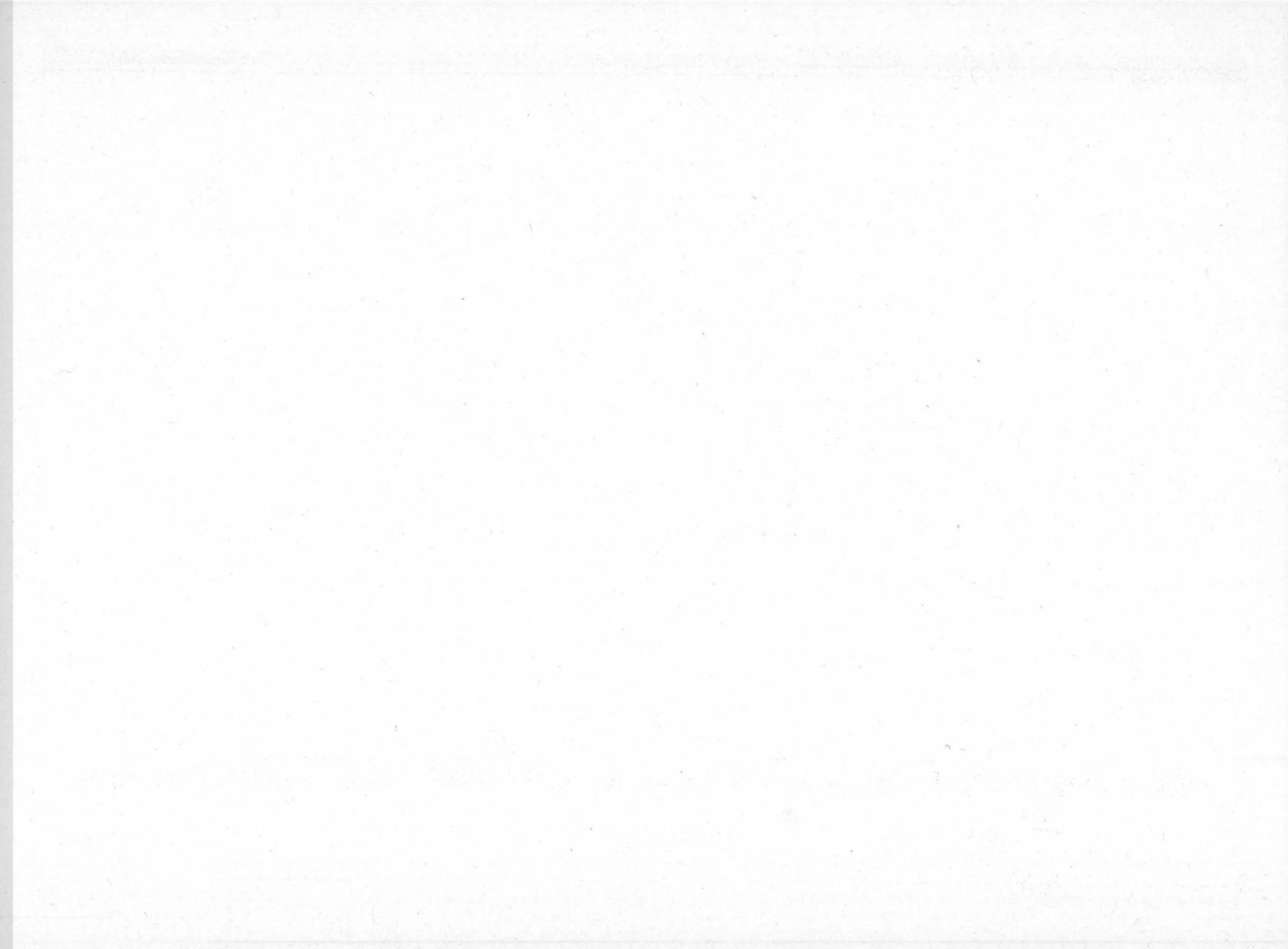
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# CIVIL AIR TRAFFIC



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## CIVIL AIR TRAFFIC

The data referring to the world civil air traffic correspond to scheduled operations of airlines of *I.C.A.O.* States and are published in the *I.C.A.O.* Bulletin.

The data referring to the scheduled operations of *A.E.A.* member airlines, according to the *A.E.A.* Annual Report, are broken down between the following groups of routes:

- **domestic routes**

routes commencing and terminating within the national frontiers of the *A.E.A.* reporting carrier's country of registration

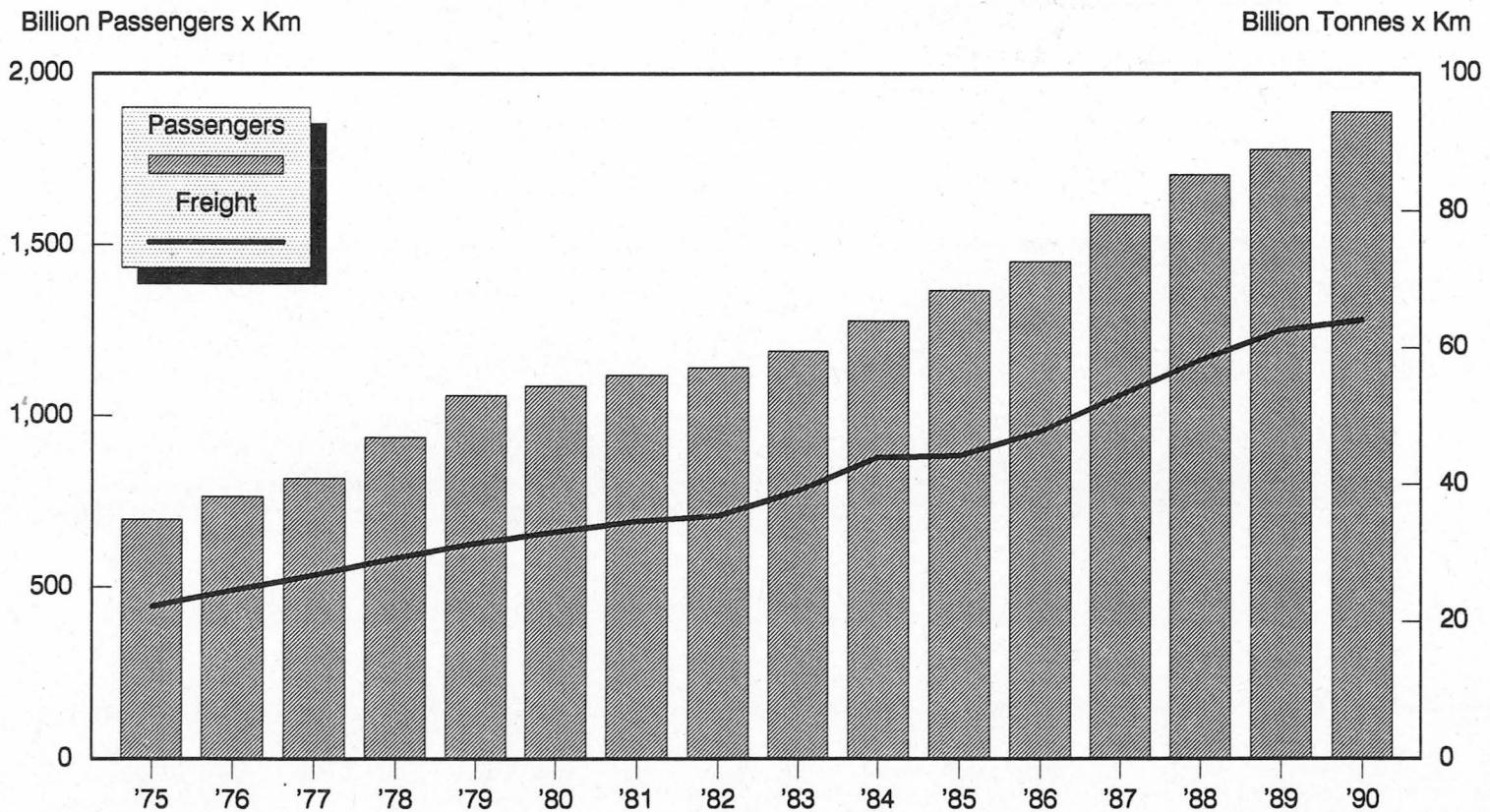
- **International Short/medium Haul**

international routes originating and terminating within Europe (including Turkey and USSR up to 55°E), Azores, Canary Islands, Madeira, Cyprus, North Africa (Algeria, Egypt, Libya, Morocco, Sudan and Tunisia) and the Middle East (Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen).

- **Long-Haul**

other international routes

## World Scheduled Air Traffic



Source: ICAO

## WORLD SCHEDULED AIR TRAFFIC (INCLUDING USSR)

	PASSENGERS (BILLION)			FREIGHT			
	CARRIED PASSENGERS	PASSENGERS /KM	AVAILABLE SEATS-KM	LOAD FACTOR	MIO TONS CARRIED	TOTAL (MIO T/KM)	FREIGHT (MIO T/KM)
1975	0.534	697	1,179	59%	8.7	22,270	87.0%
1980	0.748	1,089	1,724	63%	11.1	33,060	88.9%
1981	0.752	1,119	1,757	64%	10.9	34,670	89.1%
1982	0.766	1,142	1,795	64%	11.6	35,410	89.1%
1983	0.798	1,190	1,852	64%	12.3	39,110	89.8%
1984	0.848	1,278	1,972	65%	13.4	43,980	90.2%
1985	0.899	1,367	2,081	66%	13.7	44,240	90.1%
1986	0.960	1,452	2,235	65%	14.7	47,740	90.5%
1987	1.027	1,589	2,367	67%	16.1	53,050	91.2%
1988	1.081	1,705	2,525	68%	17.3	58,190	91.7%
1989	1.099	1,778	2,629	68%	18.0	62,480	91.9%
1990	1.159	1,888	2,766	68%	18.1	64,113	91.7%

### ANNUAL GROWTH RATE (AS %)

	PASSENGERS			FREIGHT			
	CARRIED PASSENGERS	PASSENGERS /KM	AVAILABLE SEATS-KM	TOTAL (TONS)	TOTAL (TONS/KM)	FREIGHT (TONS/KM)	MAIL (TONS/KM)
1975	3.7	6.3	6.4	-	0.0	1.7	1.8
1980	0.8	2.7	7.3	-	0.9	5.2	4.9
1981	0.5	2.8	1.9	-	1.8	4.9	5.1
1982	1.9	2.1	2.2	-	6.4	2.1	2.1
1983	4.2	4.2	3.2	-	6.0	10.4	11.3
1984	6.3	7.4	6.5	-	8.9	12.5	13.0
1985	6.0	7.0	5.5	-	2.2	0.6	0.4
1986	6.8	6.2	7.4	-	7.3	7.9	8.4
1987	7.0	9.4	5.9	-	9.5	11.1	12.0
1988	5.3	7.3	6.7	-	7.5	9.7	10.3
1989	1.7	4.3	4.1	-	4.0	7.4	7.6
1990	5.5	6.2	5.2	-	0.6	2.6	2.4

■ SOURCE : ICAO

## BREAKDOWN OF WORLD SCHEDULED AIR TRAFFIC

### REVENUE PASSENGERS/KM (BILLION)

	TOTAL	BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)			
		AEA	USA	USSR	REST OF THE WORLD
1975	697	16.2	37.6	17.6	28.6
1980	1,089	14.9	37.6	14.7	32.8
1981	1,119	15.1	35.4	15.3	34.2
1982	1,142	14.9	35.8	15.1	34.2
1983	1,190	14.2	37.3	14.8	33.6
1984	1,278	14.1	37.5	14.3	34.0
1985	1,367	14.1	38.9	13.7	33.3
1986	1,452	13.4	40.2	13.4	33.1
1987	1,589	13.8	40.4	12.6	33.2
1988	1,705	13.6	39.8	12.5	34.1
1989	1,778	14.0	39.1	12.8	34.2

### REVENUE PASSENGERS/KM (ANNUAL GROWTH RATE - AS %)

	TOTAL	AEA	USA	USSR	REST OF THE WORLD
1975	6.3	5.3	0.1	12.7	12.2
1980	2.7	1.9	0.6	6.4	5.6
1981	2.8	4.2	3.2	6.9	7.1
1982	2.1	0.4	3.4	0.5	2.1
1983	4.2	0.3	8.5	2.4	2.4
1984	7.4	6.6	7.9	4.0	8.6
1985	7.0	6.8	10.9	2.3	4.7
1986	6.2	0.8	9.7	3.6	5.5
1987	9.4	13.0	10.0	3.0	9.8
1988	7.3	5.8	5.7	6.5	10.1
1989	4.3	7.2	2.3	6.4	4.6

SOURCE: ICAO AND AEA

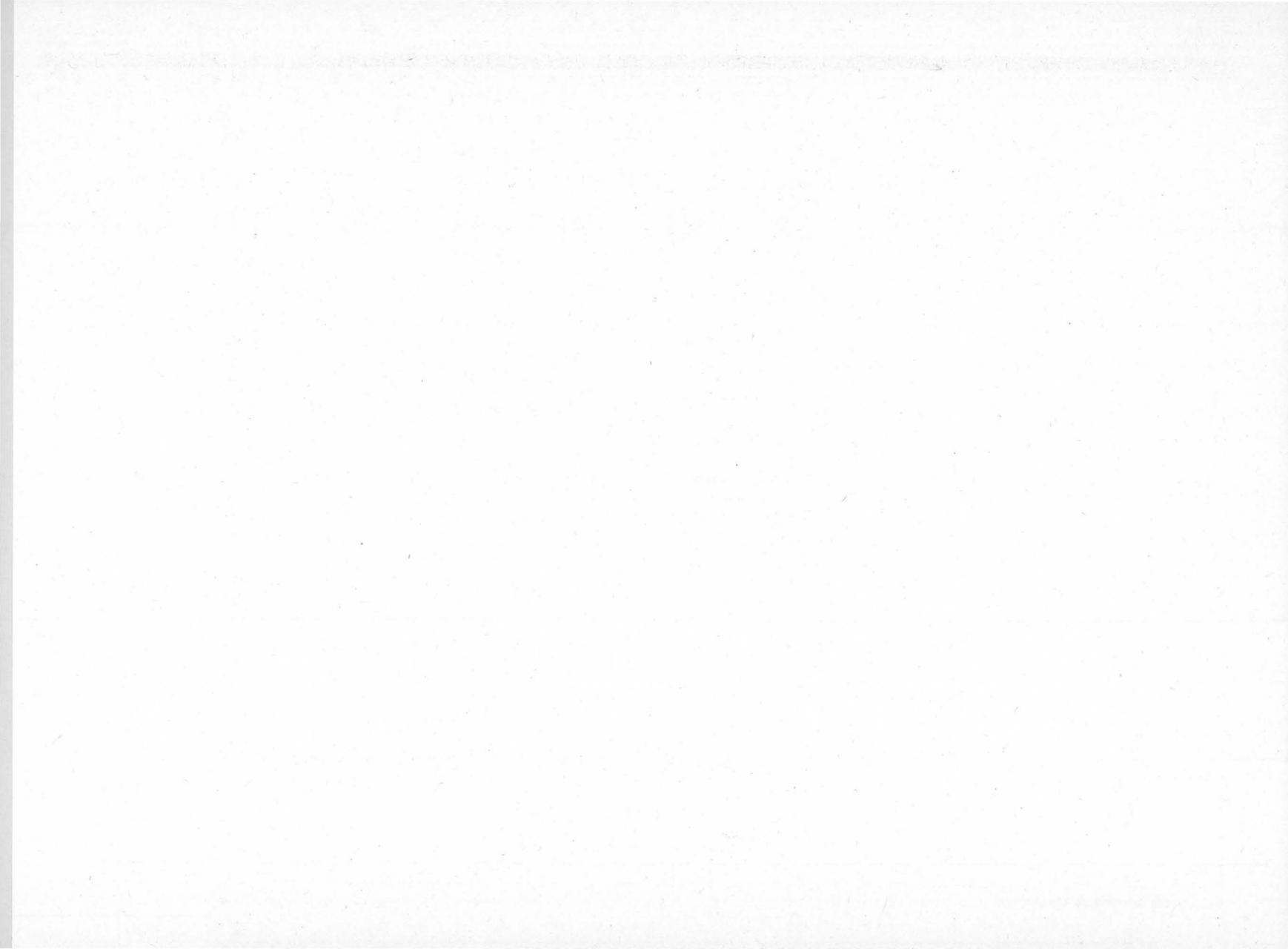
## AEA AIRLINES AIR TRAFFIC

	REVENUE PASSENGERS/KM (BILLION)			AVAILABLE SEATS-KM (BILLION)			LOAD FACTOR (AS %)		
	DOMESTIC	S-M HAUL	LONG-HAUL	DOMESTIC	S-M HAUL	LONG HAUL	DOMESTIC	S-M HAUL	LONG HAUL
1970	-	22.0	44.6	-	41.3	84.5	-	53.3	52.8
1975	-	34.4	78.7	-	62.6	138.7	-	55.0	56.7
1980	19.3	48.1	114.2	30.2	86.3	185.1	63.9	55.8	61.7
1981	19.8	49.4	119.7	29.9	84.9	185.3	66.2	58.2	64.6
1982	20.7	49.2	120.6	31.3	85.7	185.6	66.3	57.4	64.9
1983	21.7	49.1	120.1	33.0	85.6	184.2	65.9	57.4	65.2
1984	22.3	53.4	127.1	32.8	89.5	187.2	67.8	59.6	67.9
1985	22.9	57.2	135.5	34.0	93.7	199.2	67.2	61.1	68.0
1986	23.8	57.0	137.3	35.3	96.8	208.3	67.5	58.8	65.9
1987	26.5	63.9	155.7	37.4	101.6	221.9	70.9	62.9	70.1
1988	28.2	68.2	164.2	41.0	109.7	234.4	68.8	62.2	70.0
1989	29.2	73.4	175.7	43.4	117.9	247.6	67.2	62.3	71.0

## ANNUAL GROWTH RATE (AS %)

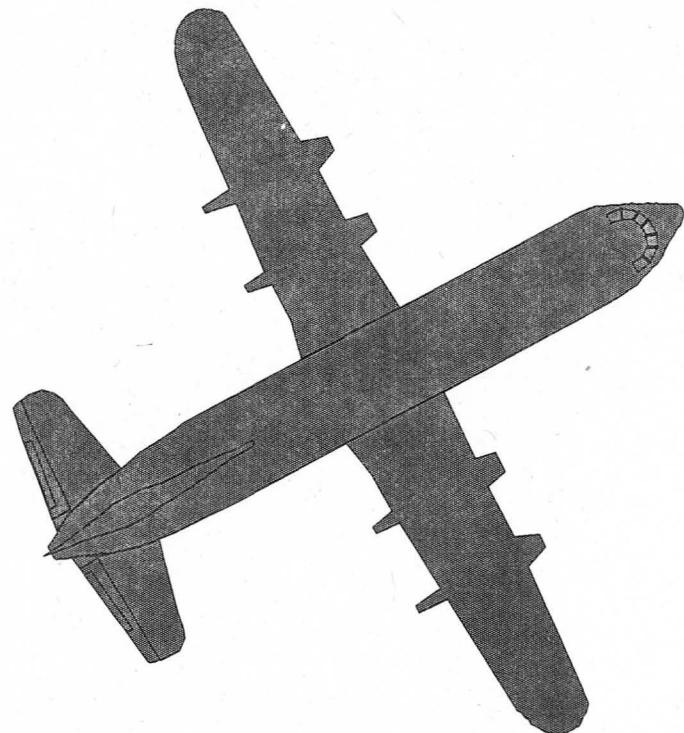
	REVENUE PASSENGERS/KM			AVAILABLE SEATS-KM		
	DOMESTIC	S-M HAUL	LONG HAUL	DOMESTIC	S-M HAUL	LONG HAUL
1975	-	8.4	4.0	-	5.6	3.7
1980	-2.3	-3.3	4.3	1.9	2.6	9.4
1981	2.6	2.7	4.8	-1.0	-1.7	0.1
1982	4.5	-0.5	0.7	4.4	1.0	0.2
1983	4.9	-0.2	-0.4	5.5	-0.1	-0.8
1984	2.4	8.6	5.8	-0.6	4.5	1.7
1985	2.8	7.3	6.6	3.8	4.8	6.4
1986	4.2	-0.5	1.3	3.6	3.3	4.5
1987	11.1	12.2	13.4	5.9	4.9	6.6
1988	6.6	6.8	5.5	9.8	8.0	5.6
1989	3.3	7.6	7.0	5.7	7.4	5.6

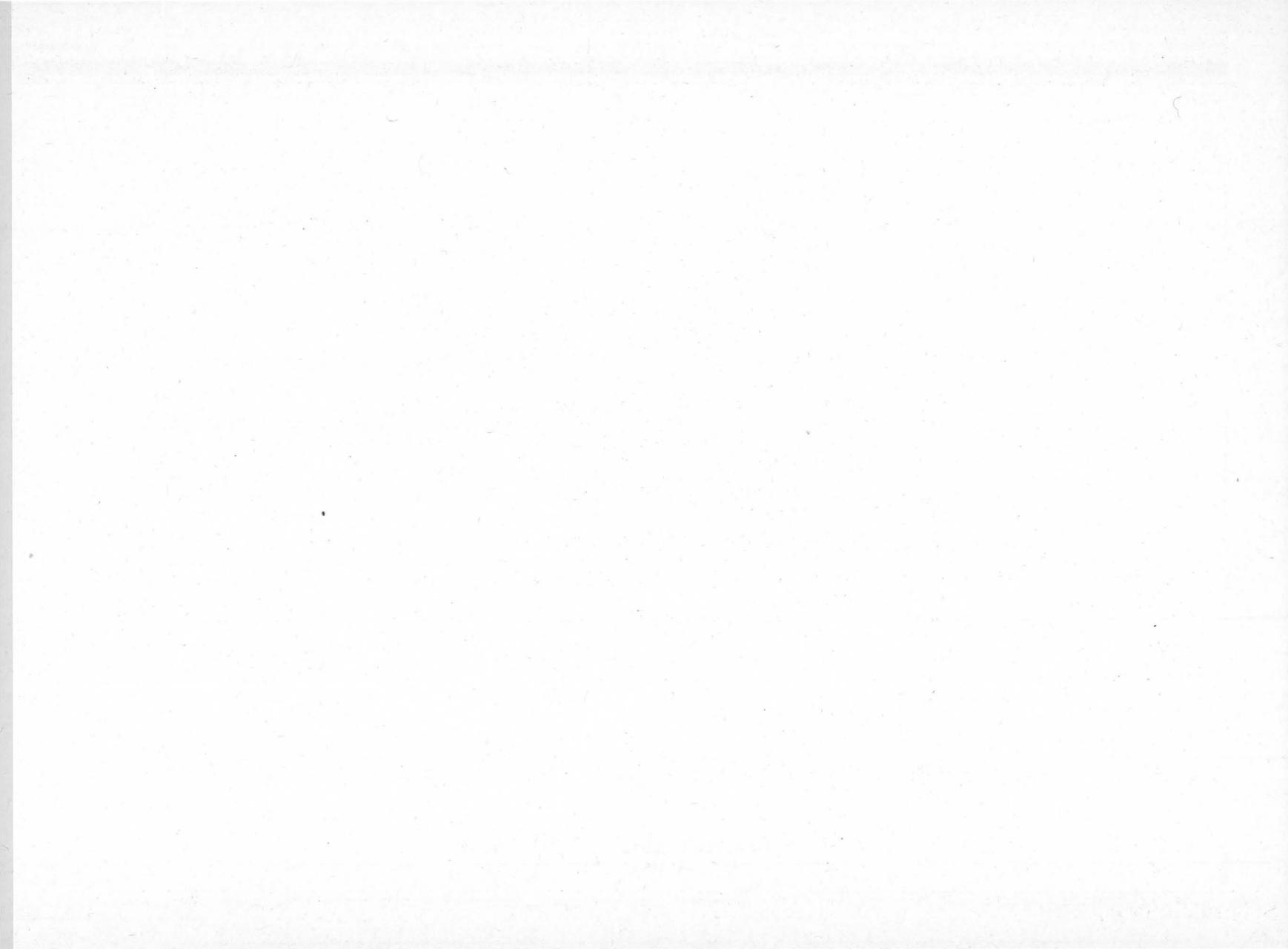
■ SOURCE: AEA



# CIVIL TRANSPORT AIRCRAFT

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## CIVIL TRANSPORT AIRCRAFT

The figures relating to the *civil jet aircraft* orders, deliveries and backlogs [aircraft ordered but not yet delivered] (in units) are provided by *AIRBUS INDUSTRIE*.

The figures relating to the *civil transport aircraft* fleet, deliveries and orders are provided by *AEROSPATIALE*, and cover almost all the civil transport aircraft produced in the western world. The origin of these statistics is the "*Etat des flottes commerciales*", database on civil transport aircraft of more than 18 seats.

The statistics relate to *civil transport aircraft*. Therefore, civil transport aircraft used by public authorities are included, while such aircraft may also be included in the statistics relating to military aircraft which are given in Chapter 4.

The *civil transport aircraft* breakdown is carried out using the following criteria:

- **aircraft category**
  - ☒ short-haul turboprop
  - ☒ short- and medium-haul jet
  - ☒ long-haul jet
- **design origin: Europe, USA and rest of the world**

The *geographical areas* are defined as follows:

- EC
- Other Europe: Austria, Czechoslovakia, Finland, Gibraltar, Hungary, Iceland, Liechtenstein, Malta, Monaco, Norway, Poland, Romania, Sweden, Switzerland, URSS and Yugoslavia
- USA
- Rest of the world

For each category of *civil transport aircraft*, the tables show *aircraft in service* at year-end and *aircraft deliveries* as follows:

- the *number of aircraft*,
- the *number of seats* (aircraft x capacity),
- the *present value* which is estimated using a linear depreciation on 20 years and the following value per seat (in 1989 \$):
  - ☒ \$195,000 for the short-haul turboprops,
  - ☒ \$235,000 for the short- and medium-haul jets,
  - ☒ \$275,000 for the long-haul jets.

For each category of *civil transport aircraft*, the following tables are given:

- *absolute value*,
- *geographical breakdown of total aircraft*,
- *market share of EC-built aircraft*,
- *geographical breakdown of EC-built aircraft*.

A list of *civil transport aircraft* and their categories is given hereunder.

#### **Short-haul Civil Transport Aircraft**

<i>Model</i>	<i>Design</i>	<i>Seats</i>
Argosy	Europe	80
ATR 42	Europe	46
ATR 72	Europe	66
BAe ATP	Europe	64
Bandeirante	Other	17
Beech 1900	USA	19
Brasilia	Other	30
CASA NC 212	Europe	19
CASA 212	Europe	19
CN 235	Europe	38
CV 580	USA	51
CV 600	USA	51
CV 640	USA	51
DHC-6	Other	18
DHC-7	Other	50
DHC-8	Other	36
DO 228	Europe	19
FH 227	Europe	46
FH 27	Europe	46
Fokker 50	Europe	50
F 27	Europe	46
Herald	Europe	50
HS 748	Europe	46
Jetstream	Europe	19

Metro II	USA	19
Metro III	USA	19
Nord 262	Europe	27
SD 330	Europe	30
SD 360	Europe	36
SF 340	Europe	35
VFW 614	Europe	36
Viscount	Europe	69
YS 11A	Other	61

#### **Short/medium-haul Civil Transport Aircraft**

<i>Model</i>	<i>Design</i>	<i>Seats</i>
A 300	Europe	260
A 310	Europe	216
A 320	Europe	150
A 321	Europe	175
A 330	Europe	328
BAC 111	Europe	92
BAe 146	Europe	95
Belfast	Europe	200
Britannia	Europe	200
B 720	USA	150
B 727	USA	151
B 737	USA	115
B 737-300	USA	125
B 747-SR	USA	530
B 757	USA	189
B 767	USA	211
Caravelle	Europe	100

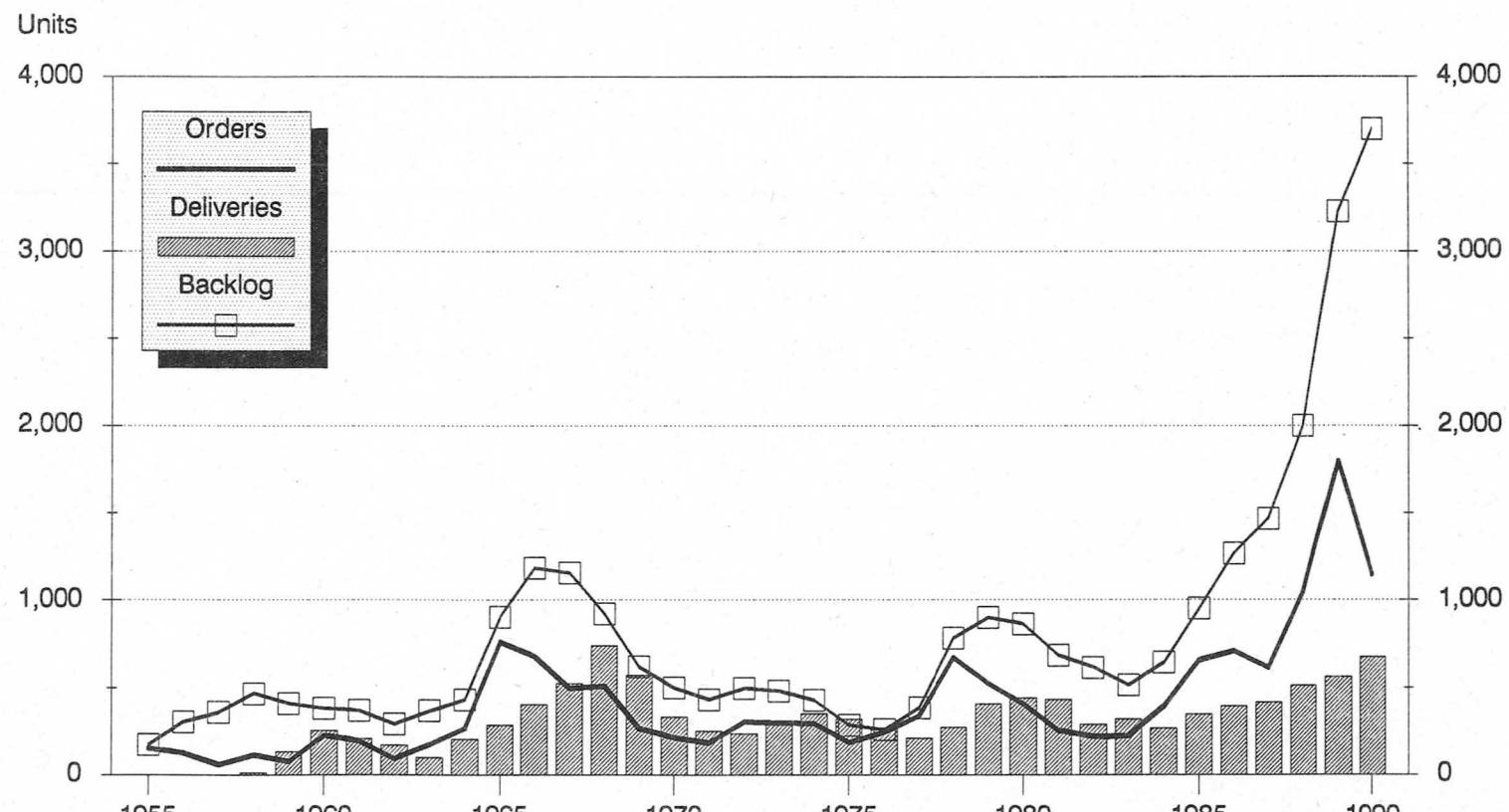
**Short/medium-haul Civil Transport Aircraft (continued)**

<i>Model</i>	<i>Design</i>	<i>Seats</i>
CL 44	Europe	160
CV 880	USA	120
CV 990	USA	120
DC 10-10	USA	259
DC 10-10 CF	USA	259
DC 10-15	USA	259
DC 9	USA	110
Electra	USA	78
Fokker 100	Europe	100
F 28	Europe	76
Gulfstream	USA	37
Hercules	USA	120
MD 80	USA	144
Mercure	Europe	150
Transall	Europe	120
Trident	Europe	118
Tristar L1011-1	USA	288
Tristar L1011-100	USA	288
Vanguard	Europe	140

**Long-haul Civil Transport Aircraft**

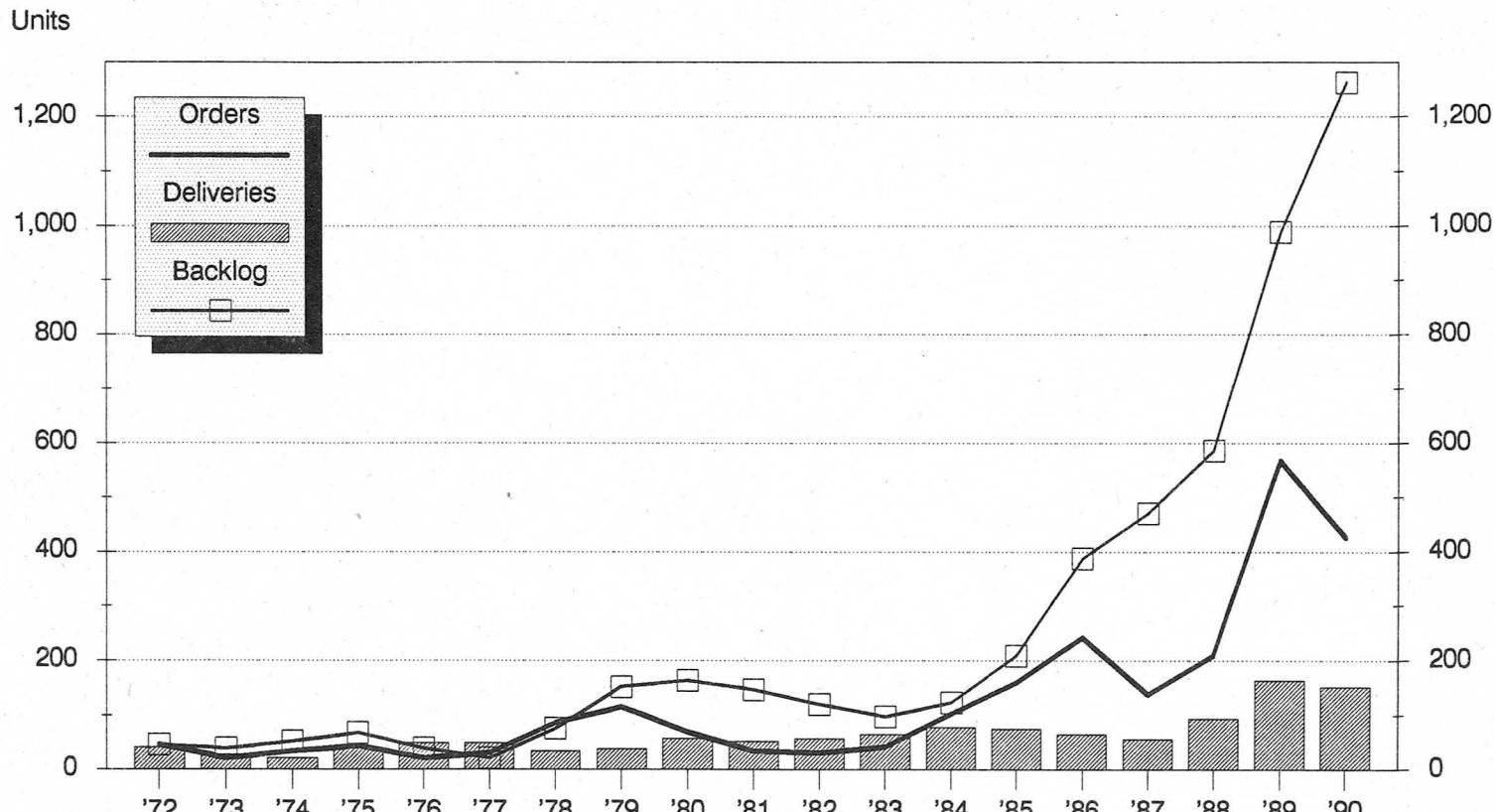
<i>Model</i>	<i>Design</i>	<i>Seats</i>
A 340	Europe	295
B 707	USA	155
B 747 SP	USA	267
B 747	USA	407
B 747 300	USA	440
Comet	Europe	80
Concorde	Europe	100
DC 10-30	USA	259
DC 10-30CF	USA	259
DC 10-30ER	USA	259
DC 10-30F	USA	259
DC 10-40	USA	259
DC 8	USA	190
MD 11	USA	287
Tristar L1011-200	USA	250
Tristar L1011-50	USA	250
Tristar L1011-500	USA	250
VC 10	Europe	120
VC 10 Super	Europe	120

## Civil Jet Aircraft World Market



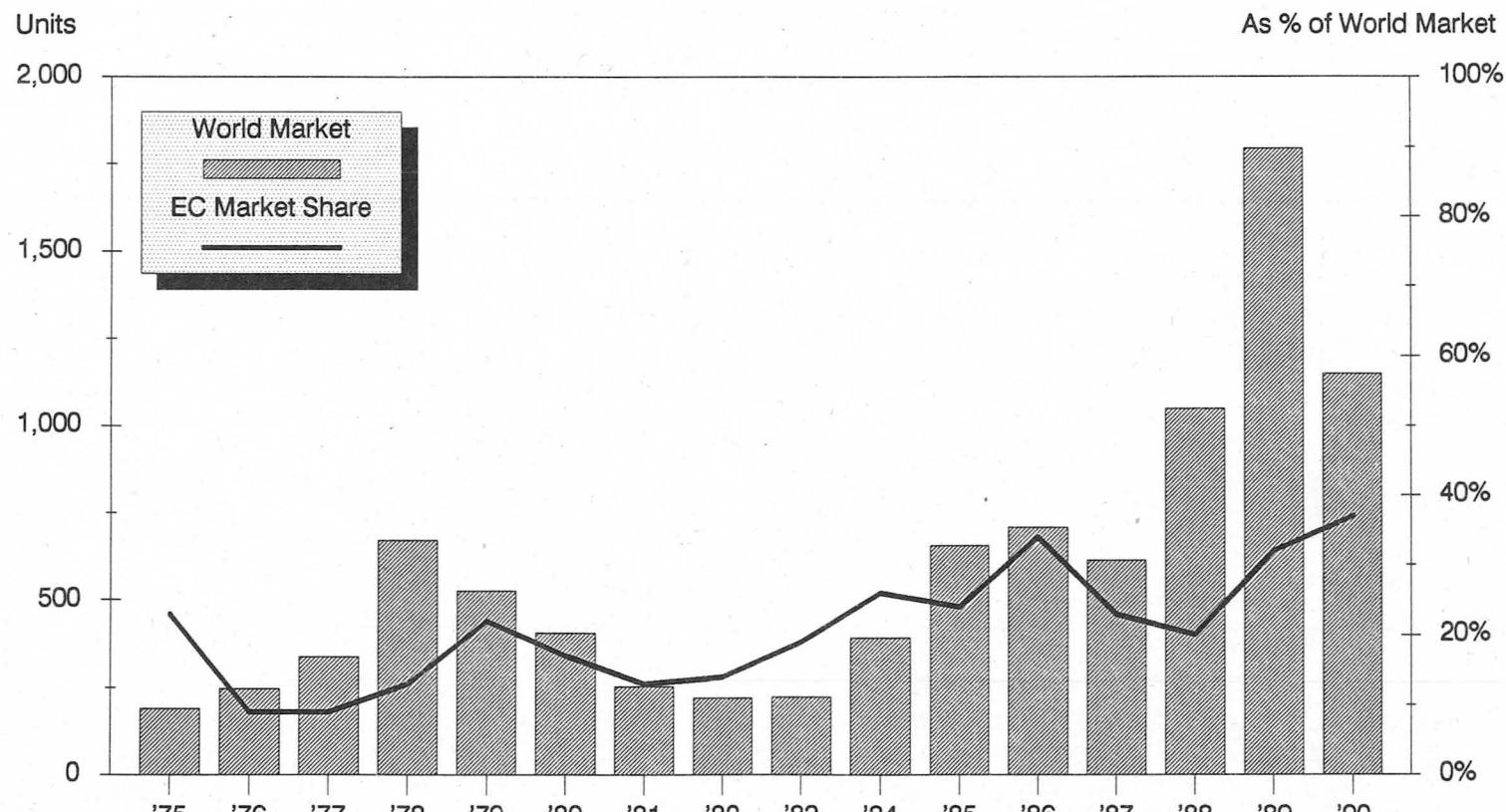
Source: AIRBUS

## EC-Designed Civil Jet Aircraft World Market



Source: AIRBUS

## Civil Jet Aircraft Orders



Source: AIRBUS

## CIVIL AIRCRAFT ORDERS (UNITS)

	BEFORE														1975-	GRAND TOTAL				
	1975	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990			
A-300	17	15	1	20	69	64	36	15	3	11	24	7	29	21	54	31	400	417		
A-310					37	10	4	2	10	12	35	19	27	22	33	40	251	251		
A-320									51	39	146	58	116	110	138	658	658			
A-321													20	117	137	137				
A-330												3	107	25	135	135				
A-340												3	81	8	92	92				
<b>AIRBUS</b>	<b>17</b>	<b>15</b>	<b>1</b>	<b>20</b>	<b>69</b>	<b>101</b>	<b>46</b>	<b>19</b>	<b>5</b>	<b>10</b>	<b>74</b>	<b>98</b>	<b>172</b>	<b>114</b>	<b>165</b>	<b>405</b>	<b>359</b>	<b>1,673</b>	<b>1,690</b>	
BAC 111	215	5	2		5	3			4	4	24	9	16	21	24	36	43	30	211	232
BAE 146																			211	
TRIDENT	117																		117	
MERCURE	10											1							1	11
CONCORDE	9				1	3	1												5	14
F.28	82	22	12	12	13	10	20	10	22	7	9	20	2						159	241
F.100											8	26	48						246	246
VFW 614	2	2	6											8	119	37	246		8	10
<b>EUROPE</b>	<b>452</b>	<b>44</b>	<b>21</b>	<b>32</b>	<b>87</b>	<b>115</b>	<b>69</b>	<b>34</b>	<b>31</b>	<b>42</b>	<b>102</b>	<b>160</b>	<b>243</b>	<b>138</b>	<b>209</b>	<b>567</b>	<b>426</b>	<b>2,320</b>	<b>2,772</b>	
B-707	749	4	4	4		1				1									14	763
B-727	1,194	50	113	133	125	98	68	38		11	1								637	1,831
B-737	428	35	39	37	145	74	98	122	72	64	130	282	211	183	340	467	162	2,461	2,889	
B-747	281	20	14	42	76	75	49	23	14	24	21	38	81	76	49	68	172	842	1,123	
B-757					38		64	3	2	26	2	45	13	46	161	227	97	724	724	
B-767					66	47	13	7	2	16	15	21	23	57	82	125	52	526	526	
B-777															49	49	49	49		
<b>BOEING</b>	<b>2,652</b>	<b>109</b>	<b>170</b>	<b>216</b>	<b>450</b>	<b>295</b>	<b>292</b>	<b>193</b>	<b>102</b>	<b>131</b>	<b>168</b>	<b>386</b>	<b>328</b>	<b>362</b>	<b>632</b>	<b>887</b>	<b>483</b>	<b>5,204</b>	<b>7,856</b>	
DC-9	823	27	25	28	39	26	6	2										153	976	
MD-80				23	27	22	12	16	86	42	110	102	106	78	159	234	61	1,078	1,078	
MD-87											6	4	15	12	21	34			92	
MD-90																		76	76	
DC-10	216	9	16	34	43	34	11	3		2	6	3	5	2	2			170	386	
MD-11												11	20	24	71	52	178	178		
<b>MC DD</b>	<b>1,039</b>	<b>36</b>	<b>41</b>	<b>85</b>	<b>109</b>	<b>82</b>	<b>29</b>	<b>21</b>	<b>86</b>	<b>44</b>	<b>122</b>	<b>109</b>	<b>137</b>	<b>112</b>	<b>206</b>	<b>339</b>	<b>189</b>	<b>1,747</b>	<b>2,786</b>	
L.1011	148		14	5	25	33	14	5		5								101	249	
<b>TOTAL</b>	<b>4,291</b>	<b>189</b>	<b>246</b>	<b>338</b>	<b>671</b>	<b>525</b>	<b>404</b>	<b>253</b>	<b>219</b>	<b>222</b>	<b>392</b>	<b>655</b>	<b>708</b>	<b>612</b>	<b>1,047</b>	<b>1,793</b>	<b>1,147</b>	<b>9,421</b>	<b>13,712</b>	

**CIVIL AIRCRAFT ORDERS (UNITS)****MARKET SHARE OF EC BUILT AIRCRAFT (AS % OF WORLD TOTAL)**

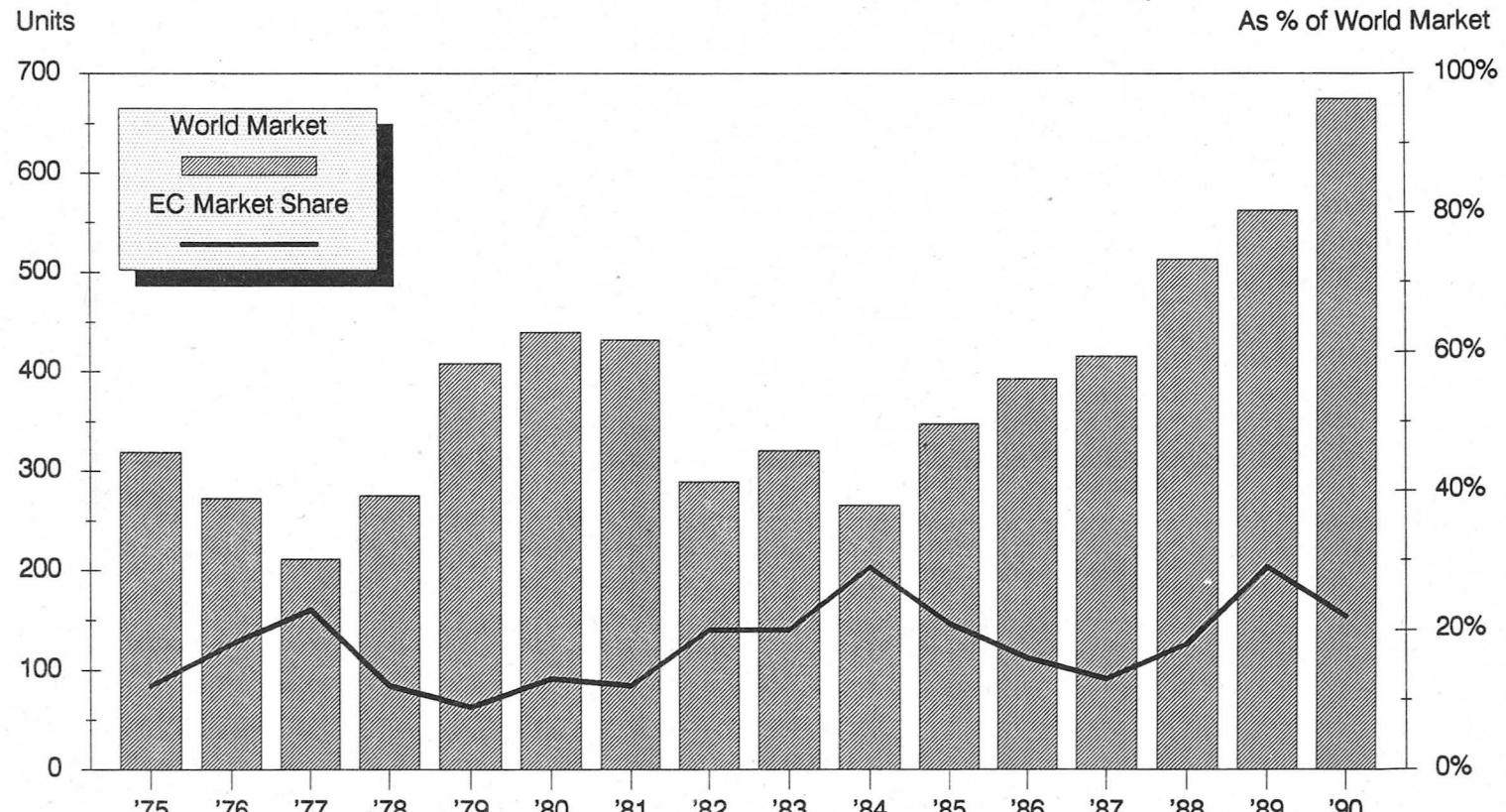
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1975-1990	GRAND TOTAL
S-M HAUL	28	11	13	17	30	20	15	15	22	28	26	40	27	21	31	46	28	24
... NARROW BODY	21	10	5	5	6	7	7	13	19	24	19	39	20	19	23	45	22	20
... WIDE BODY	100	100	100	51	68	78	73	71	38	61	74	53	50	36	61	49	58	58
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
LONG HAUL	0	0	0	0	1	4	3	0	0	0	0	0	0	0	4	37	3	7
... NARROW BODY	0	0	0	-	50	100	100	0	-	-	-	-	-	-	-	26	2	2
... WIDE BODY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	37	3	7
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
TOTAL	23	9	9	13	22	17	13	14	19	26	24	34	23	20	32	37	25	20
... NARROW BODY	20	10	5	5	6	8	8	13	19	24	19	39	20	19	23	45	22	18
... WIDE BODY	34	2	20	25	35	35	33	24	18	35	49	18	27	24	51	24	32	26

**BREAKDOWN INTO CATEGORIES (AS % OF WORLD TOTAL)**

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1975-1990	GRAND TOTAL
S-M HAUL	83	80	75	79	73	81	87	93	86	93	94	86	84	93	88	80	85	80
... NARROW BODY	75	80	69	58	44	66	77	90	74	83	82	79	66	80	70	63	71	69
... WIDE BODY	8	0	6	20	28	15	10	3	12	10	12	7	18	12	18	17	14	10
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
LONG HAUL	17	20	25	21	27	19	13	7	14	7	6	14	16	7	12	20	15	20
... NARROW BODY	2	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6
... WIDE BODY	15	18	24	21	27	18	12	6	14	7	6	14	16	7	12	20	15	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
ALL NARROW BODY	77	82	70	58	45	67	77	90	74	83	82	79	66	80	70	63	71	75
... WIDE BODY	23	18	30	42	55	33	23	10	26	17	18	21	34	20	30	37	29	25

■ SOURCE: AIRBUS

## Civil Jet Aircraft Deliveries



Source: AIRBUS

## CIVIL AIRCRAFT DELIVERIES (UNITS)

	BEFORE 1975 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1975- 1990 GRAND TOTAL																			
A-300	5	9	13	16	16	25	37	37	46	19	19	16	11	10	17	24	19	334	339	
A-310										17	29	26	19	21	28	23	18	181	181	
A-320														16	58	58	58	132	132	
A-321																				
A-330																				
A-340																				
<b>AIRBUS</b>	<b>5</b>	<b>9</b>	<b>13</b>	<b>16</b>	<b>16</b>	<b>25</b>	<b>37</b>	<b>37</b>	<b>46</b>	<b>36</b>	<b>48</b>	<b>42</b>	<b>30</b>	<b>31</b>	<b>61</b>	<b>105</b>	<b>95</b>	<b>647</b>	<b>652</b>	
BAC 111	213	2		6	3		3	2	1		10	11	18	22	23	22	35	25	19	232
BAE 146																		166	166	
TRIDENT	91	6	9	7	4													26	117	
MERCURE	10																	1	11	
CONCORDE																		14	14	
F.28	71	20	17	13	11	12	14	12	10	18	17	13	11	2				170	241	
F.100																		66	66	
VFW 614																		10	10	
<b>EUROPE</b>	<b>390</b>	<b>39</b>	<b>49</b>	<b>49</b>	<b>34</b>	<b>38</b>	<b>57</b>	<b>52</b>	<b>57</b>	<b>64</b>	<b>77</b>	<b>74</b>	<b>64</b>	<b>56</b>	<b>94</b>	<b>164</b>	<b>151</b>	<b>1,119</b>	<b>1,509</b>	
B-707	739	7	9	3	3	1			1									24	763	
B-727	1,088	91	61	67	118	136	131	94	26	11	8							743	1,831	
B-737	389	51	41	25	40	77	92	108	95	82	67	115	141	161	165	146	174	1,580	1,969	
B-747	247	21	27	20	32	67	73	53	25	23	16	24	35	23	24	45	70	578	825	
B-757									2	25	18	36	35	40	48	51	77	332	332	
B-767									20	55	29	25	27	37	53	37	60	343	343	
B-777																				
<b>BOEING</b>	<b>2,463</b>	<b>170</b>	<b>138</b>	<b>115</b>	<b>193</b>	<b>281</b>	<b>296</b>	<b>255</b>	<b>169</b>	<b>196</b>	<b>138</b>	<b>200</b>	<b>238</b>	<b>261</b>	<b>290</b>	<b>279</b>	<b>381</b>	<b>3,600</b>	<b>6,063</b>	
DC-9	757	42	50	22	22	39	18	5	16	10								219	976	
MD-80									62	34	50	44	71	86	92	107	103	115	769	
MD-87											3	14	15	14	15	15	24	56	56	
MD-90																				
DC-10	169	43	19	14	18	36	40	19	5	4	2			5	3	8	1	217	386	
MD-11																3	3	3	3	
<b>MC DD</b>	<b>926</b>	<b>85</b>	<b>69</b>	<b>36</b>	<b>40</b>	<b>75</b>	<b>63</b>	<b>97</b>	<b>49</b>	<b>54</b>	<b>46</b>	<b>71</b>	<b>91</b>	<b>98</b>	<b>129</b>	<b>119</b>	<b>142</b>	<b>1,264</b>	<b>2,190</b>	
<b>L.1011</b>	<b>97</b>	<b>25</b>	<b>16</b>	<b>11</b>	<b>8</b>	<b>14</b>	<b>24</b>	<b>28</b>	<b>14</b>	<b>6</b>	<b>4</b>	<b>2</b>						152	249	
<b>TOTAL</b>	<b>3,876</b>	<b>319</b>	<b>272</b>	<b>211</b>	<b>275</b>	<b>408</b>	<b>440</b>	<b>432</b>	<b>289</b>	<b>320</b>	<b>265</b>	<b>347</b>	<b>393</b>	<b>415</b>	<b>513</b>	<b>562</b>	<b>674</b>	<b>6,135</b>	<b>10,011</b>	

## CIVIL AIRCRAFT DELIVERIES (UNITS)

## MARKET SHARE OF EC BUILT AIRCRAFT (AS % OF WORLD TOTAL)

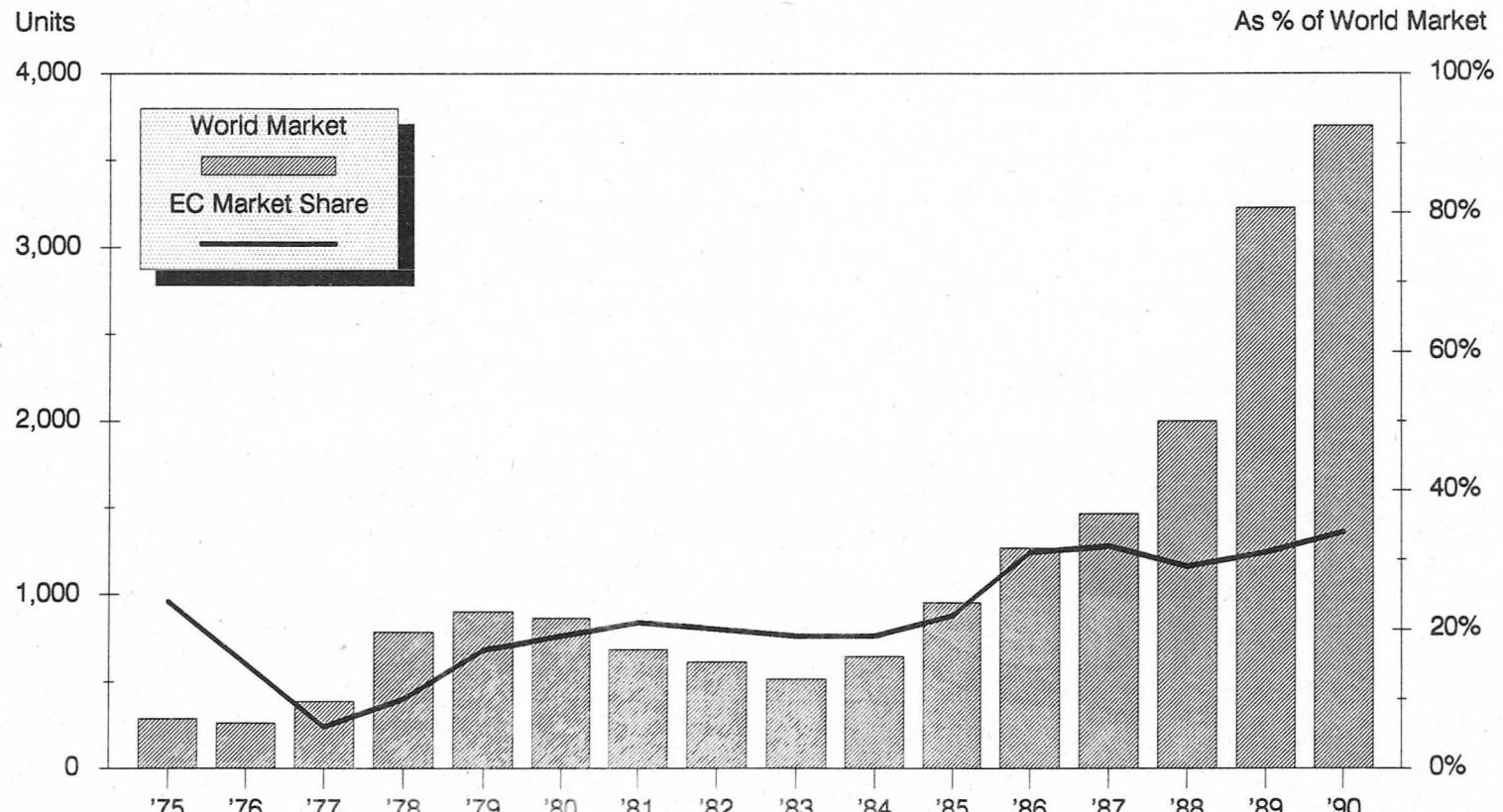
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1975- 1990	GRAND TOTAL
S-M HAUL	17	22	29	16	13	18	15	23	22	32	23	18	14	20	32	25	21	19
... NARROW BODY	14	16	21	9	5	6	5	6	14	17	13	11	8	13	27	23	14	14
... WIDE BODY	100	100	100	100	100	100	100	70	40	62	63	53	46	46	56	38	60	60
LONG HAUL	1	8	4	0	1	2	1	0	0	0	0	0	0	0	0	0	1	1
... NARROW BODY	13	40	40	0	50	100	100	0	0	-	-	-	-	-	-	-	37	2
... WIDE BODY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	12	18	23	12	9	13	12	20	20	29	21	16	13	18	29	22	18	15
... NARROW BODY	14	18	22	9	5	8	5	6	14	17	13	11	8	13	27	23	14	13
... WIDE BODY	9	17	26	22	18	21	27	42	29	48	45	31	33	35	36	22	28	22

## BREAKDOWN INTO CATEGORIES (AS % OF WORLD TOTAL)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1975- 1990	GRAND TOTAL
S-M HAUL	70	72	76	78	71	68	77	84	90	92	93	90	94	94	92	89	84	78
... NARROW BODY	67	67	69	72	65	60	68	62	61	63	73	75	77	75	77	75	70	69
... WIDE BODY	3	5	8	6	6	8	9	23	28	29	19	15	16	19	15	14	14	9
LONG HAUL	30	28	24	22	29	32	23	16	10	8	7	10	6	6	8	11	16	22
... NARROW BODY	3	6	2	1	0	1	0	0	0	0	0	0	0	0	0	0	1	8
... WIDE BODY	28	23	21	21	29	31	23	15	10	8	7	10	6	6	8	11	15	15
ALL NARROW BODY	69	72	71	73	65	60	68	62	61	63	73	75	77	75	77	75	71	77
... WIDE BODY	31	28	29	27	35	40	32	38	39	37	27	25	23	25	23	29	25	23

■ SOURCE: AIRBUS

## Civil Jet Aircraft Backlog



Source: AIRBUS

## CIVIL AIRCRAFT BACKLOG (UNITS)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
A-300	18	6	10	63	102	101	79	36	17	9	17	13	32	36	66	78
A-310					37	47	51	53	46	29	38	38	44	38	48	70
A-320									51	90	236	294	394	446	526	
A-321														20	137	
A-330														3	110	135
A-340														3	84	92
<b>AIRBUS</b>	<b>18</b>	<b>6</b>	<b>10</b>	<b>63</b>	<b>139</b>	<b>148</b>	<b>130</b>	<b>89</b>	<b>63</b>	<b>89</b>	<b>145</b>	<b>287</b>	<b>370</b>	<b>474</b>	<b>774</b>	<b>1,038</b>
BAC 111	5	7	1	3	6	3		1		1	1					
BAE 146																
TRIDENT	20	11		4												
MERCURE										1	1					
CONCORDE	8	2														
F.28	13	8	7	9	7	13	11	23	12	4	11	2				
F.100										8	34	82	82	79	174	180
VFW 614	3	5														
<b>EUROPE</b>	<b>67</b>	<b>39</b>	<b>22</b>	<b>75</b>	<b>152</b>	<b>164</b>	<b>146</b>	<b>120</b>	<b>98</b>	<b>123</b>	<b>209</b>	<b>388</b>	<b>470</b>	<b>585</b>	<b>988</b>	<b>1,263</b>
B-707	7	2	3													
B-727	65	117	183	190	152	89	33	18	8							
B-737	23	21	33	138	135	141	155	132	114	177	344	414	436	611	932	920
B-747	33	20	42	86	94	70	40	29	30	35	49	95	148	173	196	298
B-757				38	38	102	105	105	106	90	99	77	83	196	372	392
B-767				66	113	126	133	115	76	62	58	54	74	103	191	183
B-777																49
<b>BOEING</b>	<b>128</b>	<b>160</b>	<b>261</b>	<b>518</b>	<b>532</b>	<b>528</b>	<b>466</b>	<b>399</b>	<b>334</b>	<b>364</b>	<b>550</b>	<b>640</b>	<b>741</b>	<b>1,083</b>	<b>1,691</b>	<b>1,793</b>
DC-9	51	26	32	49	36	24	10									
MD-80			23	50	72	79	33	85	77	143	174	194	180	232	363	309
MD-87									6	10	25	34	41	60	36	
MD-90																76
DC-10	13	10	30	55	53	24	8	3	1	5	8	8	7	1		
MD-11											11	31	55	126	175	
<b>MC DD</b>	<b>64</b>	<b>36</b>	<b>85</b>	<b>154</b>	<b>161</b>	<b>127</b>	<b>51</b>	<b>88</b>	<b>78</b>	<b>154</b>	<b>192</b>	<b>238</b>	<b>252</b>	<b>329</b>	<b>549</b>	<b>596</b>
<b>L.1011</b>	<b>26</b>	<b>24</b>	<b>18</b>	<b>35</b>	<b>54</b>	<b>44</b>	<b>21</b>	<b>7</b>	<b>6</b>	<b>2</b>						
<b>TOTAL</b>	<b>285</b>	<b>259</b>	<b>386</b>	<b>782</b>	<b>899</b>	<b>863</b>	<b>684</b>	<b>614</b>	<b>516</b>	<b>643</b>	<b>951</b>	<b>1,266</b>	<b>1,463</b>	<b>1,997</b>	<b>3,228</b>	<b>3,701</b>

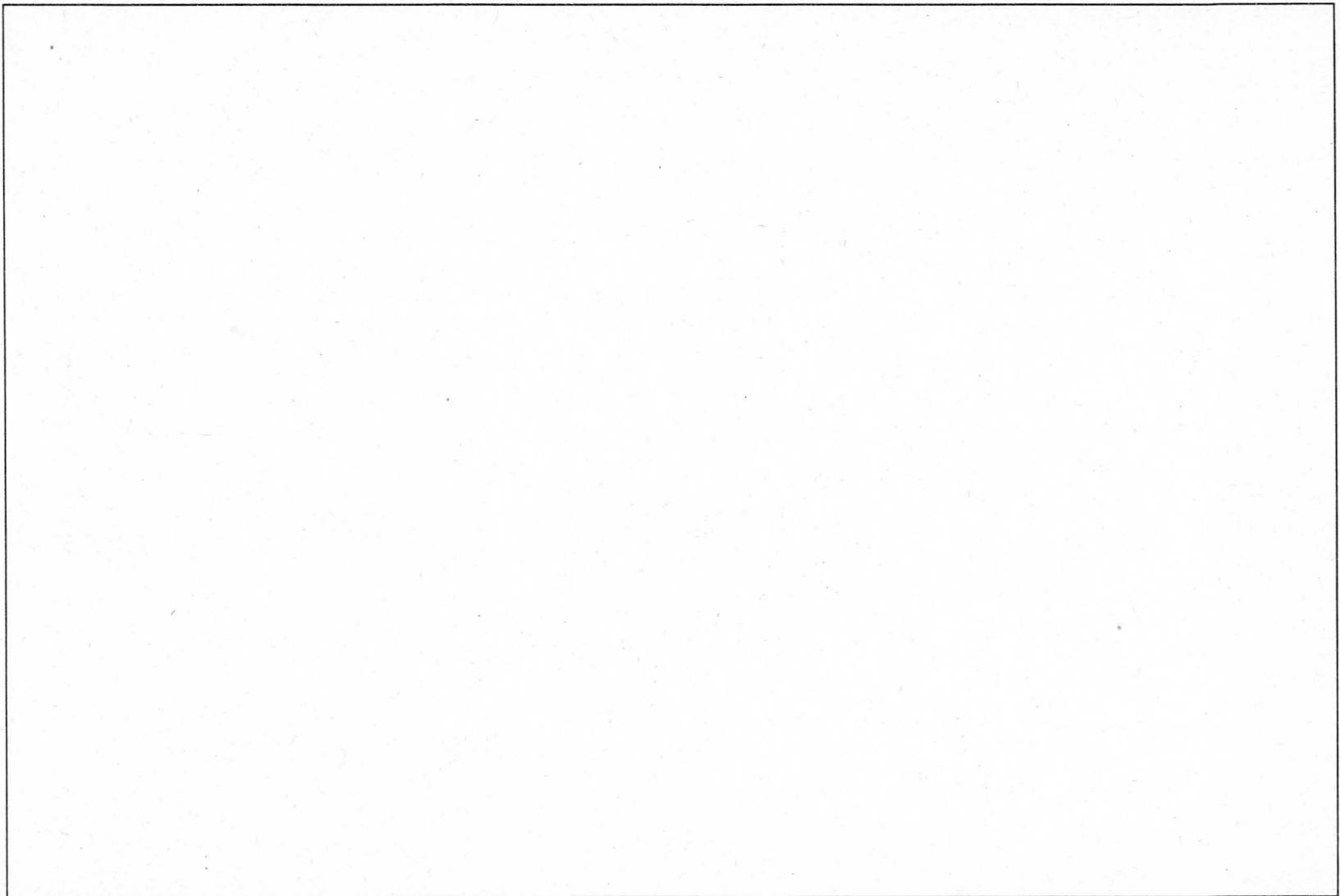
**CIVIL AIRCRAFT BACKLOG (UNITS)****MARKET SHARE OF EC BUILT AIRCRAFT (AS % OF WORLD TOTAL)**

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
S-M HAUL	30	18	8	12	22	23	24	21	20	20	23	34	37	33	32	37
... NARROW BODY	23	16	4	3	3	4	5	8	10	17	20	32	35	32	28	34
... WIDE BODY	100	100	100	49	55	54	49	44	45	38	49	49	51	43	54	55
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LONG HAUL	9	3	0	0	0	0	0	0	0	0	0	0	0	1	21	16
... NARROW BODY	53	50	0	-	-	-	-	-	-	-	-	-	-	-	-	-
... WIDE BODY	0	0	0	0	0	0	0	0	0	0	0	0	0	1	21	16
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL	24	15	6	10	17	19	21	20	19	19	22	31	32	29	31	34
... NARROW BODY	25	17	4	3	3	4	5	8	10	17	20	32	35	32	28	34
... WIDE BODY	20	10	10	21	31	36	39	37	36	27	32	23	23	19	38	35

**BREAKDOWN INTO CATEGORIES (AS % OF WORLD TOTAL)**

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
S-M HAUL	69	78	76	77	78	84	90	94	93	93	94	91	87	88	87	85
... NARROW BODY	63	75	73	61	50	52	51	60	66	78	82	83	77	79	75	71
... WIDE BODY	6	2	3	16	28	32	38	33	27	16	12	8	10	9	13	14
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
LONG HAUL	31	22	24	23	22	16	10	6	7	7	6	9	13	12	13	15
... NARROW BODY	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
... WIDE BODY	25	21	23	23	22	16	10	6	7	7	6	9	13	12	13	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
ALL NARROW BODY	68	77	74	61	50	52	51	60	66	78	82	83	77	79	75	71
... WIDE BODY	32	23	26	39	50	48	49	40	34	22	18	17	23	21	25	29

■ SOURCE: AIRBUS



### Civil Aircraft Fleet Age

According to Seats



Source: AEROSPATIALE

## CIVIL AIRCRAFT FLEET AGE (AT YEAR-END)

## ACCORDING TO UNITS

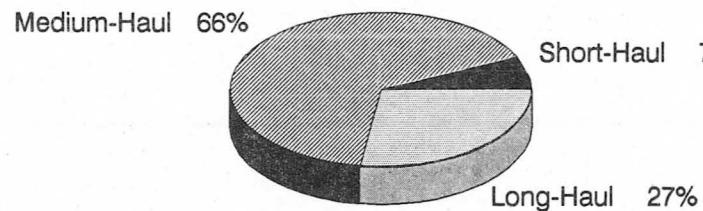
	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	8.0	9.1	9.1	9.8	11.1	10.6	11.1	11.5	11.5	12.5	11.5
DENMARK	8.7	10.1	8.5	9.3	10.1	10.8	10.9	10.4	9.9	11.4	11.6
FRG	6.3	8.3	6.7	6.9	7.6	8.0	8.2	8.6	7.9	8.2	7.7
SPAIN	6.5	8.1	8.5	9.2	10.1	10.8	11.5	12.5	13.2	12.3	12.6
FRANCE	8.8	10.5	10.6	11.0	11.6	12.4	13.1	13.6	13.8	13.7	13.5
GREECE	8.7	9.8	8.3	8.5	9.3	9.3	9.6	10.6	11.7	12.5	13.5
IRELAND	10.0	12.3	12.4	13.7	13.2	13.0	13.6	13.8	11.0	13.2	12.9
ITALY	8.0	9.7	9.1	10.1	10.9	11.6	11.1	10.4	10.2	10.2	10.6
LUXEMBOURG	11.7	10.0	10.7	12.4	13.6	12.1	13.6	13.7	11.2	13.0	10.7
NETHERLANDS	8.6	10.5	10.9	11.1	11.0	11.3	11.4	10.9	10.8	11.1	9.5
PORTUGAL	4.5	8.6	9.4	10.1	8.6	9.4	10.6	11.5	11.6	11.4	10.5
UK	10.9	10.7	10.4	10.8	11.0	11.5	11.5	11.9	11.7	11.4	11.4
EC	8.7	9.8	9.5	10.0	10.5	11.0	11.3	11.7	11.5	11.5	11.3
REST OF EUROPE	6.8	9.2	9.0	9.6	10.0	10.6	10.8	10.6	10.7	10.6	10.1
USA	8.4	10.2	10.3	10.9	11.2	11.3	11.5	11.7	11.7	11.8	11.4
REST OF THE WORLD	8.0	9.3	9.5	9.8	10.2	10.7	11.2	11.6	12.0	12.2	11.9
WORLD	8.3	9.7	9.8	10.3	10.6	11.0	11.3	11.6	11.7	11.8	11.5

## ACCORDING TO SEATS

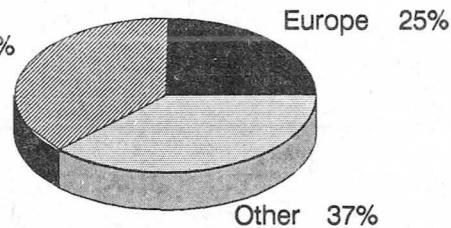
	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	7.6	9.5	9.5	10.1	11.2	10.6	11.0	11.1	11.0	12.0	11.5
DENMARK	9.3	10.8	9.7	10.0	11.4	12.8	12.6	11.3	10.4	11.5	10.6
FRG	6.1	7.2	6.2	6.6	7.4	8.0	8.2	8.5	8.1	8.7	8.1
SPAIN	7.1	8.9	8.8	9.4	10.3	11.0	11.7	12.9	12.8	11.8	12.5
FRANCE	8.3	9.0	8.8	9.0	9.7	10.5	11.4	11.6	12.5	12.5	12.7
GREECE	8.5	10.0	8.6	8.8	9.7	9.8	10.2	11.0	12.1	12.8	13.8
IRELAND	10.2	12.7	12.8	14.0	14.5	15.0	15.9	16.0	12.9	15.8	15.5
ITALY	7.4	8.4	7.0	7.8	8.4	9.0	8.5	8.7	9.1	9.6	10.0
LUXEMBOURG	11.8	6.9	7.2	9.5	11.2	6.3	7.4	12.5	9.8	13.5	12.2
NETHERLANDS	6.9	8.6	9.0	9.5	9.3	9.6	10.0	9.9	10.1	10.4	8.7
PORTUGAL	5.7	11.0	11.5	11.8	8.9	9.3	10.3	11.3	11.1	9.1	8.0
UK	9.9	9.6	9.4	10.1	10.2	10.6	10.6	11.3	11.3	11.0	11.1
EC	8.1	9.0	8.6	9.1	9.6	10.0	10.4	10.8	10.9	11.0	10.9
REST OF EUROPE	6.3	9.1	8.8	9.6	9.8	10.1	10.5	10.4	10.6	10.6	9.9
USA	7.8	10.0	10.3	11.0	11.3	11.7	12.1	12.4	12.6	12.7	12.4
REST OF THE WORLD	7.5	8.6	8.8	9.0	9.5	10.0	10.4	10.7	11.2	11.4	11.2
WORLD	7.7	9.3	9.4	9.9	10.3	10.7	11.1	11.5	11.7	11.9	11.6

■ SOURCE: AEROSPATIALE

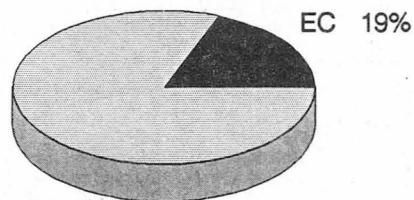
### Civil Aircraft In Service (in value - end 1989)



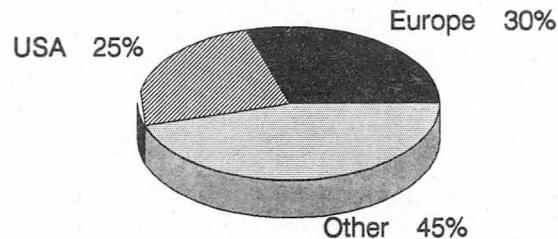
BREAKDOWN BY TYPE



BREAKDOWN BY AREA



EC MARKET SHARE



BREAKDOWN OF EC MARKETS

Source: AEROSPATIALE

### SHORT HAUL AIRCRAFT FLEET (AT YEAR-END)

#### ABSOLUTE FIGURES

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	313	467	490	516	531	529	550	579	594	673	800
REST OF EUROPE	35	73	89	91	99	119	132	157	182	197	212
USA	425	648	711	793	890	997	1,132	1,302	1,455	1,588	1,705
OTHER WORLD	1,000	1,358	1,426	1,470	1,477	1,490	1,553	1,618	1,804	1,940	1,995
TOTAL	1,773	2,546	2,716	2,870	2,997	3,135	3,367	3,656	4,035	4,398	4,712

#### SEATS (X 1,000)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	13	16	17	17	18	18	18	19	20	24	28
REST OF EUROPE	1	2	3	3	3	4	4	5	6	6	7
USA	17	21	23	25	27	29	33	39	43	46	50
OTHER WORLD	40	47	48	49	48	49	51	53	57	61	63
TOTAL	71	87	90	94	96	99	106	116	126	137	147

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	991	974	1,240	1,385	1,476	1,612	1,630	1,339	1,330	1,552	2,088
REST OF EUROPE	102	132	215	260	302	394	500	522	534	582	708
USA	1,412	1,472	1,974	2,452	2,905	3,618	4,370	3,923	3,760	4,103	4,829
OTHER WORLD	3,576	3,156	3,987	4,514	4,730	5,122	5,259	3,963	3,618	3,764	4,293
TOTAL	6,093	5,734	7,429	8,596	9,429	10,763	11,759	9,773	9,231	10,001	11,909

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

SOURCE: AEROSPATIALE

### SHORT HAUL AIRCRAFT FLEET (AT YEAR-END)

#### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

##### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	17.7	18.3	18.0	18.0	17.7	16.9	16.3	15.8	14.7	15.3	17.0
REST OF EUROPE	2.0	2.9	3.3	3.2	3.3	3.8	3.9	4.3	4.5	4.5	4.5
USA	24.0	25.5	26.2	27.6	29.7	31.8	33.6	35.6	36.1	36.1	36.2
OTHER WORLD	56.4	53.3	52.5	51.2	49.3	47.5	46.1	44.3	44.7	44.1	42.3

##### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	18.1	19.0	18.5	18.3	18.3	17.8	17.1	16.6	16.2	17.5	18.8
REST OF EUROPE	1.5	2.2	2.8	2.8	3.0	3.6	3.9	4.3	4.6	4.6	4.7
USA	23.3	24.3	25.3	26.9	28.3	29.4	31.2	33.6	33.8	33.5	33.7
OTHER WORLD	56.7	54.2	53.4	52.0	50.3	49.1	47.8	45.6	45.4	44.3	42.9

##### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	16.3	17.0	16.7	16.1	15.7	15.0	13.9	13.7	14.4	15.5	17.5
REST OF EUROPE	1.7	2.3	2.9	3.0	3.2	3.7	4.3	5.3	5.8	5.8	5.9
USA	23.2	25.7	26.6	28.5	30.8	33.6	37.2	40.1	40.7	41.0	40.5
OTHER WORLD	58.7	55.0	53.7	52.5	50.2	47.6	44.7	40.5	39.2	37.6	36.1

SOURCE: AEROSPATIALE

### SHORT HAUL AIRCRAFT FLEET (AT YEAR-END)

#### EC MARKET SHARE (AS % OF TOTAL)

##### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	91.4	80.5	78.2	77.7	79.1	81.7	80.0	78.6	73.2	72.2	74.4
REST OF EUROPE	48.6	37.0	38.2	34.1	33.3	42.9	49.2	55.4	59.3	60.4	63.2
USA	29.9	24.8	23.5	25.6	25.8	28.0	32.7	32.6	34.8	37.7	38.7
OTHER WORLD	58.4	47.8	47.6	46.9	48.3	49.5	49.7	48.8	49.2	48.9	45.3
TOTAL	57.2	47.6	46.5	46.1	46.6	47.8	48.9	48.0	48.0	48.9	48.6

##### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	93.8	87.8	85.6	85.5	85.8	87.6	86.2	83.9	79.9	78.7	79.8
REST OF EUROPE	72.7	52.6	52.0	46.2	44.8	52.8	61.0	64.0	69.0	69.8	72.5
USA	34.9	29.5	28.5	31.7	30.5	33.6	37.8	36.4	38.6	41.0	42.2
OTHER WORLD	70.5	63.3	62.4	61.7	62.4	62.7	62.7	60.9	59.9	59.5	56.4
TOTAL	66.3	59.4	57.9	57.5	57.2	58.2	58.9	56.6	56.3	57.1	56.8

##### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	90.8	76.0	72.4	71.9	73.1	75.6	73.9	75.0	71.3	72.5	74.3
REST OF EUROPE	55.6	38.5	29.4	22.2	21.1	36.4	51.9	59.0	67.3	70.0	74.4
USA	23.4	24.1	21.8	23.5	27.3	31.7	40.7	43.7	47.2	51.1	49.4
OTHER WORLD	62.1	52.4	53.3	53.4	55.7	56.3	56.0	55.7	55.1	55.9	52.9
TOTAL	57.9	48.8	47.4	46.8	48.5	50.2	52.4	53.6	54.9	57.3	56.5

■ SOURCE: AEROSPATIALE

### SHORT HAUL AIRCRAFT FLEET (AT YEAR-END)

#### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

##### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	28.2	31.0	30.3	30.3	30.1	28.8	26.7	25.9	22.4	22.6	26.0
REST OF EUROPE	1.7	2.2	2.7	2.3	2.4	3.4	3.9	5.0	5.6	5.5	5.8
USA	12.5	13.3	13.2	15.3	16.5	18.6	22.5	24.1	26.2	27.8	28.8
OTHER WORLD	57.6	53.5	53.8	52.0	51.1	49.2	46.9	45.0	45.8	44.1	39.4

##### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	25.6	28.0	27.4	27.3	27.5	26.8	25.0	24.6	23.0	24.2	26.5
REST OF EUROPE	1.7	1.9	2.5	2.2	2.4	3.3	4.0	4.9	5.6	5.6	6.0
USA	12.3	12.1	12.5	14.8	15.1	17.0	20.0	21.6	23.2	24.0	25.0
OTHER WORLD	60.3	57.8	57.7	55.8	54.9	52.9	51.0	49.1	48.3	46.2	42.6

##### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	25.5	26.4	25.5	24.7	23.6	22.5	19.5	19.2	18.7	19.6	23.1
REST OF EUROPE	1.6	1.8	1.8	1.4	1.4	2.6	4.2	5.9	7.1	7.1	7.8
USA	9.4	12.7	12.2	14.3	17.4	21.2	28.8	32.7	35.1	36.5	35.5
OTHER WORLD	62.9	59.1	60.4	59.9	57.6	53.3	47.7	42.2	39.4	36.7	33.7

SOURCE: AEROSPATIALE

### MEDIUM HAUL AIRCRAFT FLEET (AT YEAR-END)

#### ABSOLUTE FIGURES

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	727	779	785	798	813	840	847	903	988	1,120	1,234
REST OF EUROPE	185	234	241	239	235	231	251	271	299	322	350
USA	1,731	2,182	2,300	2,391	2,625	2,808	3,020	3,144	3,368	3,642	3,503
OTHER WORLD	957	1,356	1,444	1,507	1,540	1,558	1,613	1,676	1,765	1,884	1,953
<b>TOTAL</b>	<b>3,600</b>	<b>4,551</b>	<b>4,770</b>	<b>4,935</b>	<b>5,213</b>	<b>5,437</b>	<b>5,731</b>	<b>5,994</b>	<b>6,420</b>	<b>6,968</b>	<b>7,040</b>

#### SEATS (X 1,000)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	91	104	106	108	111	116	119	127	139	157	174
REST OF EUROPE	21	26	28	27	27	27	30	33	37	41	45
USA	251	320	337	351	384	408	439	456	490	532	507
OTHER WORLD	122	188	203	217	225	232	241	253	267	287	291
<b>TOTAL</b>	<b>484</b>	<b>638</b>	<b>674</b>	<b>703</b>	<b>748</b>	<b>783</b>	<b>828</b>	<b>868</b>	<b>933</b>	<b>1,016</b>	<b>1,018</b>

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	11,084	10,420	13,864	15,579	17,172	19,602	20,394	16,214	15,287	16,939	20,677
REST OF EUROPE	2,793	2,652	3,619	3,745	4,175	4,513	5,154	4,412	4,168	4,628	5,836
USA	32,739	31,027	39,499	44,143	51,328	58,837	63,210	49,291	44,785	47,194	51,874
OTHER WORLD	16,389	20,219	27,041	32,553	36,216	40,967	42,737	33,952	29,139	29,715	33,975
<b>TOTAL</b>	<b>62,994</b>	<b>64,301</b>	<b>84,002</b>	<b>96,032</b>	<b>108,878</b>	<b>123,935</b>	<b>131,495</b>	<b>103,881</b>	<b>93,380</b>	<b>98,476</b>	<b>112,372</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

SOURCE: AEROSPATIALE

**MEDIUM HAUL AIRCRAFT FLEET (AT YEAR-END)****GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	20.2	17.1	16.5	16.2	15.6	15.4	14.8	15.1	15.4	16.1	17.5
REST OF EUROPE	5.1	5.1	5.1	4.8	4.5	4.2	4.4	4.5	4.7	4.6	5.0
USA	48.1	47.9	48.2	48.4	50.4	51.6	52.7	52.5	52.5	52.3	49.8
OTHER WORLD	26.6	29.8	30.3	30.5	29.5	28.7	28.1	28.0	27.5	27.0	27.7

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	18.7	16.3	15.7	15.4	14.8	14.8	14.4	14.6	14.9	15.4	17.1
REST OF EUROPE	4.2	4.1	4.1	3.8	3.7	3.5	3.6	3.7	3.9	4.0	4.4
USA	51.8	50.1	50.0	49.9	51.4	52.1	53.0	52.5	52.5	52.4	49.8
OTHER WORLD	25.2	29.5	30.2	30.9	30.1	29.6	29.1	29.1	28.7	28.2	28.6

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	17.6	16.2	16.5	16.2	15.8	15.8	15.5	15.6	16.4	17.2	18.4
REST OF EUROPE	4.4	4.1	4.3	3.9	3.8	3.6	3.9	4.2	4.5	4.7	5.2
USA	52.0	48.3	47.0	46.0	47.1	47.5	48.1	47.4	48.0	47.9	46.2
OTHER WORLD	26.0	31.4	32.2	33.9	33.3	33.1	32.5	32.7	31.2	30.2	30.2

■ SOURCE: AEROSPATIALE

**MEDIUM HAUL AIRCRAFT FLEET (AT YEAR-END)****EC MARKET SHARE (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	49.4	38.4	36.7	34.6	34.4	34.6	33.2	32.0	31.1	30.4	31.3
REST OF EUROPE	19.5	19.7	19.1	18.0	20.0	20.8	22.3	22.5	19.7	21.7	19.7
USA	3.5	3.7	4.1	4.4	4.5	5.1	6.2	7.1	6.9	6.8	8.1
OTHER WORLD	24.5	22.1	21.9	23.7	24.6	25.5	25.4	26.8	26.9	27.3	30.5
TOTAL	19.1	16.0	15.6	15.8	15.8	16.2	16.3	17.1	16.7	16.8	19.0

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	45.9	38.2	37.9	36.7	36.5	37.3	36.0	34.7	33.5	32.7	33.8
REST OF EUROPE	17.1	17.2	17.0	13.8	18.3	19.6	21.7	21.8	19.2	20.9	18.6
USA	2.2	3.3	3.9	4.3	4.4	4.8	5.8	6.6	6.4	6.7	8.0
OTHER WORLD	20.1	19.7	20.3	23.4	24.4	25.9	26.4	28.1	28.1	28.6	32.7
TOTAL	15.5	14.4	14.7	15.5	15.7	16.4	16.7	17.5	17.2	17.5	20.0

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	39.7	35.6	35.3	35.6	35.1	36.9	35.4	33.8	31.0	29.3	30.8
REST OF EUROPE	13.8	18.2	17.5	12.7	20.6	21.2	23.8	24.5	20.9	23.1	21.2
USA	1.7	3.5	4.2	4.5	4.9	5.7	7.6	9.1	8.9	9.9	11.3
OTHER WORLD	17.1	20.2	21.3	25.3	27.2	29.7	30.3	32.5	32.6	32.8	36.7
TOTAL	12.9	14.6	15.4	16.9	17.7	19.1	19.9	21.3	20.5	20.8	23.1

SOURCE: AEROSPATIALE

**MEDIUM HAUL AIRCRAFT FLEET (AT YEAR-END)****BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	52.1	41.2	38.7	35.3	34.0	33.1	30.1	28.3	28.6	29.1	28.9
REST OF EUROPE	5.2	6.3	6.2	5.5	5.7	5.5	6.0	6.0	5.5	6.0	5.2
USA	8.7	11.2	12.8	13.4	14.2	16.4	20.1	21.9	21.6	21.1	21.3
OTHER WORLD	34.0	41.3	42.4	45.7	46.1	45.1	43.8	43.9	44.2	43.9	44.6

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	55.4	43.2	40.4	36.4	34.5	33.7	31.0	29.0	29.1	28.9	28.9
REST OF EUROPE	4.7	4.9	4.7	3.4	4.3	4.1	4.7	4.7	4.4	4.8	4.1
USA	7.3	11.6	13.3	13.7	14.3	15.4	18.4	19.6	19.6	20.1	20.1
OTHER WORLD	32.6	40.3	41.5	46.5	46.9	46.8	46.0	46.7	46.9	46.2	46.9

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	53.9	39.6	37.8	34.1	31.4	30.5	27.6	24.8	24.8	24.3	24.5
REST OF EUROPE	4.7	5.1	4.9	2.9	4.5	4.0	4.7	4.9	4.6	5.2	4.8
USA	7.0	11.7	12.8	12.3	13.0	14.0	18.4	20.4	20.9	22.8	22.6
OTHER WORLD	34.4	43.7	44.6	50.7	51.2	51.3	49.4	49.9	49.7	47.7	48.1

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT FLEET (AT YEAR-END)

### ABSOLUTE FIGURES

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	371	360	323	310	302	289	300	317	326	317	350
REST OF EUROPE	60	62	60	58	62	62	68	68	68	69	53
USA	653	537	476	457	460	446	449	449	483	509	560
OTHER WORLD	508	685	734	730	736	746	741	757	773	800	812
TOTAL	1,592	1,644	1,593	1,555	1,560	1,543	1,558	1,591	1,650	1,695	1,775

#### SEATS (X 1,000)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	78	91	87	86	86	84	88	95	98	98	109
REST OF EUROPE	13	14	14	13	15	15	16	16	16	16	13
USA	139	129	120	116	120	119	120	120	128	134	146
OTHER WORLD	107	168	183	187	190	194	195	202	208	218	230
TOTAL	336	402	405	402	411	411	420	433	450	467	499

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	11,488	11,488	14,155	15,175	15,715	16,331	16,964	13,486	11,252	10,342	12,172
REST OF EUROPE	2,197	1,639	2,097	2,059	2,509	2,724	2,675	1,917	1,549	1,395	1,162
USA	19,018	12,860	14,424	14,231	15,486	16,148	15,045	10,761	8,270	7,314	7,579
OTHER WORLD	15,969	21,105	28,127	31,551	33,454	36,040	35,975	27,550	23,163	22,937	25,742
TOTAL	48,673	47,092	58,804	63,015	67,178	71,258	70,675	53,714	44,235	41,988	46,664

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

**LONG HAUL AIRCRAFT FLEET (AT YEAR-END)****GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	23.3	21.9	20.3	19.9	19.4	18.7	19.3	19.9	19.8	18.7	19.7
REST OF EUROPE	3.8	3.8	3.8	3.7	4.0	4.0	4.4	4.3	4.1	4.1	3.0
USA	41.0	32.7	29.9	29.4	29.5	28.9	28.8	28.2	29.3	30.0	31.5
OTHER WORLD	31.9	41.7	46.1	46.9	47.2	48.3	47.6	47.6	46.8	47.2	45.7

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	23.1	22.6	21.5	21.4	20.9	20.3	21.0	21.9	21.8	21.0	21.9
REST OF EUROPE	3.9	3.5	3.5	3.3	3.7	3.6	3.8	3.7	3.6	3.5	2.5
USA	41.2	32.1	29.7	28.9	29.1	28.9	28.7	27.6	28.5	28.8	29.3
OTHER WORLD	31.8	41.8	45.2	46.4	46.3	47.2	46.6	46.7	46.2	46.8	46.2

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	23.6	24.4	24.1	24.1	23.4	22.9	24.0	25.1	25.4	24.6	26.1
REST OF EUROPE	4.5	3.5	3.6	3.3	3.7	3.8	3.8	3.6	3.5	3.3	2.5
USA	39.1	27.3	24.5	22.6	23.1	22.7	21.3	20.0	18.7	17.4	16.2
OTHER WORLD	32.8	44.8	47.8	50.1	49.8	50.6	50.9	51.3	52.4	54.6	55.2

SOURCE: AEROSPATIALE

### LONG HAUL AIRCRAFT FLEET (AT YEAR-END)

#### EC MARKET SHARE (AS % OF TOTAL)

##### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	15.1	10.0	10.8	10.6	10.3	12.1	11.3	10.7	11.3	11.7	10.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	3.1	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
TOTAL	4.5	2.4	2.3	2.3	2.1	2.4	2.3	2.3	2.4	2.3	2.1

##### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	7.5	4.3	4.4	4.2	4.0	4.7	4.2	3.9	4.2	4.2	3.6
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	1.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TOTAL	2.3	1.0	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.8

##### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	5.5	3.5	3.1	2.7	2.2	2.1	1.9	1.5	1.5	1.3	1.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.7	0.9	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT FLEET (AT YEAR-END)

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	77.8	92.3	94.6	94.3	93.9	94.6	94.4	94.4	94.9	94.9	94.6
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	22.2	7.7	5.4	5.7	6.1	5.4	5.6	5.6	5.1	5.1	5.4

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	76.3	92.9	95.0	94.7	94.4	97.5	94.9	94.9	97.6	97.6	95.1
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	23.7	7.1	5.0	5.3	5.6	5.0	5.1	5.1	4.8	4.8	4.9

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	76.5	97.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	23.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

■ SOURCE: AEROSPATIALE

## TOTAL CIVIL AIRCRAFT FLEET (AT YEAR-END)

### ABSOLUTE FIGURES

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	1,411	1,606	1,598	1,624	1,646	1,658	1,697	1,799	1,908	2,110	2,384
REST OF EUROPE	280	369	390	388	396	412	451	496	549	588	615
USA	2,809	3,367	3,487	3,641	3,975	4,251	4,601	4,895	5,306	5,739	5,768
OTHER WORLD	2,465	3,399	3,604	3,707	3,753	3,794	3,907	4,051	4,342	4,624	4,760
<b>TOTAL</b>	<b>6,965</b>	<b>8,741</b>	<b>9,079</b>	<b>9,360</b>	<b>9,770</b>	<b>10,115</b>	<b>10,656</b>	<b>11,241</b>	<b>12,105</b>	<b>13,061</b>	<b>13,527</b>

#### SEATS (X 1,000)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	181	211	210	212	214	217	225	241	258	278	311
REST OF EUROPE	35	42	45	43	45	46	50	53	58	63	65
USA	406	470	480	492	531	556	592	614	661	712	703
OTHER WORLD	269	403	435	452	464	475	487	508	533	566	585
<b>TOTAL</b>	<b>891</b>	<b>1,126</b>	<b>1,169</b>	<b>1,199</b>	<b>1,254</b>	<b>1,293</b>	<b>1,354</b>	<b>1,417</b>	<b>1,509</b>	<b>1,620</b>	<b>1,663</b>

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	23,563	22,882	29,260	32,138	34,364	37,545	38,988	31,039	27,869	28,834	34,937
REST OF EUROPE	5,092	4,423	5,932	6,064	6,986	7,631	8,329	6,851	6,252	6,605	7,706
USA	53,169	45,358	55,897	60,826	69,719	78,603	82,625	63,975	56,815	58,611	64,282
OTHER WORLD	35,934	44,481	59,156	68,618	74,401	82,129	83,971	65,465	55,921	56,415	64,010
<b>TOTAL</b>	<b>117,760</b>	<b>117,127</b>	<b>150,236</b>	<b>167,644</b>	<b>185,485</b>	<b>205,957</b>	<b>213,928</b>	<b>167,367</b>	<b>146,846</b>	<b>150,465</b>	<b>170,945</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

SOURCE: AEROSPATIALE

### TOTAL CIVIL AIRCRAFT FLEET (AT YEAR-END)

#### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

##### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	20.3	18.4	17.6	17.4	16.8	16.4	15.9	16.0	15.8	16.2	17.6
REST OF EUROPE	4.0	4.2	4.3	4.1	4.1	4.1	4.2	4.4	4.5	4.5	4.5
USA	40.3	38.5	38.4	38.9	40.7	42.0	43.2	43.5	43.8	43.9	42.6
OTHER WORLD	35.4	38.9	39.7	39.6	38.4	37.5	36.7	36.0	35.9	35.4	35.2

##### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	20.3	18.8	18.0	17.6	17.1	16.8	16.6	17.0	17.1	17.2	18.7
REST OF EUROPE	3.9	3.7	3.8	3.6	3.6	3.5	3.7	3.8	3.9	3.9	3.9
USA	45.6	41.7	41.1	41.0	42.3	43.0	43.8	43.3	43.8	44.0	42.3
OTHER WORLD	30.2	35.8	37.2	37.7	37.0	36.7	36.0	35.9	35.3	34.9	35.2

##### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	20.0	19.5	19.5	19.2	18.5	18.2	18.2	18.5	19.0	19.2	20.4
REST OF EUROPE	4.3	3.8	3.9	3.6	3.8	3.7	3.9	4.1	4.3	4.4	4.5
USA	45.2	38.7	37.2	36.3	37.6	38.2	38.6	38.2	38.7	39.0	37.6
OTHER WORLD	30.5	38.0	39.4	40.9	40.1	39.9	39.3	39.1	38.1	37.5	37.4

■ SOURCE: AEROSPATIALE

**TOTAL CIVIL AIRCRAFT FLEET (AT YEAR-END)****EC MARKET SHARE (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	49.7	44.3	44.2	43.7	44.4	45.7	44.5	43.2	40.8	40.9	42.6
REST OF EUROPE	18.9	19.8	20.5	19.1	20.2	24.0	26.8	29.8	30.4	32.1	33.0
USA	6.7	7.2	7.5	8.5	8.7	10.0	12.1	13.2	13.9	14.7	16.4
OTHER WORLD	33.8	28.0	27.7	28.3	29.2	29.9	30.3	30.6	31.4	31.7	31.5
TOTAL	25.5	22.6	22.5	22.9	23.1	23.9	24.6	25.0	25.2	25.7	27.1

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	32.8	27.5	27.8	27.4	27.5	28.8	27.6	26.5	26.0	26.7	27.3
REST OF EUROPE	12.4	13.1	13.5	11.5	13.9	15.8	18.1	19.3	18.9	20.4	20.7
USA	2.8	3.6	4.1	4.7	4.7	5.3	6.4	7.2	7.2	7.6	8.8
OTHER WORLD	20.4	16.7	16.5	17.9	18.4	19.2	19.6	20.4	20.6	20.9	22.4
TOTAL	14.6	13.1	13.3	13.9	14.0	14.7	15.1	15.7	15.6	16.0	17.5

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	25.1	21.2	21.3	21.6	21.7	23.4	22.4	21.6	21.0	21.6	23.0
REST OF EUROPE	8.7	12.1	11.7	8.8	13.2	14.4	17.8	20.3	19.7	22.4	22.9
USA	1.7	3.2	3.7	4.2	4.7	5.7	8.0	9.7	10.2	11.5	12.8
OTHER WORLD	14.5	12.9	13.3	15.5	16.8	18.3	18.9	20.2	20.6	21.0	23.0
TOTAL	10.6	10.7	11.2	12.4	13.0	14.3	15.3	16.5	16.6	17.5	19.2

■ SOURCE: AEROSPATIALE

**TOTAL CIVIL AIRCRAFT FLEET (AT YEAR-END)****BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	39.5	35.9	34.5	33.2	32.5	31.4	28.8	27.6	25.5	25.7	27.7
REST OF EUROPE	3.0	3.7	3.9	3.5	3.6	4.1	4.6	5.3	5.5	5.6	5.5
USA	10.5	12.2	12.8	14.4	15.4	17.5	21.3	23.0	24.2	25.1	25.8
OTHER WORLD	47.0	48.1	48.8	49.0	48.6	47.0	45.2	44.1	44.7	43.6	41.0

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	45.8	39.3	37.5	34.8	33.5	32.9	30.4	28.9	28.5	28.6	29.1
REST OF EUROPE	3.3	3.7	3.9	2.9	3.6	3.8	4.4	4.6	4.7	5.0	4.6
USA	8.7	11.4	12.7	13.8	14.3	15.5	18.5	19.9	20.3	20.9	21.2
OTHER WORLD	42.2	45.5	46.0	48.6	48.6	47.8	46.7	46.7	46.6	45.6	45.1

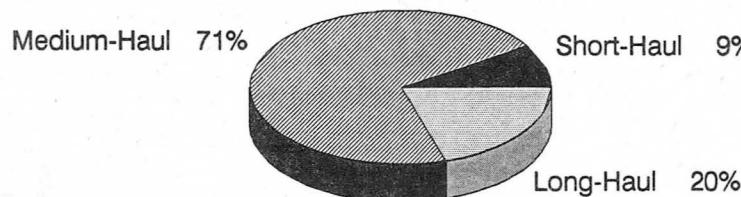
**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	47.4	38.6	36.9	33.5	30.9	29.8	26.7	24.3	24.0	23.7	24.5
REST OF EUROPE	3.5	4.2	4.1	2.6	3.8	3.7	4.5	5.0	5.1	5.6	5.4
USA	7.2	11.5	12.3	12.5	13.7	15.2	20.2	22.6	23.7	25.7	25.2
OTHER WORLD	41.7	45.7	46.7	51.5	51.7	51.1	48.6	48.1	47.2	45.0	45.0

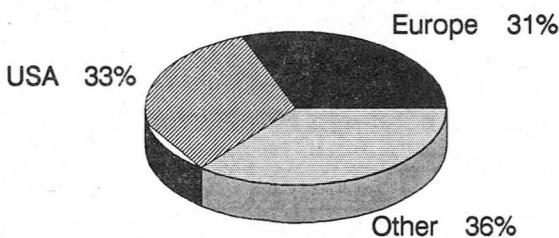
■ SOURCE: AEROSPATIALE

### Civil Aircraft Deliveries

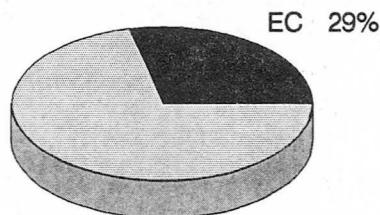
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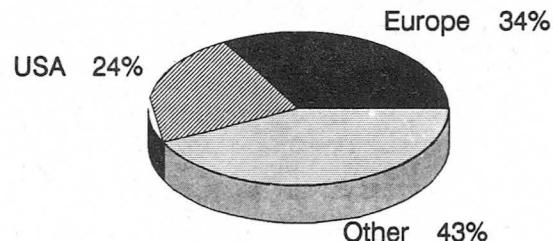
BREAKDOWN BY TYPE



BREAKDOWN BY AREA



EC MARKET SHARE



BREAKDOWN OF EC MARKETS

Source: AEROSPATIALE

### SHORT HAUL AIRCRAFT DELIVERIES

**ABSOLUTE FIGURES**
**UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	43	38	35	29	22	28	22	31	60	59	73
REST OF EUROPE	0	10	13	6	7	13	15	17	14	17	24
USA	15	108	105	68	90	135	187	187	173	181	167
OTHER WORLD	92	102	103	79	66	59	57	47	73	122	167
TOTAL	150	258	256	182	185	235	281	282	320	379	431

**SEATS (X 1,000)**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	1	1	1	1	1	1	1	1	2	2	3
REST OF EUROPE	0	0	0	0	0	0	0	1	1	1	1
USA	0	3	3	2	2	3	5	5	5	5	5
OTHER WORLD	2	2	3	2	2	2	2	1	2	4	5
TOTAL	4	6	7	5	5	6	8	9	10	12	14

**CONSTANT VALUE - MIO 1989 ECU (\*)**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	148	112	177	144	127	215	167	201	338	388	536
REST OF EUROPE	0	30	51	14	63	90	130	134	87	107	182
USA	46	365	443	332	460	734	1,241	1,031	806	815	862
OTHER WORLD	364	335	468	447	397	430	426	295	414	621	944
TOTAL	581	832	1,152	952	1,063	1,469	1,963	1,673	1,635	1,950	2,523

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

## SHORT HAUL AIRCRAFT DELIVERIES

### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	28.7	14.7	13.7	15.9	11.9	11.9	7.8	11.0	18.8	15.6	16.9
REST OF EUROPE	0.0	3.9	5.1	3.3	3.8	5.5	5.3	6.0	4.4	4.5	5.6
USA	10.0	41.9	41.0	37.4	48.6	57.4	66.5	66.3	54.1	47.8	38.7
OTHER WORLD	61.3	39.5	40.2	43.4	35.7	25.1	20.3	16.7	22.8	32.2	38.7

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	27.0	13.1	16.7	14.3	10.4	13.3	7.7	12.8	21.4	20.2	21.5
REST OF EUROPE	0.0	3.3	3.0	2.0	8.3	6.7	5.1	7.0	5.1	5.0	6.9
USA	10.8	44.3	39.4	34.7	43.7	48.3	64.1	61.6	49.0	42.9	34.0
OTHER WORLD	64.9	37.7	40.9	46.9	39.6	28.3	23.1	17.4	23.5	31.9	37.5

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	25.5	13.4	15.4	15.2	11.9	14.6	8.5	12.0	20.7	19.9	21.2
REST OF EUROPE	0.0	3.7	4.4	1.5	6.0	6.1	6.6	8.0	5.3	5.5	7.2
USA	7.8	43.9	38.5	34.8	43.3	50.0	63.2	61.6	49.3	41.8	34.2
OTHER WORLD	62.7	40.2	40.7	47.0	37.3	29.3	21.7	17.6	25.3	31.8	37.4

■ SOURCE: AEROSPATIALE

### SHORT HAUL AIRCRAFT DELIVERIES

**EC MARKET SHARE (AS % OF TOTAL)**
**UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	95.3	15.8	40.0	58.6	90.9	92.9	86.4	77.4	73.3	69.5	75.3
REST OF EUROPE	-	40.0	23.1	0.0	28.6	84.6	93.3	88.2	85.7	88.2	83.3
USA	13.3	29.6	19.0	14.7	40.0	34.1	55.1	51.3	53.2	54.7	36.5
OTHER WORLD	33.7	24.5	52.4	49.4	87.9	74.6	52.6	48.9	45.2	55.7	40.1
TOTAL	49.3	26.0	35.5	36.3	62.7	54.0	59.1	56.0	56.6	58.8	47.1

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	100.0	25.0	45.5	57.1	100.0	100.0	100.0	81.8	76.2	75.0	80.6
REST OF EUROPE	-	50.0	0.0	0.0	25.0	75.0	100.0	100.0	80.0	100.0	90.0
USA	25.0	37.0	19.2	17.6	47.6	44.8	62.0	54.7	56.3	60.8	40.8
OTHER WORLD	54.2	30.4	59.3	56.5	89.5	64.7	55.6	53.3	47.8	63.2	46.3
TOTAL	62.2	32.8	40.9	42.9	68.7	60.0	65.4	60.5	59.2	65.5	54.9

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	100.0	27.3	50.0	60.0	87.5	91.7	88.9	86.7	77.4	77.5	81.4
REST OF EUROPE	-	33.3	0.0	0.0	25.0	80.0	85.7	90.0	87.5	90.9	85.0
USA	25.0	36.1	20.0	17.4	48.3	43.9	62.7	55.8	56.8	60.7	41.1
OTHER WORLD	56.3	30.3	59.5	58.1	92.0	66.7	56.5	50.0	44.7	60.9	47.1
TOTAL	62.7	32.9	40.7	42.4	68.7	59.8	65.1	60.8	60.0	65.7	54.7

■ SOURCE: AEROSPATIALE

## SHORT HAUL AIRCRAFT DELIVERIES

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	55.4	9.0	15.4	25.8	17.2	20.5	11.4	15.2	24.3	18.4	27.1
REST OF EUROPE	0.0	6.0	3.3	0.0	1.7	8.7	8.4	9.5	6.6	6.7	9.9
USA	2.7	47.8	22.0	15.2	31.0	36.2	62.0	60.8	50.8	44.4	30.0
OTHER WORLD	41.9	37.3	59.3	59.1	50.0	34.6	18.1	14.6	18.2	30.5	33.0

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	43.5	10.0	18.5	19.0	15.2	22.2	11.8	17.3	27.6	23.1	31.6
REST OF EUROPE	0.0	5.0	0.0	0.0	3.0	8.3	7.8	11.5	6.9	7.7	11.4
USA	4.3	50.0	18.5	14.3	30.3	36.1	60.8	55.8	46.6	39.7	25.3
OTHER WORLD	56.5	35.0	59.3	61.9	51.5	30.6	19.6	15.4	19.0	30.8	31.6

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	40.6	11.1	18.9	21.4	15.2	22.4	11.6	17.1	26.7	23.5	31.6
REST OF EUROPE	0.0	3.7	0.0	0.0	2.2	8.2	8.7	11.8	7.8	7.6	11.2
USA	3.1	48.1	18.9	14.3	30.4	36.7	60.9	56.6	46.7	38.6	25.7
OTHER WORLD	56.3	37.0	59.5	64.3	50.0	32.7	18.8	14.5	18.9	29.5	32.2

■ SOURCE: AEROSPATIALE

**MEDIUM HAUL AIRCRAFT DELIVERIES****ABSOLUTE FIGURES****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	41	85	83	36	57	49	56	39	92	115	162
REST OF EUROPE	16	14	25	8	12	5	20	37	25	34	43
USA	91	141	132	130	149	137	185	185	222	262	234
OTHER WORLD	125	109	128	122	87	85	94	101	80	98	185
TOTAL	273	349	368	296	305	276	355	362	419	509	624

**SEATS (X 1,000)**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	7	12	12	5	9	8	9	6	14	17	23
REST OF EUROPE	2	2	4	1	2	1	3	5	3	5	7
USA	16	22	20	21	24	19	27	26	32	41	35
OTHER WORLD	18	20	21	22	14	16	15	16	14	17	30
TOTAL	42	56	57	49	49	44	54	53	63	79	95

**CONSTANT VALUE - MIO 1989 ECU (\*)**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	1,218	2,049	2,545	1,285	2,330	2,446	2,640	1,342	2,831	3,284	4,938
REST OF EUROPE	367	388	720	233	498	243	958	1,239	659	927	1,461
USA	2,967	3,634	4,231	4,871	6,290	5,668	8,186	6,151	6,563	8,101	7,370
OTHER WORLD	3,343	3,281	4,414	5,226	3,744	4,604	4,714	3,900	2,753	3,407	6,354
TOTAL	7,895	9,352	11,910	11,614	12,849	12,977	16,498	12,633	12,815	15,709	20,123

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

## MEDIUM HAUL AIRCRAFT DELIVERIES

### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	15.0	24.4	22.6	12.2	18.7	17.8	15.8	10.8	22.0	22.6	26.0
REST OF EUROPE	5.9	4.0	6.8	2.7	3.9	1.8	5.6	10.2	6.0	6.7	6.9
USA	33.3	40.4	35.9	43.9	48.9	49.6	52.1	51.1	53.0	51.5	37.5
OTHER WORLD	45.8	31.2	34.8	41.2	28.5	30.8	26.5	27.9	19.1	19.3	29.6

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	15.6	21.9	21.3	11.1	18.2	18.9	16.0	10.5	22.1	20.9	24.4
REST OF EUROPE	4.5	4.1	6.2	1.9	3.7	1.8	5.9	9.8	5.1	5.8	7.4
USA	37.6	38.8	35.6	42.2	48.9	43.6	49.6	48.7	51.2	51.6	36.7
OTHER WORLD	42.6	35.3	37.0	45.3	29.0	35.4	28.4	31.0	21.6	21.7	31.6

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	15.4	21.9	21.4	11.1	18.1	18.9	16.0	10.6	22.1	20.9	24.5
REST OF EUROPE	4.7	4.1	6.0	2.0	3.9	1.9	5.8	9.8	5.1	5.9	7.3
USA	37.6	38.9	35.5	41.9	49.0	43.7	49.6	48.7	51.2	51.6	36.6
OTHER WORLD	42.4	35.1	37.1	45.0	29.1	35.5	28.6	30.9	21.5	21.7	31.6

SOURCE: AEROSPATIALE

**MEDIUM HAUL AIRCRAFT DELIVERIES****EC MARKET SHARE (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	29.3	21.2	19.3	41.7	28.1	34.7	17.9	17.9	18.5	24.3	34.6
REST OF EUROPE	0.0	28.6	12.0	37.5	41.7	40.0	20.0	35.1	16.0	38.2	25.6
USA	0.0	7.1	7.6	5.4	6.7	10.9	20.0	18.9	8.1	10.3	20.1
OTHER WORLD	21.6	22.0	21.9	34.4	40.2	52.9	31.9	35.6	32.5	25.5	47.6
<b>TOTAL</b>	<b>14.3</b>	<b>16.0</b>	<b>15.5</b>	<b>22.6</b>	<b>21.6</b>	<b>28.6</b>	<b>22.8</b>	<b>25.1</b>	<b>15.5</b>	<b>18.3</b>	<b>32.4</b>

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	35.4	32.8	33.1	53.7	33.7	44.6	22.1	19.6	24.3	25.9	35.3
REST OF EUROPE	0.0	39.1	11.4	22.2	50.0	37.5	28.1	38.5	9.4	34.8	27.1
USA	0.0	7.9	9.4	7.3	7.9	11.0	19.5	15.4	7.4	14.9	21.6
OTHER WORLD	16.3	25.5	27.6	43.6	38.7	54.2	37.9	40.6	34.3	29.7	47.3
<b>TOTAL</b>	<b>12.4</b>	<b>20.7</b>	<b>21.3</b>	<b>29.0</b>	<b>23.3</b>	<b>33.1</b>	<b>25.7</b>	<b>25.9</b>	<b>17.1</b>	<b>21.6</b>	<b>33.4</b>

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	35.7	32.8	32.9	53.3	33.5	44.7	22.0	20.3	24.3	25.6	35.1
REST OF EUROPE	0.0	37.8	11.9	26.3	51.4	31.2	27.9	38.5	8.8	35.7	26.7
USA	0.0	7.8	9.4	7.0	8.1	11.0	19.4	15.3	7.5	15.0	21.6
OTHER WORLD	16.5	25.5	27.5	43.8	38.8	54.1	38.0	40.8	34.2	29.4	47.1
<b>TOTAL</b>	<b>12.5</b>	<b>20.7</b>	<b>21.3</b>	<b>29.1</b>	<b>23.3</b>	<b>33.0</b>	<b>25.6</b>	<b>26.0</b>	<b>17.0</b>	<b>21.6</b>	<b>33.3</b>

■ SOURCE: AEROSPATIALE

## MEDIUM HAUL AIRCRAFT DELIVERIES

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	30.8	32.1	28.1	22.4	24.2	21.5	12.3	7.7	26.2	30.1	27.7
REST OF EUROPE	0.0	7.1	5.3	4.5	7.6	2.5	4.9	14.3	6.2	14.0	5.4
USA	0.0	17.9	17.5	10.4	15.2	19.0	45.7	38.5	27.7	29.0	23.3
OTHER WORLD	69.2	42.9	49.1	62.7	53.0	57.0	37.0	39.6	40.0	26.9	43.6

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	44.2	34.8	33.1	20.6	26.3	25.5	13.8	8.0	31.5	25.1	25.9
REST OF EUROPE	0.0	7.8	3.3	1.4	7.9	2.1	6.5	14.5	2.8	9.4	6.0
USA	0.0	14.8	15.7	10.6	16.7	14.5	37.7	29.0	22.2	35.7	23.7
OTHER WORLD	55.8	43.5	47.9	68.1	48.2	57.9	42.0	48.6	43.5	29.8	44.8

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	44.1	34.7	33.1	20.3	26.1	25.5	13.8	8.3	31.6	24.9	25.8
REST OF EUROPE	0.0	7.6	3.4	1.8	8.6	1.8	6.3	14.5	2.7	9.8	5.8
USA	0.0	14.7	15.7	10.1	17.1	14.5	37.5	28.7	22.7	35.8	23.7
OTHER WORLD	55.9	43.1	47.9	67.8	48.6	58.2	42.4	48.4	43.1	29.6	44.7

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT DELIVERIES

### ABSOLUTE FIGURES

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	20	36	21	8	9	4	8	11	7	5	16
REST OF EUROPE	9	2	3	2	4	0	0	0	1	0	0
USA	7	28	9	0	1	3	1	11	5	6	15
OTHER WORLD	26	64	53	25	17	14	23	24	21	29	29
TOTAL	62	130	86	35	31	21	32	46	34	40	60

#### SEATS (X 1,000)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	6	11	8	3	3	1	3	5	3	2	7
REST OF EUROPE	2	1	1	1	2	0	0	0	0	0	0
USA	2	8	2	0	0	1	0	3	2	2	5
OTHER WORLD	8	22	18	9	7	5	9	9	8	11	12
TOTAL	18	42	28	12	12	7	12	17	13	15	23

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	1,287	2,242	1,839	895	890	320	944	1,316	717	474	1,652
REST OF EUROPE	513	103	269	147	526	0	0	0	97	0	0
USA	503	1,570	570	0	121	380	94	924	445	502	1,253
OTHER WORLD	1,732	4,338	4,302	2,439	2,010	1,826	3,226	2,609	1,859	2,563	2,841
TOTAL	4,026	8,254	6,992	3,469	3,561	2,511	4,249	4,838	3,118	3,539	5,737

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT DELIVERIES

### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	32.3	27.7	24.4	22.9	29.0	19.0	25.0	23.9	20.6	12.5	26.7
REST OF EUROPE	14.5	1.5	3.5	5.7	12.9	0.0	0.0	0.0	2.9	0.0	0.0
USA	11.3	21.5	10.5	0.0	3.2	14.3	3.1	23.9	14.7	15.0	25.0
OTHER WORLD	41.9	49.2	61.6	71.4	54.8	66.7	71.9	52.2	61.8	72.5	48.3

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	31.9	27.2	26.4	25.8	25.2	12.5	22.0	27.0	22.9	13.2	28.4
REST OF EUROPE	12.6	1.2	3.9	4.0	14.8	0.0	0.0	0.0	3.1	0.0	0.0
USA	12.6	19.1	8.1	0.0	3.5	15.3	2.5	19.0	14.5	13.8	22.0
OTHER WORLD	42.9	52.7	61.6	70.2	56.5	72.2	76.3	54.0	59.5	73.0	49.6

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	32.0	27.2	26.3	25.8	25.0	12.7	22.2	27.2	23.0	13.4	28.8
REST OF EUROPE	12.7	1.3	3.8	4.2	14.8	0.0	0.0	0.0	3.1	0.0	0.0
USA	12.5	19.0	8.2	0.0	3.4	15.2	2.2	19.1	14.3	14.2	21.8
OTHER WORLD	43.0	52.6	61.5	70.3	56.4	72.7	75.9	53.9	59.6	72.4	49.5

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT DELIVERIES

### EC MARKET SHARE (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	10.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-
USA	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	3.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	3.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-
USA	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-
USA	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT DELIVERIES

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REST OF EUROPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER WORLD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

■ SOURCE: AEROSPATIALE

### TOTAL CIVIL AIRCRAFT DELIVERIES

#### ABSOLUTE FIGURES

##### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	104	159	139	73	88	81	86	81	159	179	251
REST OF EUROPE	25	26	41	16	23	18	35	54	40	51	67
USA	113	277	246	198	240	275	373	383	400	449	416
OTHER WORLD	243	275	284	226	170	158	174	172	174	249	381
<b>TOTAL</b>	<b>485</b>	<b>737</b>	<b>710</b>	<b>513</b>	<b>521</b>	<b>532</b>	<b>668</b>	<b>690</b>	<b>773</b>	<b>928</b>	<b>1,115</b>

##### SEATS (X 1,000)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	13	24	21	9	12	10	12	11	19	21	33
REST OF EUROPE	4	3	5	1	4	1	4	6	4	5	8
USA	18	32	25	22	26	23	32	34	39	48	45
OTHER WORLD	28	44	41	33	23	22	26	27	24	32	47
<b>TOTAL</b>	<b>64</b>	<b>104</b>	<b>92</b>	<b>66</b>	<b>65</b>	<b>57</b>	<b>73</b>	<b>79</b>	<b>86</b>	<b>106</b>	<b>132</b>

##### CONSTANT VALUE - MIO 1989 ECU (\*)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	2,653	4,404	4,562	2,324	3,347	2,981	3,751	2,859	3,885	4,146	7,125
REST OF EUROPE	880	521	1,039	394	1,088	333	1,088	1,373	843	1,034	1,643
USA	3,515	5,569	5,244	5,202	6,871	6,783	9,521	8,106	7,815	9,417	9,485
OTHER WORLD	5,440	7,954	9,185	8,112	6,151	6,860	8,366	6,804	5,026	6,590	10,139
<b>TOTAL</b>	<b>12,502</b>	<b>18,438</b>	<b>20,053</b>	<b>16,035</b>	<b>17,474</b>	<b>16,957</b>	<b>22,710</b>	<b>19,144</b>	<b>17,568</b>	<b>21,198</b>	<b>28,383</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

SOURCE: AEROSPATIALE

## TOTAL CIVIL AIRCRAFT DELIVERIES

### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	21.4	21.6	19.6	14.2	16.9	15.2	12.9	11.7	20.6	19.3	22.5
REST OF EUROPE	5.2	3.5	5.8	3.1	4.4	3.4	5.2	7.8	5.2	5.5	6.0
USA	23.3	37.6	34.6	38.6	46.1	51.7	55.8	55.5	51.7	48.4	37.3
OTHER WORLD	50.1	37.3	40.0	44.1	32.6	29.7	26.0	24.9	22.5	26.8	34.2

#### SEATS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	20.9	23.6	22.5	14.1	18.9	17.5	16.1	14.4	22.2	19.7	24.8
REST OF EUROPE	6.6	2.9	5.2	2.3	6.0	2.1	4.9	7.3	4.8	4.9	6.0
USA	28.9	31.2	27.3	33.7	40.5	40.5	43.6	43.6	45.4	45.2	33.8
OTHER WORLD	44.0	42.5	44.9	50.1	34.7	39.3	35.6	34.6	27.6	30.2	35.4

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	21.2	23.9	22.7	14.5	19.2	17.6	16.5	14.9	22.1	19.6	25.1
REST OF EUROPE	7.0	2.8	5.2	2.5	6.2	2.0	4.8	7.2	4.8	4.9	5.8
USA	28.1	30.2	26.2	32.4	39.3	40.0	41.9	42.3	44.5	44.4	33.4
OTHER WORLD	43.5	43.1	45.8	50.6	35.2	40.5	36.8	35.5	28.6	31.1	35.7

■ SOURCE: AEROSPATIALE

**TOTAL CIVIL AIRCRAFT DELIVERIES****EC MARKET SHARE (AS % OF TOTAL)****UNITS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	52.9	16.4	21.6	43.8	40.9	53.1	33.7	38.3	38.4	38.5	44.2
REST OF EUROPE	0.0	30.8	14.6	18.8	30.4	72.2	51.4	51.9	40.0	54.9	46.3
USA	1.8	15.2	12.2	8.6	19.2	22.2	37.5	34.2	27.5	28.1	26.0
OTHER WORLD	23.9	17.8	28.9	35.8	54.7	56.3	34.5	34.3	33.9	37.3	40.7
<b>TOTAL</b>	<b>23.7</b>	<b>17.0</b>	<b>20.8</b>	<b>25.9</b>	<b>34.9</b>	<b>38.7</b>	<b>37.0</b>	<b>36.1</b>	<b>31.8</b>	<b>34.1</b>	<b>36.3</b>

**SEATS**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	26.3	18.0	21.7	35.5	28.5	45.0	21.2	17.5	26.2	29.0	32.5
REST OF EUROPE	0.0	33.3	8.3	13.3	25.6	50.0	36.1	44.8	17.1	42.3	35.0
USA	0.5	8.4	9.6	8.1	11.0	14.7	25.9	20.0	13.0	19.1	21.2
OTHER WORLD	15.0	13.0	18.0	33.0	31.9	42.4	26.1	27.4	24.4	23.4	35.6
<b>TOTAL</b>	<b>12.1</b>	<b>13.2</b>	<b>16.1</b>	<b>24.6</b>	<b>22.5</b>	<b>31.8</b>	<b>25.7</b>	<b>24.0</b>	<b>19.3</b>	<b>23.4</b>	<b>29.9</b>

**VALUE**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	23.8	16.9	20.3	33.2	26.7	43.3	19.5	15.6	24.4	27.6	30.4
REST OF EUROPE	0.0	30.0	8.3	15.5	25.0	44.4	34.8	43.5	15.9	41.4	33.1
USA	0.3	7.5	9.3	7.7	10.7	13.9	24.8	18.7	12.2	18.1	20.5
OTHER WORLD	13.9	11.8	16.2	31.4	29.6	40.5	24.3	25.6	22.4	21.0	33.9
<b>TOTAL</b>	<b>11.2</b>	<b>12.2</b>	<b>15.0</b>	<b>23.6</b>	<b>21.3</b>	<b>30.4</b>	<b>24.2</b>	<b>22.5</b>	<b>18.0</b>	<b>22.0</b>	<b>28.5</b>

■ SOURCE: AEROSPATIALE

## TOTAL CIVIL AIRCRAFT DELIVERIES

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	47.8	20.8	20.3	24.1	19.8	20.9	11.7	12.4	24.8	21.8	27.4
REST OF EUROPE	0.0	6.4	4.1	2.3	3.8	6.3	7.3	11.2	6.5	8.9	7.7
USA	1.7	33.6	20.3	12.8	25.3	29.6	56.7	52.6	44.7	39.9	26.7
OTHER WORLD	50.4	39.2	55.4	60.9	51.1	43.2	24.3	23.7	24.0	29.4	38.3

#### SEATS

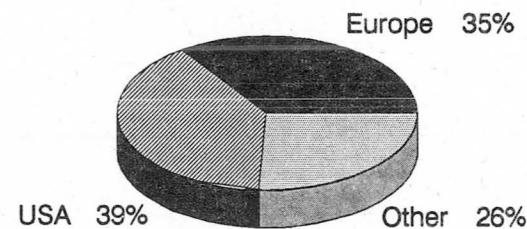
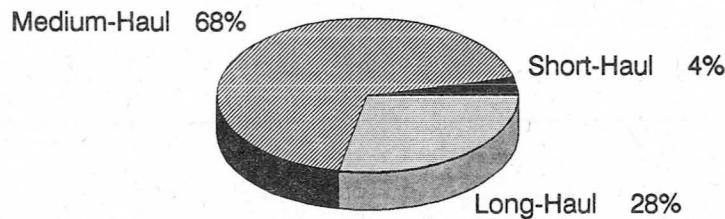
	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	45.5	32.1	30.4	20.4	23.8	24.9	13.2	10.5	30.1	24.5	27.0
REST OF EUROPE	0.0	7.3	2.7	1.2	6.8	3.3	6.9	13.7	4.2	8.8	7.1
USA	1.3	19.7	16.2	11.1	19.7	18.8	43.9	36.3	30.7	36.9	24.0
OTHER WORLD	54.5	41.6	50.0	67.3	49.0	52.5	36.0	39.5	34.9	30.1	42.2

#### VALUE

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	45.1	33.1	30.8	20.4	24.0	25.0	13.3	10.4	30.0	24.5	26.8
REST OF EUROPE	0.0	6.9	2.9	1.6	7.3	2.9	6.9	13.9	4.3	9.2	6.7
USA	0.8	18.5	16.2	10.6	19.7	18.3	43.0	35.3	30.1	36.5	24.0
OTHER WORLD	54.0	41.5	49.7	67.4	48.9	53.8	36.9	40.4	35.6	29.6	42.5

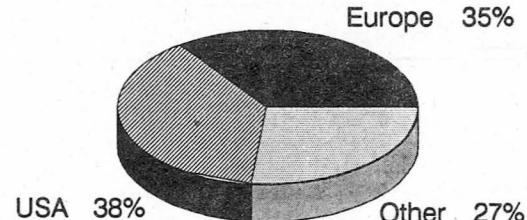
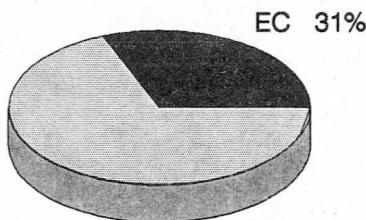
■ SOURCE: AEROSPATIALE

### Civil Aircraft Orders (in value - 1989)



BREAKDOWN BY TYPE

BREAKDOWN BY AREA



EC MARKET SHARE

BREAKDOWN OF EC MARKETS

Source: AEROSPATIALE

## SHORT HAUL AIRCRAFT ORDERS

### ABSOLUTE FIGURES

#### UNITS

	1986	1987	1988	1989
EC	78	84	138	222
REST OF EUROPE	24	23	49	50
USA	116	185	216	287
OTHER WORLD	231	217	240	214
<b>TOTAL</b>	<b>449</b>	<b>509</b>	<b>643</b>	<b>773</b>

#### SEATS (X 1,000)

	1986	1987	1988	1989
EC	3	3	7	10
REST OF EUROPE	1	1	2	2
USA	4	7	8	10
OTHER WORLD	8	8	10	9
<b>TOTAL</b>	<b>16</b>	<b>20</b>	<b>26</b>	<b>32</b>

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1986	1987	1988	1989
EC	602	567	1,057	1,788
REST OF EUROPE	214	163	388	408
USA	736	1,122	1,222	1,815
OTHER WORLD	1,660	1,439	1,562	1,498
<b>TOTAL</b>	<b>3,200</b>	<b>3,302</b>	<b>4,258</b>	<b>5,510</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

## SHORT HAUL AIRCRAFT ORDERS

### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	17.4	16.5	21.5	28.7
REST OF EUROPE	5.3	4.5	7.6	6.5
USA	25.8	36.3	33.6	37.1
OTHER WORLD	51.4	42.6	37.3	27.7

#### SEATS

	1986	1987	1988	1989
EC	18.3	16.8	25.0	32.4
REST OF EUROPE	6.7	5.6	8.8	7.3
USA	23.8	34.2	28.8	32.7
OTHER WORLD	51.2	43.4	36.9	27.6

#### VALUE

	1986	1987	1988	1989
EC	18.8	17.2	24.8	32.5
REST OF EUROPE	6.7	5.0	9.1	7.4
USA	23.0	34.0	28.7	32.9
OTHER WORLD	51.9	43.6	36.7	27.2

■ SOURCE: AEROSPATIALE

## SHORT HAUL AIRCRAFT ORDERS

### EC MARKET SHARE (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	83.3	76.2	83.3	71.6
REST OF EUROPE	100.0	95.7	93.9	100.0
USA	42.2	44.9	33.8	58.2
OTHER WORLD	54.5	69.6	64.2	66.8
TOTAL	58.8	62.9	60.3	67.1

#### SEATS

	1986	1987	1988	1989
EC	90.0	84.8	87.7	79.4
REST OF EUROPE	100.0	90.9	95.7	100.0
USA	48.7	52.2	40.0	63.1
OTHER WORLD	58.3	74.1	69.8	72.4
TOTAL	64.6	69.4	67.7	73.7

#### VALUE

	1986	1987	1988	1989
EC	88.9	82.7	88.1	79.7
REST OF EUROPE	100.0	100.0	95.0	100.0
USA	49.1	52.4	39.7	63.5
OTHER WORLD	58.1	74.2	69.6	72.7
TOTAL	64.9	69.3	67.7	73.8

■ SOURCE: AEROSPATIALE

## SHORT HAUL AIRCRAFT ORDERS

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	24.6	20.0	29.6	30.6
REST OF EUROPE	9.1	6.9	11.9	9.6
USA	18.6	25.9	18.8	32.2
OTHER WORLD	47.7	47.2	39.7	27.6

#### SEATS

	1986	1987	1988	1989
EC	25.5	20.6	32.4	34.9
REST OF EUROPE	10.4	7.4	12.5	9.9
USA	17.9	25.7	17.0	28.0
OTHER WORLD	46.2	46.3	38.1	27.2

#### VALUE

	1986	1987	1988	1989
EC	25.8	20.5	32.3	35.0
REST OF EUROPE	10.3	7.1	12.8	10.0
USA	17.4	25.7	16.8	28.3
OTHER WORLD	46.5	46.7	37.7	26.8

■ SOURCE: AEROSPATIALE

## MEDIUM HAUL AIRCRAFT ORDERS

### ABSOLUTE FIGURES

#### UNITS

	1986	1987	1988	1989
EC	224	285	384	890
REST OF EUROPE	69	77	105	141
USA	749	695	869	1,366
OTHER WORLD	215	264	296	476
<b>TOTAL</b>	<b>1,257</b>	<b>1,321</b>	<b>1,654</b>	<b>2,873</b>

#### SEATS (X 1,000)

	1986	1987	1988	1989
EC	31	41	56	134
REST OF EUROPE	10	10	15	20
USA	105	101	132	211
OTHER WORLD	35	43	48	80
<b>TOTAL</b>	<b>181</b>	<b>195</b>	<b>252</b>	<b>445</b>

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1986	1987	1988	1989
EC	7,414	8,288	11,063	28,402
REST OF EUROPE	2,229	2,065	3,019	4,312
USA	25,004	20,396	26,138	44,903
OTHER WORLD	8,244	8,783	9,558	16,810
<b>TOTAL</b>	<b>42,889</b>	<b>39,551</b>	<b>49,777</b>	<b>94,436</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

**MEDIUM HAUL AIRCRAFT ORDERS****GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)****UNITS**

	1986	1987	1988	1989
EC	17.8	21.6	23.2	31.0
REST OF EUROPE	5.5	5.8	6.3	4.9
USA	59.6	52.6	52.5	47.5
OTHER WORLD	17.1	20.0	17.9	16.6

**SEATS**

	1986	1987	1988	1989
EC	17.4	21.1	22.3	30.0
REST OF EUROPE	5.3	5.2	6.0	4.6
USA	58.1	51.5	52.4	47.5
OTHER WORLD	19.2	22.2	19.3	17.9

**VALUE**

	1986	1987	1988	1989
EC	17.3	21.0	22.2	30.1
REST OF EUROPE	5.2	5.2	6.1	4.6
USA	58.3	51.6	52.5	47.5
OTHER WORLD	19.2	22.2	19.2	17.8

■ SOURCE: AEROSPATIALE

## MEDIUM HAUL AIRCRAFT ORDERS

### EC MARKET SHARE (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	39.7	38.9	11.5	28.5
REST OF EUROPE	24.6	40.3	5.7	25.5
USA	29.5	41.0	28.9	27.2
OTHER WORLD	35.8	40.5	33.8	53.6
TOTAL	32.1	40.4	24.2	31.9

#### SEATS

	1986	1987	1988	1989
EC	44.6	40.9	13.4	30.9
REST OF EUROPE	24.2	38.2	6.6	27.6
USA	28.3	41.3	27.7	29.3
OTHER WORLD	36.2	43.3	36.3	58.7
TOTAL	32.4	41.5	24.9	35.0

#### VALUE

	1986	1987	1988	1989
EC	43.9	40.6	13.4	30.9
REST OF EUROPE	25.0	38.0	6.9	27.4
USA	28.3	41.4	27.7	29.2
OTHER WORLD	36.1	43.4	36.4	59.0
TOTAL	32.3	41.5	25.0	35.0

■ SOURCE: AEROSPATIALE

## MEDIUM HAUL AIRCRAFT ORDERS

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	22.0	20.8	11.0	27.7
REST OF EUROPE	4.2	5.8	1.5	3.9
USA	54.7	53.4	62.6	40.6
OTHER WORLD	19.1	20.0	24.9	27.8

#### SEATS

	1986	1987	1988	1989
EC	23.9	20.7	12.0	26.6
REST OF EUROPE	3.9	4.8	1.6	3.6
USA	50.6	51.2	58.3	39.8
OTHER WORLD	21.5	23.2	28.1	30.1

#### VALUE

	1986	1987	1988	1989
EC	23.4	20.5	12.0	26.6
REST OF EUROPE	4.0	4.8	1.7	3.6
USA	51.1	51.4	58.3	39.7
OTHER WORLD	21.5	23.2	28.0	30.0

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT ORDERS

### ABSOLUTE FIGURES

#### UNITS

	1986	1987	1988	1989
EC	46	129	98	148
REST OF EUROPE	3	12	17	19
USA	18	65	68	101
OTHER WORLD	82	94	135	191
<b>TOTAL</b>	<b>149</b>	<b>300</b>	<b>318</b>	<b>459</b>

#### SEATS (X 1,000)

	1986	1987	1988	1989
EC	18	45	37	49
REST OF EUROPE	1	4	5	6
USA	7	21	23	33
OTHER WORLD	29	37	52	70
<b>TOTAL</b>	<b>54</b>	<b>106</b>	<b>116</b>	<b>157</b>

#### CONSTANT VALUE - MIO 1989 ECU (\*)

	1986	1987	1988	1989
EC	4,861	10,642	8,491	12,136
REST OF EUROPE	104	794	1,094	1,298
USA	1,940	5,045	5,262	8,115
OTHER WORLD	8,082	8,744	12,102	17,409
<b>TOTAL</b>	<b>14,987</b>	<b>25,236</b>	<b>26,940</b>	<b>38,949</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT ORDERS

### GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	30.9	43.0	30.8	32.2
REST OF EUROPE	2.0	4.0	5.3	4.1
USA	12.1	21.7	21.4	22.0
OTHER WORLD	55.0	31.3	42.5	41.6

#### SEATS

	1986	1987	1988	1989
EC	32.5	42.0	31.5	31.1
REST OF EUROPE	1.1	3.3	4.2	3.5
USA	12.7	20.0	19.5	20.8
OTHER WORLD	53.5	34.7	44.8	44.7

#### VALUE

	1986	1987	1988	1989
EC	32.4	42.2	31.5	31.2
REST OF EUROPE	0.7	3.1	4.1	3.3
USA	12.9	20.0	19.5	20.8
OTHER WORLD	53.9	34.7	44.9	44.7

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT ORDERS

### EC MARKET SHARE (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	0.0	33.3	17.3	30.4
REST OF EUROPE	66.7	0.0	0.0	0.0
USA	0.0	30.8	4.4	31.7
OTHER WORLD	0.0	5.3	0.0	3.7
TOTAL	1.3	22.7	6.3	18.3

#### SEATS

	1986	1987	1988	1989
EC	0.0	28.4	13.7	27.4
REST OF EUROPE	33.3	0.0	0.0	0.0
USA	0.0	27.7	4.0	28.9
OTHER WORLD	0.0	4.1	0.0	3.0
TOTAL	0.4	18.9	5.1	15.8

#### VALUE

	1986	1987	1988	1989
EC	0.0	28.4	13.7	27.3
REST OF EUROPE	0.0	0.0	0.0	0.0
USA	0.0	27.8	4.0	29.1
OTHER WORLD	0.0	4.0	0.0	3.0
TOTAL	0.0	18.9	5.1	15.9

■ SOURCE: AEROSPATIALE

## LONG HAUL AIRCRAFT ORDERS

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	0.0	63.2	85.0	53.6
REST OF EUROPE	100.0	0.0	0.0	0.0
USA	0.0	29.4	15.0	38.1
OTHER WORLD	0.0	7.4	0.0	8.3

#### SEATS

	1986	1987	1988	1989
EC	0.0	63.2	84.7	53.6
REST OF EUROPE	100.0	0.0	0.0	0.0
USA	0.0	29.4	15.3	37.9
OTHER WORLD	0.0	7.5	0.0	8.5

#### VALUE

	1986	1987	1988	1989
EC	0.0	63.3	85.3	53.6
REST OF EUROPE	0.0	0.0	0.0	0.0
USA	0.0	29.4	15.3	38.2
OTHER WORLD	0.0	7.3	0.0	8.4

 SOURCE: AEROSPATIALE

**TOTAL CIVIL AIRCRAFT ORDERS****ABSOLUTE FIGURES****UNITS**

	1986	1987	1988	1989
EC	348	498	620	1,260
REST OF EUROPE	96	112	171	210
USA	883	945	1,153	1,754
OTHER WORLD	528	575	671	881
<b>TOTAL</b>	<b>1,855</b>	<b>2,130</b>	<b>2,615</b>	<b>4,105</b>

**SEATS (X 1,000)**

	1986	1987	1988	1989
EC	52	89	99	192
REST OF EUROPE	11	15	22	28
USA	116	128	162	254
OTHER WORLD	72	89	110	158
<b>TOTAL</b>	<b>251</b>	<b>321</b>	<b>394</b>	<b>633</b>

**CONSTANT VALUE - MIO 1989 ECU (\*)**

	1986	1987	1988	1989
EC	12,877	19,497	20,611	42,325
REST OF EUROPE	2,547	3,022	4,501	6,018
USA	27,680	26,563	32,622	54,833
OTHER WORLD	17,986	18,965	23,222	35,718
<b>TOTAL</b>	<b>61,076</b>	<b>68,088</b>	<b>80,976</b>	<b>138,894</b>

(\*) ROUNDING ERRORS DUE TO CONVERSION INTO ECUS

■ SOURCE: AEROSPATIALE

**TOTAL CIVIL AIRCRAFT ORDERS****GEOGRAPHICAL BREAKDOWN (AS % OF TOTAL)****UNITS**

	1986	1987	1988	1989
EC	18.8	23.4	23.7	30.7
REST OF EUROPE	5.2	5.3	6.5	5.1
USA	47.6	44.4	44.1	42.7
OTHER WORLD	28.5	27.0	25.7	21.5

**SEATS**

	1986	1987	1988	1989
EC	20.7	27.7	25.2	30.4
REST OF EUROPE	4.5	4.6	5.7	4.4
USA	46.1	40.0	41.2	40.1
OTHER WORLD	28.7	27.6	28.0	25.0

**VALUE**

	1986	1987	1988	1989
EC	21.1	28.6	25.5	30.5
REST OF EUROPE	4.2	4.4	5.6	4.3
USA	45.3	39.0	40.3	39.5
OTHER WORLD	29.4	27.9	28.7	25.7

■ SOURCE: AEROSPATIALE

**TOTAL CIVIL AIRCRAFT ORDERS****EC MARKET SHARE (AS % OF TOTAL)****UNITS**

	1986	1987	1988	1989
EC	44.3	43.8	28.4	36.3
REST OF EUROPE	44.8	47.3	30.4	41.0
USA	30.6	41.1	28.4	32.6
OTHER WORLD	38.4	45.7	37.9	46.0
<b>TOTAL</b>	<b>36.1</b>	<b>43.3</b>	<b>30.9</b>	<b>37.0</b>

**SEATS**

	1986	1987	1988	1989
EC	32.1	36.3	18.4	32.6
REST OF EUROPE	32.1	33.1	14.3	28.1
USA	27.3	39.6	24.9	30.6
OTHER WORLD	24.2	30.0	22.1	34.9
<b>TOTAL</b>	<b>27.6</b>	<b>35.7</b>	<b>21.9</b>	<b>32.2</b>

**VALUE**

	1986	1987	1988	1989
EC	29.4	35.2	17.4	32.0
REST OF EUROPE	30.3	31.4	12.8	26.4
USA	26.9	39.3	24.3	30.3
OTHER WORLD	21.9	27.6	19.7	32.3
<b>TOTAL</b>	<b>26.1</b>	<b>34.5</b>	<b>20.6</b>	<b>31.2</b>

■ SOURCE: AEROSPATIALE

## TOTAL CIVIL AIRCRAFT ORDERS

### BREAKDOWN OF EC-BUILT AIRCRAFT (AS % OF TOTAL)

#### UNITS

	1986	1987	1988	1989
EC	23.0	23.6	21.8	30.1
REST OF EUROPE	6.4	5.7	6.4	5.7
USA	40.3	42.1	40.4	37.6
OTHER WORLD	30.3	28.5	31.4	26.6

#### SEATS

	1986	1987	1988	1989
EC	24.0	28.2	21.1	30.8
REST OF EUROPE	5.2	4.3	3.7	3.9
USA	45.5	44.4	46.9	38.2
OTHER WORLD	25.2	23.2	28.2	27.1

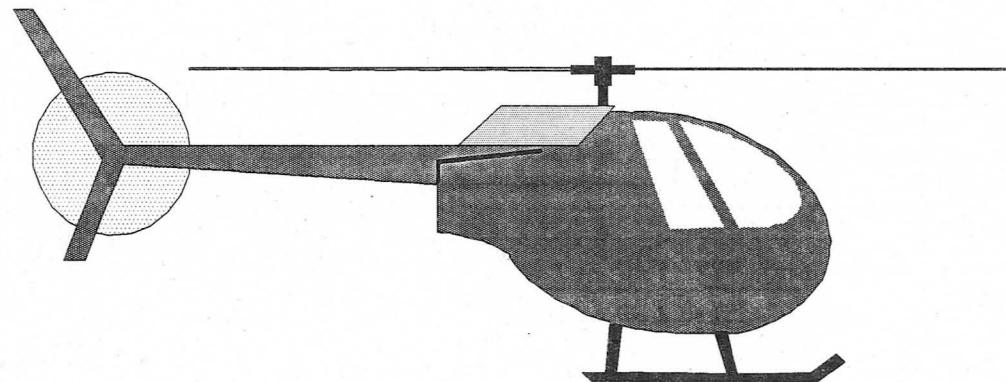
#### VALUE

	1986	1987	1988	1989
EC	23.8	29.2	21.5	31.3
REST OF EUROPE	4.8	4.0	3.5	3.7
USA	46.7	44.5	47.6	38.5
OTHER WORLD	24.7	22.3	27.4	26.6

■ SOURCE: AEROSPATIALE

# HELICOPTER AND LIGHT AIRCRAFT

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## LIGHT AIRCRAFT

The data on the EC fleet of single-engine aircraft, twin-engine aircraft and executive jets are compiled by BUREAU VERITAS.

The EC fleet of *light aircraft* (less than 15,000 kg) is broken down into three aircraft categories:

- *single-engine aircraft* ..... : less than 5.7 Tons
- *twin-engine aircraft* ..... : less than 5.7 Tons
- *executive jets* ..... : from 5.7 to 15 Tons

The data on the *business aircraft* fleet (in value and units) are prepared by *I.T.A.* (Air Transport Institute, Paris).

There is no definition of what is a "*business aircraft*". These terms relate, however, to the transport of passengers travelling for business reasons. In this study, a "*business aircraft*" is defined as follows:

- aircraft which is not used on scheduled routes,
- aircraft whose services are not marketed to the public (via travel agencies, for example), the available capacity (generally limited) being bought for a sole use, linked to professional reasons. Therefore there is *double counting* of some large transport aircraft which are also included in the *transport aircraft* fleet (Chapter 2) and which are specially equipped for the V.I.P.,
- aircraft which is not specifically equipped for other activities.

The study is limited to "*air taxi*" (e.a. commercial transport on request), or to private transport for companies or institutions having an aircraft fleet for their own needs (governments, businesses, etc).

The study excludes piston aircraft, which by nature are rather designed for activities such as general aviation, leisure transport, training, etc.

The study distinguishes 3 main *business aircraft* categories:

- *large jet aircraft* whose initial use is not business transport but which are specially equipped for that use and which are called "*V.I.P.*"
- *small jet aircraft* specially build for business transport (their high costs imply that they are seldom used on scheduled routes)
- *turboprop aircraft* which are used for air taxi.

For the last 2 categories, and because of the large number of aircraft models, the study excludes those of which less than 10 units were in service for business transport (less than 1% of the market).

The price of the business jets and turboprops is the standard price, e.a. the average selling price, excluding the cost of the equipment.

The value of the fleet is computed as follows:

- for *aircraft which are no longer built*, an average price is computed between the aircraft maximum price, its minimum price and its price after some improvements, between the first year of manufacturing and the last one.
- for *aircraft still in production and put into service before 1985*, the average price is estimated between the new aircraft price, weighted by a factor 2, its maximum price and its price after some improvements on aircraft of the first year of production.
- for *aircraft in production since 1984*, the price of new aircraft is used.

A list of *business aircraft* and their categories is given in the following pages.

**Business aircraft of EC design**

Manufacturer	Model	Seats	Year	Value 1989 (Mio ECUS)
<b>Business jets</b>				
AIRBUS	A300-600 .....		1984--	48.104
AEROSPATIALE	Caravelle .....		1958-73 .....	1.573
	Corvette 100 .....	6-12	1972-79 .....	0.370
BRITISH AEROSPACE	BAC 111 .....	79	1963-82 .....	1.665
	HS-125-400/600 .....	7-8	1962-76 .....	0.648
	HS-125-700 .....	8-10	1977-84 .....	3.238
	HS-125-800 .....	2+8	1984--	6.475
DASSAULT BREGUET	Falcon 10/100 .....	2+7	1973--	2.960
	Falcon 20/200 .....	2+9	1965--	4.810
	Falcon 50 .....	2+10	1978--	8.788
	Falcon 900 .....	2+12/14	1986--	18.501
FOKKER	F-28 .....		1967--	6.475
MBB	Hansa Jet .....	9-15	1966-73 .....	0.296
SOCATA	Paris Jet .....	4	1958-64 .....	0.139
<b>Business Turboprops</b>				
BRITISH AEROSPACE	Jetstream 31 .....	2+18	1967--	2.220
	HS-748 .....	40/50	1961--	2.498
SHORT	Skyvan .....	19	1966--	0.509
FOKKER	F-27 .....	40/60	1957-85 .....	1.018
PILATUS	Porter .....	8/11	1965--	0.231

**Business aircraft of US design**

Manufacturer	Model	Seats	Year	Value 1989 (Mio ECUS)
<b>Business jets</b>				
<i>BOEING</i>	B-707/720 .....	.....	1957-79 .....	2.035
	B-727 .....	.....	1963-84 .....	3.423
	B-737 .....	.....	1967-- .....	5.550
	B-747SP .....	.....	1969-- .....	20.352
<i>McDONNELL DOUGLAS</i>	DC-8 .....	.....	1959-- .....	1.156
	DC-9 .....	.....	1965-81 .....	3.238
<i>BEECH</i>	Beechjet (Diamond II) .....	2 + 7/9 .....	1985-- .....	3.700
<i>CESSNA</i>	Citation 1 .....	2 + 5/7 .....	1972-85 .....	1.018
	Citation II .....	2 + 10 .....	1978-- .....	2.405
	Citation III .....	2 + 13 .....	1982-- .....	4.810
<i>GATES LEARJET</i>	Learjet 23/24/25 .....	2 + 6 .....	1964-85 .....	0.833
	Learjet 25/26 .....	2 + 10 .....	1974-- .....	1.850
	Learjet 55 .....	2 + 10 .....	1980-- .....	3.238
<i>GULFSTREAM</i>	G II .....	10/19 .....	1966-80 .....	4.625
	G III/IV .....	3/19 .....	1979-- .....	13.876
<i>LOCKHEED</i>	Jetstar 6/8/731 .....	2 + 10 .....	1960-73 .....	0.740
	Jetstar II .....	2 + 10 .....	1976-80 .....	2.035
<i>ROCKWELL</i>	Jet Commander .....	2 + 8 .....	1965-68 .....	0.208
	Saber 40 .....	2 + 8 .....	1964-74 .....	0.389
	Saber 60/65/75/80 .....	2 + 10 .....	1967-78 .....	1.249

**Business aircraft of US design (continued)**

Manufacturer	Model	Seats	Year	Value 1989 (Mio ECUS)
<b>Business Turboprops</b>				
<i>BEECH</i>	Beech 18 .....	10 .....	1946-66 .....	0.042
	King Air 90 .....	1+9 .....	1964-- .....	0.879
	King Air 100 .....	1+10 .....	1969-83 .....	0.601
	King Air 200 .....	1+10 .....	1973-- .....	1.480
	King Air 300 .....	1+10 .....	1984-- .....	2.266
<i>CESSNA</i>	C-421 .....	1+7 .....	1967-85 .....	0.148
	C-425/441 .....	1+10 .....	1980-- .....	0.786
<i>CONVAIR</i>	CV 580/640 .....	56 .....	1960-69 .....	0.740
<i>FAIRCHILD</i>	F-27/FH-227 .....	40 .....	1958-68 .....	0.564
	Merlin II .....	2+6 .....	1967-68 .....	0.176
	Merlin III .....	2+9 .....	1970-83 .....	0.509
	Merlin IV .....	2+15 .....	1971-- .....	1.295
<i>GULFSTREAM/ ROCKWELL</i>	Turbo-Commander .....	11 .....	1966-69 .....	0.093
	COM 681/690 .....	9 .....	1970-79 .....	0.250
	COM 900/980/840 .....	1+7/10 .....	1980-85 .....	0.740
	COM 1000 .....	1+7/10 .....	1981-85 .....	1.110
	Gulfstream I .....	12/26 .....	1959-69 .....	0.555
	Gosse .....	7/11 .....	1933-45 .....	0.157
<i>PIPER</i>	P-31T/1 .....	1+8 .....	1974-- .....	0.416
	P-31T-2/2XL .....	1+10 .....	1981-- .....	0.740
	P-42/400 .....	11 .....	1980-- .....	1.388

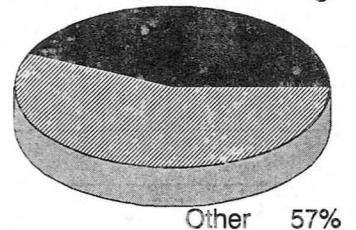
**Business aircraft of other design**

Manufacturer	Model	Seats	Year	Value 1989 (Mio ECUS)
<b>Business jets</b>				
CANADAIR	CL-600 .....	2 + 19 .....	1980-83 .....	5.273
	CL-601 .....	2 + 19 .....	1982-- .....	11.563
LAI	Westwind 1/2 .....	2 + 10 .....	1965-- .....	2.775
	Astra .....	2 + 10 .....	1985-- .....	4.903
MITSUBISHI	Diamond .....	9/11 .....	1981-85 .....	1.850
<b>Business Turboprops</b>				
DE HAVILLAND	Twin Otter .....	22 .....	1965-- .....	0.509
	Dash-7 .....	54 .....	1977-- .....	2.775
	Turbo Beaver .....	8 .....	1948-68 .....	0.046
EMBRAER	EMB-110 .....	2 + 18 .....	1973-- .....	1.295
	EMB-120/121 .....	2 + 9 .....	1979-- .....	5.088
MITSUBISHI	MU-2 .....	9 .....	1967-85 .....	0.324
	Marquise .....	11 .....	1979-85 .....	0.833

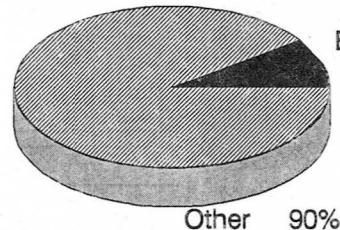
**EC Light Aircraft Fleet**

(in units - 1989)

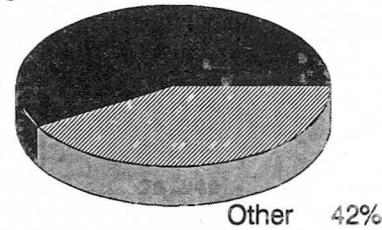
EC Design ~ 43%

**SINGLE-ENGINE AIRCRAFT**

EC Design 10%

**TWIN-ENGINE AIRCRAFT**

EC Design 59%

**EXECUTIVE JET**

Source: Bureau Veritas

## LIGHT AIRCRAFT FLEET

## UNITS

## 1) SINGLE-ENGINE

	BE (*)	DK (*)	DE	FR	HE (*)	IR	IT	LX	NL	UK	EC 10	ES	PO	EC 12
1983	715	668	5,607	4,838	121	246	1,193	41	413	4,475	18,317	-	-	-
1984	652	690	5,546	4,756	130	218	1,201	43	395	4,548	18,179	-	-	-
1985	625	702	5,470	4,728	107	239	1,221	43	393	4,771	18,299	224	212	18,735
1986	599	679	5,488	4,846	107	249	1,235	43	408	4,108	17,762	-	232	-
1987	635	685	5,578	4,913	109	196	1,239	43	439	4,045	17,882	-	237	-
1988	707	685	5,580	4,932	105	273	1,246	50	435	4,246	18,259	842	251	19,352
1989	730	819	5,902	5,037	110	290	1,296	53	467	4,587	19,291	875	272	20,438

## 2) TWIN-ENGINE

	BE (*)	DK (*)	DE	FR	HE (*)	IR	IT	LX	NL	UK	EC 10	ES	PO	EC 12
1983	68	127	695	571	10	40	227	5	69	973	2,785	-	-	-
1984	72	144	670	559	5	38	231	6	59	937	2,721	-	-	-
1985	51	183	652	561	10	28	234	7	63	958	2,747	31	31	2,809
1986	76	190	674	619	10	37	262	9	82	776	2,735	-	33	-
1987	67	195	718	623	11	31	265	8	71	784	2,773	-	34	-
1988	71	195	738	691	6	38	273	8	89	756	2,865	137	35	3,037
1989	75	173	722	719	6	38	282	9	89	798	2,911	194	36	3,141

## 3) EXECUTIVE JET

	BE (*)	DK (*)	DE	FR	HE (*)	IR	IT	LX	NL	UK	EC 10	ES	PO	EC 12
1983	11	8	58	50	6	2	49	0	4	131	319	-	-	-
1984	4	8	58	52	0	2	54	1	4	84	267	-	-	-
1985	3	14	48	65	0	3	64	1	13	72	283	0	1	284
1986	6	10	48	71	0	3	80	0	5	70	293	-	0	-
1987	4	10	70	73	0	2	86	1	7	75	328	-	0	-
1988	4	10	62	87	0	3	109	1	7	79	362	21	1	384
1989	5	21	56	98	0	2	123	0	8	73	386	25	3	414

(\*) ESTIMATE: BELGIUM AND DENMARK (1988), GREECE (1986)

■ SOURCE: BUREAU VERITAS

**LIGHT AIRCRAFT FLEET****BREAKDOWN INTO COUNTRIES (AS % OF TOTAL EC)****1) SINGLE-ENGINE**

	BE	DK	DE	FR	HE	IR	IT	LX	NL	UK	ES	PO
1983	3.9	3.6	30.6	26.4	0.7	1.3	6.5	0.2	2.3	24.4	-	-
1984	3.6	3.8	30.5	26.2	0.7	1.2	6.6	0.2	2.2	25.0	-	-
1985	3.4	3.8	29.9	25.8	0.6	1.3	6.7	0.2	2.1	26.1	1.2	1.2
1986	3.4	3.8	30.9	27.3	0.6	1.4	7.0	0.2	2.3	23.1	-	1.3
1987	3.6	3.8	31.2	27.5	0.6	1.1	6.9	0.2	2.5	22.6	-	1.3
1988	3.9	3.8	30.6	27.0	0.6	1.5	6.8	0.3	2.4	23.3	4.6	1.4
1989	3.8	4.2	30.6	26.1	0.6	1.5	6.7	0.3	2.4	23.8	4.5	1.4

**2) TWIN-ENGINE**

	BE	DK	DE	FR	HE	IR	IT	LX	NL	UK	ES	PO
1983	2.4	4.6	25.0	20.5	0.4	1.4	8.2	0.2	2.5	34.9	-	-
1984	2.6	5.3	24.6	20.5	0.2	1.4	8.5	0.2	2.2	34.4	-	-
1985	1.9	6.7	23.7	20.4	0.4	1.0	8.5	0.3	2.3	34.9	1.1	1.1
1986	2.8	6.9	24.6	22.6	0.4	1.4	9.6	0.3	3.0	28.4	-	1.2
1987	2.4	7.0	25.9	22.5	0.4	1.1	9.6	0.3	2.6	28.3	-	1.2
1988	2.5	6.8	25.8	24.1	0.2	1.3	9.5	0.3	3.1	26.4	4.8	1.2
1989	2.6	5.9	24.8	24.7	0.2	1.3	9.7	0.3	3.1	27.4	6.7	1.2

**3) EXECUTIVE JET**

	BE	DK	DE	FR	HE	IR	IT	LX	NL	UK	ES	PO
1983	3.4	2.5	18.2	15.7	1.9	0.6	15.4	0.0	1.3	41.1	-	-
1984	1.5	3.0	21.7	19.5	0.0	0.7	20.2	0.4	1.5	31.5	-	-
1985	1.1	4.9	17.0	23.0	0.0	1.1	22.6	0.4	4.6	25.4	0.0	0.4
1986	2.0	3.4	16.4	24.2	0.0	1.0	27.3	0.0	1.7	23.9	-	0.0
1987	1.2	3.0	21.3	22.3	0.0	0.6	26.2	0.3	2.1	22.9	-	0.0
1988	1.1	2.8	17.1	24.0	0.0	0.8	30.1	0.3	1.9	21.8	5.8	0.3
1989	1.3	5.4	14.5	25.4	0.0	0.5	31.9	0.0	2.1	18.9	6.5	0.8

(\*) ESTIMATE: BELGIUM AND DENMARK (1988), GREECE (1986)

■ SOURCE: BUREAU VERITAS

**LIGHT AIRCRAFT FLEET****MARKET SHARE OF EC-BUILT AIRCRAFT (AS %)****1) SINGLE-ENGINE**

	BE (*)	DK (*)	DE	FR	HE (*)	IR	IT	LX	NL	UK	EC 10	ES	PO	EC 12
1983	36.6	27.2	39.0	67.9	14.0	49.2	56.6	31.7	14.5	39.8	46.9	-	-	-
1984	38.7	26.8	38.6	68.0	36.2	35.8	56.5	27.9	10.1	52.2	49.7	-	-	-
1985	38.1	26.1	38.4	67.8	36.4	56.5	55.4	30.2	14.5	48.6	49.0	28.1	24.5	48.5
1986	37.9	22.2	38.6	72.8	26.2	54.2	54.6	51.2	15.2	43.8	49.2	-	27.6	-
1987	38.7	19.7	39.4	71.2	16.5	46.9	54.5	51.2	15.3	41.4	48.2	-	27.8	-
1988	34.9	19.7	31.5	71.6	19.0	34.8	52.2	48.0	15.6	34.4	43.8	-	27.1	-
1989	34.9	21.1	30.8	70.7	21.8	14.1	48.1	41.5	16.1	37.0	43.0	-	26.8	-

**2) TWIN-ENGINE**

	BE (*)	DK (*)	DE	FR	HE (*)	IR	IT	LX	NL	UK	EC 10	ES	PO	EC 12
1983	23.5	10.2	8.9	14.7	40.0	20.0	24.7	0.0	14.5	19.0	15.7	-	-	-
1984	20.8	9.7	9.0	8.9	80.0	18.4	25.5	0.0	3.4	20.3	14.7	-	-	-
1985	7.8	16.4	8.6	7.5	90.0	14.3	26.1	0.0	6.3	19.5	14.5	9.7	0.0	14.2
1986	7.9	10.0	8.2	6.1	90.0	18.9	24.8	11.1	8.5	14.9	11.8	-	15.2	-
1987	3.0	11.3	7.7	5.8	63.6	19.4	24.9	0.0	8.5	13.1	10.9	-	14.7	-
1988	0.0	11.3	7.6	5.5	0.0	18.4	24.5	0.0	10.1	11.8	10.1	-	14.3	-
1989	0.0	8.1	7.8	5.6	0.0	23.7	24.1	11.1	10.1	11.7	10.0	-	13.9	-

**3) EXECUTIVE JET**

	BE (*)	DK (*)	DE	FR	HE (*)	IR	IT	LX	NL	UK	EC 10	ES	PO	EC 12
1983	18.2	62.5	37.9	66.0	0.0	50.0	61.2	-	50.0	82.4	63.6	-	-	-
1984	25.0	50.0	34.5	67.3	-	50.0	64.8	100.0	50.0	81.0	62.5	-	-	-
1985	33.3	28.6	43.8	73.8	-	66.7	57.8	100.0	30.8	77.8	61.5	-	0.0	61.3
1986	0.0	40.0	29.2	81.7	-	66.7	51.2	-	60.0	75.7	59.7	-	-	-
1987	0.0	40.0	27.1	80.8	-	50.0	47.7	100.0	57.1	69.3	55.2	-	-	-
1988	0.0	40.0	41.9	80.5	-	66.7	39.4	100.0	57.1	75.9	58.0	-	0.0	-
1989	0.0	52.4	39.3	80.6	-	0.0	50.4	-	50.0	65.8	58.5	80.0	100.0	60.1

(\*) ESTIMATE: BELGIUM AND DENMARK (1988), GREECE (1986)

■ SOURCE: BUREAU VERITAS

### BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TOTAL (IN NUMBER)

**UNITS**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	890	290	363	385	693	374	10,435	167	13,597
1987	1,051	305	380	407	759	393	10,301	202	13,798
1988	1,199	360	405	414	860	437	10,149	243	14,067
1989	1,316	385	419	439	949	499	10,115	252	14,374

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	6.5	2.1	2.7	2.8	5.1	2.8	76.7	1.2
1987	7.6	2.2	2.8	2.9	5.5	2.8	74.7	1.5
1988	8.5	2.6	2.9	2.9	6.1	3.1	72.1	1.7
1989	9.2	2.7	2.9	3.1	6.6	3.5	70.4	1.8

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	27.8	14.8	23.7	20.8	2.7	11.5	9.6	13.2	11.3
1987	26.3	14.8	23.2	20.6	2.9	11.2	9.9	15.8	11.7
1988	26.0	16.4	21.5	18.8	2.6	10.5	10.2	14.0	11.9
1989	26.8	16.9	20.3	19.1	2.8	9.2	10.3	11.9	12.1

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	16.0	2.8	5.6	5.2	1.2	2.8	64.9	1.4
1987	17.1	2.8	5.4	5.2	1.4	2.7	63.4	2.0
1988	18.6	3.5	5.2	4.7	1.3	2.7	61.9	2.0
1989	20.4	3.7	4.9	4.8	1.6	2.7	60.2	1.7

 SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TOTAL (IN VALUE)**

MIO ECUS

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	1,811.0	660.0	806.6	1,278.9	1,091.9	576.4	19,394.3	322.2	25,941.2
1987	1,806.3	572.9	722.7	1,242.8	1,016.8	500.7	17,328.1	363.2	23,553.5
1988	2,167.2	802.4	777.3	1,224.2	1,044.0	546.9	17,569.8	420.6	24,552.3
1989	2,837.3	1,039.2	938.3	1,618.3	1,329.5	710.4	20,664.8	545.2	29,682.8

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	7.0	2.5	3.1	4.9	4.2	2.2	74.8	1.2
1987	7.7	2.4	3.1	5.3	4.3	2.1	73.6	1.5
1988	8.8	3.3	3.2	5.0	4.3	2.2	71.6	1.7
1989	9.6	3.5	3.2	5.5	4.5	2.4	69.6	1.8

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	47.8	31.5	33.4	26.2	4.1	23.9	21.3	34.4	23.5
1987	45.6	35.3	33.7	31.2	5.0	23.2	21.8	38.9	24.4
1988	47.8	39.3	32.7	30.0	5.0	21.3	23.8	38.4	26.4
1989	48.9	35.8	33.7	30.7	6.0	19.5	23.2	41.0	26.3

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	14.2	3.4	4.4	5.5	0.7	2.3	67.7	1.8
1987	14.3	3.5	4.2	6.8	0.9	2.0	65.8	2.5
1988	16.0	4.9	3.9	5.7	0.8	1.8	64.5	2.5
1989	17.8	4.8	4.1	6.4	1.0	1.8	61.4	2.9

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TOTAL (IN NUMBER)****UNITS**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	20	45	188	34	218	2	12	124	1	26	2	218
1987	21	57	218	48	255	1	13	169	2	22	3	242
1988	27	59	225	59	315	1	13	195	2	28	7	268
1989	30	53	230	67	400	1	13	222	3	31	9	257

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	2.2	5.1	21.1	3.8	24.5	0.2	1.3	13.9	0.1	2.9	0.2	24.5
1987	2.0	5.4	20.7	4.6	24.3	0.1	1.2	16.1	0.2	2.1	0.3	23.0
1988	2.3	4.9	18.8	4.9	26.3	0.1	1.1	16.3	0.2	2.3	0.6	22.4
1989	2.3	4.0	17.5	5.1	30.4	0.1	1.0	16.9	0.2	2.4	0.7	19.5

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	8.9	16.0	26.5	36.7	0.0	25.0	32.3	100.0	26.9	0.0	33.5
1987	0.0	8.8	14.7	37.5	35.3	0.0	23.1	26.6	100.0	27.3	0.0	31.0
1988	3.7	8.5	16.0	40.7	32.7	0.0	7.7	22.1	50.0	25.0	14.3	33.6
1989	10.0	11.3	16.1	38.8	32.0	0.0	7.7	23.9	66.7	25.8	33.3	33.5

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	1.6	12.1	3.6	32.4	0.0	1.2	16.2	0.4	2.8	0.0	29.6
1987	0.0	1.8	11.6	6.5	32.6	0.0	1.1	16.3	0.7	2.2	0.0	27.2
1988	0.3	1.6	11.5	7.7	33.0	0.0	0.3	13.8	0.3	2.2	0.3	28.8
1989	0.8	1.7	10.5	7.4	36.3	0.0	0.3	15.0	0.6	2.3	0.8	24.4

 SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TOTAL (IN VALUE)**

MIO ECUS

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	44.4	63.7	324.7	54.3	463.2	3.9	21.4	344.1	8.6	60.1	1.4	421.1
1987	37.8	63.0	310.9	79.6	437.4	1.3	30.8	390.0	19.5	47.1	1.4	387.6
1988	54.5	63.2	323.4	100.9	566.9	1.3	39.9	462.7	16.8	55.5	8.1	473.9
1989	77.2	66.7	374.2	119.0	803.6	1.5	43.1	663.6	24.1	75.0	18.2	571.2

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	2.5	3.5	17.9	3.0	25.6	0.2	1.2	19.0	0.5	3.3	0.1	23.3
1987	2.1	3.5	17.2	4.4	24.2	0.1	1.7	21.6	1.1	2.6	0.1	21.5
1988	2.5	2.9	14.9	4.7	26.2	0.1	1.8	21.3	0.8	2.6	0.4	21.9
1989	2.7	2.4	13.2	4.2	28.3	0.1	1.5	23.4	0.8	2.6	0.6	20.1

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	17.1	33.9	42.9	60.0	0.0	25.0	60.0	100.0	59.4	0.0	44.5
1987	0.0	13.8	31.5	60.9	61.3	0.0	13.0	48.6	100.0	63.9	0.0	40.5
1988	8.4	13.6	36.7	68.2	63.2	0.0	7.5	46.7	96.0	61.2	56.5	42.9
1989	23.8	17.1	34.4	66.7	62.0	0.0	7.5	49.4	96.7	63.4	79.5	40.9

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	1.3	12.7	2.7	32.1	0.0	0.6	23.9	1.0	4.1	0.0	21.6
1987	0.0	1.1	11.9	5.9	32.6	0.0	0.5	23.0	2.4	3.7	0.0	19.1
1988	0.4	0.8	11.5	6.6	34.6	0.0	0.3	20.8	1.6	3.3	0.4	19.6
1989	1.3	0.8	9.3	5.7	35.9	0.0	0.2	23.7	1.7	3.4	1.0	16.8

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : V.I.P. (IN NUMBER)****UNITS**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	6	5	15	31	1	7	68	1	134
1987	7	4	17	34	1	7	64	3	137
1988	5	4	14	33	1	6	66	2	131
1989	5	4	13	33	1	6	67	3	132

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	4.5	3.7	11.2	23.1	0.7	5.2	50.7	0.7
1987	5.1	2.9	12.4	24.8	0.7	5.1	46.7	2.2
1988	3.8	3.1	10.7	25.2	0.8	4.6	50.4	1.5
1989	3.8	3.0	9.8	25.0	0.8	4.5	50.8	2.3

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	0.0	20.0	20.0	0.0	0.0	0.0	1.5	0.0	3.7
1987	14.3	0.0	17.6	5.9	0.0	0.0	1.6	0.0	5.1
1988	20.0	0.0	0.0	6.1	0.0	0.0	1.5	0.0	3.1
1989	0.0	0.0	0.0	6.1	0.0	0.0	1.5	0.0	2.3

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	0.0	20.0	60.0	0.0	0.0	0.0	20.0	0.0
1987	14.3	0.0	42.9	28.6	0.0	0.0	14.3	0.0
1988	25.0	0.0	0.0	50.0	0.0	0.0	25.0	0.0
1989	0.0	0.0	0.0	66.7	0.0	0.0	33.3	0.0

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : V.I.P. (IN VALUE)**

MIO ECUS

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	23.6	18.5	43.3	176.3	6.6	33.0	259.4	4.1	564.8
1987	21.8	14.4	40.9	243.3	5.6	28.2	206.3	10.1	570.6
1988	15.1	12.3	32.7	224.2	4.5	21.2	191.9	6.2	507.9
1989	16.9	15.4	36.0	274.9	5.6	24.6	227.2	10.3	611.0

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	4.2	3.3	7.7	31.2	1.2	5.8	45.9	0.7
1987	3.8	2.5	7.2	42.6	1.0	4.9	36.2	1.8
1988	3.0	2.4	6.4	44.1	0.9	4.2	37.8	1.2
1989	2.8	2.5	5.9	45.0	0.9	4.0	37.2	1.7

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	0.0	9.3	12.0	0.0	0.0	0.0	0.7	0.0	1.5
1987	7.0	0.0	11.2	37.4	0.0	0.0	0.7	0.0	17.3
1988	9.6	0.0	0.0	39.4	0.0	0.0	0.8	0.0	18.0
1989	0.0	0.0	0.0	35.0	0.0	0.0	0.7	0.0	16.0

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	0.0	20.0	60.0	0.0	0.0	0.0	20.0	0.0
1987	1.5	0.0	4.6	92.3	0.0	0.0	1.5	0.0
1988	1.6	0.0	0.0	96.8	0.0	0.0	1.6	0.0
1989	0.0	0.0	0.0	98.4	0.0	0.0	1.6	0.0

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : V.I.P. (IN NUMBER)****UNITS**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0	0	0	0	0	0	0	0	0	0	0	6
1987	0	0	0	0	1	0	0	0	0	0	0	6
1988	0	0	0	0	1	0	0	0	0	0	0	4
1989	0	0	0	0	1	0	0	0	0	0	0	4

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
1987	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	85.7
1988	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0
1989	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	-	-	-	-	-	-	-	-	-	-	-	-
1987	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989	-	-	-	-	-	-	-	-	-	-	-	-

SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : V.I.P. (IN VALUE)**

MIO ECUS

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6
1987	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	20.3
1988	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	13.6
1989	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	13.5

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
1987	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	93.0
1988	0.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	90.4
1989	0.0	0.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	0.0	0.0	79.8

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	-	-	-	-	-	-	-	-	-	-	-	-
1987	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989	-	-	-	-	-	-	-	-	-	-	-	-

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : JETS = V.I.P. + OTHER JETS (IN NUMBER)****UNITS**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	429	135	140	216	186	192	4,626	63	5,987
1987	494	142	150	218	216	205	4,679	79	6,183
1988	572	179	160	212	254	237	4,676	89	6,379
1989	635	199	161	224	294	279	4,728	89	6,609

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	7.2	2.3	2.3	3.6	3.1	3.2	77.3	1.1
1987	8.0	2.3	2.4	3.5	3.5	3.3	75.7	1.3
1988	9.0	2.8	2.5	3.3	4.0	3.7	73.3	1.4
1989	9.6	3.0	2.4	3.4	4.4	4.2	71.5	1.3

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	52.2	27.4	50.7	32.4	7.5	20.8	20.9	33.3	24.1
1987	50.8	27.5	48.7	33.9	7.9	20.0	21.2	39.2	24.6
1988	49.7	30.2	45.0	31.6	6.7	18.1	21.5	37.1	24.7
1989	50.4	29.1	43.5	32.6	7.5	15.4	21.5	32.6	24.7

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	15.5	2.6	4.9	4.8	1.0	2.8	67.0	1.5
1987	16.5	2.6	4.8	4.9	1.1	2.7	65.4	2.0
1988	18.0	3.4	4.6	4.3	1.1	2.7	63.8	2.1
1989	19.6	3.6	4.3	4.5	1.3	2.6	62.3	1.8

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : JETS = V.I.P. + OTHER JETS (IN VALUE)**

MIO ECUS

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	1,282.3	510.1	553.0	1,105.4	418.2	418.7	13,861.7	218.1	18,367.5
1987	1,276.7	440.1	500.1	1,074.9	403.0	365.8	12,838.2	260.8	17,159.6
1988	1,606.8	664.7	549.0	1,048.3	445.2	414.3	13,430.4	302.5	18,461.2
1989	2,146.9	875.7	657.6	1,405.1	594.9	545.4	16,069.0	399.0	22,593.5

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	7.0	2.8	3.0	6.0	2.3	2.3	75.5	1.2
1987	7.4	2.6	2.9	6.3	2.3	2.1	74.8	1.5
1988	8.7	3.6	3.0	5.7	2.4	2.2	72.7	1.6
1989	9.5	3.9	2.9	6.2	2.6	2.4	70.8	1.8

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	63.8	39.4	45.7	29.6	10.2	32.4	29.6	50.4	32.6
1987	61.9	44.8	46.1	35.6	12.1	31.3	29.3	53.9	33.0
1988	62.0	46.7	44.1	34.3	11.2	27.8	30.9	53.1	34.6
1989	62.7	41.6	46.0	34.8	13.1	25.1	29.7	55.7	34.0

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	13.7	3.4	4.2	5.5	0.7	2.3	68.5	1.8
1987	13.9	3.5	4.1	6.7	0.9	2.0	66.4	2.5
1988	15.6	4.9	3.8	5.6	0.8	1.8	65.0	2.5
1989	17.5	4.7	3.9	6.3	1.0	1.8	61.9	2.9

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : JETS = V.I.P. + OTHER JETS (IN NUMBER)****UNITS**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	5	15	65	17	102	1	8	95	1	15	0	105
1987	8	16	76	27	110	0	9	119	2	10	0	117
1988	9	18	77	33	128	0	9	138	1	13	2	144
1989	11	20	77	38	149	0	9	165	2	15	4	145

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	1.2	3.5	15.2	4.0	23.8	0.2	1.9	22.1	0.2	3.5	0.0	24.5
1987	1.6	3.2	15.4	5.5	22.3	0.0	1.8	24.1	0.4	2.0	0.0	23.7
1988	1.6	3.1	13.5	5.8	22.4	0.0	1.6	24.1	0.2	2.3	0.3	25.2
1989	1.7	3.1	12.1	6.0	23.5	0.0	1.4	26.0	0.3	2.4	0.6	22.8

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	26.7	30.8	52.9	74.5	0.0	37.5	42.1	100.0	40.0	0.0	61.9
1987	0.0	31.3	28.9	66.7	77.3	0.0	33.3	36.1	100.0	50.0	0.0	58.1
1988	11.1	27.8	33.8	72.7	77.3	0.0	11.1	29.7	100.0	46.2	50.0	54.9
1989	27.3	25.0	32.5	68.4	80.5	0.0	11.1	30.3	100.0	46.7	75.0	53.8

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	1.8	8.9	4.0	33.9	0.0	1.3	17.9	0.4	2.7	0.0	29.0
1987	0.0	2.0	8.8	7.2	33.9	0.0	1.2	17.1	0.8	2.0	0.0	27.1
1988	0.4	1.8	9.2	8.5	34.9	0.0	0.4	14.4	0.4	2.1	0.4	27.8
1989	0.9	1.6	7.8	8.1	37.5	0.0	0.3	15.6	0.6	2.2	0.9	24.4

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : JETS = V.I.P. + OTHER JETS (IN VALUE)**

MIO ECUS

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	8.0	36.7	181.0	40.6	341.0	2.5	17.2	316.6	8.6	47.6	0.0	282.6
1987	8.2	28.0	174.4	68.1	309.3	0.0	26.6	349.5	19.5	35.5	0.0	257.5
1988	24.6	29.3	187.9	87.4	408.8	0.0	35.9	419.6	16.2	43.9	6.5	346.7
1989	42.3	35.7	210.7	103.6	555.9	0.0	38.4	616.6	23.3	59.6	16.3	444.6

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.6	2.9	14.1	3.2	26.6	0.2	1.3	24.7	0.7	3.7	0.0	22.0
1987	0.6	2.2	13.7	5.3	24.2	0.0	2.1	27.4	1.5	2.8	0.0	20.2
1988	1.5	1.8	11.7	5.4	25.4	0.0	2.2	26.1	1.0	2.7	0.4	21.6
1989	2.0	1.7	9.8	4.8	25.9	0.0	1.8	28.7	1.1	2.8	0.8	20.7

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	29.6	46.6	57.4	81.1	0.0	31.3	65.2	100.0	74.4	0.0	59.3
1987	0.0	31.0	45.3	71.3	86.3	0.0	15.0	54.1	100.0	84.1	0.0	56.1
1988	18.7	29.3	53.5	78.7	87.4	0.0	8.3	51.4	100.0	76.8	71.1	53.0
1989	43.5	25.6	51.6	76.6	89.3	0.0	8.4	53.1	100.0	79.3	88.6	49.2

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	1.3	10.3	2.8	33.8	0.0	0.7	25.2	1.1	4.3	0.0	20.5
1987	0.0	1.1	10.0	6.1	33.8	0.0	0.5	23.9	2.5	3.8	0.0	18.3
1988	0.5	0.9	10.1	6.9	35.8	0.0	0.3	21.6	1.6	3.4	0.5	18.4
1989	1.4	0.7	8.1	5.9	36.9	0.0	0.2	24.3	1.7	3.5	1.1	16.3

■ SOURCE: ITA

### BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TURBOPROPS (IN NUMBER)

## UNITS

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	461	155	223	169	507	182	5,809	104	7,610
1987	557	163	230	189	543	188	5,622	123	7,615
1988	627	181	245	202	606	200	5,473	154	7,688
1989	681	186	258	215	655	220	5,387	163	7,765

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	6.1	2.0	2.9	2.2	6.7	2.4	76.3	1.4
1987	7.3	2.1	3.0	2.5	7.1	2.5	73.8	1.6
1988	8.2	2.4	3.2	2.6	7.9	2.6	71.2	2.0
1989	8.8	2.4	3.3	2.8	8.4	2.8	69.4	2.1

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	5.0	3.9	6.7	5.9	1.0	1.6	0.6	1.0	1.2
1987	4.5	3.7	6.5	5.3	0.9	1.6	0.6	0.8	1.3
1988	4.5	2.8	6.1	5.4	0.8	1.5	0.6	0.6	1.3
1989	4.8	3.8	5.8	5.1	0.8	1.4	0.5	0.6	1.3

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	24.2	6.3	15.8	10.5	5.3	3.2	33.7	1.1
1987	26.0	6.3	15.6	10.4	5.2	3.1	32.3	1.0
1988	28.3	5.1	15.2	11.1	5.1	3.0	31.3	1.0
1989	31.7	6.7	14.4	10.6	4.8	2.9	27.9	1.0

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TURBOPROPS (IN VALUE)**

MIO ECUS

EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	528.7	149.9	253.6	173.5	673.7	157.7	5,532.6	104.1
1987	529.7	132.8	222.6	167.9	613.8	134.8	4,489.8	102.4
1988	560.4	137.7	228.3	175.9	598.8	132.6	4,139.4	118.0
1989	690.4	163.5	280.7	213.2	734.6	165.0	4,595.8	146.2

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	7.0	2.0	3.3	2.3	8.9	2.1	73.0
1987	8.3	2.1	3.5	2.6	9.6	2.1	70.2
1988	9.2	2.3	3.7	2.9	9.8	2.2	68.0
1989	9.9	2.3	4.0	3.1	10.5	2.4	65.8

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA	WORLD
1986	8.8	4.5	6.6	4.5	0.4	1.4	0.4	1.1
1987	6.3	3.8	5.6	3.5	0.3	1.3	0.4	0.8
1988	7.1	3.4	5.4	4.5	0.3	1.3	0.5	1.5
1989	5.7	4.8	4.8	3.9	0.2	0.9	0.5	0.7

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

EC	REST OF EUROPE	AFRICA	ASIA	SOUTH AMERICA	CENTRAL AMERICA	NORTH AMERICA	AUSTRAL ASIA
1986	43.2	6.3	15.6	7.3	2.2	2.1	22.3
1987	42.1	6.4	15.7	7.4	2.3	2.1	22.8
1988	44.2	5.2	13.7	8.8	2.0	1.8	23.3
1989	42.0	8.3	14.4	8.8	1.8	1.6	22.0

■ SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TURBOPROPS (IN NUMBER)****UNITS**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	15	30	123	17	116	1	4	29	0	11	2	113
1987	13	41	142	21	145	1	4	50	0	12	3	125
1988	18	41	148	26	187	1	4	57	1	15	5	124
1989	19	33	153	29	251	1	4	57	1	16	5	112

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	3.3	6.5	26.7	3.7	25.2	0.2	0.9	6.3	0.0	2.4	0.4	24.5
1987	2.3	7.4	25.5	3.8	26.0	0.2	0.7	9.0	0.0	2.2	0.5	22.4
1988	2.9	6.5	23.6	4.1	29.8	0.2	0.6	9.1	0.2	2.4	0.8	19.8
1989	2.8	4.8	22.5	4.3	36.9	0.1	0.6	8.4	0.1	2.3	0.7	16.4

**MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	8.1	0.0	3.4	0.0	0.0	0.0	0.0	9.1	0.0	7.1
1987	0.0	0.0	7.0	0.0	3.4	0.0	0.0	4.0	0.0	8.3	0.0	5.6
1988	0.0	0.0	6.8	0.0	2.1	0.0	0.0	3.5	0.0	6.7	0.0	8.9
1989	0.0	3.0	7.8	0.0	3.2	0.0	0.0	5.3	0.0	6.3	0.0	7.1

**BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	43.5	0.0	17.4	0.0	0.0	0.0	0.0	4.3	0.0	34.8
1987	0.0	0.0	40.0	0.0	20.0	0.0	0.0	8.0	0.0	4.0	0.0	28.0
1988	0.0	0.0	35.7	0.0	14.3	0.0	0.0	7.1	0.0	3.6	0.0	39.3
1989	0.0	3.0	36.4	0.0	24.2	0.0	0.0	9.1	0.0	3.0	0.0	24.2

SOURCE: ITA

**BUSINESS AIRCRAFT FLEET (AT YEAR-END) : TURBOPROPS (IN VALUE)**

MIO ECUS

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	36.4	27.0	143.8	13.7	122.2	1.3	4.3	27.5	0.0	12.5	1.4	138.5
1987	29.6	35.0	136.5	11.5	128.1	1.3	4.2	40.5	0.0	11.6	1.4	130.1
1988	29.9	33.9	135.5	13.4	158.1	1.3	4.1	43.1	0.7	11.6	1.7	127.2
1989	34.9	31.0	163.5	15.4	247.7	1.5	4.7	47.0	0.8	15.4	1.9	126.6

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	6.9	5.1	27.2	2.6	23.1	0.2	0.8	5.2	0.0	2.4	0.3	26.2
1987	5.6	6.6	25.8	2.2	24.2	0.2	0.8	7.6	0.0	2.2	0.3	24.6
1988	5.3	6.0	24.2	2.4	28.2	0.2	0.7	7.7	0.1	2.1	0.3	22.7
1989	5.1	4.5	23.7	2.2	35.9	0.2	0.7	6.8	0.1	2.2	0.3	18.3

## MARKET SHARE OF EC-BUILT BUSINESS AIRCRAFT (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	17.9	0.0	1.0	0.0	0.0	0.0	0.0	2.4	0.0	14.1
1987	0.0	0.0	13.8	0.0	0.9	0.0	0.0	1.2	0.0	2.1	0.0	9.8
1988	0.0	0.0	13.5	0.0	0.6	0.0	0.0	1.1	0.0	2.0	0.0	15.5
1989	0.0	7.2	12.3	0.0	0.7	0.0	0.0	1.5	0.0	1.5	0.0	11.5

## BREAKDOWN OF EC-BUILT BUSINESS AIRCRAFT FLEET INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1986	0.0	0.0	55.0	0.0	2.5	0.0	0.0	0.0	0.0	0.6	0.0	41.8
1987	0.0	0.0	56.3	0.0	3.6	0.0	0.0	1.5	0.0	0.7	0.0	37.9
1988	0.0	0.0	46.1	0.0	2.4	0.0	0.0	1.2	0.0	0.6	0.0	49.7
1989	0.0	5.6	50.6	0.0	4.7	0.0	0.0	1.7	0.0	0.6	0.0	36.8

■ SOURCE: ITA

## CIVIL HELICOPTERS

The figures on the *civil and para-public helicopter* fleet are provided by *AEROSPATIALE*.

The data on the *commercial helicopter* fleet (in value and units) are prepared by *I.T.A.* (Air Transport Institute, Paris).

The study includes the "*civil helicopters*". Therefore some helicopters used by public authorities are included while they may also be included in the *military helicopters* fleet given in chapter 4.

The analysis covers the following *geographical areas*:

- *EC*
- *Other Europe*: Austria, Cyprus, Finland, Gibraltar, Greenland, Iceland, Liechtenstein, Malta, Monaco, Norway, Sweden, Switzerland, Turkey
- *USA*
- *Rest of the world*

*Aviation Data Wichita* is the source, except *Bureau Veritas* for the EC.

The value of the *civil helicopter* fleet is computed as follows:

- for *helicopters which are no longer built*, an average price is computed between the helicopter maximum price, its minimum price and its price after some improvements, between the first year of manufacturing and the last one.

- for *helicopters still in production*, the average price is estimated between the new helicopter price, weighted by a factor 2, and its maximum price, its minimum price and its price after some improvements on helicopters of the first year of production.
- for *helicopters in production since 1986*, the price of new helicopter is used.

A list of *commercial helicopters* covered by the study is given in the following pages.

**Helicopters of EC design**

Manufacturer	Model	Seats	Year	Value 1989 (Mio ECUS)
<i>AEROSPATIALE</i>	Lama (SA315B) .....	5 .....	1971-- .....	0.342
	Alouette III (SA316) .....	7 .....	1966-81 .....	0.231
	Alouette II (SA318) .....	5 .....	1969-75 .....	0.083
	Alouette III (SA319) .....	7 .....	1974-76 .....	0.241
	Puma (SA330J) .....	18-22 .....	1974-80 .....	1.573
	SuperPuma (SA332C) .....	23 .....	1982-- .....	3.053
	SuperPuma (SA332L) .....	22 .....	1982-- .....	4.255
	Gazelle (SA341,342) .....	5 .....	1972-80 .....	0.148
	Ecureuil (AS350) .....	6 .....	1978-- .....	0.370
	Ecureuil/2 (AS355) .....	6 .....	1981-- .....	0.648
	Dauphin (SA360) .....	14 .....	1976-80 .....	0.463
	Dauphin/2 (SA365) .....	14 .....	1977-81 .....	0.833
	Dauphin/2 (SA365N) .....	14 .....	1981- .....	1.850
<i>AGUSTA</i>	A 109A .....	8 .....	1975-- .....	1.018
<i>MBB</i>	BO-105 .....	5 .....	1973-- .....	0.601
	BK-117 .....	11 .....	1983-- .....	1.388
<i>WESTLAND</i>	WG-30 .....	20 .....	1983-- .....	2.683
	Wessex 60 .....	19 .....	1965-- .....	0.463

**Helicopters of US design**

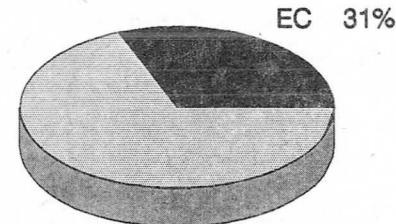
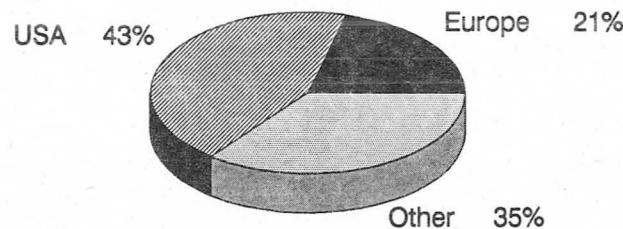
<i>AGUSTA BELL</i>	A-204/205 .....	10 .....	1965-67 .....	0.278
	A-206B .....	5 .....	1966-77 .....	0.287
	A-212 .....	15 .....	1971-- .....	1.388
	A-412 .....	15 .....	1981-- .....	2.313

**Helicopters of US design (continued)**

Manufacturer	Model	Seats	Year	Value 1989 (Mio ECUS)
<i>BELL</i>	47 (series - including Agusta Bell 47)	3-4	1957-73	0.037
	204B	10	1965-67	0.278
	205A	15	1968-80	0.463
	Jet Ranger 206 A,B	5	1966--	0.287
	Long Range 206L	7	1975--	0.426
	B-212	15	1971--	1.388
	B-214B	16	1976-81	1.018
	B-214ST	20	1982--	4.163
	B-222	8-10	1980--	1.203
	B-412	15	1981--	2.313
<i>BOEING VERTOL</i>	B-107	28	1961-65	4.625
	B-234	47	1981--	12.950
<i>ENSTRÖM</i>	F-28 (series)	3	1966--	0.056
	F-280	3	1974--	0.093
<i>FAIRCHILD</i>	FH-1100	5	1966-72	0.083
<i>HILLER</i>	UH-12 (series)	3-4	1959--	0.093
<i>HUGHES (McDD)</i>	269/300	2-3	1961--	0.065
	369/500	7	1969--	0.324
<i>ROBINSON</i>	R-22 (series)	2	1979--	0.060
<i>SIKORSKY</i>	S-55	12	1949-61	0.051
	S-58	20	1953-77	0.296
	S-61	30	1968-79	1.573
	S-62	12	1960-70	0.102
	S-64	3-5	1972--	5.088
	S-76A	14	1979--	2.405

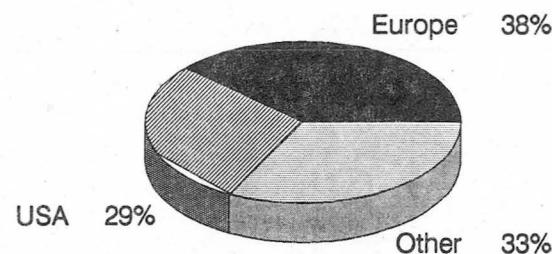
### Civil Helicopters Fleet

(in value - 1989)



BREAKDOWN BY AREA

EC MARKET SHARE



BREAKDOWN OF EC MARKETS

Source: ITA

**CIVIL AND PARA-PUBLIC HELICOPTER FLEET**  
**(AT YEAR-END - UNITS)**

	EC			USA		
	TOTAL	AS % OF TOTAL		TOTAL	AS % OF TOTAL	
		DESIGN ORIGIN	LICENCE (1)		DESIGN ORIGIN	USA
		EC	USA		EC	USA
1960	176	22.7	77.3	48.3	-	-
1965	406	33.0	67.0	30.0	1,854	0.6 99.4
1970	598	27.6	72.4	32.4	2,980	1.1 98.9
1975	1,023	32.7	67.3	22.0	4,803	3.3 96.7
1980	1,477	36.4	63.6	23.0	7,259	6.3 93.7
1981	1,614	37.7	62.3	20.8	7,735	7.4 92.6
1982	1,709	38.4	61.6	20.6	7,947	8.5 91.5
1983	1,775	40.5	59.5	20.1	8,192	8.7 91.3
1984	1,829	42.2	57.8	19.5	8,469	9.1 90.9
1985	1,840	43.5	56.5	18.5	8,540	9.7 90.3
1986	1,918	43.8	56.2	17.2	8,577	10.6 89.4
1987	2,067	44.1	55.9	16.3	8,409	11.0 89.0
1988	2,308	42.7	57.3	14.8	8,210	11.2 88.8
1989	2,610	41.0	59.0	13.7	8,323	11.1 88.9

(1) HELICOPTERS OF US DESIGN MANUFACTURED IN THE EC UNDER LICENCE (AS % OF TOTAL)

■ SOURCE: AEROSPATIALE

## EC CIVIL AND PARA-PUBLIC HELICOPTER FLEET

(AT YEAR-END - UNITS)

## 1) FLEET

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1960	10	0	14	0	82	0	0	32	0	3	0	35
1965	2	6	75	16	148	2	2	49	0	7	3	96
1970	13	11	121	31	155	4	6	66	0	17	1	173
1975	26	22	247	59	227	8	6	85	0	29	9	305
1980	26	37	334	68	383	18	13	133	0	26	6	433
1981	28	44	356	76	407	19	15	158	0	31	8	472
1982	26	41	368	83	451	23	14	181	0	31	7	484
1983	28	36	383	91	467	22	13	201	0	36	9	489
1984	25	34	399	92	487	25	14	218	0	39	8	488
1985	24	37	400	86	475	25	16	224	0	41	8	504
1986	27	37	425	99	496	25	15	227	0	42	11	514
1987	25	40	436	119	555	31	16	264	0	33	14	534
1988	27	43	430	131	628	31	22	315	0	32	22	627
1989	31	42	433	163	701	41	25	367	0	35	25	747

■ SOURCE: AEROSPATIALE

**EC CIVIL AND PARA-PUBLIC HELICOPTER FLEET**  
**(AT YEAR-END - UNITS)**

**2) MARKET SHARE WON BY EC-PRODUCTS (AS %)**

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1960	0.0	-	7.1	-	41.5	-	-	6.3	-	100.0	-	0.0
1965	50.0	0.0	40.0	0.0	61.5	0.0	0.0	10.2	-	57.1	100.0	0.0
1970	38.5	0.0	30.6	9.7	63.9	50.0	33.3	7.6	-	41.2	0.0	2.9
1975	34.6	0.0	37.7	25.4	67.0	75.0	33.3	16.5	-	65.5	11.1	7.9
1980	34.6	0.0	44.6	30.9	60.1	33.3	7.7	43.6	-	53.8	0.0	11.5
1981	32.1	0.0	48.6	32.9	62.9	31.6	6.7	43.0	-	54.8	0.0	11.2
1982	34.6	0.0	46.2	32.5	62.1	30.4	7.1	42.0	-	48.4	0.0	14.7
1983	32.1	5.6	43.9	35.2	63.0	40.9	15.4	40.8	-	50.0	11.1	20.9
1984	36.0	5.9	45.1	41.3	63.0	32.0	14.3	41.7	-	48.7	12.5	23.6
1985	41.7	8.1	45.5	40.7	67.2	32.0	18.8	41.5	-	48.8	12.5	25.0
1986	40.7	10.8	44.0	44.4	66.1	24.0	20.0	45.4	-	42.9	18.2	26.3
1987	44.0	10.0	45.0	47.9	63.8	19.4	18.8	49.6	-	39.4	28.6	24.9
1988	40.7	11.6	47.2	50.4	59.1	19.4	18.2	48.3	-	31.3	59.1	23.1
1989	38.7	11.9	44.8	48.5	57.9	24.4	20.0	46.6	-	31.4	68.0	21.4

■ SOURCE: AEROSPATIALE

**CIVIL HELICOPTER FLEET (AT YEAR-END) (UNITS)****FLEET**

	1984	1985	1986	1987	1988	1989
EC	1,751	1,836	1,938	2,023	2,323	2,608
REST OF EUROPE	424	489	548	582	641	649
USA	9,115	9,348	9,577	9,479	9,332	9,339
OTHER WORLD	4,038	4,414	4,802	5,088	5,542	5,677
TOTAL	15,328	16,087	16,865	17,172	17,838	18,273

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	1984	1985	1986	1987	1988	1989
EC	11.4	11.4	11.5	11.8	13.0	14.3
REST OF EUROPE	2.8	3.0	3.2	3.4	3.6	3.6
USA	59.5	58.1	56.8	55.2	52.3	51.1
OTHER WORLD	26.3	27.4	28.5	29.6	31.1	31.1

**MARKET SHARE WON BY EC-BUILT HELICOPTERS (AS % OF TOTAL)**

	1984	1985	1986	1987	1988	1989
EC	38.5	39.7	40.7	40.1	39.5	38.6
REST OF EUROPE	21.7	26.0	27.2	28.0	28.2	29.6
USA	10.0	10.2	10.4	10.6	10.6	11.0
OTHER WORLD	13.7	14.5	15.7	16.5	18.3	19.6
TOTAL	14.6	15.2	15.9	16.5	17.4	18.2

**BREAKDOWN OF EC-BUILT HELICOPTERS INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	1984	1985	1986	1987	1988	1989
EC	30.2	29.8	29.3	28.7	29.6	30.2
REST OF EUROPE	4.1	5.2	5.5	5.8	5.8	5.8
USA	40.9	39.0	37.0	35.7	31.9	30.7
OTHER WORLD	24.8	26.1	28.1	29.8	32.7	33.4

■ SOURCE: ITA

## CIVIL HELICOPTER FLEET (AT YEAR-END) (UNITS)

## FLEET

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK	EC
1984	20	33	397	51	419	22	12	247	1	33	11	505	1,751
1985	18	41	412	66	435	22	13	259	1	35	12	522	1,836
1986	20	39	434	69	459	25	16	282	0	39	14	541	1,938
1987	20	31	443	83	482	28	17	308	0	32	18	561	2,023
1988	20	33	439	132	592	34	24	348	0	31	18	652	2,323
1989	22	32	447	185	647	38	22	385	0	31	20	779	2,608

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1984	0.3	2.3	14.8	2.6	13.6	0.7	1.0	9.4	0.0	3.7	0.1	51.4
1985	0.3	3.3	15.4	2.9	12.3	0.4	0.8	10.1	0.0	4.1	0.1	50.2
1986	0.4	3.2	16.1	2.9	11.9	0.6	1.0	11.3	0.0	4.2	0.1	48.2
1987	0.4	2.4	17.6	3.3	12.2	0.6	1.0	12.7	0.0	3.0	0.3	46.5
1988	0.4	2.4	16.8	4.2	14.3	0.7	1.3	13.7	0.0	2.7	0.2	43.4
1989	0.4	2.1	16.5	5.8	15.3	0.8	0.6	16.0	0.0	2.3	0.3	40.0

## MARKET SHARE WON BY EC-BUILT HELICOPTERS (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK	EC
1984	5.0	9.1	46.3	49.0	52.3	36.4	16.7	37.2	100.0	39.4	9.1	25.0	38.5
1985	11.1	9.8	46.6	48.5	55.4	31.8	23.1	37.5	100.0	42.9	8.3	25.7	39.7
1986	15.0	7.7	46.3	47.8	55.3	32.0	25.0	41.5	-	43.6	14.3	27.0	40.7
1987	15.0	12.9	46.3	47.0	53.3	28.6	23.5	43.2	-	34.4	22.2	25.7	40.1
1988	15.0	12.1	47.2	42.4	52.5	26.5	20.8	44.5	-	32.3	22.2	23.5	39.5
1989	13.6	12.5	45.0	40.5	51.9	28.9	22.7	43.9	-	25.8	30.0	24.1	38.6

■ SOURCE: ITA

**CIVIL HELICOPTER FLEET (AT YEAR-END) (VALUE)**

MIO ECU

	1984	1985	1986	1987	1988	1989
EC	1,284.4	1,245.6	1,196.0	1,016.9	1,072.1	1,233.0
REST OF EUROPE	353.5	347.1	353.8	311.1	322.7	326.4
USA	3,655.4	3,861.5	3,325.0	3,012.5	2,898.6	3,226.4
OTHER WORLD	1,975.0	2,061.8	2,224.2	2,082.6	2,259.8	2,632.2
TOTAL	7,268.3	7,516.0	7,099.0	6,423.0	6,553.2	7,417.9

**BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	1984	1985	1986	1987	1988	1989
EC	17.7	16.6	16.8	15.8	16.4	16.6
REST OF EUROPE	4.9	4.6	5.0	4.8	4.9	4.4
USA	50.3	51.4	46.8	46.9	44.2	43.5
OTHER WORLD	27.2	27.4	31.3	32.4	34.5	35.5

**MARKET SHARE WON BY EC-BUILT HELICOPTERS (AS % OF TOTAL)**

	1984	1985	1986	1987	1988	1989
EC	53.1	53.1	56.6	56.5	58.6	60.6
REST OF EUROPE	27.7	37.3	35.8	35.5	36.0	42.8
USA	16.6	16.3	19.4	19.3	19.5	20.8
OTHER WORLD	21.6	22.2	24.7	25.9	29.5	28.7
TOTAL	24.9	25.0	28.1	28.1	30.1	31.2

**BREAKDOWN OF EC-BUILT HELICOPTERS INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)**

	1984	1985	1986	1987	1988	1989
EC	37.6	35.2	33.9	31.8	31.8	32.3
REST OF EUROPE	5.4	6.9	6.3	6.1	5.9	6.0
USA	33.5	33.5	32.3	32.2	28.6	29.0
OTHER WORLD	23.5	24.4	27.5	29.8	33.7	32.6

■ SOURCE: ITA

**CIVIL HELICOPTER FLEET (AT YEAR-END) (VALUE)**

MIO ECU

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK	EC
1984	3.6	29.9	190.1	33.7	174.8	8.6	12.7	121.3	0.3	47.5	1.5	660.4	1,284.4
1985	4.3	41.7	191.5	35.7	153.8	5.0	10.0	125.5	0.4	51.3	1.5	624.9	1,245.6
1986	4.6	38.0	192.4	35.0	142.2	7.6	12.2	135.4	0.0	50.4	1.7	576.5	1,196.0
1987	4.0	24.5	178.6	33.6	124.3	6.2	10.3	128.9	0.0	30.5	2.6	473.3	1,016.9
1988	4.0	25.6	179.9	44.6	153.3	7.2	14.0	146.5	0.0	29.0	2.6	465.5	1,072.1
1989	4.5	26.3	203.4	71.5	188.5	10.3	7.4	196.8	0.0	27.8	3.5	492.9	1,233.0

## BREAKDOWN INTO GEOGRAPHICAL ZONES (AS % OF TOTAL)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1984	0.3	2.3	14.8	2.6	13.6	0.7	1.0	9.4	0.0	3.7	0.1	51.4
1985	0.3	3.3	15.4	2.9	12.3	0.4	0.8	10.1	0.0	4.1	0.1	50.2
1986	0.4	3.2	16.1	2.9	11.9	0.6	1.0	11.3	0.0	4.2	0.1	48.2
1987	0.4	2.4	17.6	3.3	12.2	0.6	1.0	12.7	0.0	3.0	0.3	46.5
1988	0.4	2.4	16.8	4.2	14.3	0.7	1.3	13.7	0.0	2.7	0.2	43.4
1989	0.4	2.1	16.5	5.8	15.3	0.8	0.6	16.0	0.0	2.3	0.3	40.0

## MARKET SHARE WON BY EC-BUILT HELICOPTERS (AS % OF TOTAL)

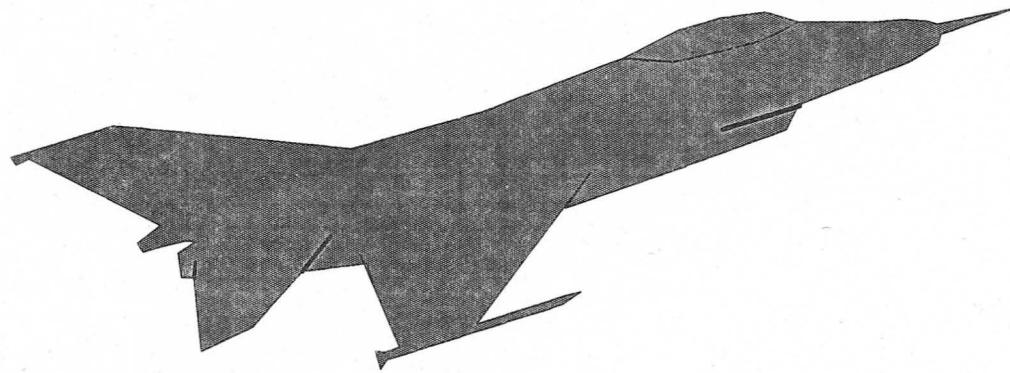
	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK	EC
1984	7.7	38.3	67.8	61.4	83.6	40.8	7.5	59.5	100.0	38.7	25.5	42.1	53.1
1985	44.2	25.2	67.7	64.1	83.8	71.2	9.1	57.6	100.0	38.7	24.7	43.3	53.1
1986	44.1	27.0	70.0	64.6	82.7	43.5	13.4	59.1	-	39.4	38.6	49.3	56.6
1987	40.8	35.7	68.0	63.4	79.9	57.4	14.3	60.9	-	28.4	42.4	48.4	56.5
1988	42.5	33.0	71.7	64.9	77.8	58.1	15.8	60.4	-	25.9	43.1	51.0	58.6
1989	44.1	35.2	65.2	63.7	75.1	66.2	37.0	57.9	-	21.9	54.9	57.8	60.6

■ SOURCE: ITA



# MILITARY AIRCRAFT

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## MILITARY AIRCRAFT

Data relating to *military aircraft* cover the number of military aircraft in service in the world. Assessment of fleets excludes aircraft in long term storage unless replacement outstanding. Warsaw Pact and PRC fleets have been excluded throughout, however military aircraft exported by these countries have been included in the relevant category under "OTHER" design origin.

The criteria used to define a *military aircraft* is that it is not registered on a civil register. Therefore a commercial aircraft used by public authorities may be included while it is already included in the *civil transport aircraft* fleets presented in Chapters 2 or 3.

*Military aircraft* are broken down according to: *category, design origin and geographical areas*.

*Military aircraft* are broken down into the following *categories*:

- *Interceptor/air superiority*
- *Fighter/attack*
- *Attack*
- *Bomber/interdictor*
- *AEW/Maritime Patrol/Electronics*
- *Advanced Trainer/Light Attack*
- *Elementary/Basic Trainer*
- *Transport - tactical/Strategic/Tanker*
- *Transport - VIP/liaison/communication*
- *Helicopters*

Flight refuelling tankers have been included in the tactical/strategic transport category since the majority have dual transport role.

Transports and trainers have been sub-categorised to provide more useful data.

*Military aircraft* are also broken down according to *design origin: EC, USA and OTHER*.

Design origin reflects country of original design and not necessarily the country of production and/or assembly.

*Military aircraft* are broken down into the following *geographical areas*:

- *EC*
- *EUR: Austria, Cyprus, Finland, Iceland, Malta, Norway, Sweden, Switzerland, Turkey, Yugoslavia*
- *USA*
- *Canada*
- *Latin America and Caribbean*
- *Middle East and North Africa*
- *Africa (south of Sahara)*
- *Republic of South Africa*
- *Asia*
- *Australasia*

A list of *military aircraft* is given in the following pages.

**Military Aircraft of EC design**

Manufacturer	Model	Typical price (Mio ECUS) (*)
<i>AERMACCHI</i>	MB-339 .....	5.30 - 8.00
<i>AEROSPATIALE</i>	Epsilon .....	0.76 - 0.98
	SuperPuma .....	8.10 - 9.80
	Gazelle .....	0.76 - 1.71
	Dauphin .....	2.50 - 4.25
<i>AERMACCHI</i>	A-129 .....	5.10 - 7.50
<i>AERITALIA-EMBRAER</i>	AMX .....	11.90 - 13.60
<i>BRITISH AEROSPACE</i>	Hawk .....	8.05 - 10.00
<i>CASA</i>	C-101 .....	5.45 - 7.60
	C-212 .....	4.10 - 4.50
<i>DASSAULT-BREGUET</i>	Mirage 2000 .....	27.40 - 45.20
	Alpha Jet .....	8.95 - 11.10
<i>MBB</i>	BO-105 .....	1.38 - 1.66
<i>PANAVIA</i>	Tornado .....	42.60 - 64.00
<i>SIAI-MARCHETTI</i>	S-211 .....	2.55 - 3.41
	SF-260 TP .....	0.64 - 0.85
<i>WESTLAND</i>	Lynx .....	4.39 - 5.88

\* Prices quoted represent average programme unit costs of new-built aircraft in 1988. Programme unit costs comprise flyaway cost of aircraft, initial spares, ground support equipment, R&D levies and other associated costs divided by the number of aircraft procured.

**Military Aircraft of US design**

Manufacturer	Model	Typical price (Mio ECUS) (*)
<i>BELL</i>	AH-1 ..... Cobra .....	7.60 - 11.50
<i>BOEING VERTOL</i>	CH-47C ..... Chinook .....	15.30 - 18.40
<i>GENERAL DYNAMICS</i>	F-16 ..... Fighting Falcon .....	21.10 - 33.25
<i>GRUMMAN</i>	A-6E ..... Intruder .....	29.85 - 33.25
	E-2C ..... Hawkeye .....	52.00 - 66.95
	F-14 ..... Tomcat .....	37.90 - 54.00
<i>LOCKHEED</i>	C-130 ..... Hercules .....	18.76 - 31.55
	P-3C ..... Orion .....	38.40 - 53.70
<i>McDONNELL DOUGLAS</i>	AH-64 ..... Apache .....	8.30 - 14.50
	F-15 ..... Eagle .....	37.00 - 47.00
	F/A-18 ..... Hornet .....	35.00 - 46.00
<i>SIKORSKY</i>	CH-53E ..... Super Stallion .....	15.35 - 24.75
	UH-60 ..... Blackhawk .....	6.90 - 15.10
	SH-60 ..... Seahawk .....	16.70 - 23.50

\* Prices quoted represent average programme unit costs of new-built aircraft in 1988. Programme unit costs comprise flyaway cost of aircraft, initial spares, ground support equipment, R&D levies and other associated costs divided by the number of aircraft procured.

**Military aircraft of other design**

Manufacturer	Model	Typical Price (Mio ECUS) (*)
<i>EMBRAER</i>	EMB-312 ..... Tucano .....	1.53 - 2.17
<i>ISRAEL AIRCRAFT INDUSTRIES</i>	Kfir .....	13.20 - 17.75
<i>PILATUS</i>	PC-7 ..... Turbo-trainer .....	1.31 - 2.17
	PC-9 .....	2.64 - 2.77
<i>SAAB</i>	JAS39 ..... Gripen .....	39.00 - 49.50

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- \* Prices quoted represent average programme unit costs of new-built aircraft in 1988. Programme unit costs comprise flyaway cost of aircraft, initial spares, ground support equipment, R&D levies and other associated costs divided by the number of aircraft procured.

**MILITARY AIRCRAFT FLEET (AT YEAR-END)****INTERCEPTOR/AIR SUPERIORITY (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	189	39	1,374	62	0	53	0	0	0	0	1,717
1980	101	0	1,226	40	0	194	0	0	24	0	1,585
1985	118	0	1,275	0	0	344	0	0	100	0	1,837
1986	139	0	1,314	0	0	335	0	0	161	0	1,949
1987	163	0	1,355	0	0	387	0	0	205	0	2,110
1988	240	0	1,310	0	0	425	0	0	254	0	2,229

**FIGHTER/ATTACK (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	3,362	1,673	3,904	301	566	2,243	287	78	3,687	103	16,204
1980	3,108	1,550	3,043	173	544	2,690	420	98	3,214	91	14,931
1985	2,475	1,458	3,206	154	668	3,332	527	95	3,282	80	15,277
1986	2,239	1,466	3,250	186	675	3,135	466	94	3,328	90	14,929
1987	2,288	1,529	3,239	199	674	3,298	487	92	3,387	80	15,273
1988	2,225	1,472	3,213	217	630	3,332	472	87	3,246	62	14,956

**ATTACK (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	422	90	2,825	0	83	647	6	9	253	31	4,366
1980	600	140	2,867	0	172	667	5	6	369	28	4,854
1985	476	211	2,862	0	169	743	33	6	515	22	5,037
1986	466	211	2,716	0	169	741	33	6	624	22	4,988
1987	457	195	2,633	0	168	726	40	6	685	22	4,932
1988	477	261	2,568	0	165	662	40	6	710	22	4,911

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET (AT YEAR-END)****BOMBER/INTERDICTOR (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	306	2	925	0	122	139	29	9	217	36	1,785
1980	241	4	781	0	70	122	18	7	187	32	1,462
1985	593	0	699	0	52	89	4	7	152	24	1,620
1986	647	0	729	0	51	100	0	7	125	23	1,682
1987	652	0	758	0	51	94	0	7	121	22	1,705
1988	649	0	757	0	50	94	0	7	110	22	1,689

**AEW/MARITIME PATROL/ELECTRONICS (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	323	25	1,415	63	84	16	0	7	222	37	2,192
1980	220	30	1,138	46	88	12	1	7	227	43	1,812
1985	200	34	1,206	36	88	8	2	0	257	26	1,857
1986	192	42	1,206	36	82	11	4	0	255	26	1,854
1987	177	47	1,171	36	80	15	4	0	256	26	1,812
1988	179	45	1,160	36	75	15	6	0	249	26	1,791

**ADVANCED TRAINER/LIGHT ATTACK (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	794	470	1,637	209	416	418	127	188	609	101	4,969
1980	813	406	1,406	172	476	451	134	212	563	99	4,732
1985	942	608	1,288	145	493	515	214	217	586	97	5,105
1986	920	575	1,241	143	524	482	185	216	573	95	4,954
1987	929	527	1,153	143	525	519	198	215	549	94	4,852
1988	921	491	1,112	143	556	539	195	214	576	91	4,838

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET (AT YEAR-END)****ELEMENTARY/BASIC TRAINER (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,761	531	1,766	25	1,280	745	245	75	1,513	68	8,009
1980	1,474	520	1,310	25	1,016	736	318	70	1,209	54	6,732
1985	1,410	496	1,204	20	1,058	846	303	50	1,255	63	6,705
1986	1,299	467	1,201	20	1,124	958	306	49	1,361	69	6,854
1987	1,324	473	1,176	20	1,126	963	284	49	1,466	72	6,953
1988	1,343	496	1,150	20	1,122	952	277	49	1,422	78	6,909

**TRANSPORT - TACTICAL/STRATEGIC/TANKER (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	852	215	2,792	70	633	474	270	61	1,078	98	6,543
1980	679	160	2,181	59	604	444	300	51	708	95	5,281
1985	618	160	2,163	59	597	508	359	55	702	91	5,312
1986	603	145	2,186	61	626	506	338	56	737	83	5,341
1987	587	119	2,152	61	633	528	333	58	733	86	5,290
1988	583	120	2,135	61	654	524	319	58	723	89	5,266

**TRANSPORT - VIP/LIAISON/COMMUNICATION (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,116	328	3,029	46	921	345	306	98	1,083	29	7,301
1980	877	293	891	45	759	346	349	123	753	36	4,472
1985	730	235	945	29	881	380	395	83	784	35	4,497
1986	776	231	869	28	906	389	380	83	808	36	4,506
1987	759	252	780	31	921	367	382	82	849	35	4,458
1988	747	256	771	31	889	367	384	124	824	46	4,439

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET (AT YEAR-END)****HELICOPTERS (UNITS)**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	3,689	629	12,541	188	869	1,382	306	157	1,788	204	21,753
1980	3,703	711	10,609	181	782	2,087	419	156	2,189	172	21,009
1985	4,308	1,007	10,543	184	1,170	2,574	625	153	2,800	176	23,540
1986	4,238	1,025	10,756	184	1,244	2,642	649	152	2,940	176	24,006
1987	4,123	1,043	10,454	182	1,258	2,725	717	146	2,930	169	23,747
1988	4,103	1,065	10,205	181	1,225	2,699	718	143	3,073	158	23,570

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : INTERCEPTOR/AIR SUPERIORITY (UNITS)****DESIGN ORIGIN : EUROPE**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	124	0	0	0	0	53	0	0	0	0	177
1980	71	0	0	0	0	30	0	0	0	0	101
1985	99	0	0	0	0	22	0	0	23	0	144
1986	120	0	0	0	0	4	0	0	40	0	164
1987	144	0	0	0	0	19	0	0	44	0	207
1988	221	0	0	0	0	19	0	0	47	0	287

**DESIGN ORIGIN : USA**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	65	39	1,374	62	0	0	0	0	0	0	1,540
1980	30	0	1,226	40	0	100	0	0	24	0	1,420
1985	19	0	1,275	0	0	167	0	0	69	0	1,530
1986	19	0	1,314	0	0	175	0	0	101	0	1,609
1987	19	0	1,355	0	0	172	0	0	109	0	1,655
1988	19	0	1,310	0	0	167	0	0	125	0	1,621

**DESIGN ORIGIN : OTHER**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	64	0	0	0	0	64
1985	0	0	0	0	0	155	0	0	8	0	163
1986	0	0	0	0	0	156	0	0	20	0	176
1987	0	0	0	0	0	196	0	0	52	0	248
1988	0	0	0	0	0	239	0	0	82	0	321

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : FIGHTER/ATTACK (UNITS)****DESIGN ORIGIN : EUROPE**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	1,441	416	0	0	165	397	32	66	465	103	3,085
1980	1,287	342	0	0	194	369	46	98	221	91	2,648
1985	1,064	248	0	0	245	552	44	95	237	75	2,560
1986	1,023	207	0	0	249	544	37	94	188	68	2,410
1987	988	206	0	0	246	521	41	92	187	47	2,328
1988	909	206	0	0	244	507	39	87	166	5	2,163

**DESIGN ORIGIN : USA**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	1,879	673	3,904	269	166	653	26	12	1,554	0	9,136
1980	1,778	588	3,043	165	110	728	26	0	1,173	0	7,611
1985	1,368	650	3,194	154	119	807	21	0	1,152	5	7,470
1986	1,173	679	3,238	186	107	818	12	0	1,144	22	7,379
1987	1,257	758	3,214	199	109	879	12	0	1,146	33	7,607
1988	1,273	681	3,200	217	123	889	10	0	1,187	57	7,637

**DESIGN ORIGIN : OTHER**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	42	584	0	32	235	1,193	229	0	1,668	0	3,983
1980	43	620	0	8	240	1,593	348	0	1,820	0	4,672
1985	43	560	12	0	304	1,973	462	0	1,893	0	5,247
1986	43	580	12	0	319	1,773	417	0	1,996	0	5,140
1987	43	565	25	0	319	1,898	434	0	2,054	0	5,338
1988	43	585	13	0	263	1,936	423	0	1,893	0	5,156

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : ATTACK (UNITS)****DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	404	0	86	0	0	0	0	9	0	0	499
1980	540	0	70	0	12	11	0	6	18	0	657
1985	374	0	116	0	11	21	16	6	52	0	596
1986	366	0	73	0	11	22	16	6	64	0	558
1987	358	0	101	0	11	22	16	6	79	0	593
1988	379	0	141	0	10	22	16	6	88	0	662

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	18	0	2,739	0	77	312	0	0	91	31	3,268
1980	60	0	2,797	0	92	269	0	0	100	28	3,346
1985	102	0	2,746	0	45	253	0	0	156	22	3,324
1986	100	0	2,643	0	45	253	0	0	187	22	3,250
1987	99	0	2,532	0	44	253	0	0	185	22	3,135
1988	98	0	2,427	0	42	180	0	0	179	22	2,948

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0	90	0	0	6	335	6	0	162	0	599
1980	0	140	0	0	68	387	5	0	251	0	851
1985	0	211	0	0	113	469	17	0	307	0	1,117
1986	0	211	0	0	113	466	17	0	373	0	1,180
1987	0	195	0	0	113	451	24	0	421	0	1,204
1988	0	261	0	0	113	460	24	0	443	0	1,301

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

### MILITARY AIRCRAFT FLEET - TYPE : BOMBER/INTERDICTOR (UNITS)

**DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	306	0	42	0	70	0	18	9	108	12	565
1980	241	0	17	0	59	0	13	7	87	12	436
1985	593	0	0	0	52	0	1	7	72	0	725
1986	647	0	0	0	51	6	0	7	45	0	756
1987	652	0	0	0	51	20	0	7	45	0	775
1988	649	0	0	0	50	20	0	7	38	0	764

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0	0	883	0	52	0	0	0	9	24	968
1980	0	0	764	0	11	0	0	0	0	20	795
1985	0	0	699	0	0	0	0	0	0	24	723
1986	0	0	729	0	0	0	0	0	0	23	752
1987	0	0	758	0	0	0	0	0	0	22	780
1988	0	0	757	0	0	0	0	0	0	22	779

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0	2	0	0	0	139	11	0	100	0	252
1980	0	4	0	0	0	122	5	0	100	0	231
1985	0	0	0	0	0	89	3	0	80	0	172
1986	0	0	0	0	0	94	0	0	80	0	174
1987	0	0	0	0	0	74	0	0	76	0	150
1988	0	0	0	0	0	74	0	0	72	0	146

EUR - NON-EC EUROPE ..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA ..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN ..... SAF - REPUBLIC OF SOUTH AFRICA

### MILITARY AIRCRAFT FLEET - TYPE : AEW/MARITIME PATROL/ELECTRONICS (UNITS)

**DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	225	0	0	0	0	0	0	7	14	0	246
1980	182	0	0	0	2	0	1	7	16	0	208
1985	173	0	41	0	2	0	1	0	21	0	238
1986	165	0	41	0	1	0	3	0	21	0	231
1987	149	0	41	0	0	0	3	0	21	0	214
1988	149	0	41	0	0	0	3	0	21	0	214

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	98	25	1,415	32	84	6	0	0	190	37	1,887
1980	38	30	1,138	36	68	12	0	0	184	43	1,549
1985	27	30	1,165	36	69	8	0	0	194	26	1,555
1986	27	42	1,165	36	64	11	0	0	193	26	1,564
1987	28	47	1,130	36	63	15	0	0	201	26	1,546
1988	30	45	1,119	36	58	15	0	0	196	26	1,525

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0	0	0	31	0	10	0	0	18	0	59
1980	0	0	0	10	18	0	0	0	27	0	55
1985	0	4	0	0	17	0	1	0	42	0	64
1986	0	0	0	0	17	0	1	0	41	0	59
1987	0	0	0	0	17	0	1	0	34	0	52
1988	0	0	0	0	17	0	3	0	32	0	52

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : ADVANCED TRAINER/LIGHT ATTACK (UNITS)****DESIGN ORIGIN : EUROPE**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	306	36	0	0	161	103	62	188	29	101	986
1980	498	38	0	0	218	112	74	212	26	99	1,277
1985	777	83	0	0	225	187	119	217	47	97	1,752
1986	772	82	0	0	227	182	113	216	42	95	1,729
1987	779	82	0	0	225	197	114	215	26	94	1,732
1988	771	81	2	0	226	228	119	214	26	91	1,758

**DESIGN ORIGIN : USA**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	488	187	1,637	92	225	28	11	0	460	0	3,128
1980	315	130	1,406	70	226	12	10	0	360	0	2,529
1985	165	155	1,288	64	221	0	0	0	327	0	2,220
1986	148	126	1,241	64	252	0	0	0	309	0	2,140
1987	150	111	1,153	64	255	0	0	0	283	0	2,016
1988	150	105	1,110	64	279	0	0	0	283	0	1,991

**DESIGN ORIGIN : OTHER**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	0	247	0	117	30	287	54	0	120	0	855
1980	0	238	0	102	32	327	50	0	177	0	926
1985	0	370	0	81	47	328	95	0	212	0	1,133
1986	0	367	0	79	45	300	72	0	222	0	1,085
1987	0	334	0	79	45	322	84	0	240	0	1,104
1988	0	305	0	79	51	311	76	0	267	0	1,089

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

### MILITARY AIRCRAFT FLEET - TYPE : ELEMENTARY/BASIC TRAINER (UNITS)

**DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,051	145	0	0	34	194	109	0	118	0	1,651
1980	965	125	0	0	16	300	140	0	121	0	1,667
1985	973	98	0	0	44	332	147	0	139	0	1,733
1986	900	70	0	0	41	410	153	0	155	0	1,729
1987	928	69	0	0	41	408	152	0	188	0	1,786
1988	920	68	0	0	41	396	147	0	204	0	1,776

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	478	120	1,766	25	948	100	86	75	779	20	4,397
1980	324	136	1,310	25	670	70	79	70	372	0	3,056
1985	260	137	1,204	20	539	70	64	50	289	0	2,633
1986	224	137	1,201	20	512	70	61	49	309	0	2,583
1987	222	143	1,176	20	474	70	49	49	292	0	2,495
1988	208	168	1,150	20	461	57	49	49	263	0	2,425

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	232	266	0	0	298	451	50	0	616	48	1,961
1980	185	259	0	0	330	366	99	0	716	54	2,009
1985	177	261	0	0	475	444	92	0	827	63	2,339
1986	175	260	0	0	571	478	92	0	897	69	2,542
1987	174	261	0	0	611	485	83	0	986	72	2,672
1988	215	260	0	0	620	499	81	0	955	78	2,708

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : TRANSPORT - TACTICAL/STRATEGIC/TANKER (UNITS)****DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	538	31	0	0	54	69	39	10	89	23	853
1980	469	31	0	0	83	61	59	10	105	27	845
1985	420	31	21	0	125	87	94	10	138	29	955
1986	404	31	25	0	130	78	80	9	150	20	927
1987	385	33	27	0	132	81	87	9	147	24	925
1988	390	33	28	0	136	80	85	9	150	25	936

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	302	158	2,690	56	454	235	167	51	775	50	4,938
1980	198	94	2,128	43	332	247	144	41	398	46	3,671
1985	167	88	2,114	43	272	256	128	45	298	43	3,454
1986	169	73	2,150	45	228	262	118	47	271	44	3,407
1987	172	63	2,114	45	224	267	113	49	281	43	3,371
1988	163	61	2,096	45	238	270	111	49	257	45	3,335

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	12	26	102	14	125	170	64	0	214	25	752
1980	12	35	53	16	189	136	97	0	205	22	765
1985	31	41	28	16	200	165	137	0	266	19	903
1986	30	41	11	16	268	166	140	0	316	19	1,007
1987	30	23	11	16	277	180	133	0	305	19	994
1988	30	26	11	16	280	174	123	0	316	19	995

EUR - NON-EC EUROPE ..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA ..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN ..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : TRANSPORT - VIP/LIAISON/COMMUNICATION (UNITS)****DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	742	53	0	8	37	70	154	56	53	9	1,182
1980	673	33	0	7	39	105	170	62	45	6	1,140
1985	552	38	3	7	55	81	211	26	61	2	1,036
1986	564	38	3	7	58	89	198	26	63	3	1,049
1987	536	34	3	6	57	75	198	26	73	3	1,011
1988	529	36	3	6	58	73	198	63	68	3	1,037

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	342	204	2,626	0	534	231	103	42	677	0	4,759
1980	186	195	881	0	445	199	134	30	418	0	2,488
1985	122	102	930	0	531	224	150	27	412	2	2,500
1986	157	98	854	0	553	227	154	27	420	2	2,492
1987	157	97	766	0	563	225	156	26	419	3	2,412
1988	156	99	757	0	580	227	158	26	412	3	2,418

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	32	71	403	38	350	44	49	0	353	20	1,360
1980	18	65	10	38	275	42	45	31	290	30	844
1985	56	95	12	22	295	75	34	30	311	31	961
1986	55	95	12	21	295	73	28	30	325	31	965
1987	66	121	11	25	301	67	28	30	357	29	1,035
1988	62	121	11	25	251	67	28	35	344	40	984

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY AIRCRAFT FLEET - TYPE : HELICOPTERS (UNITS)****DESIGN ORIGIN : EUROPE**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,973	220	0	0	130	237	184	157	261	23	3,185
1980	2,159	261	0	0	203	396	219	156	466	23	3,883
1985	2,553	360	22	0	288	656	335	153	562	49	4,978
1986	2,524	379	50	0	331	679	338	152	571	49	5,073
1987	2,462	388	86	0	358	729	343	146	589	48	5,149
1988	2,453	405	90	0	366	697	328	143	622	37	5,141

**DESIGN ORIGIN : USA**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,716	372	12,541	188	624	790	77	0	1,259	181	17,748
1980	1,544	388	10,609	181	525	1,242	112	0	1,426	149	16,176
1985	1,755	573	10,521	184	746	1,412	167	0	1,842	127	17,327
1986	1,714	573	10,706	184	771	1,458	176	0	1,926	127	17,635
1987	1,661	571	10,368	182	755	1,464	177	0	1,891	121	17,190
1988	1,650	576	10,115	181	716	1,444	178	0	1,929	121	16,910

**DESIGN ORIGIN : OTHER**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0	37	0	0	115	355	45	0	268	0	820
1980	0	62	0	0	54	449	88	0	297	0	950
1985	0	74	0	0	136	506	123	0	396	0	1,235
1986	0	73	0	0	142	505	135	0	443	0	1,298
1987	0	84	0	0	145	532	197	0	450	0	1,408
1988	0	84	0	0	143	558	212	0	522	0	1,519

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA ..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA ..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

### AVERAGE UNIT REPLACEMENT VALUE OF MILITARY AIRCRAFT IN SERVICE IN THE EC (MIO ECUS)

**DESIGN ORIGIN : EUROPE**

	I/AS	F/AT	ATT	B/IN	AEW	A/L T	E/B T	T/S/T	V/L/C	HEL
1975	4.86	4.25	5.46	16.19	12.78	2.30	0.57	6.87	0.63	0.58
1980	24.14	10.93	11.67	21.89	16.84	4.17	0.65	8.75	0.75	0.93
1985	36.41	23.78	26.72	39.73	39.61	9.30	1.44	15.43	2.35	2.33
1986	37.78	25.26	29.97	42.66	42.01	10.98	1.49	16.43	2.42	2.56
1987	39.83	26.58	36.16	45.78	46.60	11.41	1.52	18.27	2.69	2.69
1988	42.41	30.72	39.29	47.89	47.77	11.79	1.75	19.36	3.38	2.89

**DESIGN ORIGIN : USA**

	I/AS	F/AT	ATT	B/IN	AEW	A/L T	E/B T	T/S/T	V/L/C	HEL
1975	4.71	5.08	5.12	-	16.21	2.51	0.44	6.94	0.15	1.23
1980	16.02	11.36	9.34	-	19.17	4.33	0.55	10.28	0.32	1.77
1985	42.21	27.16	29.11	-	64.78	8.88	1.05	22.77	1.86	5.91
1986	44.21	28.99	30.48	-	68.74	10.41	1.14	23.57	1.89	6.14
1987	46.31	30.20	32.32	-	76.56	10.63	1.15	24.30	1.94	6.54
1988	49.47	31.24	32.86	-	78.22	11.24	1.33	27.23	2.10	7.42

**DESIGN ORIGIN : OTHER**

	I/AS	F/AT	ATT	B/IN	AEW	A/L T	E/B T	T/S/T	V/L/C	HEL
1975	-	5.51	-	-	-	-	0.29	3.63	0.18	-
1980	-	11.18	-	-	-	-	0.40	4.68	0.52	-
1985	-	29.98	-	-	-	-	1.03	9.98	2.22	-
1986	-	31.93	-	-	-	-	1.09	10.60	3.62	-
1987	-	34.30	-	-	-	-	1.21	11.20	3.68	-
1988	-	38.38	-	-	-	-	1.23	12.05	4.13	-

I/AS...INTERCEPTOR/AIR SUPERIORITY..... A/L T...ADVANCED TRAINER/LIGHT ATTACK

F/AT...FIGHTER / ATTACK..... E/B T...ELEMENTARY / BASIC TRAINER

ATT....ATTACK..... T/S/T...TRANSPORT - TACTICAL / STRATEGIC / TANKER

B/IN...BOMBER / INTERDICTOR..... V/L/C...TRANSPORT - VIP / LIAISON / COMMUNICATION

AEW....AEW / MARITIME PATROL / ELECTRONICS HEL....HELICOPTERS

**MILITARY HELICOPTER FLEET**  
**(AT YEAR-END - UNITS)**

	EC				USA		
	TOTAL	AS % OF TOTAL		LICENCE (1)	TOTAL	AS % OF TOTAL	
		DESIGN ORIGIN				DESIGN ORIGIN	
		EC	USA			EC	USA
1960	1,742	35.3	64.7	41.4	4,423	0.0	100.0
1965	2,478	41.3	58.7	38.3	6,185	0.0	100.0
1970	3,335	37.2	62.8	39.9	15,874	0.0	100.0
1975	3,637	43.6	56.4	37.2	15,338	0.0	100.0
1980	3,559	55.9	44.1	26.0	8,749	0.0	100.0
1981	3,665	57.0	43.0	25.0	8,190	0.0	100.0
1982	3,743	58.1	41.9	24.3	7,640	0.0	100.0
1983	3,863	60.1	39.9	23.2	7,760	0.0	100.0
1984	3,894	61.2	38.8	22.2	7,848	0.0	100.0
1985	3,917	61.3	38.7	22.5	7,658	0.0	100.0
1986	3,977	61.5	38.5	22.8	7,646	0.0	100.0
1987	3,961	61.0	39.0	23.2	7,924	0.0	100.0
1988	4,018	58.3	41.7	26.1	8,019	0.0	100.0
1989	4,059	59.0	41.0	25.5	7,817	0.0	100.0

(1) HELICOPTERS OF US DESIGN MANUFACTURED IN THE EC UNDER LICENCE (AS % OF TOTAL)

■ SOURCE: AEROSPATIALE

## MILITARY HELICOPTER FLEET IN THE EC

(AT YEAR-END - UNITS)

## 1) FLEET

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1960	10	14	243	27	801	7	0	98	0	49	2	491
1965	43	25	490	39	758	7	3	227	0	90	32	764
1970	80	17	765	75	734	55	3	352	0	98	126	1,030
1975	79	32	714	196	805	64	8	548	0	91	113	987
1980	80	35	701	253	812	141	9	495	0	124	62	847
1981	80	33	742	303	829	126	11	493	0	122	62	864
1982	80	29	831	311	847	122	11	506	0	120	62	824
1983	79	29	915	310	860	116	10	514	0	120	62	848
1984	79	29	932	312	903	116	10	515	0	118	62	818
1985	78	28	922	308	922	128	10	509	0	117	64	831
1986	74	28	913	305	937	142	15	528	0	117	87	831
1987	73	29	915	311	953	140	15	543	0	117	39	826
1988	69	28	913	322	929	140	15	584	0	118	42	858
1989	68	29	913	323	954	140	15	596	0	118	41	862

■ SOURCE: AEROSPATIALE

**MILITARY HELICOPTER FLEET IN THE EC**

(AT YEAR-END - UNITS)

## 2) MARKET SHARE WON BY EC-PRODUCTS (AS %)

	BE	DK	DE	ES	FR	HE	IR	IT	LU	NL	PO	UK
1960	100.0	35.7	65.8	44.4	38.3	0.0	-	0.0	-	16.3	100.0	22.6
1965	88.4	32.0	60.2	0.0	49.3	0.0	100.0	0.0	-	63.3	96.9	28.4
1970	90.0	47.1	33.5	0.0	61.6	0.0	100.0	0.0	-	85.7	99.2	23.2
1975	89.9	25.0	36.3	4.6	83.5	6.3	100.0	3.6	-	92.3	100.0	34.1
1980	93.8	37.1	40.4	12.6	100.0	2.8	100.0	1.0	-	100.0	100.0	67.3
1981	93.8	36.4	43.7	20.8	100.0	3.2	100.0	1.0	-	100.0	100.0	67.5
1982	93.8	27.6	49.8	28.0	100.0	3.3	100.0	1.0	-	100.0	100.0	65.9
1983	93.7	27.6	54.4	31.0	100.0	3.4	100.0	1.0	-	100.0	100.0	69.0
1984	93.7	27.6	55.3	31.4	100.0	3.4	100.0	1.0	-	100.0	100.0	71.9
1985	88.5	25.0	54.9	31.5	100.0	3.1	100.0	0.8	-	100.0	100.0	72.4
1986	93.2	25.0	54.5	31.8	100.0	2.8	100.0	3.2	-	100.0	100.0	71.8
1987	93.2	27.6	54.6	31.8	100.0	2.9	100.0	3.1	-	100.0	100.0	72.0
1988	92.8	25.0	54.7	33.5	100.0	2.9	100.0	7.0	-	100.0	100.0	59.9
1989	92.6	24.1	54.7	34.4	100.0	2.9	100.0	8.9	-	100.0	100.0	61.5

■ SOURCE: AEROSPATIALE

## MILITARY TURBINE ENGINES

Data relating to *military engines* cover the number of *turbine aircraft engines in military service* in the world. Allowance has been made for spare engines held in reserve. Warsaw Pact and PRC fleets have been excluded throughout, however engines exported by these countries have been included in the relevant category under "OTHER" design origin.

*Military engines* are broken down according to: *category of engines, design origin, and geographical areas*.

Military engines are broken down into the following *categories*:

- *Turbofan* ..... above 14 Tons (\*)
- *Turbofan* ..... between 7 and 14 Tons (\*)
- *Turbofan* ..... between 3 and 7 Tons (\*)
- *Turbofan* ..... below 3 Tons (\*)
- *Turbojet* ..... between 7 and 14 Tons (\*)
- *Turbojet* ..... between 3 and 7 Tons (\*)
- *Turbojet* ..... below 3 Tons (\*)
- *Turboprop*
- *Turboshaft*

(\*)Maximum thrust, including re-heat where applicable

*Military engines* are also broken down according to *design origin*: EC, USA and OTHER. Design origin reflects country of original design and not necessarily the country of production and/or assembly.

*Military engines* are also broken down according to *manufacturer*:

- |                            |                           |                              |
|----------------------------|---------------------------|------------------------------|
| ● <i>CFM International</i> | ● <i>General Electric</i> | ● <i>Pratt &amp; Whitney</i> |
| ● <i>Rolls-Royce</i>       | ● <i>SNECMA</i>           | ● <i>Turbo-Union</i> ,       |
| ● <i>other</i>             |                           |                              |

*Manufacturer* reflects the company which originated the design (or has significantly re-designed /developed the engine) and not necessarily indicate production and/or assembly origin.

Military engines are broken down into the following *geographical areas*:

- EC
- EUR:Austria, Cyprus, Finland, Malta, Norway, Sweden, Switzerland, Turkey, Yugoslavia
- USA
- Canada
- Latin America and Caribbean
- Middle East and North Africa
- Africa (south of Sahara)
- Republic of South Africa
- Asia
- Australasia

A list of *military engines* is given in the following pages.

**Turbine Aircraft Engines In Military Service**

	<b>EC Design</b>	<b>USA Design</b>	<b>Other Design</b>
<b>Turbofans</b>	<i>CFM IntL</i> ..... CFM56(*)	<i>AVCO LYCOMING</i> ..... ALF-502	<i>IHI</i> ..... F-3
	<i>ROLLS-ROYCE</i> ..... Conway	<i>GARRETT</i> ..... ATF-3	<i>IVCHENKO</i> ..... AI-25
	M54H	TFE 731	<i>KUZNETOV</i> ..... NK-8
	Pegasus	<i>GENERAL ELECTRIC</i> ..CF6	<i>P&amp;W CANADA</i> ..... JT15D
	RB-211	CF-34 (TF34)	<i>SOLOVIEV</i> ..... D20
	Spey	CF-700	D30
	Tay	F-101	
	<i>R-R/TURBOMECA</i> ..... Adour	F-404	<i>TUMANSKY</i> ..... R29
	<i>SNECMA</i> ..... M53	TF-39	R33
	<i>SNECMA/TURBOMECA</i> Larzac	<i>PRATT &amp; WHITNEY</i> ....F-100	
	<i>TURBOMECA</i> ..... Aubisque	JT-3D (TF33)	
	<i>TURBO-UNION</i> ..... RB-199	JT-8D	
		JT-9D	
		TF-30	
<b>Turbojets</b>	<i>DE HAVILLAND</i> ..... Goblin	<i>ALLISON</i> ..... J-33	<i>IHI</i> ..... J-3
	<i>HISPANO-SUIZA</i> ..... Verdon	J-35	<i>INSTYTUT LOTNICTWA SO-3</i>
	<i>ROLLS-ROYCE</i> ..... Avon	<i>FAIRCHILD</i> ..... J-44	<i>KLIMOV</i> ..... VK-1
	Derwent	<i>GENERAL ELECTRIC</i> ..CJ-610	<i>KOLIESOV</i> ..... VD-7
	Nene	CJ-805	<i>LYULKA</i> ..... AL-7F
	Olympus	J-47	AL-21F
	Orpheus	J-79	
	Viper	J-85	<i>MIKULIN</i> ..... AM-3
	<i>SNECMA</i> ..... Atar	<i>PRATT &amp; WHITNEY</i> ...J-48	
		J-52	

\* EC/USA design

**Turbine Aircraft Engines In Military Service**

	<b>EC Design</b>	<b>USA Design</b>	<b>Other Design</b>
<b>Turbojets</b> (continued)	<i>TURBOMECA</i> .....Mabore	<i>PRATT &amp; WHITNEY</i> ....J-57 J-58 J-75 JT12 (60) <i>TELEDYNE</i> .....J-69 <i>WESTINGHOUSE</i> .....J-34 <i>WRIGHT</i> .....J-65	<i>MOTORLET</i> .....M701 <i>ORENDA</i> .....11 <i>TUMANSKY</i> .....RD9 R13 RU19 R25 R31
<b>Turboprops</b>	<i>NAPIER</i> .....Eland <i>ROLLS-ROYCE</i> .....Dart Mamba Tyne <i>TURBOMECA</i> .....Astazou Bastan	<i>ALLISON</i> .....250 501 (T56) <i>AVCO LYCOMING</i> ....T53 LTP101 <i>GARRETT</i> .....TPE331 (T76) <i>GENERAL ELECTRIC</i> ..T-64	<i>IVCHENKO</i> .....AI-20 AI-24 <i>P&amp;W CANADA</i> .....PT-6A (T74) <i>WALTER</i> .....M601
<b>Turboshafts</b>	<i>NAPIER</i> .....Gazelle <i>ROLLS-ROYCE</i> .....Gem Gnome Nimbus <i>TURBOMECA</i> .....Arriel Artouste Astazou Makila Turmo	<i>ALLISON</i> .....250 (T63) <i>AVCO LYCOMING</i> ....LTC4 LTS101 T-53 T-55 <i>GENERAL ELECTRIC</i> ..T-58 T-64 T-700 <i>PRATT &amp; WHITNEY</i> ....T-73	<i>GLUSHENKOV</i> .....GTD-3 <i>ISOTOV</i> .....GTD-350 TV-2 TV-3 <i>LOTAREV</i> .....D136 <i>P&amp;W CANADA</i> .....PT-6T (T400) <i>SOLOVIEV</i> .....D25

**MILITARY TURBINE ENGINES FLEET****TURBOFAN - MAXIMUM THRUST ABOVE 14 TONS (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0	0	372	0	0	51	0	0	0	0	423
1980	0	0	376	0	0	46	0	0	0	0	422
1985	14	0	512	0	0	28	0	0	0	0	554
1986	24	0	590	0	0	28	0	0	0	0	642
1987	24	0	673	0	4	32	0	0	0	0	733
1988	24	0	783	0	4	32	0	0	0	0	843

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	-	-	0.0	-	-	0.0	-	-	-	-	0.0
1980	-	-	0.0	-	-	0.0	-	-	-	-	0.0
1985	100.0	-	0.0	-	-	17.9	-	-	-	-	3.4
1986	100.0	-	0.0	-	-	17.9	-	-	-	-	4.5
1987	100.0	-	0.0	-	0.0	28.1	-	-	-	-	4.5
1988	100.0	-	0.0	-	0.0	28.1	-	-	-	-	3.9

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

## MILITARY TURBINE ENGINES FLEET

### TURBOFAN - MAXIMUM THRUST OF 7 TO 14 TONS (IN SERVICE AT YEAR-END)

#### TOTAL (UNITS)

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	769	160	5,911	25	15	271	0	0	5	60	7,216
1980	913	233	8,091	25	107	1,018	30	0	79	60	10,556
1985	2,519	364	10,997	180	208	1,632	77	0	566	93	16,636
1986	2,741	381	11,553	260	221	1,641	77	10	827	133	17,844
1987	2,963	426	13,072	298	239	2,104	149	20	1,013	158	20,442
1988	3,256	488	13,581	348	251	2,244	143	20	1,321	228	21,880

#### MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	87.6	0.0	17.9	0.0	0.0	1.8	-	-	0.0	0.0	24.1
1980	78.6	0.0	14.0	0.0	0.0	0.0	0.0	-	0.0	0.0	17.5
1985	81.8	0.0	10.8	0.0	0.0	0.0	0.0	-	7.1	0.0	19.8
1986	82.0	0.0	9.6	0.0	2.3	1.5	0.0	0.0	7.5	0.0	19.3
1987	80.7	0.0	8.8	0.0	6.3	3.6	0.0	0.0	6.6	0.0	18.1
1988	80.1	0.0	7.8	0.0	6.0	3.3	0.0	0.0	5.1	0.0	17.5

#### MARKET SHARE OF ENGINES OF INTERNATIONAL DESIGN ORIGIN (EC / USA) (AS % OF TOTAL)

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
1985	0.9	0.0	7.1	0.0	0.0	0.3	0.0	-	0.5	0.0	4.9
1986	1.9	0.0	8.4	0.0	0.0	1.4	0.0	0.0	0.4	0.0	5.9
1987	1.7	0.0	8.9	0.0	0.0	3.1	0.0	0.0	0.3	0.0	6.3
1988	1.6	0.0	9.9	0.0	0.0	2.9	0.0	0.0	0.2	0.0	6.7

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA..... ASA - ASIA

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LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY TURBINE ENGINES FLEET****TURBOFAN - MAXIMUM THRUST OF 3 TO 7 TONS (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,083	0	381	0	23	24	20	23	68	5	1,627
1980	1,410	0	1,622	0	78	63	37	15	405	5	3,635
1985	1,076	0	2,328	23	120	119	96	15	595	13	4,385
1986	1,075	0	2,302	23	130	124	95	15	636	13	4,413
1987	1,024	0	2,263	26	134	126	101	15	688	13	4,390
1988	1,001	5	2,398	40	127	124	98	15	740	13	4,561

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	98.8	-	0.8	-	100.0	33.3	100.0	100.0	55.9	100.0	73.1
1980	99.1	-	0.2	-	75.6	61.9	73.0	100.0	83.0	100.0	51.7
1985	92.5	-	0.4	0.0	54.2	73.9	78.1	100.0	84.2	38.5	40.0
1986	91.8	-	0.7	0.0	54.6	74.2	76.8	100.0	84.3	38.5	40.7
1987	90.6	-	1.5	0.0	53.0	77.0	78.2	100.0	84.9	38.5	41.3
1988	90.5	100.0	1.8	0.0	53.5	78.2	77.6	100.0	86.1	38.5	40.6

EUR - NON-EC EUROPE..... MOY - MIDDLE EAST AND NORTH AFRICA..... ASA - ASIA

CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA..... AUS - AUSTRALASIA

LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY TURBINE ENGINES FLEET****TURBOFAN - MAXIMUM THRUST BELOW 3 TONS (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	65	384	0	20	3	29	12	0	3	8	524
1980	671	369	0	18	31	179	60	0	29	8	1,365
1985	1,386	463	313	18	138	449	244	0	162	5	3,178
1986	1,387	286	313	18	164	441	216	0	187	8	3,020
1987	1,383	286	322	15	175	503	233	0	238	8	3,163
1988	1,393	451	325	15	191	578	239	0	288	8	3,488

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	0.0	95.8	-	0.0	0.0	0.0	0.0	-	0.0	0.0	70.2
1980	83.9	94.9	-	0.0	0.0	21.2	35.0	-	27.6	0.0	71.8
1985	80.9	87.7	0.0	0.0	0.0	49.7	48.0	-	11.7	0.0	59.3
1986	80.2	80.1	0.0	0.0	0.0	52.8	52.8	-	10.2	0.0	56.6
1987	79.9	80.1	0.0	0.0	0.0	47.7	48.1	-	8.0	0.0	53.9
1988	79.0	87.4	0.9	0.0	0.0	46.9	48.1	-	6.6	0.0	54.6

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 CDN - CANADA..... AFR - AFRICA SOUTH OF SAHARA..... AUS - AUSTRALASIA  
 LAT - LATIN AMERICA AND CARIBBEAN..... SAF - REPUBLIC OF SOUTH AFRICA

**MILITARY TURBINE ENGINES FLEET****TURBOJET - MAXIMUM THRUST OF 7 TO 14 TONS (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	2,943	978	9,536	180	106	2,300	100	20	1,731	0	17,894
1980	2,983	1,010	6,616	110	144	2,804	193	70	2,221	0	16,151
1985	1,877	1,022	5,237	0	259	3,460	293	69	2,210	0	14,427
1986	1,807	1,070	4,775	0	259	3,346	268	68	2,102	0	13,695
1987	1,655	1,141	3,992	0	259	3,357	265	65	2,120	0	12,854
1988	1,603	1,025	3,349	0	239	3,441	284	65	2,112	0	12,118

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	29.2	38.5	0.0	0.0	0.0	6.4	0.0	100.0	0.0	-	7.8
1980	29.0	34.5	0.0	0.0	21.5	7.6	0.0	100.0	0.0	-	9.5
1985	29.8	23.8	0.0	-	15.1	12.4	0.0	100.0	0.0	-	9.3
1986	32.0	23.7	0.0	-	15.1	10.8	0.0	100.0	0.0	-	9.5
1987	30.4	17.2	0.0	-	15.1	10.8	0.0	100.0	0.0	-	9.1
1988	27.9	19.6	0.0	-	15.9	10.5	0.0	100.0	0.0	-	9.2

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**MILITARY TURBINE ENGINES FLEET****TURBOJET - MAXIMUM THRUST OF 3 TO 7 TONS (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	1,781	392	10,286	264	642	1,597	288	88	2,352	202	17,892
1980	1,335	295	8,756	134	648	1,270	356	73	2,182	184	15,233
1985	992	229	6,040	8	614	1,398	368	70	2,050	122	11,891
1986	871	228	5,664	8	616	1,283	336	70	2,342	113	11,531
1987	770	228	5,214	0	601	1,249	321	70	2,405	87	10,945
1988	657	228	4,936	0	595	1,179	311	64	2,086	36	10,092

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	94.4	94.6	0.0	0.0	57.0	33.3	30.6	100.0	28.2	80.7	22.1
1980	96.4	100.0	0.0	0.0	53.1	27.3	24.7	100.0	22.7	80.4	20.2
1985	95.5	100.0	0.0	0.0	62.2	24.1	18.5	100.0	24.9	77.0	22.2
1986	94.8	100.0	0.0	0.0	62.3	25.8	17.6	100.0	15.6	75.2	20.4
1987	98.6	100.0	0.0	-	61.6	23.8	19.9	100.0	15.1	67.8	20.2
1988	100.0	100.0	0.0	-	61.5	23.7	19.6	100.0	15.2	22.2	19.6

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**MILITARY TURBINE ENGINES FLEET****TURBOJET - MAXIMUM THRUST BELOW 3 TONS (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	4,591	1,883	7,526	588	1,469	2,131	352	267	4,652	151	23,610
1980	3,734	1,744	6,058	419	1,406	2,084	347	277	3,937	124	20,130
1985	3,005	1,868	5,065	416	1,322	2,021	349	279	3,987	122	18,434
1986	2,693	1,696	4,922	414	1,326	1,964	308	278	3,896	119	17,616
1987	2,688	1,661	4,711	414	1,309	1,906	271	277	3,801	118	17,156
1988	2,537	1,746	4,578	409	1,368	1,817	251	281	3,701	114	16,802

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	61.1	35.1	0.0	21.9	27.8	26.8	45.2	93.6	18.4	83.4	25.2
1980	60.8	35.7	0.0	23.4	30.4	26.8	43.8	100.0	16.9	100.0	25.8
1985	57.4	44.5	0.0	21.6	30.4	26.5	42.7	100.0	15.4	100.0	25.8
1986	53.4	41.6	0.0	21.7	30.4	26.4	43.5	100.0	15.7	100.0	24.4
1987	53.9	39.9	0.0	21.7	30.3	27.4	49.1	100.0	14.9	100.0	24.6
1988	53.9	43.6	0.0	22.0	28.1	27.8	51.4	100.0	13.5	100.0	24.6

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**MILITARY TURBINE ENGINES FLEET****TURBOPROP (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	1,568	268	7,599	213	898	1,114	216	78	1,170	199	13,323
1980	1,807	334	7,725	246	1,511	1,355	445	73	1,712	356	15,564
1985	2,091	453	8,662	278	2,048	1,772	780	65	2,233	383	18,765
1986	2,076	453	8,815	280	2,192	1,774	821	62	2,506	353	19,332
1987	2,121	400	8,690	280	2,340	1,853	827	60	2,608	369	19,548
1988	2,184	413	8,517	280	2,468	1,997	826	60	2,852	409	20,006

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	<b>EC</b>	<b>EUR</b>	<b>USA</b>	<b>CDN</b>	<b>LAT</b>	<b>ME</b>	<b>AFR</b>	<b>SAF</b>	<b>ASA</b>	<b>AUS</b>	<b>TOTAL</b>
1975	63.1	22.8	0.3	8.5	21.2	5.3	22.7	35.9	19.9	14.1	12.6
1980	46.8	19.8	0.2	7.3	17.2	5.8	16.0	38.4	16.7	17.1	11.1
1985	41.6	15.9	0.4	6.5	17.4	6.0	8.3	43.1	14.6	17.2	10.4
1986	40.6	14.8	0.4	6.4	15.5	6.0	8.3	40.3	13.2	10.2	9.7
1987	40.4	16.7	0.4	6.4	14.4	5.7	8.3	41.7	12.5	14.4	9.7
1988	39.5	16.2	0.4	6.4	13.7	5.3	7.7	41.7	12.1	13.7	9.6

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**MILITARY TURBINE ENGINES FLEET****TURBOSHAFT (IN SERVICE AT YEAR-END)****TOTAL (UNITS)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	4,524	713	15,256	342	710	1,929	380	259	1,950	215	26,278
1980	5,361	894	15,679	330	977	3,200	672	285	2,938	211	30,547
1985	6,857	1,221	16,013	328	1,655	3,998	1,033	278	3,983	218	35,584
1986	6,794	1,242	16,622	328	1,855	4,097	1,090	276	4,262	217	36,783
1987	6,619	1,351	16,551	323	1,893	4,430	1,264	269	4,400	210	37,310
1988	6,702	1,400	16,624	322	1,879	4,420	1,302	262	4,661	205	37,777

**MARKET SHARE OF ENGINES OF EC DESIGN ORIGIN (AS % OF TOTAL)**

	EC	EUR	USA	CDN	LAT	ME	AFR	SAF	ASA	AUS	TOTAL
1975	65.8	45.6	0.0	0.0	22.0	22.5	70.3	100.0	17.5	24.2	18.3
1980	64.0	41.6	0.0	0.0	27.8	21.0	44.6	100.0	20.1	20.9	19.5
1985	51.9	41.3	0.0	0.0	22.2	24.7	45.7	100.0	17.7	36.7	19.5
1986	52.1	40.3	0.0	0.0	23.2	25.1	44.8	100.0	17.2	35.9	19.2
1987	51.4	37.2	0.0	0.0	23.1	24.9	37.6	100.0	17.5	36.7	18.9
1988	51.1	37.1	0.0	0.0	23.5	23.3	34.5	100.0	17.3	31.2	18.5

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## MILITARY TURBINE ENGINES FLEET - MARKET SHARE BY MANUFACTURER

### TURBOFAN - MAXIMUM THRUST ABOVE 14 TONS

	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	0.0	0.0	0.0	87.9	12.1	0.0	423
1980	0.0	0.0	0.0	0.0	89.1	10.9	0.0	422
1985	0.0	3.4	0.0	0.0	92.4	4.2	0.0	554
1986	0.0	4.5	0.0	0.0	91.9	3.6	0.0	642
1987	0.0	4.5	0.0	0.0	92.4	3.1	0.0	733
1988	0.0	3.9	0.0	0.0	93.4	2.7	0.0	843

### TURBOFAN - MAXIMUM THRUST OF 7 TO 14 TONS

	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	24.1	0.0	0.0	0.0	73.1	2.8	7,216
1980	0.0	17.3	0.0	0.2	0.1	75.0	7.4	10,559
1985	4.9	11.5	0.5	7.8	3.7	63.2	8.5	16,636
1986	5.9	10.3	0.7	8.4	4.4	62.2	8.2	17,844
1987	6.3	9.1	0.9	8.1	10.1	56.3	9.2	20,442
1988	6.7	8.2	1.1	8.2	11.9	53.6	10.3	21,880

### TURBOFAN - MAXIMUM THRUST OF 3 TO 7 TONS

	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	73.1	0.0	0.0	15.6	10.8	0.5	1,627
1980	0.0	51.7	0.0	0.0	41.0	7.0	0.3	3,635
1985	0.0	40.0	0.0	0.0	49.2	9.9	1.0	4,385
1986	0.0	40.7	0.0	0.0	48.0	10.3	1.0	4,413
1987	0.0	41.3	0.0	0.0	47.3	10.4	1.0	4,390
1988	0.0	40.6	0.0	0.0	48.4	10.0	1.1	4,561

(\*) AS % OF TOTAL

**MILITARY TURBINE ENGINES FLEET - MARKET SHARE BY MANUFACTURER****TURBOFAN - MAXIMUM THRUST BELOW 3 TONS**

	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	0.0	0.0	0.0	21.6	0.0	78.4	524
1980	0.0	15.2	31.5	0.0	11.2	0.0	42.1	1,359
1985	0.0	10.6	37.9	0.0	5.6	0.0	45.9	3,178
1986	0.0	11.3	39.6	0.0	6.0	0.0	43.0	3,020
1987	0.0	11.0	37.6	0.0	5.5	0.0	45.9	3,163
1988	0.0	10.8	34.1	0.0	5.4	0.0	49.6	3,488

**TURBOJET - MAXIMUM THRUST OF 7 TO 14 TONS**

	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	7.2	0.6	0.0	58.8	18.3	15.0	17,894
1980	0.0	6.5	3.0	0.0	60.0	9.2	21.3	16,151
1985	0.0	3.3	6.0	0.0	58.7	3.7	28.3	14,427
1986	0.0	3.1	6.4	0.0	58.2	3.1	29.1	13,695
1987	0.0	2.3	6.7	0.0	55.7	2.7	32.5	12,854
1988	0.0	2.2	7.0	0.0	54.8	1.3	34.7	12,118

**TURBOJET - MAXIMUM THRUST OF 3 TO 7 TONS**

	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	11.4	9.7	0.0	0.0	59.3	19.6	17,892
1980	0.0	10.1	9.7	0.0	0.0	61.3	18.8	15,233
1985	0.0	10.2	12.0	0.0	0.1	55.4	22.4	11,897
1986	0.0	8.6	11.8	0.0	0.1	54.2	25.4	11,531
1987	0.0	8.7	11.5	0.0	0.1	52.9	26.9	10,945
1988	0.0	8.6	11.0	0.0	0.1	53.6	26.7	10,092

(\*) AS % OF TOTAL

## MILITARY TURBINE ENGINES FLEET - MARKET SHARE BY MANUFACTURER

### TURBOJET - MAXIMUM THRUST BELOW 3 TONS

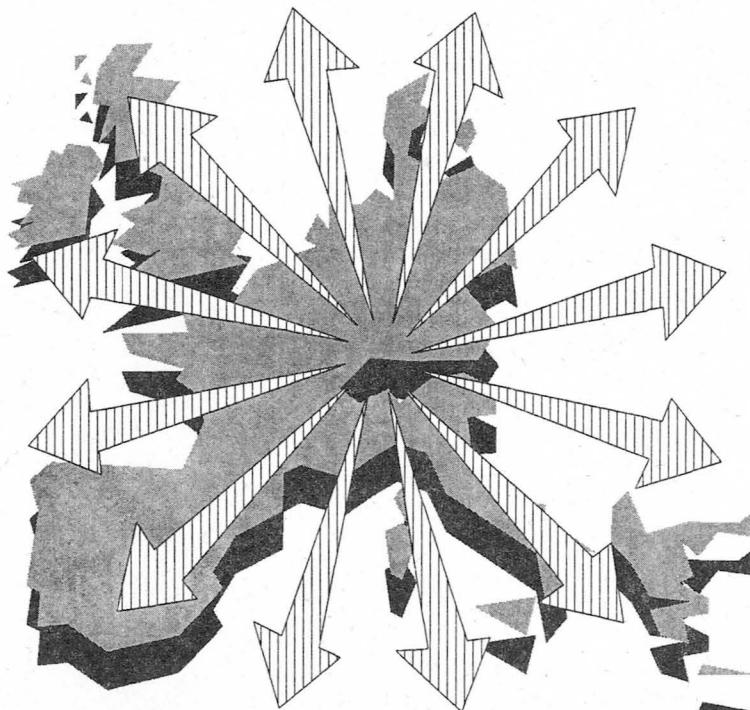
	CFM (*)	ROLLS-ROYCE (*)	SNECMA (*)	TURBO-UNION (*)	GENERAL ELECTRIC (*)	PRATT AND WHITNEY (*)	OTHER (*)	TOTAL (UNITS)
1975	0.0	14.1	0.0	0.0	43.0	2.7	40.1	23,610
1980	0.0	15.2	0.0	0.0	44.8	2.9	37.1	20,130
1985	0.0	16.3	0.0	0.0	47.6	1.6	34.6	18,434
1986	0.0	16.8	0.0	0.0	48.9	1.5	32.8	17,616
1987	0.0	16.8	0.0	0.0	49.9	1.1	32.1	17,156
1988	0.0	17.1	0.0	0.0	49.8	1.4	31.7	16,802

(\*) AS % OF TOTAL



# CIVIL AEROSPACE TRADE

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## CIVIL AEROSPACE TRADE

The figures on external trade in aerospace products are obtained using the *NIMEXE* tables supplied by the Statistical Office of The European Communities (*SOEC-Eurostat*).

The statistical data only concern the *civil aircraft, goods for use in civil aircraft* and for incorporation therein in the course of their manufacture, repair, maintenance, rebuilding, modification or conversion, and *ground flying-trainers and their parts, for civil use*. "Civil aircraft" means aircraft other than aircraft used in military or similar services in the Member States which carry a military or non-civil registration.

In order to simplify the presentation of the data concerning trade on these products, four groups of products have been created: *airframes, engines, equipment and other material*.

### ● airframes

- Balloons and dirigibles; gliders, hand gliders and other non-powered aircraft
- Helicopters
- Aeroplanes and other aircraft
- Propellers and rotors and parts thereof
- Under-carriages and parts thereof
- Ground flying trainers and parts thereof

### ● engines

- Spark-ignition internal combustion piston engines
- Compression-ignition internal combustion piston engines (diesel or semi-diesel engines)
- Parts suitable for use solely or principally with spark- or compression-ignition aircraft engines
- Turbo-jets, turbo-propellers and other gas turbines, and parts
- Other engines and motors (reaction engines other than turbo-jets, hydraulic and pneumatic power engines and motors, etc) and parts

### ● equipment

- Automatic data-processing machines and units thereof
- Hydropneumatic batteries; mechanical actuators for thrust reversers; toilet units specially designed; air humidifiers and dehumidifiers; servo-mechanisms, non-electric; non-electric starter motors; pneumatic starters for turbo-jets, turbo-propellers and other gas turbines; windscreens wipers, non-electric; propeller regulators, non-electric
- Transmission shafts (including cam shafts and crank shafts) and cranks

● equipment (continued)

- ☒ Bearing housings, not incorporating ball or roller bearings; plain shaft bearings
- ☒ Gears and gearing, other than toothed wheels, chain sprockets and other transmission elements presented separately; ball screws; gear boxes and other speed changers, including torque converters
- ☒ Flywheels and pulleys, including pulley blocks
- ☒ Clutches and shaft couplings (including universal joints)
- ☒ Microphones and stands therefor; loudspeakers; telephones, earphones and combined microphone/speaker sets; audio-frequency electric amplifiers; electric sound amplifier sets
- ☒ Magnetic tape recorders and other sound recording apparatus
- ☒ Video magnetic tape recording or reproducing apparatus
- ☒ Transmission apparatus for radio-telephony or radio-telegraphy
- ☒ Radar apparatus, radio navigational aid apparatus and radio remote control apparatus
- ☒ Reception apparatus for radio-telephony or radio-telegraphy
- ☒ Aerials and aerial reflectors; parts suitable for use therewith
- ☒ Electric sound or visual signalling apparatus (fire alarms and similar apparatus, indicator panels incorporating liquid crystal devices (LCD) or light emitting diodes (LED), etc)

- ☒ Flight recorders
- ☒ Ignition wiring sets and other wiring sets
- ☒ Optical elements
- ☒ Direction finding compasses
- ☒ Stall warning calculators
- ☒ Breathing appliances and gas masks (excluding parts thereof)
- ☒ Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers
- ☒ Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases
- ☒ Revolution counters, speed indicators and tachometers
- ☒ Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, measuring or detecting ionizing radiations
- ☒ Other measuring or checking instruments, appliances and machines
- ☒ Automatic regulating or controlling instruments and apparatus
- ☒ Instrument panel clocks
- ☒ Clock movements, complete and assembled

● Other material

- ☒ Tubes, pipes and hoses, and fittings therefor (for example, joints, elbows, flanges), of plastics
- ☒ Other articles of plastics for technical uses

- Other material (continued)

- ☒ Profile shapes, cut to size, of vulcanized rubber other than hard rubber
- ☒ Tubes, pipes and hoses, of vulcanized rubber other than hard rubber, with fittings, suitable for conducting gases or liquids
- ☒ New pneumatic tyres, of rubber
- ☒ Retreaded or used pneumatic tyres, of rubber
- ☒ Other articles of vulcanized rubber other than hard rubber
- ☒ Piping and tubing of hard rubber, with fittings attached, suitable for conducting gases or liquids
- ☒ Gaskets, washers and other seals of agglomerated cork
- ☒ Gaskets, washers and other seals of paper pulp, paper or paperboard
- ☒ Articles of asbestos or of asbestos and magnesium carbonate
- ☒ Friction material and articles thereof, not mounted, for brakes, for clutches or the like, with a basis of asbestos or other mineral substances
- ☒ Windshields of laminated safety glass, not framed
- ☒ Tubes, pipes and hollow profiles, of iron or steel, with fittings attached, suitable for conducting gases or liquids
- ☒ Stranded wire, ropes, cables, plaited bands, slings and the like, of iron or steel, not electrically insulated, with fittings attached
- ☒ Air heaters and hot air distributors (excluding parts thereof)

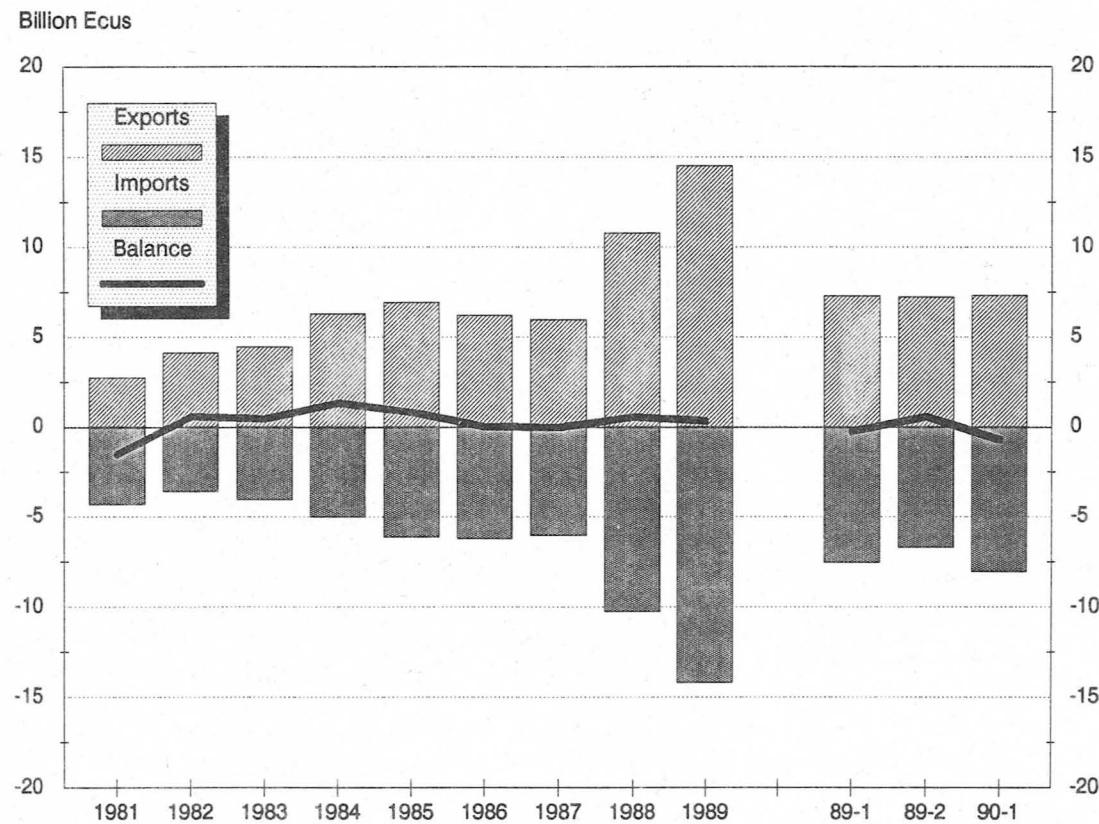
- ☒ Sanitary ware (excluding parts thereof), of iron and steel
- ☒ Other articles of iron or steel wire
- ☒ Stranded wire, cables, plaited bands and the like, of copper, not electrically insulated, with fittings attached
- ☒ Aluminium tubes and pipes, with fittings attached, suitable for conducting gases or liquids
- ☒ Titanium tubes and pipes, with fittings attached, suitable for conducting gases or liquids
- ☒ Base metal mountings, fittings and similar articles (hinges, castors, automatic door closers, etc)
- ☒ Flexible tubing of base metal, with fittings attached
- ☒ Pumps for liquids; liquid elevators, and parts
- ☒ Air vacuum pumps, air or other gas compressors and fans, and parts
- ☒ Air conditioning machines and parts
- ☒ Refrigerators, freezers and other refrigerating or freezing equipment; heat pumps other than air conditioning machines
- ☒ Heat exchange units and parts
- ☒ Other machinery for making hot drinks or for cooking or heating food
- ☒ Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases
- ☒ Fire extinguishers
- ☒ Pulley tackle and hoists other than skip hoists; winches and capstans; jacks
- ☒ Cranes

- Other material (continued)

- ☒ Other lifting, handling, loading or unloading machinery (for example, lifts, skip hoists, elevators and conveyors, etc)
- ☒ Gaskets and similar joints of metal sheeting combined with other material or of two or more layers of metal
- ☒ Electric motors and generators (excluding generating sets)
- ☒ Electric generating sets and rotary converters
- ☒ Electric transformers, static converters and inductors
- ☒ Electric accumulators, including separators therefor
- ☒ Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines; generators and cut-outs of a kind used in conjunction with such engines
- ☒ Electric heating resistors, assembled only with a simple insulated former and electrical connections, used for anti-icing or de-icing
- ☒ Sealed beam lamp units
- ☒ Furniture
- ☒ Lamps and lighting fittings; illuminated signs and name-plates

Data concerning the United Kingdom are not complete and do not allow the subdivision as indicated above.

## EC Civil Aerospace Trade



■ Source: Eurostat

## EC CIVIL AEROSPACE TRADE (\*)

## TOTAL EXTRA-EC (MIO ECUS)

## 1) IMPORTS

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1989-2	1990-1
AIRFRAMES	2,492	1,454	1,491	1,721	2,660	2,817	2,633	5,754	8,763	4,782	3,982	5,122
ENGINES	1,326	1,567	1,879	2,504	2,644	2,555	2,648	2,970	3,592	1,829	1,763	1,975
EQUIPMENT	346	415	499	556	573	579	560	589	694	337	357	363
OTHER MATERIAL	134	139	153	192	234	225	194	933	1,147	576	571	577
TOTAL	4,298	3,575	4,022	4,974	6,111	6,176	6,035	10,246	14,196	7,523	6,673	8,036

## 2) EXPORTS

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1989-2	1990-1
AIRFRAMES	2,116	3,031	2,791	3,962	3,704	2,956	2,651	6,228	8,959	4,697	4,262	4,035
ENGINES	352	757	1,285	1,875	2,649	2,655	2,806	2,901	3,684	1,671	2,013	2,257
EQUIPMENT	195	218	247	296	356	387	361	477	537	254	284	312
OTHER MATERIAL	105	146	145	164	205	189	169	1,183	1,360	664	697	726
TOTAL	2,767	4,151	4,468	6,297	6,914	6,187	5,988	10,789	14,541	7,286	7,255	7,329

## 3) BALANCE

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1989-2	1990-1
AIRFRAMES	- 376	1,577	1,300	2,240	1,044	139	18	474	196	- 84	280	- 1,087
ENGINES	- 975	- 810	- 594	- 629	5	100	159	- 68	92	- 158	250	282
EQUIPMENT	- 151	- 198	- 252	- 260	- 217	- 193	- 199	- 112	- 157	- 84	- 73	- 51
OTHER MATERIAL	- 29	7	- 8	- 28	- 30	- 36	- 25	250	214	88	125	149
TOTAL	- 1,531	576	445	1,323	803	11	- 47	543	345	- 237	582	- 707

(\*) 1981-85: EC 10 - 1986-90: EC 12

■ SOURCE : EUROSTAT

**EC CIVIL AEROSPACE TRADE (\*)**  
**WITH USA (MIO ECUS)**

**1) IMPORTS**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1989-2	1990-1
AIRFRAMES	2,323	1,297	1,282	1,484	2,338	2,604	2,236	3,826	6,846	3,777	3,069	4,136
ENGINES	1,236	1,459	1,702	2,124	2,226	2,196	2,252	2,574	3,081	1,575	1,506	1,725
EQUIPMENT	310	375	447	492	512	518	505	489	595	286	309	311
OTHER MATERIAL	119	124	132	163	208	204	166	370	459	228	231	229
<b>TOTAL</b>	<b>3,988</b>	<b>3,255</b>	<b>3,563</b>	<b>4,262</b>	<b>5,285</b>	<b>5,522</b>	<b>5,159</b>	<b>7,259</b>	<b>10,981</b>	<b>5,866</b>	<b>5,115</b>	<b>6,400</b>

**2) EXPORTS**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1989-2	1990-1
AIRFRAMES	708	727	609	879	1,507	806	1,035	2,008	2,635	1,294	1,341	1,307
ENGINES	205	454	803	1,201	1,852	1,844	1,823	1,965	2,556	1,178	1,378	1,576
EQUIPMENT	60	66	76	95	126	140	137	147	164	71	93	102
OTHER MATERIAL	24	34	29	39	60	62	52	293	315	150	165	154
<b>TOTAL</b>	<b>997</b>	<b>1,281</b>	<b>1,517</b>	<b>2,214</b>	<b>3,544</b>	<b>2,852</b>	<b>3,047</b>	<b>4,412</b>	<b>5,669</b>	<b>2,693</b>	<b>2,977</b>	<b>3,140</b>

**3) BALANCE**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1989-2	1990-1
AIRFRAMES	-1,615	-570	-673	-605	-832	-1,798	-1,202	-1,818	-4,211	-2,483	-1,728	-2,829
ENGINES	-1,031	-1,005	-899	-923	-374	-352	-429	-609	-524	-397	-127	-148
EQUIPMENT	-250	-309	-312	-397	-387	-378	-367	-343	-431	-215	-216	-209
OTHER MATERIAL	-95	-89	-103	-124	-148	-143	-114	-77	-145	-78	-66	-74
<b>TOTAL</b>	<b>-2,991</b>	<b>-1,973</b>	<b>-2,047</b>	<b>-2,048</b>	<b>-1,741</b>	<b>-2,671</b>	<b>-2,112</b>	<b>-2,847</b>	<b>-5,312</b>	<b>-3,174</b>	<b>-2,138</b>	<b>-3,261</b>

(\*) 1981-85: EC 10 - 1986-90: EC 12

■ SOURCE : EUROSTAT

**EC CIVIL AEROSPACE TRADE (\*)**  
**WITH JAPAN (MIO ECUS)**

**1) IMPORTS**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1889-2	1990-1
AIRFRAMES	1	10	29	9	2	3	4	57	34	28	7	8
ENGINES	0	1	0	0	3	2	3	4	10	3	7	1
EQUIPMENT	1	1	1	1	1	3	3	3	5	2	2	3
OTHER MATERIAL	3	2	4	8	5	4	4	83	97	46	51	43
TOTAL	5	14	35	18	10	12	14	147	146	78	67	55

**2) EXPORTS**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1889-2	1990-1
AIRFRAMES	76	100	181	18	135	119	46	166	223	85	138	169
ENGINES	6	7	4	6	12	18	49	42	41	22	19	24
EQUIPMENT	2	3	2	2	3	4	4	6	7	4	3	10
OTHER MATERIAL	1	1	1	1	7	4	3	30	35	16	19	19
TOTAL	85	111	188	27	158	145	102	245	306	127	179	221

**3) BALANCE**

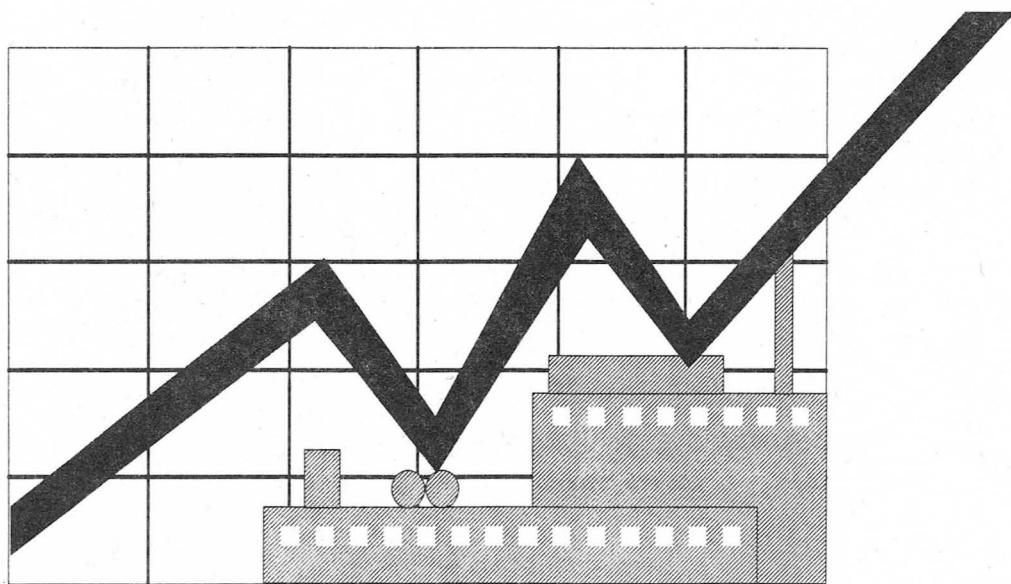
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1889-1	1889-2	1990-1
AIRFRAMES	75	90	152	8	134	116	42	109	188	57	131	161
ENGINES	6	6	3	5	9	17	46	38	32	20	12	23
EQUIPMENT	2	2	2	2	2	1	1	3	3	1	1	6
OTHER MATERIAL	-2	-1	-4	-7	3	-1	-0	-52	-62	-29	-32	-24
TOTAL	81	96	153	8	147	133	88	97	161	49	112	166

(\*) 1981-85: EC 10 - 1986-90: EC 12

SOURCE : EUROSTAT

# TURNOVER

## C H A P T E R 6





## TURNOVER

The survey carried out each year in conjunction with the industrial associations in each Member State enables the *turn-over* of the European aerospace industry to be broken down by type of customer and sector. Participants to this survey are the aerospace companies whose turnover concerns (partly or entirely) one or more of the groups of products listed in the columns of the tables.

Data concerning the UK and relating to 1989 have not reached the Commission in time for publication.

Data for Spain relating to years 1984-86 had to be estimated from other sources.

Estimates for missing data for the turnover of the aerospace industry are compiled using linear estimates performing a least-squares approximation to indicators such as turnover of the major aerospace companies.

Where data relating to international co-operation programmes are concerned, only the turnover which corresponds to that part of these programmes which concerns the national industry (i.e. after deduction of that part of the turnover which concerns other countries) should be included in the total turnover. This applies both to the country which markets the product and to the country which supplies part of the product to the country which markets it. In all cases, the turnover is entered under the heading "*End-Users*".

However, standardization problems of the accounting methods remain and may affect turnover consolidated at the EC level.

Turnover on behalf of international public organizations (e.g. *ESA*) is entered under the heading "*National State*". In this case too, only the turnover corresponding to that part of these programmes which concerns the national industry is included in the national turnover.

A distinction is made between the following:

- **Overall national turnover**

*Overall national turnover* includes transactions between national aerospace companies. Therefore, it does not indicate the output of the aerospace sector as such, since it includes intermediate exchanges at national level.

- **Turnover consolidated at national level**

*Turnover consolidated at national level* does not include transactions between national aerospace companies, and so represents the output of the aerospace sector as such.

The difference between *overall national turnover* and *turnover consolidated at national level* therefore represents the sale of aerospace goods and services between national companies in the various sub-sectors (aircraft, space, propulsion devices and equipment) and between national companies in the same subsectors (e.g. contract-

ing between airframe manufacturers for certain sub-assemblies).

- **Turnover consolidated at Community level**

*Turnover consolidated at Community level* represents the output of the EC as a whole, since it does not include intra-Community transactions between aerospace companies.

The difference between *turnover consolidated at national level* and *turnover consolidated at EC level* therefore includes the sale of aerospace goods and services between companies located in the different EC Member States.

The turnover is broken down by *group of products* and by *category of customer* (civil and military).

The *groups of products* considered are as follows:

- a. **Complete aerospace systems:**

- Aircraft (aeroplane, helicopters and gliders), Missiles, their parts and spares.
- Space (space vehicles, satellites, launchers, ground installations, etc.).

- b. **Propulsion devices**

(Piston engines, turboprops, turbojets, etc.), their parts and spares, equipment and accessories, for installation in the aerospace systems mentioned under (a).

- c. **Equipment**

Equipment for the aerospace systems mentioned under (a) (finished products, parts and spares, sub-as-

semblies) including test and ground-training equipment.

The breakdown of turnover between the different *categories of customer* is carried out as follows:

- *National State*: sales or services (including R&D) to the State (public authorities) in which the company is established;
- *Aerospace industry*: sales or services (including R&D) to other aerospace companies (generally sub-contracting);
- *End-users*: sales or services (including R&D), i.e. neither to the State nor to other aerospace companies.

In the case of the "*Aerospace Industry*" and "*End-Users*", turnover is broken down between:

- *National*: sales or services in the country in which the company is established,
- *Other EC States*: sales or services in one of the other EC countries,
- *Third countries*: sales or services in a non-EC country.

The *activities* considered concern:

- *R&D contracts*,
- *production, assembly*,
- *post-delivery modifications*, repairs and maintenance of material sold, where these operations are carried out by the company itself.

Repair and maintenance operations carried out by users, whether civil or military, are not covered by this survey.

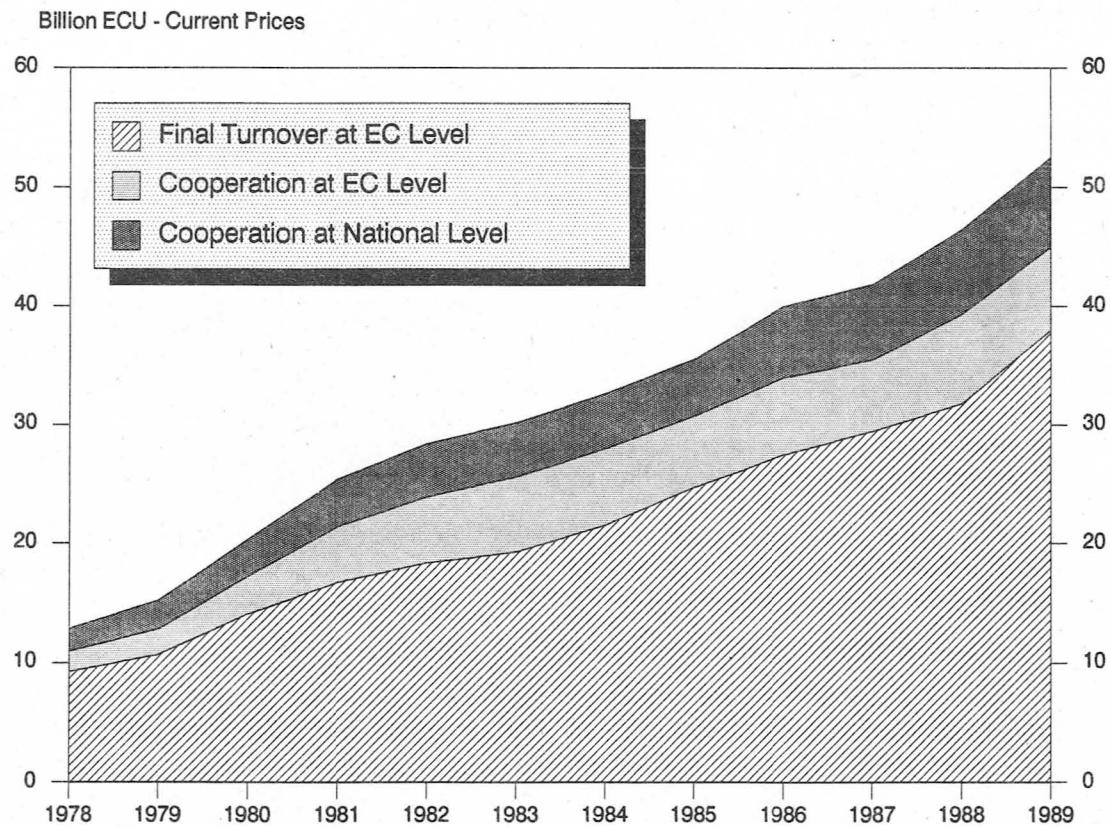
Turnover relating to the category of customer "*National State*" is broken down between:

- *R&D*,
- post-delivery *modifications*, repairs and maintenance of material sold, where these operations are carried out by the company itself and *not* by the customer, and
- *sales*.

For the other two categories of customer, "*Aerospace Industry*" and "*End-Users*", the data refer to all these activities.

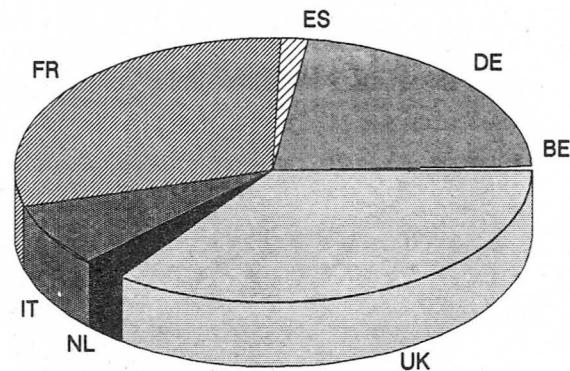
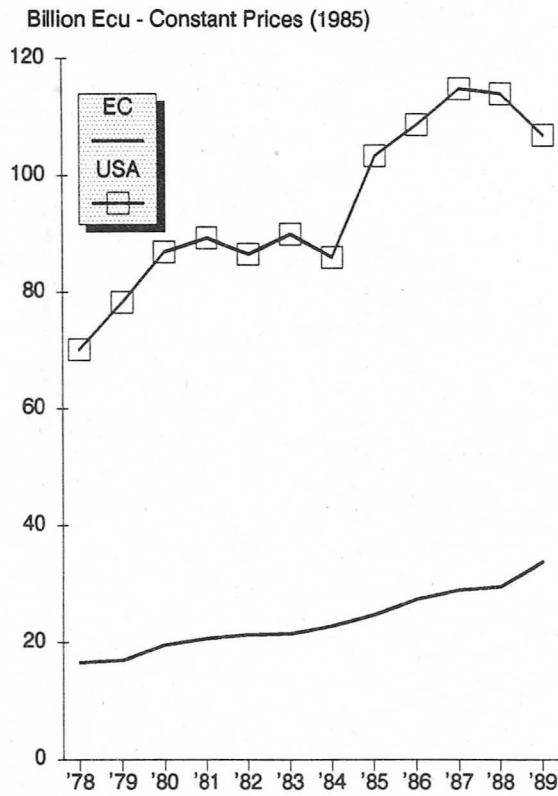
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## EC Aerospace Turnover



Source: Industrial Associations

## Aerospace Turnover



## OVERALL NATIONAL AEROSPACE TURNOVER

### 1) MIO ECU - CURRENT PRICES

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	146	1,984	133	5,076	814	288	4,407	12,846	24,453	1,045	790
1979	218	3,077	132	5,767	990	338	4,702	15,224	28,061	934	1,032
1980	333	3,359	185	7,256	1,230	372	7,646	20,381	34,040	871	1,353
1981	429	4,114	262	8,816	1,758	445	9,581	25,404	49,116	1,189	2,078
1982	413	5,084	356	9,813	2,181	492	10,080	28,419	59,944	1,848	2,390
1983	344	5,380	348	10,827	2,661	605	10,015	30,179	72,019	2,108	2,555
1984	287	5,628	395	11,731	2,767	594	11,210	32,611	84,168	2,853	2,915
1985	361	6,524	440	12,555	3,070	533	12,035	35,518	103,326	3,558	3,497
1986	338	9,780	414	13,168	3,421	584	12,266	39,971	86,468	3,773.	3,227
1987	339	10,079	426	13,145	3,649	452	13,735	41,826	77,089	4,016	3,390
1988	329	11,190	649	14,267	3,960	880	15,147	46,422	77,449	4,363	4,114
1989	363	11,895	806	15,782	4,422	1,199	18,087	52,553	81,684	-	5,444

### 2) COMPARISON OF TURNOVER BY GEOGRAPHICAL AREA (EC = 100)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	1.1	15.4	1.0	39.5	6.3	2.2	34.3	100.0	190.3	8.1	6.2
1979	1.4	20.2	0.9	37.9	6.5	2.2	30.9	100.0	184.3	6.1	6.8
1980	1.6	16.5	0.9	35.6	6.0	1.8	37.5	100.0	167.0	4.3	6.6
1981	1.7	16.2	1.0	34.7	6.9	1.8	37.7	100.0	193.3	4.7	8.2
1982	1.5	17.9	1.3	34.5	7.7	1.7	35.5	100.0	210.9	6.5	8.4
1983	1.1	17.8	1.2	35.9	8.8	2.0	33.2	100.0	238.6	7.0	8.5
1984	0.9	17.3	1.2	36.0	8.5	1.8	34.4	100.0	258.1	8.7	8.9
1985	1.0	18.4	1.2	35.3	8.6	1.5	33.9	100.0	290.9	10.0	9.8
1986	0.8	24.5	1.0	32.9	8.6	1.5	30.7	100.0	216.3	9.4	8.1
1987	0.8	24.1	1.0	31.4	8.7	1.1	32.8	100.0	184.3	9.6	8.1
1988	0.7	24.1	1.4	30.7	8.5	1.9	32.6	100.0	166.8	9.4	8.9
1989	0.7	22.6	1.5	30.0	8.4	2.3	34.4	100.0	155.4	-	10.4

SOURCE: INDUSTRIAL ASSOCIATIONS

## OVERALL NATIONAL AEROSPACE TURNOVER

## 3) MIO ECU - CONSTANT PRICES (1985)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	186	2,900	230	8,183	1,628	410	9,480	23,016	70,150	1,798	1,796
1979	267	4,250	183	8,575	1,811	462	8,600	24,148	78,257	1,754	2,349
1980	398	4,450	244	9,732	1,953	483	10,837	28,097	86,866	1,653	2,823
1981	498	5,218	319	10,930	2,505	551	11,261	31,282	89,266	1,703	3,218
1982	484	5,840	399	11,565	2,801	542	11,166	32,796	86,473	2,578	3,075
1983	388	5,719	414	12,245	3,010	634	11,029	33,439	89,955	2,533	2,846
1984	308	5,783	420	12,554	2,875	608	11,870	34,418	85,997	2,997	2,931
1985	361	6,524	440	12,555	3,070	533	12,035	35,518	103,326	3,558	3,497
1986	318	9,068	397	12,526	3,213	556	13,513	39,591	108,693	3,387	4,135
1987	307	8,915	399	12,366	3,302	421	15,143	40,853	114,784	3,647	4,661
1988	295	9,771	557	13,191	3,478	803	14,769	42,863	113,976	3,588	5,170
1989	311	10,110	613	14,088	3,587	1,078	16,702	46,489	106,917	-	5,844

## 4) GROWTH RATE OF TURNOVER (AS % - CONSTANT PRICES)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	15.9	5.8	-	-1.4	8.1	-6.0	4.0	-	8.8	2.6	14.2
1979	43.3	46.5	-20.3	4.8	11.2	12.9	-9.3	4.9	11.6	-2.4	30.8
1980	49.2	4.7	33.3	13.5	7.9	4.4	26.0	16.4	11.0	-5.7	20.2
1981	25.2	17.2	30.7	12.3	28.3	14.1	3.9	11.3	2.8	3.0	14.0
1982	-2.9	11.9	25.0	5.8	11.8	-1.7	-0.8	4.8	-3.1	51.4	-4.4
1983	-19.8	-2.1	3.7	5.9	7.5	17.0	-1.2	2.0	4.0	-1.7	-7.5
1984	-20.5	1.1	1.6	2.5	-4.5	-4.1	7.6	2.9	-4.4	18.3	3.0
1985	17.3	12.8	4.6	0.0	6.8	-12.3	1.4	3.2	20.2	18.7	19.3
1986	-12.0	39.0	-9.7	-0.2	4.7	4.3	12.3	11.5	5.2	-4.8	18.2
1987	-3.4	-1.7	0.6	-1.3	2.8	-24.4	12.1	3.2	5.6	7.7	12.7
1988	-4.0	9.6	39.5	6.7	5.3	91.0	-2.5	4.9	-0.7	-1.6	10.9
1989	5.5	3.5	10.1	6.8	3.1	34.2	13.1	8.5	-6.2	-	13.0
	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978-89	4.8	12.0	9.3	5.1	7.4	9.2	5.3	6.6	3.9	-	11.3

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## AEROSPACE TURNOVER CONSOLIDATED AT NATIONAL LEVEL

### 1) MIO ECU - CURRENT PRICES

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	132	1,705	132	4,214	623	285	3,889	10,980	24,453	1,045	790
1979	215	2,590	131	4,732	773	337	4,030	12,807	28,061	934	1,032
1980	320	2,710	184	5,978	1,028	371	6,648	17,239	34,040	871	1,353
1981	426	3,317	262	7,241	1,526	441	8,153	21,366	49,116	1,189	2,078
1982	409	4,112	354	7,982	1,866	486	8,706	23,915	59,944	1,848	2,390
1983	339	4,272	346	8,904	2,220	595	8,895	25,572	72,019	2,108	2,555
1984	284	4,515	378	9,969	2,332	584	9,890	27,951	84,168	2,853	2,915
1985	360	5,319	419	10,782	2,611	533	10,660	30,684	103,326	3,558	3,497
1986	336	7,901	395	10,966	2,851	584	10,919	33,953	86,468	3,773	3,227
1987	337	8,292	360	10,924	3,028	452	12,080	35,473	77,089	4,016	3,390
1988	328	9,117	609	11,852	3,286	880	13,211	39,283	77,449	4,363	4,114
1989	363	9,929	789	13,317	3,675	1,199	15,733	45,005	81,684	-	5,444

### 2) COMPARISON OF TURNOVER BY GEOGRAPHICAL AREA (EC = 100)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	1.2	15.5	1.2	38.4	5.7	2.6	35.4	100.0	222.7	9.5	7.2
1979	1.7	20.2	1.0	36.9	6.0	2.6	31.5	100.0	219.1	7.3	8.1
1980	1.9	15.7	1.1	34.7	6.0	2.2	38.6	100.0	197.5	5.1	7.8
1981	2.0	15.5	1.2	33.9	7.1	2.1	38.2	100.0	229.9	5.6	9.7
1982	1.7	17.2	1.5	33.4	7.8	2.0	36.4	100.0	250.7	7.7	10.0
1983	1.3	16.7	1.4	34.8	8.7	2.3	34.8	100.0	281.6	8.2	10.0
1984	1.0	16.2	1.4	35.7	8.3	2.1	35.4	100.0	301.1	10.2	10.4
1985	1.2	17.3	1.4	35.1	8.5	1.7	34.7	100.0	336.7	11.6	11.4
1986	1.0	23.3	1.2	32.3	8.4	1.7	32.2	100.0	254.7	11.1	9.5
1987	0.9	23.4	1.0	30.8	8.5	1.3	34.1	100.0	217.3	11.3	9.6
1988	0.8	23.2	1.6	30.2	8.4	2.2	33.6	100.0	197.2	11.1	10.5
1989	0.8	22.1	1.8	29.6	8.2	2.7	35.0	100.0	181.5	-	12.1

■ SOURCE: INDUSTRIAL ASSOCIATIONS

### AEROSPACE TURNOVER CONSOLIDATED AT NATIONAL LEVEL

#### 3) MIO ECU - CONSTANT PRICES (1985)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	168	2,493	229	6,792	1,247	406	8,365	19,700	70,150	1,798	1,796
1979	263	3,577	182	7,036	1,413	460	7,370	20,302	78,257	1,754	2,349
1980	382	3,591	244	8,018	1,633	482	9,421	23,770	86,866	1,653	2,823
1981	494	4,208	319	8,977	2,175	546	9,583	26,301	89,266	1,703	3,218
1982	479	4,723	396	9,408	2,397	535	9,644	27,582	86,473	2,578	3,075
1983	382	4,542	412	10,070	2,512	624	9,796	28,338	89,955	2,533	2,846
1984	305	4,639	402	10,668	2,423	597	10,473	29,508	85,997	2,997	2,931
1985	360	5,319	419	10,782	2,611	533	10,660	30,684	103,326	3,558	3,497
1986	317	7,325	379	10,431	2,678	556	12,029	33,715	108,693	3,387	4,135
1987	305	7,334	337	10,276	2,739	421	13,318	34,732	114,784	3,647	4,661
1988	294	7,960	523	10,958	2,886	803	12,881	36,305	113,976	3,588	5,170
1989	311	8,439	600	11,888	2,981	1,078	14,528	39,825	106,917	-	5,844

#### 4) GROWTH RATE OF TURNOVER (AS % - CONSTANT PRICES)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	8.4	10.1	-	-0.2	3.3	-6.8	3.7		8.8	2.6	14.2
1979	56.4	43.5	-20.4	3.6	13.3	13.3	-11.9	3.1	11.6	-2.4	30.8
1980	45.0	0.4	33.8	14.0	15.6	4.7	27.8	17.1	11.0	-5.7	20.2
1981	29.4	17.2	30.7	12.0	33.2	13.3	1.7	10.6	2.8	3.0	14.0
1982	-3.1	12.2	24.4	4.8	10.2	-2.1	0.6	4.9	-3.1	51.4	-4.4
1983	-20.2	-3.8	3.8	7.0	4.8	16.7	1.6	2.7	4.0	-1.7	-7.5
1984	-20.2	2.1	-2.4	5.9	-3.5	-4.2	6.9	4.1	-4.4	18.3	3.0
1985	18.0	14.7	4.4	1.1	7.7	-10.7	1.8	4.0	20.2	18.7	19.3
1986	-12.0	37.7	-9.6	-3.3	2.6	4.3	12.8	9.9	5.2	-4.8	18.2
1987	-3.6	0.1	-11.0	-1.5	2.3	-24.4	10.7	3.0	5.6	7.7	12.7
1988	-3.8	8.5	54.9	6.6	5.3	91.0	-3.3	4.5	-0.7	-1.6	10.9
1989	5.9	6.0	14.8	8.5	3.3	34.2	12.8	9.7	-6.2	-	13.0
<hr/>											
	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978-89	5.7	11.7	9.2	5.2	8.2	9.3	5.1	6.6	3.9	-	11.3

■ SOURCE: INDUSTRIAL ASSOCIATIONS

### AEROSPACE TURNOVER CONSOLIDATED AT EC LEVEL

**1) MIO ECU - CURRENT PRICES**

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	82	1,214	108	3,851	518	252	3,193	9,218	24,453	1,045	790
1979	158	1,966	98	4,268	681	300	3,177	10,649	28,061	934	1,032
1980	263	1,715	136	5,424	760	325	5,501	14,123	34,040	871	1,353
1981	349	1,837	189	6,535	1,307	373	6,129	16,719	49,116	1,189	2,078
1982	338	2,157	281	7,303	1,623	408	6,283	18,393	59,944	1,848	2,390
1983	271	2,175	247	7,950	1,698	518	6,409	19,269	72,019	2,108	2,555
1984	205	2,342	299	9,083	1,744	528	7,330	21,531	84,168	2,853	2,915
1985	260	3,135	335	10,278	1,830	505	8,408	24,750	103,326	3,558	3,497
1986	227	5,538	316	10,264	1,977	556	8,625	27,504	86,468	3,773	3,227
1987	224	6,084	304	10,212	2,093	404	10,110	29,429	77,089	4,016	3,390
1988	246	6,344	503	10,740	2,260	813	10,862	31,768	77,449	4,363	4,114
1989	223	7,164	639	12,895	2,558	1,118	13,379	37,977	81,684	-	5,444

**2) COMPARISON OF TURNOVER BY GEOGRAPHICAL AREA (EC = 100)**

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	0.9	13.2	1.2	41.8	5.6	2.7	34.6	100.0	265.3	11.3	8.6
1979	1.5	18.5	0.9	40.1	6.4	2.8	29.8	100.0	263.5	8.8	9.7
1980	1.9	12.1	1.0	38.4	5.4	2.3	39.0	100.0	241.0	6.2	9.6
1981	2.1	11.0	1.1	39.1	7.8	2.2	36.7	100.0	293.8	7.1	12.4
1982	1.8	11.7	1.5	39.7	8.8	2.2	34.2	100.0	325.9	10.0	13.0
1983	1.4	11.3	1.3	41.3	8.8	2.7	33.3	100.0	373.8	10.9	13.3
1984	1.0	10.9	1.4	42.2	8.1	2.5	34.0	100.0	390.9	13.2	13.5
1985	1.1	12.7	1.4	41.5	7.4	2.0	34.0	100.0	417.5	14.4	14.1
1986	0.8	20.1	1.2	37.3	7.2	2.0	31.4	100.0	314.4	13.7	11.7
1987	0.8	20.7	1.0	34.7	7.1	1.4	34.4	100.0	262.0	13.6	11.5
1988	0.8	20.0	1.6	33.8	7.1	2.6	34.2	100.0	243.8	13.7	13.0
1989	0.6	18.9	1.7	34.0	6.7	2.9	35.2	100.0	215.1	-	14.3

SOURCE: INDUSTRIAL ASSOCIATIONS

### AEROSPACE TURNOVER CONSOLIDATED AT EC LEVEL

#### 3) MIO ECU - CONSTANT PRICES (1985)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	105	1,775	187	6,209	1,036	359	6,868	16,539	70,150	1,798	1,796
1979	194	2,716	137	6,347	1,246	409	5,811	16,859	78,257	1,754	2,349
1980	314	2,272	180	7,274	1,207	422	7,796	19,465	86,866	1,653	2,823
1981	406	2,330	230	8,102	1,863	462	7,203	20,595	89,266	1,703	3,218
1982	396	2,478	315	8,607	2,084	449	6,960	21,289	86,473	2,578	3,075
1983	306	2,312	293	8,992	1,921	543	7,058	21,426	89,955	2,533	2,846
1984	220	2,407	318	9,720	1,813	540	7,762	22,779	85,997	2,997	2,931
1985	260	3,135	335	10,278	1,830	505	8,408	24,750	103,326	3,558	3,497
1986	214	5,135	304	9,763	1,857	529	9,501	27,303	108,693	3,387	4,135
1987	203	5,381	285	9,606	1,893	376	11,146	28,890	114,784	3,647	4,661
1988	221	5,539	432	9,930	1,985	742	10,591	29,438	113,976	3,588	5,170
1989	191	6,089	486	11,511	2,075	1,006	12,354	33,712	106,917	-	5,844

#### 4) GROWTH RATE OF TURNOVER (AS % - CONSTANT PRICES)

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978	48.4	10.0	-	-0.4	-7.3	-13.5	4.1		8.8	2.6	14.2
1979	84.4	53.0	-26.9	2.2	20.3	14.1	-15.4	1.9	11.6	-2.4	30.8
1980	61.6	-16.4	31.6	14.6	-3.1	3.1	34.2	15.5	11.0	-5.7	20.2
1981	29.3	2.5	27.5	11.4	54.4	9.4	-7.6	5.8	2.8	3.0	14.0
1982	-2.3	6.4	37.1	6.2	11.8	-2.9	-3.4	3.4	-3.1	51.4	-4.4
1983	-22.8	-6.7	-6.9	4.5	-7.8	21.1	1.4	0.6	4.0	-1.7	-7.5
1984	-28.0	4.1	8.4	8.1	-5.7	-0.6	10.0	6.3	-4.4	18.3	3.0
1985	18.2	30.2	5.4	5.7	1.0	-6.5	8.3	8.7	20.2	18.7	19.3
1986	-17.8	63.8	-9.4	-5.0	1.5	4.9	13.0	10.3	5.2	-4.8	18.2
1987	-5.1	4.8	-6.3	-1.6	2.0	-29.1	17.3	5.8	5.6	7.7	12.7
1988	8.7	2.9	51.7	3.4	4.8	97.5	-5.0	1.9	-0.7	-1.6	10.9
1989	-13.2	9.9	12.7	15.9	4.6	35.6	16.6	14.5	-6.2	-	13.0

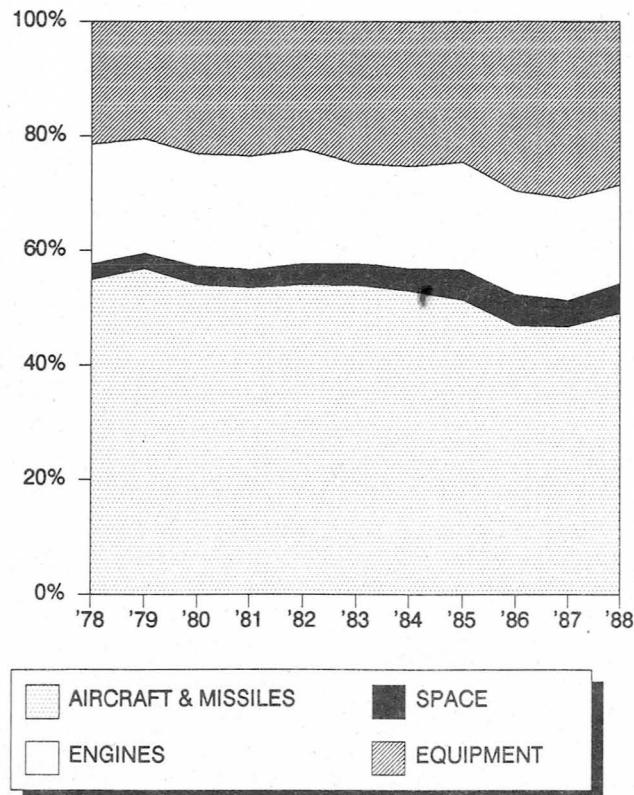
  

	BE	DE	ES	FR	IT	NL	UK	EC	USA	JAPAN	CANADA
1978-89	5.6	11.9	9.1	5.8	6.5	9.8	5.5	6.7	3.9	-	11.3

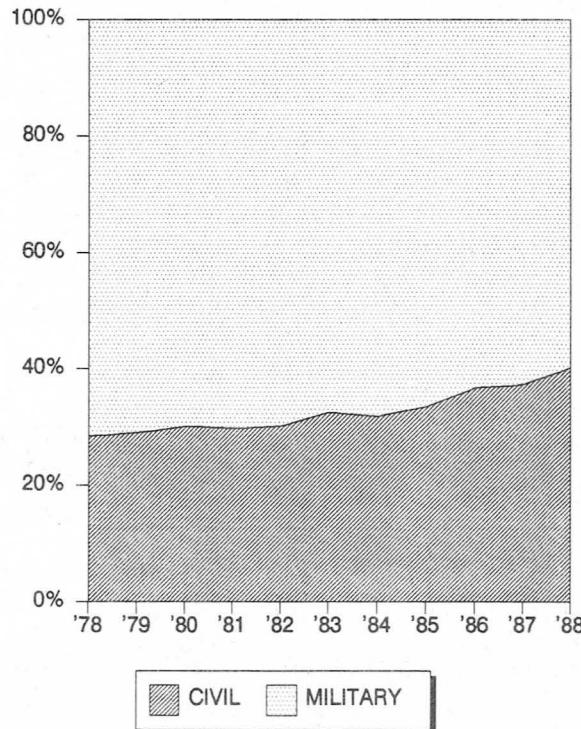
■ SOURCE: INDUSTRIAL ASSOCIATIONS

## EC AEROSPACE TURNOVER

**Breakdown by Sector**



**Breakdown by Activity**



**BREAKDOWN OF OVERALL AEROSPACE TURNOVER**  
**BY SUBSECTOR (AS % OF TOTAL)**

1) EC

	SUBSECTORS				DESTINATION	
	AIRCRAFT AND MISSILES	SPACE	ENGINES	EQUIPMENT	CIVIL	MILITARY
1978	54.9	2.8	20.9	21.5	28.5	71.5
1979	56.8	2.8	19.9	20.5	29.0	71.0
1980	54.2	3.2	19.6	23.1	30.0	70.0
1981	53.5	3.0	19.8	23.7	29.8	70.2
1982	54.1	3.7	19.9	22.3	30.1	69.9
1983	54.0	3.8	17.4	24.9	32.5	67.5
1984	52.9	4.0	17.9	25.1	31.8	68.2
1985	51.3	5.4	18.7	24.5	33.5	66.5
1986	46.9	5.5	18.0	29.6	36.8	63.2
1987	46.7	4.6	17.8	30.8	37.3	62.7
1988	49.0	5.3	17.2	28.5	40.2	59.8

2) USA

	SUBSECTORS				DESTINATION	
	AIRCRAFT AND MISSILES	SPACE	ENGINES	EQUIPMENT	CIVIL	MILITARY
1978	57.7	7.5	17.2	17.6	36.9	63.1
1979	59.2	6.6	17.0	17.1	44.7	55.3
1980	56.1	7.3	16.5	20.0	45.5	54.5
1981	54.2	7.0	17.7	21.0	40.8	59.2
1982	49.2	8.1	17.4	25.3	29.4	70.6
1983	52.0	7.7	16.2	24.2	29.1	70.9
1984	51.7	7.9	17.1	23.3	25.9	74.1
1985	53.6	8.0	15.4	23.0	26.6	73.4
1986	54.3	7.4	15.0	23.3	26.2	73.8
1987	52.3	8.7	16.9	21.6	23.9	76.1
1988	49.3	9.4	20.1	21.1	28.5	71.5

■ SOURCE: INDUSTRIAL ASSOCIATIONS

**BREAKDOWN OF OVERALL AEROSPACE TURNOVER**  
**BY SUBSECTOR (AS % OF TOTAL)**

3) JAPAN

	SUBSECTORS				DESTINATION	
	AIRCRAFT AND MISSILES	SPACE	ENGINES	EQUIPMENT	CIVIL	MILITARY
1978	60.8	37.8	20.5	18.7*	13.5	86.5
1979	59.2	36.8	20.1	20.8	14.3	85.7
1980	58.5	46.0	21.6	19.9	17.4	82.6
1981	60.8	41.7	21.2	18.0	21.7	78.3
1982	62.7	37.5	19.3	18.0	22.8	77.2
1983	61.1	38.2	18.6	20.3	21.8	78.2
1984	61.1	27.7	19.1	19.8	17.5	82.5
1985	62.9	30.7	18.7	18.4	15.7	84.3
1986	57.5	27.6	19.4	23.2	16.5	83.5
1987	58.2	30.1	18.2	23.6	19.3	80.7
1988	-	33.6	22.4	-	20.2	79.8

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

TOTAL (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	4,340	5,444	6,576	6,776	7,285	8,188	9,315	10,639	11,942	13,338	13,559
.. R-D CONTRACTS	1,439	1,850	2,038	2,061	2,153	2,492	2,888	3,129	3,562	4,168	3,600
.. MAINTENANCE	664	808	1,055	1,151	1,251	1,236	1,601	1,685	1,961	2,131	2,313
.. PROCUREMENT	2,238	2,786	3,483	3,565	3,880	4,460	4,825	5,825	6,419	7,039	7,646
AEROSPACE MANUFACTURERS	4,134	5,282	7,507	10,411	11,872	12,765	13,320	13,757	16,403	16,066	18,677
.. NATIONAL	1,867	2,417	3,142	4,039	4,504	4,607	4,664	4,837	6,020	6,354	7,139
.. IN OTHER EC STATES	1,761	2,157	3,116	4,647	5,522	6,303	6,420	5,934	6,449	6,044	7,516
.. IN THIRD COUNTRIES	506	707	1,248	1,725	1,846	1,855	2,237	2,987	3,934	3,669	4,023
FINAL USERS	4,372	4,498	6,312	8,222	9,263	9,226	9,975	11,121	11,626	12,422	14,186
.. NATIONAL	689	621	847	878	911	850	1,123	1,420	1,562	1,543	1,906
.. IN OTHER EC STATES	353	501	1,033	1,008	1,161	928	955	1,091	1,013	1,313	1,744
.. IN THIRD COUNTRIES	3,330	3,375	4,432	6,337	7,190	7,449	7,896	8,609	9,051	9,566	10,535
TOTAL	12,846	15,224	20,381	25,404	28,419	30,179	32,611	35,518	39,971	41,826	46,422
EC PUBLIC MARKET.....(1)	4,498	5,602	7,197	7,331	7,983	8,673	9,705	11,026	12,408	13,898	14,181
EC COMMERCIAL MARKET..(2)	4,513	5,540	7,517	10,015	11,399	12,202	12,773	12,895	14,577	14,693	17,683
EXPORTS.....(3)	3,835	4,083	5,681	8,062	9,036	9,304	10,132	11,596	12,985	13,235	14,558

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## TOTAL (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	33.8	35.8	32.3	26.7	25.6	27.1	28.6	30.0	29.9	31.9	29.2
.. R-D CONTRACTS	11.2	12.1	10.0	8.1	7.6	8.3	8.9	8.8	8.9	10.0	7.8
.. MAINTENANCE	5.2	5.3	5.2	4.5	4.4	4.1	4.9	4.7	4.9	5.1	5.0
.. PROCUREMENT	17.4	18.3	17.1	14.0	13.7	14.8	14.8	16.4	16.1	16.8	16.5
AEROSPACE MANUFACTURERS	32.2	34.7	36.8	41.0	41.8	42.3	40.8	38.7	41.0	38.4	40.2
.. NATIONAL	14.5	15.9	15.4	15.9	15.8	15.3	14.3	13.6	15.1	15.2	15.4
.. IN OTHER EC STATES	13.7	14.2	15.3	18.3	19.4	20.9	19.7	16.7	16.1	14.4	16.2
.. IN THIRD COUNTRIES	3.9	4.6	6.1	6.8	6.5	6.1	6.9	8.4	9.8	8.8	8.7
FINAL USERS	34.0	29.5	31.0	32.4	32.6	30.6	30.6	31.3	29.1	29.7	30.6
.. NATIONAL	5.4	4.1	4.2	3.5	3.2	2.8	3.4	4.0	3.9	3.7	4.1
.. IN OTHER EC STATES	2.8	3.3	5.1	4.0	4.1	3.1	2.9	3.1	2.5	3.1	3.8
.. IN THIRD COUNTRIES	25.9	22.2	21.7	24.9	25.3	24.7	24.2	24.2	22.6	22.9	22.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	35.0	36.8	35.3	28.9	28.1	28.7	29.8	31.0	31.0	33.2	30.5
EC COMMERCIAL MARKET...(2)	35.1	36.4	36.9	39.4	40.1	40.4	39.2	36.3	36.5	35.1	38.1
EXPORTS.....(3)	29.9	26.8	27.9	31.7	31.8	30.8	31.1	32.6	32.5	31.6	31.4

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

CIVIL SECTOR (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	394	730	579	572	677	896	748	941	1,440	2,303	1,947
.. R-D CONTRACTS	197	187	334	276	347	334	366	557	717	1,261	769
.. MAINTENANCE	34	42	66	68	58	64	58	75	56	154	178
.. PROCUREMENT	163	501	180	228	273	498	324	309	666	887	1,000
AEROSPACE MANUFACTURERS	1,354	1,766	2,811	3,667	4,564	4,995	5,179	5,973	6,920	7,607	9,243
.. NATIONAL	663	901	1,389	1,495	1,644	1,888	1,791	2,047	2,356	2,553	2,974
.. IN OTHER EC STATES	416	490	734	1,177	1,872	2,036	1,963	2,246	2,335	2,469	3,548
.. IN THIRD COUNTRIES	275	375	687	995	1,048	1,071	1,424	1,680	2,229	2,585	2,721
FINAL USERS	1,916	1,912	2,728	3,336	3,306	3,917	4,457	4,970	6,344	5,693	7,491
.. NATIONAL	689	621	847	878	911	850	1,123	1,420	1,562	1,543	1,906
.. IN OTHER EC STATES	196	344	412	452	462	442	566	704	546	753	1,122
.. IN THIRD COUNTRIES	1,032	947	1,468	2,006	1,933	2,625	2,768	2,845	4,236	3,397	4,463
TOTAL	3,664	4,408	6,118	7,575	8,548	9,808	10,383	11,884	14,703	15,603	18,681
EC PUBLIC MARKET.....(1)	394	730	579	572	677	896	748	941	1,440	2,303	1,947
EC COMMERCIAL MARKET...(2)	1,964	2,356	3,383	4,002	4,889	5,216	5,443	6,418	6,799	7,318	9,550
EXPORTS.....(3)	1,306	1,322	2,155	3,001	2,981	3,695	4,192	4,526	6,465	5,982	7,183

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## CIVIL SECTOR (AS % OF SECTORAL TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	10.7	16.6	9.5	7.6	7.9	9.1	7.2	7.9	9.8	14.8	10.4
.. R-D CONTRACTS	5.4	4.2	5.5	3.6	4.1	3.4	3.5	4.7	4.9	8.1	4.1
.. MAINTENANCE	0.9	0.9	1.1	0.9	0.7	0.7	0.6	0.6	0.4	1.0	1.0
.. PROCUREMENT	4.4	11.4	2.9	3.0	3.2	5.1	3.1	2.6	4.5	5.7	5.4
AEROSPACE MANUFACTURERS	37.0	40.1	45.9	48.4	53.4	50.9	49.9	50.3	47.1	48.8	49.5
.. NATIONAL	18.1	20.4	22.7	19.7	19.2	19.3	17.2	17.2	16.0	16.4	15.9
.. IN OTHER EC STATES	11.4	11.1	12.0	15.5	21.9	20.8	18.9	18.9	15.9	15.8	19.0
.. IN THIRD COUNTRIES	7.5	8.5	11.2	13.1	12.3	10.9	13.7	14.1	15.2	16.6	14.6
FINAL USERS	52.3	43.4	44.6	44.0	38.7	39.9	42.9	41.8	43.1	36.5	40.1
.. NATIONAL	18.8	14.1	13.9	11.6	10.7	8.7	10.8	12.0	10.6	9.9	10.2
.. IN OTHER EC STATES	5.3	7.8	6.7	6.0	5.4	4.5	5.4	5.9	3.7	4.8	6.0
.. IN THIRD COUNTRIES	28.2	21.5	24.0	26.5	22.6	26.8	26.7	23.9	28.8	21.8	23.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	10.7	16.6	9.5	7.6	7.9	9.1	7.2	7.9	9.8	14.8	10.4
EC COMMERCIAL MARKET...(2)	53.6	53.4	55.3	52.8	57.2	53.2	52.4	54.0	46.2	46.9	51.1
EXPORTS.....(3)	35.6	30.0	35.2	39.6	34.9	37.7	40.4	38.1	44.0	38.3	38.5

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## CIVIL SECTOR (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	3.1	4.8	2.8	2.3	2.4	3.0	2.3	2.6	3.6	5.5	4.2
.. R-D CONTRACTS	1.5	1.2	1.6	1.1	1.2	1.1	1.1	1.6	1.8	3.0	1.7
.. MAINTENANCE	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.4	0.4
.. PROCUREMENT	1.3	3.3	0.9	0.9	1.0	1.6	1.0	0.9	1.7	2.1	2.2
AEROSPACE MANUFACTURERS	10.5	11.6	13.8	14.4	16.1	16.6	15.9	16.8	17.3	18.2	19.9
.. NATIONAL	5.2	5.9	6.8	5.9	5.8	6.3	5.5	5.8	5.9	6.1	6.4
.. IN OTHER EC STATES	3.2	3.2	3.6	4.6	6.6	6.7	6.0	6.3	5.8	5.9	7.6
.. IN THIRD COUNTRIES	2.1	2.5	3.4	3.9	3.7	3.5	4.4	4.7	5.6	6.2	5.9
FINAL USERS	14.9	12.6	13.4	13.1	11.6	13.0	13.7	14.0	15.9	13.6	16.1
.. NATIONAL	5.4	4.1	4.2	3.5	3.2	2.8	3.4	4.0	3.9	3.7	4.1
.. IN OTHER EC STATES	1.5	2.3	2.0	1.8	1.6	1.5	1.7	2.0	1.4	1.8	2.4
.. IN THIRD COUNTRIES	8.0	6.2	7.2	7.9	6.8	8.7	8.5	8.0	10.6	8.1	9.6
TOTAL	28.5	29.0	30.0	29.8	30.1	32.5	31.8	33.5	36.8	37.3	40.2
EC PUBLIC MARKET.....(1)	3.1	4.8	2.8	2.3	2.4	3.0	2.3	2.6	3.6	5.5	4.2
EC COMMERCIAL MARKET..(2)	15.3	15.5	16.6	15.8	17.2	17.3	16.7	18.1	17.0	17.5	20.6
EXPORTS.....(3)	10.2	8.7	10.6	11.8	10.5	12.2	12.9	12.7	16.2	14.3	15.5

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## MILITARY SECTOR (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	3,947	4,714	5,996	6,204	6,607	7,291	8,567	9,698	10,502	11,035	11,612
.. R-D CONTRACTS	1,243	1,662	1,704	1,785	1,807	2,157	2,523	2,572	2,845	2,907	2,831
.. MAINTENANCE	629	767	989	1,083	1,192	1,172	1,543	1,610	1,904	1,977	2,135
.. PROCUREMENT	2,075	2,285	3,304	3,336	3,608	3,962	4,501	5,517	5,753	6,152	6,646
AEROSPACE MANUFACTURERS	2,780	3,515	4,696	6,744	7,307	7,770	8,142	7,784	9,484	8,459	9,434
.. NATIONAL	1,203	1,517	1,752	2,544	2,860	2,719	2,873	2,789	3,664	3,800	4,165
.. IN OTHER EC STATES	1,345	1,667	2,382	3,470	3,650	4,267	4,457	3,688	4,114	3,575	3,968
.. IN THIRD COUNTRIES	231	332	562	730	797	784	812	1,306	1,706	1,084	1,302
FINAL USERS	2,456	2,586	3,585	4,886	5,956	5,309	5,518	6,151	5,282	6,729	6,695
.. NATIONAL	158	157	621	556	699	486	390	387	467	560	622
.. IN OTHER EC STATES	2,298	2,429	2,964	4,331	5,257	4,824	5,128	5,764	4,815	6,169	6,073
TOTAL	9,182	10,816	14,277	17,834	19,871	20,371	22,227	23,632	25,267	26,223	27,741
EC PUBLIC MARKET.....(1)	4,104	4,871	6,617	6,759	7,306	7,777	8,957	10,085	10,969	11,595	12,234
EC COMMERCIAL MARKET..(2)	2,549	3,184	4,134	6,014	6,510	6,986	7,329	6,477	7,778	7,375	8,132
EXPORTS.....(3)	2,529	2,761	3,525	5,061	6,055	5,608	5,940	7,070	6,520	7,253	7,375

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

### BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

#### MILITARY SECTOR (AS % OF SECTORAL TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	43.0	43.6	42.0	34.8	33.3	35.8	38.5	41.0	41.6	42.1	41.9
.. R-D CONTRACTS	13.5	15.4	11.9	10.0	9.1	10.6	11.4	10.9	11.3	11.1	10.2
.. MAINTENANCE	6.9	7.1	6.9	6.1	6.0	5.8	6.9	6.8	7.5	7.5	7.7
.. PROCUREMENT	22.6	21.1	23.1	18.7	18.2	19.4	20.2	23.3	22.8	23.5	24.0
AEROSPACE MANUFACTURERS	30.3	32.5	32.9	37.8	36.8	38.1	36.6	32.9	37.5	32.3	34.0
.. NATIONAL	13.1	14.0	12.3	14.3	14.4	13.3	12.9	11.8	14.5	14.5	15.0
.. IN OTHER EC STATES	14.6	15.4	16.7	19.5	18.4	20.9	20.1	15.6	16.3	13.6	14.3
.. IN THIRD COUNTRIES	2.5	3.1	3.9	4.1	4.0	3.9	3.7	5.5	6.7	4.1	4.7
FINAL USERS	26.7	23.9	25.1	27.4	30.0	26.1	24.8	26.0	20.9	25.7	24.1
.. NATIONAL	—	—	—	—	—	—	—	—	—	—	—
.. IN OTHER EC STATES	1.7	1.5	4.3	3.1	3.5	2.4	1.8	1.6	1.8	2.1	2.2
.. IN THIRD COUNTRIES	25.0	22.5	20.8	24.3	26.5	23.7	23.1	24.4	19.1	23.5	21.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	44.7	45.0	46.3	37.9	36.8	38.2	40.3	42.7	43.4	44.2	44.1
EC COMMERCIAL MARKET..(2)	27.8	29.4	29.0	33.7	32.8	34.3	33.0	27.4	30.8	28.1	29.3
EXPORTS.....(3)	27.5	25.5	24.7	28.4	30.5	27.5	26.7	29.9	25.8	27.7	26.6

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## MILITARY SECTOR (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	30.7	31.0	29.4	24.4	23.2	24.2	26.3	27.3	26.3	26.4	25.0
.. R-D CONTRACTS	9.7	10.9	8.4	7.0	6.4	7.1	7.7	7.2	7.1	7.0	6.1
.. MAINTENANCE	4.9	5.0	4.9	4.3	4.2	3.9	4.7	4.5	4.8	4.7	4.6
.. PROCUREMENT	16.1	15.0	16.2	13.1	12.7	13.1	13.8	15.5	14.4	14.7	14.3
AEROSPACE MANUFACTURERS	21.6	23.1	23.0	26.5	25.7	25.7	25.0	21.9	23.7	20.2	20.3
.. NATIONAL	9.4	10.0	8.6	10.0	10.1	9.0	8.8	7.9	9.2	9.1	9.0
.. IN OTHER EC STATES	10.5	11.0	11.7	13.7	12.8	14.1	13.7	10.4	10.3	8.5	8.5
.. IN THIRD COUNTRIES	1.8	2.2	2.8	2.9	2.8	2.6	2.5	3.7	4.3	2.6	2.8
FINAL USERS	19.1	17.0	17.6	19.2	21.0	17.6	16.9	17.3	13.2	16.1	14.4
.. NATIONAL	-	-	-	-	-	-	-	-	-	-	-
.. IN OTHER EC STATES	1.2	1.0	3.0	2.2	2.5	1.6	1.2	1.1	1.2	1.3	1.3
.. IN THIRD COUNTRIES	17.9	16.0	14.5	17.0	18.5	16.0	15.7	16.2	12.0	14.7	13.1
TOTAL	71.5	71.0	70.0	70.2	69.9	67.5	68.2	66.5	63.2	62.7	59.8
EC PUBLIC MARKET.....(1)	32.0	32.0	32.5	26.6	25.7	25.8	27.5	28.4	27.4	27.7	26.4
EC COMMERCIAL MARKET..(2)	19.8	20.9	20.3	23.7	22.9	23.1	22.5	18.2	19.5	17.6	17.5
EXPORTS.....(3)	19.7	18.1	17.3	19.9	21.3	18.6	18.2	19.9	16.3	17.3	15.9

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## AIRFRAME AND MISSILES SECTOR (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	2,479	3,556	3,699	3,697	3,815	4,248	4,517	5,598	5,819	6,360	6,233
.. R-D CONTRACTS	769	1,169	1,093	1,133	1,137	1,312	1,597	1,660	1,955	2,031	1,694
.. MAINTENANCE	344	487	554	600	657	626	817	836	964	1,080	1,147
.. PROCUREMENT	1,366	1,900	2,052	1,963	2,021	2,310	2,104	3,102	2,901	3,249	3,392
AEROSPACE MANUFACTURERS	1,533	2,059	3,042	4,017	4,786	5,456	5,422	5,196	5,972	5,418	7,437
.. NATIONAL	536	737	938	1,212	1,356	1,441	1,346	1,317	1,408	1,494	2,172
.. IN OTHER EC STATES	840	1,100	1,744	2,432	2,924	3,626	3,654	3,119	3,079	3,125	4,042
.. IN THIRD COUNTRIES	157	221	361	374	506	389	422	759	1,485	799	1,223
FINAL USERS	3,035	3,038	4,302	5,875	6,785	6,590	7,328	7,438	6,956	7,771	9,079
.. NATIONAL	328	245	349	410	473	335	500	569	368	367	425
.. IN OTHER EC STATES	163	222	592	514	714	548	499	600	278	415	861
.. IN THIRD COUNTRIES	2,544	2,571	3,361	4,951	5,599	5,708	6,328	6,269	6,310	6,989	7,792
TOTAL	7,048	8,653	11,044	13,589	15,386	16,294	17,267	18,231	18,747	19,549	22,749
EC PUBLIC MARKET.....(1)	2,538	3,617	4,122	4,051	4,323	4,551	4,776	5,866	5,922	6,472	6,446
EC COMMERCIAL MARKET..(2)	1,809	2,243	3,200	4,214	4,958	5,646	5,741	5,337	5,030	5,290	7,287
EXPORTS.....(3)	2,701	2,792	3,721	5,325	6,104	6,097	6,750	7,028	7,795	7,788	9,016

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## AIRFRAME AND MISSILES SECTOR (AS % OF SECTORAL TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	35.2	41.1	33.5	27.2	24.8	26.1	26.2	30.7	31.0	32.5	27.4
.. R-D CONTRACTS	10.9	13.5	9.9	8.3	7.4	8.1	9.2	9.1	10.4	10.4	7.4
.. MAINTENANCE	4.9	5.6	5.0	4.4	4.3	3.8	4.7	4.6	5.1	5.5	5.0
.. PROCUREMENT	19.4	22.0	18.6	14.4	13.1	14.2	12.2	17.0	15.5	16.6	14.9
AEROSPACE MANUFACTURERS	21.8	23.8	27.5	29.6	31.1	33.5	31.4	28.5	31.9	27.7	32.7
.. NATIONAL	7.6	8.5	8.5	8.9	8.8	8.8	7.8	7.2	7.5	7.6	9.5
.. IN OTHER EC STATES	11.9	12.7	15.8	17.9	19.0	22.3	21.2	17.1	16.4	16.0	17.8
.. IN THIRD COUNTRIES	2.2	2.6	3.3	2.8	3.3	2.4	2.4	4.2	7.9	4.1	5.4
FINAL USERS	43.1	35.1	39.0	43.2	44.1	40.4	42.4	40.8	37.1	39.8	39.9
.. NATIONAL	4.7	2.8	3.2	3.0	3.1	2.1	2.9	3.1	2.0	1.9	1.9
.. IN OTHER EC STATES	2.3	2.6	5.4	3.8	4.6	3.4	2.9	3.3	1.5	2.1	3.8
.. IN THIRD COUNTRIES	36.1	29.7	30.4	36.4	36.4	35.0	36.6	34.4	33.7	35.7	34.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	36.0	41.8	37.3	29.8	28.1	27.9	27.7	32.2	31.6	33.1	28.3
EC COMMERCIAL MARKET..(2)	25.7	25.9	29.0	31.0	32.2	34.7	33.2	29.3	26.8	27.1	32.0
EXPORTS.....(3)	38.3	32.3	33.7	39.2	39.7	37.4	39.1	38.5	41.6	39.8	39.6

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## AIRFRAME AND MISSILES SECTOR (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	19.3	23.4	18.1	14.6	13.4	14.1	13.9	15.8	14.6	15.2	13.4
.. R-D CONTRACTS	6.0	7.7	5.4	4.5	4.0	4.3	4.9	4.7	4.9	4.9	3.6
.. MAINTENANCE	2.7	3.2	2.7	2.4	2.3	2.1	2.5	2.4	2.4	2.6	2.5
.. PROCUREMENT	10.6	12.5	10.1	7.7	7.1	7.7	6.5	8.7	7.3	7.8	7.3
AEROSPACE MANUFACTURERS	11.9	13.5	14.9	15.8	16.8	18.1	16.6	14.6	14.9	13.0	16.0
.. NATIONAL	4.2	4.8	4.6	4.8	4.8	4.8	4.1	3.7	3.5	3.6	4.7
.. IN OTHER EC STATES	6.5	7.2	8.6	9.6	10.3	12.0	11.2	8.8	7.7	7.5	8.7
.. IN THIRD COUNTRIES	1.2	1.5	1.8	1.5	1.8	1.3	1.3	2.1	3.7	1.9	2.6
FINAL USERS	23.6	20.0	21.1	23.1	23.9	21.8	22.5	20.9	17.4	18.6	19.6
.. NATIONAL	2.6	1.6	1.7	1.6	1.7	1.1	1.5	1.6	0.9	0.9	0.9
.. IN OTHER EC STATES	1.3	1.5	2.9	2.0	2.5	1.8	1.5	1.7	0.7	1.0	1.9
.. IN THIRD COUNTRIES	19.8	16.9	16.5	19.5	19.7	18.9	19.4	17.6	15.8	16.7	16.8
TOTAL	54.9	56.8	54.2	53.5	54.1	54.0	52.9	51.3	46.9	46.7	49.0
EC PUBLIC MARKET.....(1)	19.8	23.8	20.2	15.9	15.2	15.1	14.6	16.5	14.8	15.5	13.9
EC COMMERCIAL MARKET..(2)	14.1	14.7	15.7	16.6	17.4	18.7	17.6	15.0	12.6	12.6	15.7
EXPORTS.....(3)	21.0	18.3	18.3	21.0	21.5	20.2	20.7	19.8	19.5	18.6	19.4

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## SPACE SECTOR (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	110	115	229	242	351	450	478	743	482	633	892
.. R-D CONTRACTS	90	86	210	152	214	259	284	480	234	431	550
.. MAINTENANCE	0	3	5	1	3	5	6	19	16	18	19
.. PROCUREMENT	20	25	15	90	134	185	188	244	233	185	323
AEROSPACE MANUFACTURERS	135	152	196	277	534	509	507	662	834	830	789
.. NATIONAL	32	55	56	102	147	95	110	216	257	413	296
.. IN OTHER EC STATES	94	91	120	159	362	353	338	414	519	348	464
.. IN THIRD COUNTRIES	9	6	20	16	24	61	59	32	58	68	29
FINAL USERS	114	165	218	256	161	174	331	525	877	481	782
.. NATIONAL	9	6	10	14	13	17	95	219	342	234	334
.. IN OTHER EC STATES	48	115	145	180	81	91	184	221	171	169	296
.. IN THIRD COUNTRIES	56	44	62	62	67	66	52	85	365	77	152
TOTAL	359	432	643	775	1,046	1,132	1,316	1,930	2,193	1,944	2,464
EC PUBLIC MARKET.....(1)	110	115	230	242	351	450	478	743	483	633	940
EC COMMERCIAL MARKET...(2)	183	267	332	455	603	555	727	1,069	1,287	1,165	1,342
EXPORTS.....(3)	65	50	82	77	91	127	111	117	423	146	182

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## SPACE SECTOR (AS % OF SECTORAL TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	30.7	26.6	35.7	31.2	33.6	39.7	36.3	38.5	22.0	32.6	36.2
.. R-D CONTRACTS	25.1	19.9	32.6	19.6	20.5	22.9	21.6	24.9	10.7	22.2	22.3
.. MAINTENANCE	0.1	0.8	0.7	0.1	0.3	0.5	0.5	1.0	0.7	0.9	0.8
.. PROCUREMENT	5.6	5.9	2.4	11.6	12.8	16.4	14.3	12.6	10.6	9.5	13.1
AEROSPACE MANUFACTURERS	37.5	35.2	30.5	35.7	51.0	44.9	38.5	34.3	38.0	42.7	32.0
.. NATIONAL	9.0	12.8	8.8	13.2	14.1	8.4	8.3	11.2	11.7	21.3	12.0
.. IN OTHER EC STATES	26.1	21.0	18.6	20.5	34.6	31.1	25.7	21.5	23.6	17.9	18.8
.. IN THIRD COUNTRIES	2.5	1.4	3.1	2.0	2.3	5.4	4.5	1.7	2.7	3.5	1.2
FINAL USERS	31.8	38.2	33.9	33.0	15.4	15.3	25.2	27.2	40.0	24.7	31.7
.. NATIONAL	2.6	1.3	1.6	1.9	1.2	1.5	7.2	11.3	15.6	12.1	13.6
.. IN OTHER EC STATES	13.4	26.8	22.6	23.2	7.8	8.1	14.0	11.5	7.8	8.7	12.0
.. IN THIRD COUNTRIES	15.7	10.1	9.7	7.9	6.4	5.8	3.9	4.4	16.6	4.0	6.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	30.7	26.6	35.7	31.2	33.6	39.7	36.4	38.5	22.0	32.6	38.2
EC COMMERCIAL MARKET..(2)	51.0	61.9	51.6	58.8	57.7	49.0	55.2	55.4	58.7	59.9	54.5
EXPORTS.....(3)	18.2	11.5	12.7	10.0	8.7	11.2	8.4	6.1	19.3	7.5	7.4

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## SPACE SECTOR (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	0.9	0.8	1.1	1.0	1.2	1.5	1.5	2.1	1.2	1.5	1.9
.. R-D CONTRACTS	0.7	0.6	1.0	0.6	0.8	0.9	0.9	1.4	0.6	1.0	1.2
.. MAINTENANCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
.. PROCUREMENT	0.2	0.2	0.1	0.4	0.5	0.6	0.6	0.7	0.6	0.4	0.7
AEROSPACE MANUFACTURERS	1.0	1.0	1.0	1.1	1.9	1.7	1.6	1.9	2.1	2.0	1.7
.. NATIONAL	0.3	0.4	0.3	0.4	0.5	0.3	0.3	0.6	0.6	1.0	0.6
.. IN OTHER EC STATES	0.7	0.6	0.6	0.6	1.3	1.2	1.0	1.2	1.3	0.8	1.0
.. IN THIRD COUNTRIES	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1
FINAL USERS	0.9	1.1	1.1	1.0	0.6	0.6	1.0	1.5	2.2	1.1	1.7
.. NATIONAL	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.6	0.9	0.6	0.7
.. IN OTHER EC STATES	0.4	0.8	0.7	0.7	0.3	0.3	0.6	0.6	0.4	0.4	0.6
.. IN THIRD COUNTRIES	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.9	0.2	0.3
TOTAL	2.8	2.8	3.2	3.0	3.7	3.8	4.0	5.4	5.5	4.6	5.3
EC PUBLIC MARKET.....(1)	0.9	0.8	1.1	1.0	1.2	1.5	1.5	2.1	1.2	1.5	2.0
EC COMMERCIAL MARKET...(2)	1.4	1.8	1.6	1.8	2.1	1.8	2.2	3.0	3.2	2.8	2.9
EXPORTS.....(3)	0.5	0.3	0.4	0.3	0.3	0.4	0.3	0.3	1.1	0.3	0.4

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## ENGINE SECTOR (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	917	907	1,213	1,175	1,281	1,255	1,373	1,361	1,538	1,751	1,757
.. R-D CONTRACTS	344	358	290	324	346	375	292	326	253	390	341
.. MAINTENANCE	157	164	286	297	325	326	388	373	352	367	439
.. PROCUREMENT	416	385	637	553	610	555	694	662	933	995	977
AEROSPACE MANUFACTURERS	1,065	1,354	1,722	2,704	2,966	2,828	3,251	3,477	3,786	3,927	4,357
.. NATIONAL	339	510	627	877	975	738	775	951	884	842	875
.. IN OTHER EC STATES	511	556	573	1,041	1,156	1,205	1,398	1,263	1,365	1,235	1,547
.. IN THIRD COUNTRIES	216	288	522	786	836	886	1,078	1,263	1,537	1,850	1,935
FINAL USERS	699	761	1,063	1,149	1,394	1,165	1,212	1,822	1,861	1,764	1,883
.. NATIONAL	203	221	286	234	214	294	237	293	440	402	478
.. IN OTHER EC STATES	52	71	164	146	213	143	124	108	120	271	272
.. IN THIRD COUNTRIES	443	469	612	769	967	728	851	1,420	1,301	1,090	1,133
TOTAL	2,682	3,022	3,998	5,028	5,642	5,249	5,836	6,659	7,185	7,442	7,998
EC PUBLIC MARKET.....(1)	952	962	1,337	1,287	1,358	1,334	1,441	1,390	1,611	1,995	1,936
EC COMMERCIAL MARKET..(2)	1,070	1,303	1,528	2,186	2,481	2,301	2,466	2,587	2,736	2,507	2,995
EXPORTS.....(3)	659	757	1,134	1,555	1,803	1,613	1,929	2,682	2,839	2,940	3,068

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## ENGINE SECTOR (AS % OF SECTORAL TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	34.2	30.0	30.3	23.4	22.7	23.9	23.5	20.4	21.4	23.5	22.0
.. R-D CONTRACTS	12.8	11.8	7.3	6.4	6.1	7.1	5.0	4.9	3.5	5.2	4.3
.. MAINTENANCE	5.9	5.4	7.2	5.9	5.8	6.2	6.6	5.6	4.9	4.9	5.5
.. PROCUREMENT	15.5	12.7	15.9	11.0	10.8	10.6	11.9	9.9	13.0	13.4	12.2
AEROSPACE MANUFACTURERS	39.7	44.8	43.1	53.8	52.6	53.9	55.7	52.2	52.7	52.8	54.5
.. NATIONAL	12.6	16.9	15.7	17.4	17.3	14.1	13.3	14.3	12.3	11.3	10.9
.. IN OTHER EC STATES	19.0	18.4	14.3	20.7	20.5	23.0	24.0	19.0	19.0	16.6	19.3
.. IN THIRD COUNTRIES	8.1	9.5	13.1	15.6	14.8	16.9	18.5	19.0	21.4	24.9	24.2
FINAL USERS	26.1	25.2	26.6	22.8	24.7	22.2	20.8	27.4	25.9	23.7	23.5
.. NATIONAL	7.6	7.3	7.2	4.6	3.8	5.6	4.1	4.4	6.1	5.4	6.0
.. IN OTHER EC STATES	2.0	2.4	4.1	2.9	3.8	2.7	2.1	1.6	1.7	3.6	3.4
.. IN THIRD COUNTRIES	16.5	15.5	15.3	15.3	17.1	13.9	14.6	21.3	18.1	14.6	14.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	35.5	31.8	33.4	25.6	24.1	25.4	24.7	20.9	22.4	26.8	24.2
EC COMMERCIAL MARKET..(2)	39.9	43.1	38.2	43.5	44.0	43.8	42.3	38.8	38.1	33.7	37.4
EXPORTS.....(3)	24.6	25.0	28.4	30.9	32.0	30.7	33.0	40.3	39.5	39.5	38.4

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## ENGINE SECTOR (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	7.1	6.0	6.0	4.6	4.5	4.2	4.2	3.8	3.8	4.2	3.8
.. R-D CONTRACTS	2.7	2.3	1.4	1.3	1.2	1.2	0.9	0.9	0.6	0.9	0.7
.. MAINTENANCE	1.2	1.1	1.4	1.2	1.1	1.1	1.2	1.1	0.9	0.9	0.9
.. PROCUREMENT	3.2	2.5	3.1	2.2	2.1	1.8	2.1	1.9	2.3	2.4	2.1
AEROSPACE MANUFACTURERS	8.3	8.9	8.5	10.6	10.4	9.4	10.0	9.8	9.5	9.4	9.4
.. NATIONAL	2.6	3.4	3.1	3.5	3.4	2.4	2.4	2.7	2.2	2.0	1.9
.. IN OTHER EC STATES	4.0	3.7	2.8	4.1	4.1	4.0	4.3	3.6	3.4	3.0	3.3
.. IN THIRD COUNTRIES	1.7	1.9	2.6	3.1	2.9	2.9	3.3	3.6	3.8	4.4	4.2
FINAL USERS	5.4	5.0	5.2	4.5	4.9	3.9	3.7	5.1	4.7	4.2	4.1
.. NATIONAL	1.6	1.4	1.4	0.9	0.8	1.0	0.7	0.8	1.1	1.0	1.0
.. IN OTHER EC STATES	0.4	0.5	0.8	0.6	0.7	0.5	0.4	0.3	0.3	0.6	0.6
.. IN THIRD COUNTRIES	3.5	3.1	3.0	3.0	3.4	2.4	2.6	4.0	3.3	2.6	2.4
TOTAL	20.9	19.9	19.6	19.8	19.9	17.4	17.9	18.7	18.0	17.8	17.2
EC PUBLIC MARKET.....(1)	7.4	6.3	6.6	5.1	4.8	4.4	4.4	3.9	4.0	4.8	4.2
EC COMMERCIAL MARKET..(2)	8.3	8.6	7.5	8.6	8.7	7.6	7.6	7.3	6.8	6.0	6.5
EXPORTS.....(3)	5.1	5.0	5.6	6.1	6.3	5.3	5.9	7.6	7.1	7.0	6.6

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## EQUIPMENT SECTOR (MIO ECUS AT CURRENT PRICES)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	834	866	1,434	1,663	1,837	2,234	2,946	2,937	4,102	4,593	4,677
.. R-D CONTRACTS	236	237	444	451	456	546	716	663	1,120	1,316	1,015
.. MAINTENANCE	163	153	210	253	266	278	390	456	629	667	708
.. PROCUREMENT	435	476	779	958	1,115	1,410	1,840	1,818	2,352	2,610	2,954
AEROSPACE MANUFACTURERS	1,401	1,717	2,546	3,412	3,586	3,973	4,141	4,423	5,812	5,892	6,094
.. NATIONAL	960	1,115	1,521	1,847	2,026	2,334	2,433	2,353	3,472	3,605	3,796
.. IN OTHER EC STATES	317	410	679	1,015	1,080	1,120	1,030	1,137	1,487	1,335	1,462
.. IN THIRD COUNTRIES	124	192	346	549	480	519	678	933	854	952	836
FINAL USERS	523	534	730	942	923	1,297	1,104	1,337	1,931	2,406	2,441
.. NATIONAL	148	150	201	219	211	204	291	340	413	539	668
.. IN OTHER EC STATES	89	93	131	167	153	145	148	161	444	457	315
.. IN THIRD COUNTRIES	286	291	398	556	558	947	665	836	1,075	1,410	1,458
TOTAL	2,758	3,118	4,710	6,017	6,345	7,504	8,191	8,696	11,845	12,891	13,211
EC PUBLIC MARKET.....(1)	898	908	1,508	1,752	1,951	2,338	3,010	3,026	4,393	4,798	4,859
EC COMMERCIAL MARKET..(2)	1,450	1,726	2,458	3,160	3,357	3,699	3,838	3,902	5,524	5,731	6,059
EXPORTS.....(3)	409	484	744	1,105	1,037	1,466	1,343	1,769	1,929	2,362	2,293

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## EQUIPMENT SECTOR (AS % OF SECTORAL TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	30.2	27.8	30.4	27.6	29.0	29.8	36.0	33.8	34.6	35.6	35.4
.. R-D CONTRACTS	8.6	7.6	9.4	7.5	7.2	7.3	8.7	7.6	9.5	10.2	7.7
.. MAINTENANCE	5.9	4.9	4.5	4.2	4.2	3.7	4.8	5.2	5.3	5.2	5.4
.. PROCUREMENT	15.8	15.3	16.5	15.9	17.6	18.8	22.5	20.9	19.9	20.2	22.4
AEROSPACE MANUFACTURERS	50.8	55.1	54.1	56.7	56.5	52.9	50.6	50.9	49.1	45.7	46.1
.. NATIONAL	34.8	35.8	32.3	30.7	31.9	31.1	29.7	27.1	29.3	28.0	28.7
.. IN OTHER EC STATES	11.5	13.2	14.4	16.9	17.0	14.9	12.6	13.1	12.6	10.4	11.1
.. IN THIRD COUNTRIES	4.5	6.2	7.4	9.1	7.6	6.9	8.3	10.7	7.2	7.4	6.3
FINAL USERS	19.0	17.1	15.5	15.7	14.5	17.3	13.5	15.4	16.3	18.7	18.5
.. NATIONAL	5.4	4.8	4.3	3.6	3.3	2.7	3.5	3.9	3.5	4.2	5.1
.. IN OTHER EC STATES	3.2	3.0	2.8	2.8	2.4	1.9	1.8	1.9	3.7	3.5	2.4
.. IN THIRD COUNTRIES	10.4	9.3	8.4	9.2	8.8	12.6	8.1	9.6	9.1	10.9	11.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EC PUBLIC MARKET.....(1)	32.6	29.1	32.0	29.1	30.8	31.2	36.7	34.8	37.1	37.2	36.8
EC COMMERCIAL MARKET..(2)	52.6	55.4	52.2	52.5	52.9	49.3	46.9	44.9	46.6	44.5	45.9
EXPORTS.....(3)	14.8	15.5	15.8	18.4	16.3	19.5	16.4	20.3	16.3	18.3	17.4

(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER

## EQUIPMENT SECTOR (AS % OF GRAND TOTAL)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
NATIONAL STATE	6.5	5.7	7.0	6.5	6.5	7.4	9.0	8.3	10.3	11.0	10.1
.. R-D CONTRACTS	1.8	1.6	2.2	1.8	1.6	1.8	2.2	1.9	2.8	3.1	2.2
.. MAINTENANCE	1.3	1.0	1.0	1.0	0.9	0.9	1.2	1.3	1.6	1.6	1.5
.. PROCUREMENT	3.4	3.1	3.8	3.8	3.9	4.7	5.6	5.1	5.9	6.2	6.4
AEROSPACE MANUFACTURERS	10.9	11.3	12.5	13.4	12.6	13.2	12.7	12.5	14.5	14.1	13.1
.. NATIONAL	7.5	7.3	7.5	7.3	7.1	7.7	7.5	6.6	8.7	8.6	8.2
.. IN OTHER EC STATES	2.5	2.7	3.3	4.0	3.8	3.7	3.2	3.2	3.7	3.2	3.1
.. IN THIRD COUNTRIES	1.0	1.3	1.7	2.2	1.7	1.7	2.1	2.6	2.1	2.3	1.8
FINAL USERS	4.1	3.5	3.6	3.7	3.2	4.3	3.4	3.8	4.8	5.8	5.3
.. NATIONAL	1.2	1.0	1.0	0.9	0.7	0.7	0.9	1.0	1.0	1.3	1.4
.. IN OTHER EC STATES	0.7	0.6	0.6	0.7	0.5	0.5	0.5	0.5	1.1	1.1	0.7
.. IN THIRD COUNTRIES	2.2	1.9	2.0	2.2	2.0	3.1	2.0	2.4	2.7	3.4	3.1
TOTAL	21.5	20.5	23.1	23.7	22.3	24.9	25.1	24.5	29.6	30.8	28.5
EC PUBLIC MARKET.....(1)	7.0	6.0	7.4	6.9	6.9	7.7	9.2	8.5	11.0	11.5	10.5
EC COMMERCIAL MARKET..(2)	11.3	11.3	12.1	12.4	11.8	12.3	11.8	11.0	13.8	13.7	13.1
EXPORTS.....(3)	3.2	3.2	3.6	4.4	3.7	4.9	4.1	5.0	4.8	5.6	4.9

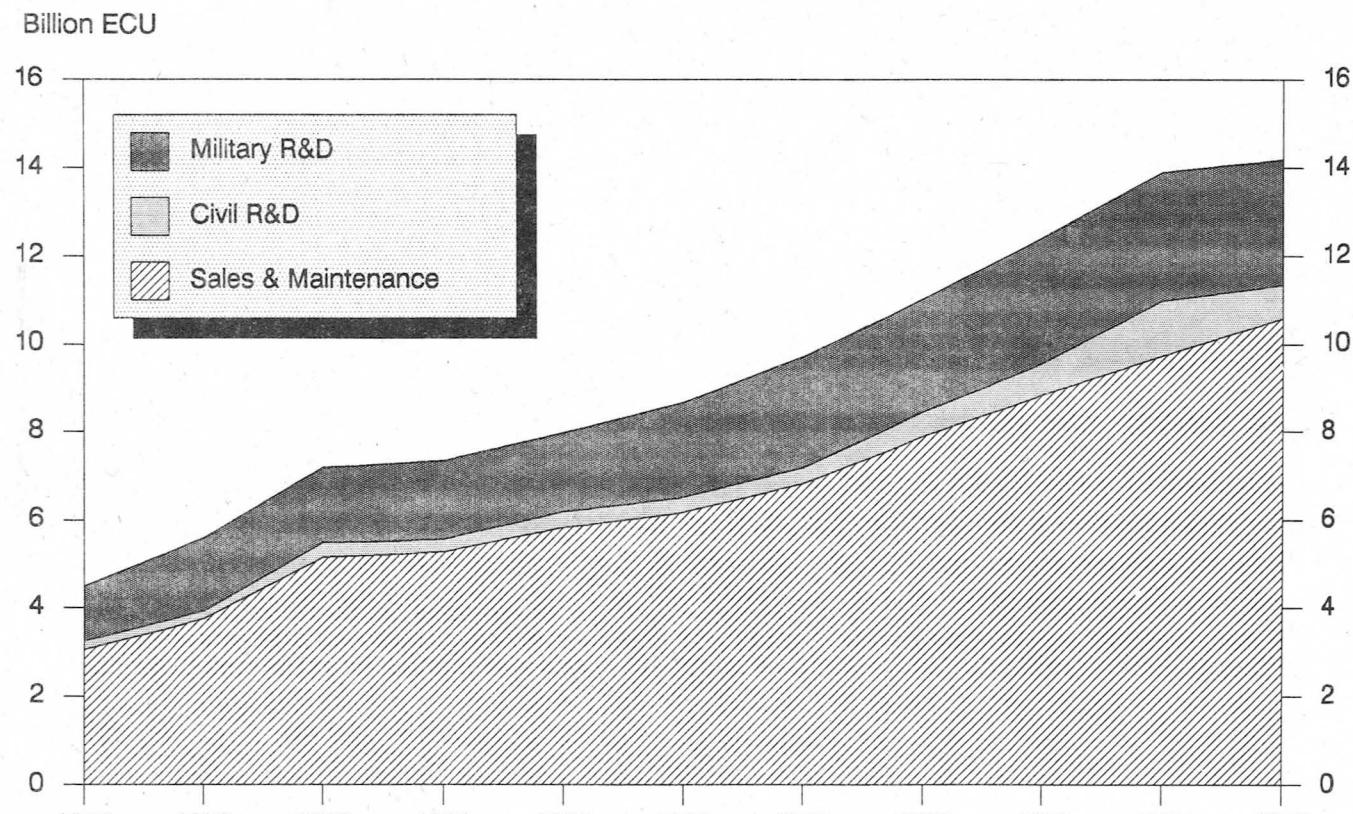
(1) NATIONAL STATE + OTHER EC FINAL MILITARY USERS

(2) NATIONAL AND OTHER EC CIVIL AND MILITARY MANUFACTURERS AND FINAL CIVIL USERS

(3) MANUFACTURERS AND FINAL USERS OF THIRD COUNTRIES

■ SOURCE: INDUSTRIAL ASSOCIATIONS

### Public Support to the EC Aerospace Industry



Source: Industrial Associations

**PUBLIC SUPPORT TO AEROSPACE INDUSTRY****BREAKDOWN BY CONTRACT TYPE****MIO ECU AT CURRENT PRICES**

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>EC</b>											
R-D CONTRACTS	1,439	1,850	2,038	2,061	2,153	2,492	2,888	3,129	3,562	4,168	3,600
- CIVIL	197	187	334	276	347	334	366	557	717	1,261	769
- MILITARY	1,243	1,662	1,704	1,785	1,807	2,157	2,523	2,572	2,845	2,907	2,831
PUBLIC PROCUREMENT	3,059	3,752	5,159	5,271	5,830	6,181	6,816	7,897	8,846	9,730	10,581
- CIVIL	197	543	246	296	331	562	382	384	722	1,042	1,178
- MILITARY	2,861	3,209	4,913	4,975	5,499	5,619	6,434	7,513	8,124	8,688	9,403
<b>TOTAL</b>	<b>4,498</b>	<b>5,602</b>	<b>7,197</b>	<b>7,331</b>	<b>7,983</b>	<b>8,673</b>	<b>9,705</b>	<b>11,026</b>	<b>12,408</b>	<b>13,898</b>	<b>14,181</b>
<b>AS % OF FINAL TURNOVER</b>	<b>41.0%</b>	<b>43.7%</b>	<b>41.7%</b>	<b>34.3%</b>	<b>33.4%</b>	<b>33.9%</b>	<b>34.7%</b>	<b>35.9%</b>	<b>36.5%</b>	<b>39.2%</b>	<b>36.1%</b>
<b>USA</b>											
R-D CONTRACTS	4,484	4,261	4,760	7,639	10,307	12,472	17,082	20,480	14,459	15,302	16,155
PUBLIC PROCUREMENT	10,307	12,388	15,200	21,922	31,079	38,823	45,866	55,837	49,447	42,410	40,006
<b>TOTAL</b>	<b>14,791</b>	<b>16,649</b>	<b>19,960</b>	<b>29,561</b>	<b>41,386</b>	<b>51,295</b>	<b>62,948</b>	<b>76,317</b>	<b>63,906</b>	<b>57,712</b>	<b>56,161</b>
<b>AS % OF TURNOVER</b>	<b>60.5%</b>	<b>59.3%</b>	<b>58.6%</b>	<b>60.2%</b>	<b>69.0%</b>	<b>71.2%</b>	<b>74.8%</b>	<b>73.9%</b>	<b>73.9%</b>	<b>74.9%</b>	<b>72.5%</b>

■ SOURCE: INDUSTRIAL ASSOCIATIONS

**PUBLIC SUPPORT TO AEROSPACE INDUSTRY****BREAKDOWN BY CONTRACT TYPE****AS % OF TOTAL SUPPORT**

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>EC</b>											
R-D CONTRACTS	32.0	33.0	28.3	28.1	27.0	28.7	29.8	28.4	28.7	30.0	25.4
- CIVIL	4.4	3.3	4.6	3.8	4.3	3.9	3.8	5.1	5.8	9.1	5.4
- MILITARY	27.6	29.7	23.7	24.3	22.6	24.9	26.0	23.3	22.9	20.9	20.0
PUBLIC PROCUREMENT	68.0	67.0	71.7	71.9	73.0	71.3	70.2	71.6	71.3	70.0	74.6
- CIVIL	4.4	9.7	3.4	4.0	4.1	6.5	3.9	3.5	5.8	7.5	8.3
- MILITARY	63.6	57.3	68.3	67.9	68.9	64.8	66.3	68.1	65.5	62.5	66.3
<b>USA</b>											
R-D CONTRACTS	30.3	25.6	23.8	25.8	24.9	24.3	27.1	26.8	22.6	26.5	28.8
PUBLIC PROCUREMENT	69.7	74.4	76.2	74.2	75.1	75.7	72.9	73.2	77.4	73.5	71.2

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## PUBLIC SUPPORT FOR THE EC AEROSPACE INDUSTRY

### BREAKDOWN BY CONTRACT AND SUBSECTOR (MIO ECU AT CURRENT PRICES)

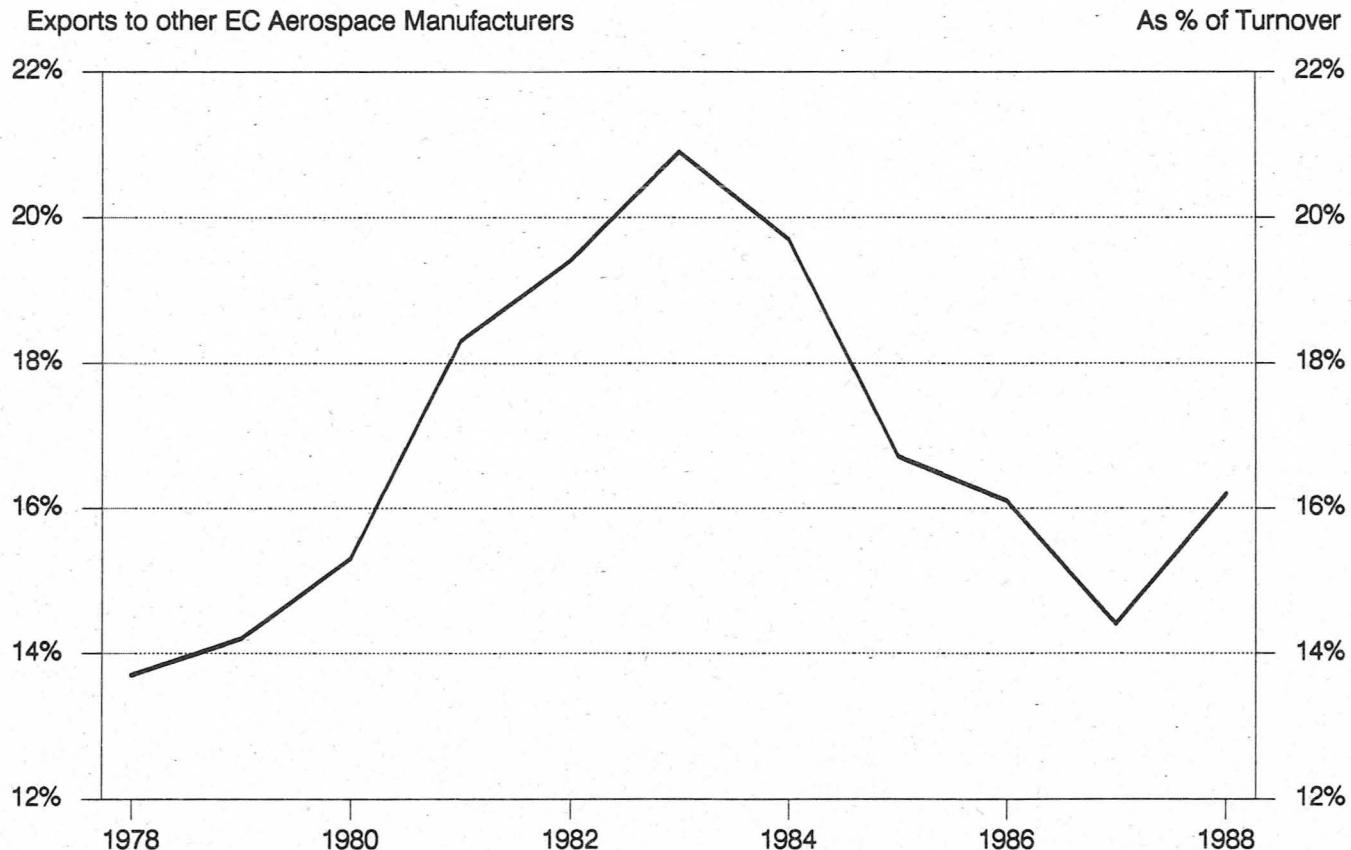
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>AIRFRAMES AND MISSILES</b>											
R-D CONTRACTS - CIVIL	69	70	101	103	103	123	59	55	272	420	88
- MILITARY	701	1,099	992	1,030	1,034	1,189	1,538	1,605	1,683	1,611	1,607
PUBLIC .....	112	455	106	95	129	285	119	86	154	168	162
PROCUREMENT . - MILITARY	1,597	1,933	2,500	2,468	2,548	2,651	2,801	3,852	3,711	4,162	4,377
INTRA-EC MILITARY SALES	58	61	423	354	508	303	258	268	103	111	213
<b>TOTAL</b>	<b>2,538</b>	<b>3,617</b>	<b>4,122</b>	<b>4,051</b>	<b>4,323</b>	<b>4,551</b>	<b>4,776</b>	<b>5,866</b>	<b>5,922</b>	<b>6,472</b>	<b>6,446</b>
<b>SPACE</b>											
R-D CONTRACTS - CIVIL	86	83	196	145	208	180	277	473	231	429	549
- MILITARY	4	3	14	7	6	79	7	7	3	1	2
PUBLIC .....	19	25	6	85	108	177	188	187	160	174	292
PROCUREMENT . - MILITARY	2	4	14	6	29	14	6	76	88	28	50
INTRA-EC MILITARY SALES	0	0	0	0	0	0	0	0	1	0	48
<b>TOTAL</b>	<b>110</b>	<b>115</b>	<b>230</b>	<b>242</b>	<b>351</b>	<b>450</b>	<b>478</b>	<b>743</b>	<b>483</b>	<b>633</b>	<b>940</b>
<b>ENGINES</b>											
R-D CONTRACTS - CIVIL	36	29	29	21	31	24	16	20	33	46	25
- MILITARY	308	328	261	303	315	351	276	305	219	344	316
PUBLIC .....	21	29	72	56	45	28	31	24	111	240	272
PROCUREMENT . - MILITARY	552	520	851	794	890	852	1,050	1,012	1,175	1,121	1,145
INTRA-EC MILITARY SALES	35	55	123	112	76	78	68	29	73	243	179
<b>TOTAL</b>	<b>952</b>	<b>962</b>	<b>1,337</b>	<b>1,287</b>	<b>1,358</b>	<b>1,334</b>	<b>1,441</b>	<b>1,390</b>	<b>1,611</b>	<b>1,995</b>	<b>1,936</b>
<b>EQUIPMENT</b>											
R-D CONTRACTS - CIVIL	6	5	7	7	4	7	13	9	181	365	108
- MILITARY	230	232	437	445	451	539	703	654	939	951	907
PUBLIC .....	45	35	63	60	48	72	44	87	298	459	452
PROCUREMENT . - MILITARY	553	594	927	1,152	1,333	1,617	2,187	2,187	2,684	2,817	3,210
INTRA-EC MILITARY SALES	65	42	74	89	114	104	64	89	291	205	182
<b>TOTAL</b>	<b>898</b>	<b>908</b>	<b>1,508</b>	<b>1,752</b>	<b>1,951</b>	<b>2,338</b>	<b>3,010</b>	<b>3,026</b>	<b>4,393</b>	<b>4,798</b>	<b>4,859</b>

## PUBLIC SUPPORT FOR THE EC AEROSPACE INDUSTRY

### BREAKDOWN BY CONTRACT AND SUBSECTOR (AS % OF SUBSECTOR)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>AIRFRAMES AND MISSILES</b>											
R-D CONTRACTS - CIVIL	2.7	1.9	2.4	2.5	2.4	2.7	1.2	0.9	4.6	6.5	1.4
- MILITARY	27.6	30.4	24.1	25.4	23.9	26.1	32.2	27.4	28.4	24.9	24.9
PUBLIC ..... - CIVIL	4.4	12.6	2.6	2.3	3.0	6.3	2.5	1.5	2.6	2.6	2.5
PROCUREMENT . - MILITARY	62.9	53.4	60.6	60.9	58.9	58.2	58.7	65.7	62.7	64.3	67.9
INTRA-EC MILITARY SALES	2.3	1.7	10.3	8.7	11.8	6.7	5.4	4.6	1.7	1.7	3.3
AS % OF GRAND TOTAL	56.4	64.6	57.3	55.2	54.1	52.5	49.2	53.2	47.7	46.6	45.5
<b>SPACE</b>											
R-D CONTRACTS - CIVIL	78.1	72.0	85.4	59.9	59.2	40.1	58.0	63.6	47.9	67.8	58.4
- MILITARY	3.5	2.9	5.9	2.8	1.8	17.5	1.4	0.9	0.6	0.2	0.2
PUBLIC ..... - CIVIL	16.9	21.6	2.4	35.1	30.9	39.3	39.3	25.2	33.1	27.5	31.1
PROCUREMENT . - MILITARY	1.5	3.5	6.1	2.3	8.1	3.2	1.3	10.2	18.3	4.5	5.3
INTRA-EC MILITARY SALES	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	5.1
AS % OF GRAND TOTAL	21.2	17.2	18.6	17.5	17.0	15.4	14.8	12.6	13.0	14.4	13.7
<b>ENGINES</b>											
R-D CONTRACTS - CIVIL	3.8	3.1	2.2	1.7	2.3	1.8	1.1	1.5	2.1	2.3	1.3
- MILITARY	32.4	34.1	19.5	23.5	23.2	26.3	19.1	22.0	13.6	17.2	16.3
PUBLIC ..... - CIVIL	2.2	3.0	5.4	4.4	3.3	2.1	2.2	1.7	6.9	12.1	14.0
PROCUREMENT . - MILITARY	58.0	54.1	63.7	61.7	65.6	63.9	72.9	72.8	72.9	56.2	59.1
INTRA-EC MILITARY SALES	3.6	5.7	9.2	8.7	5.6	5.9	4.7	2.1	4.5	12.2	9.2
AS % OF GRAND TOTAL	20.0	16.2	21.0	23.9	24.4	27.0	31.0	27.4	35.4	34.5	34.3
<b>EQUIPMENT</b>											
R-D CONTRACTS - CIVIL	0.6	0.5	0.5	0.4	0.2	0.3	0.4	0.3	4.1	7.6	2.2
- MILITARY	25.6	25.6	29.0	25.4	23.1	23.0	23.3	21.6	21.4	19.8	18.7
PUBLIC ..... - CIVIL	5.0	3.8	4.1	3.4	2.5	3.1	1.5	2.9	6.8	9.6	9.3
PROCUREMENT . - MILITARY	61.5	65.5	61.5	65.7	68.3	69.1	72.6	72.3	61.1	58.7	66.1
INTRA-EC MILITARY SALES	7.2	4.6	4.9	5.1	5.9	4.5	2.1	2.9	6.6	4.3	3.8
AS % OF GRAND TOTAL	2.5	2.0	3.2	3.3	4.4	5.2	4.9	6.7	3.9	4.6	6.6

### Level of Intra-European Cooperation



Source: Industrial Associations

## LEVEL OF INTRA-EUROPEAN COOPERATION IN AEROSPACE SECTOR

### PROPORTION OF TURNOVER EXPORTED TO AEROSPACE COMPANIES IN OTHER EC MEMBER STATES

AS % OF OVERALL TURNOVER

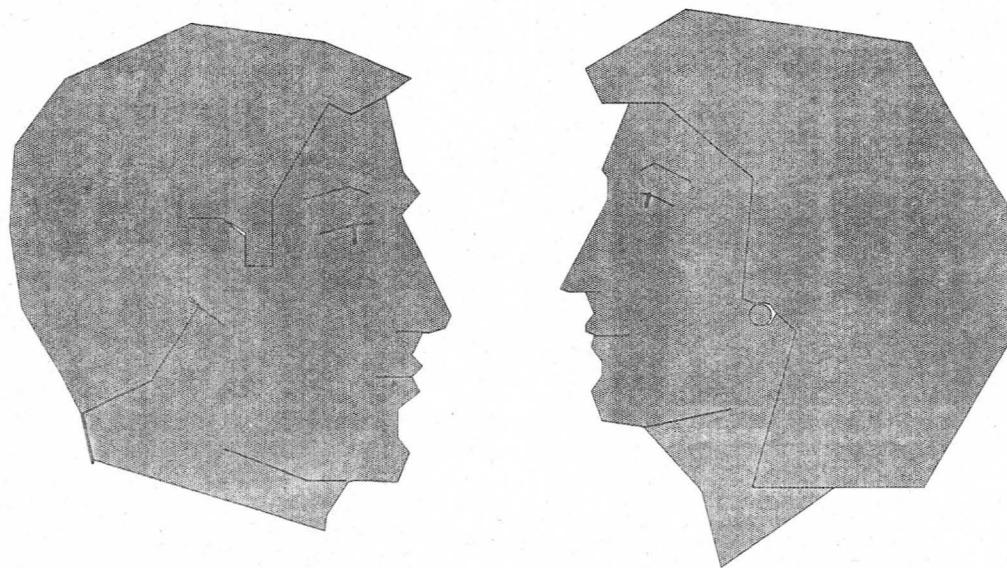
	BE	DE	ES	FR	IT	NL	UK	EC
1978	33.9	24.8	18.0	7.1	12.9	11.5	15.8	13.7
1979	25.9	20.3	24.7	8.0	9.2	11.0	18.1	14.2
1980	17.1	29.6	26.0	7.6	21.8	12.4	15.0	15.3
1981	17.8	36.0	27.9	8.0	12.5	15.2	21.1	18.3
1982	17.1	38.4	20.4	6.9	11.2	15.9	24.0	19.4
1983	19.8	39.0	28.7	8.8	19.6	12.7	24.8	20.9
1984	27.6	38.6	19.9	7.5	21.2	9.5	22.8	19.7
1985	27.6	33.5	19.1	4.0	25.4	5.4	18.7	16.7
1986	32.3	24.2	19.0	5.3	25.5	4.8	18.7	16.1
1987	33.3	21.9	13.2	5.4	25.6	10.7	14.3	14.4
1988	24.8	24.8	16.3	7.8	25.9	7.6	15.5	16.2
1989	38.5	23.2	18.6	2.7	25.3	6.9	-	-

■ SOURCE: INDUSTRIAL ASSOCIATIONS



# EMPLOYMENT

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## EMPLOYMENT

The annual survey conducted in conjunction with the national industrial associations enables the *employment* in the European aerospace industry to be broken down by *professional* and *activity* categories. Participants to this survey are the aerospace companies whose turnover concerns (partly or entirely) one or more of the groups of products listed in the columns of the tables.

Data concerning the UK and relating to 1989 have not reached the Commission in time for publication:

Data for Spain relating to years 1984-86 had to be estimated from other sources.

Estimates for missing data for the employment of the aerospace industry are compiled using linear estimates performing a least-squares approximation to indicators such as employment of the major aerospace companies.

The *professional categories* are the following:

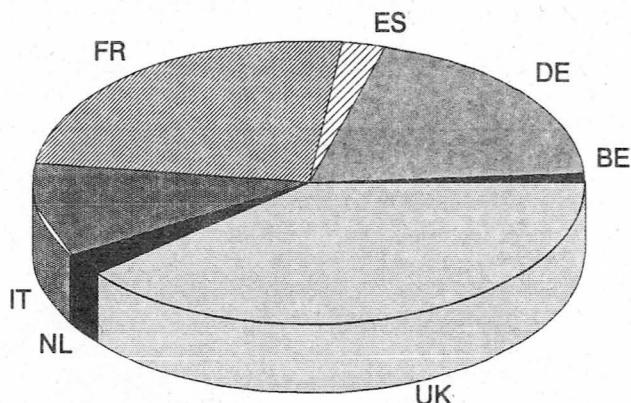
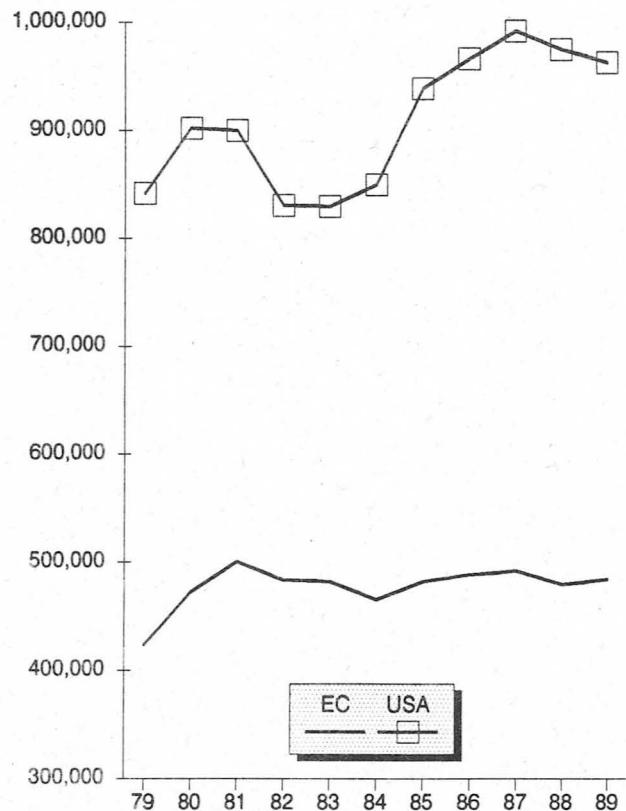
- *engineers and managers*,
- *technical employees* comprise technicians, draughtsmen, craftsmen, supervisors, foremen, etc.
- *administrative employees* comprise clerical and office staff, etc.
- *production workers* (skilled and unskilled)

The professional categories indicated correspond to the actual functions carried out, and do not necessarily correspond to the formal qualifications possessed.

The *activities* considered concern:

- *R&D*,
- *production*, including maintenance, repairs and post-delivery modifications,
- *marketing and management*, including all the activities involved in running the company (overall management, general accounting, financial management, personnel management, etc) in addition to marketing activities and after-sales services.

## Aerospace Employment



Breakdown by Country (1989)

## AEROSPACE EMPLOYMENT

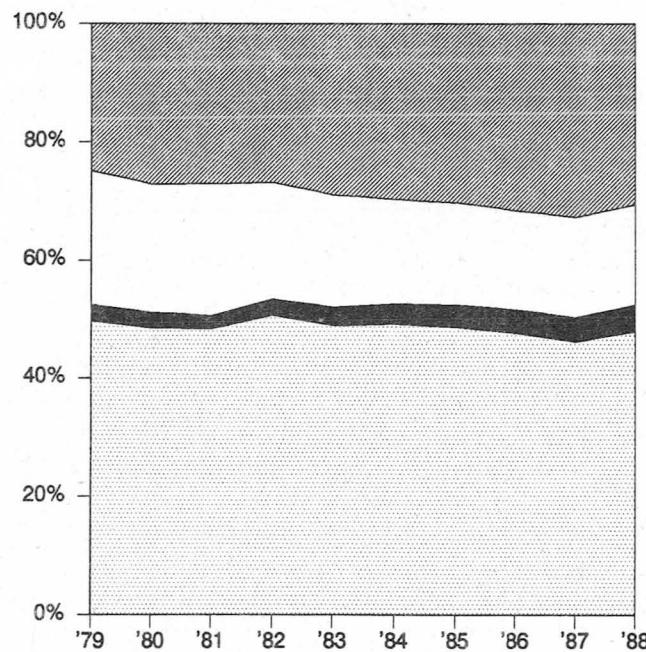
AT YEAR-END

	1972	1973	1974	1975	1976	1977	1978	1979	1980
BELGIUM	4,941	4,380	4,422	4,025	5,015	4,895	5,068	6,272	7,032
FRG	52,455	52,985	51,555	51,914	51,367	52,416	56,348	60,866	66,086
FRANCE	108,525	105,432	106,769	108,915	107,454	103,295	103,424	106,297	110,783
ITALY	30,000	30,000	30,240	30,768	31,991	34,260	36,136	38,370	40,924
NETHERLANDS	6,600	7,000	6,555	7,682	7,865	7,320	7,382	7,935	8,862
UNITED KINGDOM	207,500	201,700	210,100	233,792	227,402	219,261	214,918	196,566	229,821
EC 10	410,021	401,497	409,641	437,096	431,094	421,447	423,276	416,306	463,508
SPAIN	-	-	-	-	-	-	-	7,331	8,177
EC 12	-	-	-	-	-	-	-	423,637	471,685
USA	-	-	-	-	-	665,000	720,000	842,000	902,000
CANADA	28,800	31,700	28,400	27,300	25,300	28,900	33,800	37,700	46,800
JAPAN	26,000	26,026	25,550	26,746	25,000	23,756	25,398	25,653	26,373
	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	6,886	6,705	6,127	5,757	5,470	5,743	5,510	4,831	5,239
FRG	68,650	66,883	65,677	65,366	77,256	85,021	86,573	93,561	94,456
FRANCE	113,690	115,982	127,269	127,815	127,072	126,056	122,717	119,484	120,334
ITALY	41,920	42,907	42,546	42,885	43,284	44,780	47,000	49,500	50,500
NETHERLANDS	9,706	9,527	8,398	9,055	10,053	10,860	11,709	12,690	12,924
UNITED KINGDOM	249,863	230,961	221,367	203,168	206,902	203,601	207,161	187,293	187,871
EC 10	490,715	472,965	471,384	454,046	470,037	476,061	480,670	467,359	471,324
SPAIN	9,516	10,216	10,538	11,183	11,509	12,081	11,304	11,770	12,581
EC 12	500,231	483,181	481,922	465,229	481,546	488,142	491,974	479,129	483,905
USA	900,000	831,000	830,000	850,000	939,000	967,000	992,000	975,000	963,000
CANADA	44,800	40,900	38,500	37,400	40,800	45,100	45,700	49,000	63,650
JAPAN	27,096	27,865	25,486	25,986	25,981	26,241	27,410	-	-

■ SOURCE: INDUSTRIAL ASSOCIATIONS

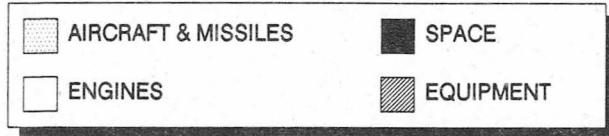
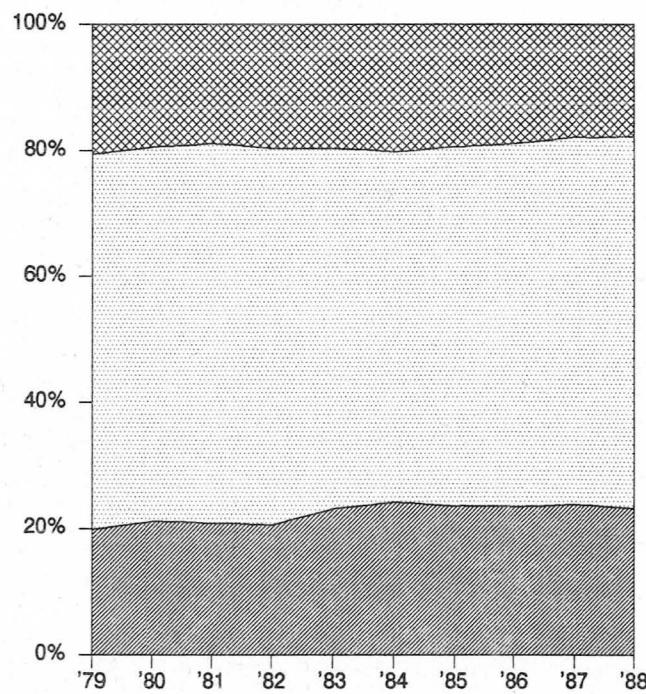
# EC AEROSPACE EMPLOYMENT

**Breakdown by Sector**

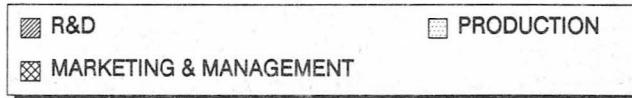


**AEROSPACE EMPLOYMENT**

**Breakdown by Activity**



(AT YEAR-END)



## AIRFRAMES AND MISSILES

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	3,423	3,755	3,461	3,329	2,919	2,757	2,577	2,714	2,680	2,613	2,847
FRG	37,935	40,901	42,472	40,501	38,722	39,411	41,694	44,934	40,698	43,824	45,237
FRANCE	57,760	59,362	60,409	61,162	59,717	60,525	59,807	58,321	54,713	54,317	54,466
ITALY	24,788	26,524	26,930	28,183	28,255	27,850	26,280	27,087	27,965	27,918	29,542
NETHERLANDS	5,705	6,375	6,982	6,852	6,039	6,511	7,229	7,809	8,571	9,870	9,874
UNITED KINGDOM	73,875	83,907	92,310	94,953	90,015	81,844	86,799	81,463	82,249	81,170	-
EC 10	203,486	220,824	232,564	234,980	225,667	218,898	224,386	222,328	216,876	219,712	-
SPAIN	6,413	7,290	8,553	9,233	9,535	9,632	9,862	10,264	9,808	9,601	10,469
EC 12	209,899	228,114	241,117	244,213	235,202	228,530	234,248	232,592	226,684	229,313	-

## SPACE

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	290	245	299	364	410	380	434	571	555	344	549
FRG	2,841	2,766	2,681	3,727	4,432	5,067	5,447	5,553	5,896	6,304	6,474
FRANCE	3,915	4,457	4,908	5,484	5,912	6,006	6,695	7,402	7,922	8,534	9,080
ITALY	482	870	811	914	1,283	1,420	2,280	2,964	3,243	3,614	3,535
NETHERLANDS	189	209	229	226	201	217	241	260	244	272	327
UNITED KINGDOM	4,539	4,417	3,168	3,437	3,476	2,933	2,825	2,612	2,358	2,747	-
EC 10	12,256	12,964	12,096	14,152	15,714	16,023	17,922	19,362	20,218	21,815	-
SPAIN	150	146	156	140	156	287	309	349	358	371	395
EC 12	12,406	13,110	12,252	14,292	15,870	16,310	18,231	19,711	20,576	22,186	-

SOURCE: INDUSTRIAL ASSOCIATIONS

**AEROSPACE EMPLOYMENT**

(AT YEAR-END)

**ENGINES**

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	1,807	2,262	2,398	2,357	2,238	2,107	2,053	2,053	1,878	1,611	1,555
FRG	8,431	8,701	8,955	8,697	7,717	8,434	8,096	8,790	9,481	9,824	9,802
FRANCE	21,078	22,225	23,079	23,941	24,185	24,927	25,461	25,584	25,187	24,059	24,125
ITALY	5,783	6,037	6,292	5,984	5,803	5,645	6,475	6,086	6,392	6,830	6,868
NETHERLANDS	0	0	0	0	0	0	0	0	0	0	0
UNITED KINGDOM	58,524	62,986	70,942	53,671	51,264	40,630	40,701	38,591	39,924	38,628	-
EC 10	95,623	102,211	111,666	94,650	91,207	81,743	82,786	81,104	82,862	80,952	-
SPAIN	214	226	240	259	261	486	525	594	528	663	720
EC 12	95,837	102,437	111,906	94,909	91,468	82,229	83,311	81,698	83,390	81,615	-

**EQUIPMENT**

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BELGIUM	752	770	728	655	560	513	406	405	397	263	288
FRG	11,659	13,718	14,542	13,958	14,806	12,454	22,019	25,744	30,498	33,609	32,943
FRANCE	23,535	24,740	25,294	25,395	37,455	36,357	35,110	34,749	34,895	32,574	32,663
ITALY	7,317	7,493	7,887	7,826	7,205	7,970	8,249	8,643	9,400	11,138	10,555
NETHERLANDS	2,041	2,278	2,495	2,449	2,158	2,327	2,583	2,791	2,894	2,548	2,723
UNITED KINGDOM	59,628	78,511	83,443	78,900	76,612	77,761	76,577	80,935	82,630	64,748	-
EC 10	104,932	127,510	134,389	129,183	138,796	137,382	144,944	153,267	160,714	144,880	-
SPAIN	554	515	567	584	586	778	813	874	610	1,135	997
EC 12	105,486	128,025	134,956	129,767	139,382	138,160	145,757	154,141	161,324	146,015	-

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## EC 12 : BREAKDOWN OF WORKFORCE

BY OCCUPATIONAL GRADING AND BY MAIN ACTIVITY (AT YEAR-END)

## AIRFRAMES AND MISSILES

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
ENGINEERS AND MANAGERS	29,029	33,669	35,016	36,593	38,767	39,537	40,447	40,772	40,324	39,573
TECHNICAL STAFF	48,887	53,992	56,554	61,054	60,308	59,513	58,236	62,551	58,900	62,488
ADMINISTRATIVE STAFF	35,008	39,339	40,454	37,280	34,846	34,698	36,565	34,773	34,562	35,221
PRODUCTION WORKERS	96,975	101,114	109,093	109,286	101,281	94,542	99,000	94,496	92,898	92,031
R-D	34,083	44,486	45,808	47,194	51,179	52,141	48,666	49,293	51,216	51,071
PRODUCTION	133,141	140,539	148,308	149,275	137,165	129,557	139,099	137,654	134,993	137,925
MARKETING AND MANAGEMENT	42,675	43,089	47,001	47,744	46,858	46,592	46,482	45,644	40,475	40,315
TOTAL	209,899	228,114	241,117	244,213	235,202	228,290	234,248	232,592	226,684	229,311
TOTAL (*)	209,899	228,114	241,117	244,213	235,202	228,530	234,248	232,592	226,684	229,313

## SPACE

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
ENGINEERS AND MANAGERS	2,899	3,665	2,915	3,956	4,080	4,222	4,853	5,109	5,336	7,504
TECHNICAL STAFF	4,056	3,875	3,741	4,264	5,573	5,212	6,369	7,797	8,208	8,437
ADMINISTRATIVE STAFF	1,795	2,107	1,975	2,239	2,270	2,415	3,011	2,245	2,784	2,923
PRODUCTION WORKERS	3,655	3,464	3,620	3,834	3,747	4,454	4,029	4,667	4,249	3,322
R-D	6,440	7,310	6,873	8,026	8,837	7,545	9,693	10,551	10,827	10,721
PRODUCTION	4,041	3,677	3,560	4,062	4,488	6,145	5,157	5,815	5,758	6,834
MARKETING AND MANAGEMENT	1,924	2,123	1,819	2,204	2,544	2,621	3,384	3,345	3,991	4,631
TOTAL	12,406	13,110	12,252	14,292	15,870	16,310	18,231	19,711	20,576	22,186
TOTAL (*)	12,406	13,110	12,252	14,292	15,870	16,310	18,231	19,711	20,576	22,186

(\*) INCLUDING THE STAFF THE BREAKDOWN OF WHICH IS NOT KNOWN

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## EC 12 : BREAKDOWN OF WORKFORCE

BY OCCUPATIONAL GRADING AND BY MAIN ACTIVITY (AT YEAR-END)

## ENGINES

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
ENGINEERS AND MANAGERS	13,307	14,052	14,098	15,412	15,125	13,997	14,201	13,847	13,015	12,440
TECHNICAL STAFF	19,788	19,043	22,709	19,092	21,225	19,253	18,710	18,712	24,580	22,577
ADMINISTRATIVE STAFF	12,312	13,750	15,754	11,312	10,915	9,760	11,123	9,747	10,797	11,685
PRODUCTION WORKERS	50,429	55,591	58,946	49,094	44,203	39,219	39,276	39,392	34,998	34,913
R-D	18,433	15,596	17,455	15,963	16,989	15,921	16,489	15,458	16,274	16,268
PRODUCTION	56,137	67,133	72,994	58,305	54,389	48,833	49,065	49,783	51,795	50,261
MARKETING AND MANAGEMENT	21,278	19,707	21,057	20,641	20,090	17,475	17,758	16,457	15,321	15,086
TOTAL	95,837	102,437	111,506	94,909	91,468	82,229	83,311	81,698	83,390	81,615
TOTAL (*)	95,837	102,437	111,906	94,909	91,468	82,229	83,311	81,698	83,390	81,615

## EQUIPMENT

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
ENGINEERS AND MANAGERS	17,652	24,477	24,723	23,356	26,734	27,976	30,724	35,859	34,785	26,598
TECHNICAL STAFF	21,841	26,538	28,383	27,766	33,330	32,422	35,225	34,721	37,239	36,571
ADMINISTRATIVE STAFF	16,150	20,149	20,959	20,421	22,268	23,266	23,746	23,634	27,032	22,585
PRODUCTION WORKERS	48,043	55,060	60,290	57,373	56,400	53,596	56,061	59,927	62,268	60,261
R-D	24,837	32,108	33,589	28,064	34,276	36,640	38,568	39,536	38,922	33,031
PRODUCTION	58,264	67,812	76,070	76,325	79,054	73,709	81,027	87,796	94,033	87,683
MARKETING AND MANAGEMENT	20,585	26,304	24,697	24,528	25,402	26,912	26,162	26,811	27,970	25,301
TOTAL	103,686	126,225	134,356	128,917	138,732	137,260	145,757	154,141	161,324	146,015
TOTAL (*)	105,486	128,025	134,956	129,767	139,382	138,160	145,757	154,141	161,324	146,015

(\*) INCLUDING THE STAFF THE BREAKDOWN OF WHICH IS NOT KNOWN

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## EC 12 : BREAKDOWN OF WORKFORCE

BY OCCUPATIONAL GRADING AND BY MAIN ACTIVITY (AT YEAR-END)

**TOTAL**

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
ENGINEERS AND MANAGERS	62,887	75,862	76,753	79,317	84,706	85,732	90,226	95,588	93,460	86,115
TECHNICAL STAFF	94,573	103,448	111,387	112,176	120,435	116,400	118,540	123,780	128,927	130,073
ADMINISTRATIVE STAFF	65,265	75,346	79,142	71,251	70,300	70,139	74,445	70,399	75,174	72,414
PRODUCTION WORKERS	199,102	215,229	231,949	219,587	205,631	191,811	198,366	198,482	194,413	190,527
R-D	83,793	99,501	103,725	99,247	111,281	112,247	113,415	114,837	117,239	111,091
PRODUCTION	251,582	279,161	300,932	287,967	275,095	258,244	274,347	281,048	286,578	282,703
MARKETING AND MANAGEMENT	86,462	91,223	94,574	95,117	94,895	93,600	93,786	92,257	87,757	85,333
<b>TOTAL</b>	<b>421,827</b>	<b>469,885</b>	<b>499,231</b>	<b>482,331</b>	<b>481,272</b>	<b>464,089</b>	<b>481,546</b>	<b>488,142</b>	<b>491,974</b>	<b>479,127</b>
<b>TOTAL (*)</b>	<b>423,637</b>	<b>471,685</b>	<b>500,231</b>	<b>483,181</b>	<b>481,922</b>	<b>465,229</b>	<b>481,546</b>	<b>488,142</b>	<b>491,974</b>	<b>479,129</b>

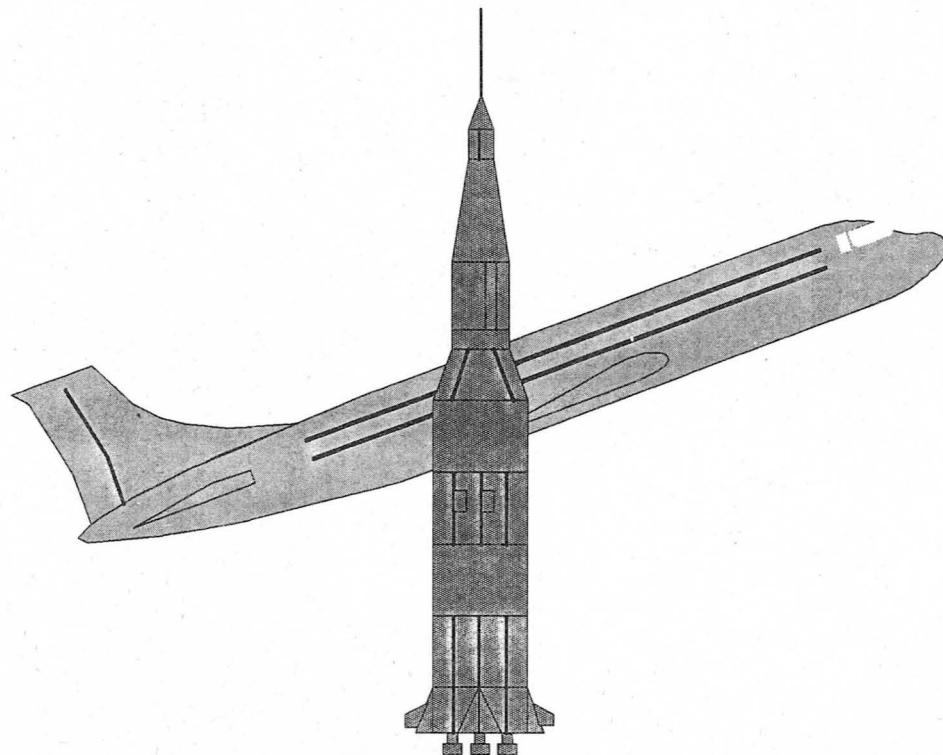
(\*) INCLUDING THE STAFF THE BREAKDOWN OF WHICH IS NOT KNOWN

■ SOURCE: INDUSTRIAL ASSOCIATIONS



# AEROSPACE MANUFACTURERS

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## AEROSPACE MANUFACTURERS

Data for the *turnover* and *employment* of the major world *aerospace manufacturers* are taken from information supplied by the companies themselves or published in their annual reports.

Except when otherwise stated, the data relating to groups cover only their aerospace operations.

The turnover/employment ratio is certainly not the best way of measuring *productivity*, since it overestimates the position of manufacturers which undertake little R&D activity and/or carry out more work under license or under sub-contracts.



## TURNOVER OF MAJOR AEROSPACE MANUFACTURERS (MIO ECU AT CURRENT VALUES)

	1982	1983	1984	1985	1986	1987	1988	1989	1990E	1991E
(US) BOEING (GROUP)**	9,222	12,501	13,122	17,869	16,604	13,301	14,344	18,404	21,497	-
(US) U.T.C.	7,436	8,389	10,218	10,626	8,521	7,784	8,332	9,705	-	-
(US) LOCKHEED (GROUP)	5,729	7,290	10,282	12,495	10,466	9,722	8,956	8,986	-	-
(UK) BAE	3,663	3,919	4,178	4,495	4,671	5,784	6,509	8,138	-	-
(DE) DASA (INCL. AIRBUS)	3,481	3,596	3,696	4,060	3,963	4,312	5,175	7,810	8,262	-
(US) GE	2,955	3,716	5,186	5,862	5,080	4,915	4,991	5,472	5,096	4,904
(US) MARTIN MARIETTA	2,357	2,893	4,148	4,989	4,198	3,896	4,156	4,779	4,196	4,112
(FR) AEROSPATIALE	3,331	3,548	3,658	3,620	3,737	3,592	3,977	4,509	4,921	5,650
(US) ROCKWELL	2,857	4,319	5,490	6,957	5,634	4,394	3,358	3,548	-	-
(UK) ROLLS-ROYCE (GROUP)	2,664	2,267	2,386	2,718	2,683	2,922	2,969	3,505	-	-
(US) GRUMMAN	2,100	2,533	3,300	4,061	3,558	2,924	3,086	3,230	-	-
(FR) DASSAULT-BREGUET	1,967	2,070	2,284	2,419	2,294	2,243	2,510	2,471	2,814	2,660
(IT) ALENIA	908	997	1,275	1,318	1,445	1,497	1,554	1,941	-	-
(FR) SNECMA	924	977	1,192	1,384	1,508	1,350	1,458	1,915	2,020	-
(JA) KAWASAKI H.I.	412	482	651	731	800	765	1,160	1,234	1,247	-
(NL) FOKKER B.V.	516	605	619	533	584	452	880	1,199	-	-
(FR) MATRA	780	777	802	840	830	929	965	1,014	1,059	1,140
(US) ROHR (GROUP)	577	638	768	778	636	575	767	949	-	-
(JA) I.H.I.	331	438	554	590	640	590	713	804	705	730
(IT) AGUSTA	435	606	493	570	580	613	667	761	855	-
(UK) WESTLAND (GROUP)	506	555	502	524	513	542	531	641	-	-
(ES) CASA	308	302	323	361	337	356	561	630	883	919
(FR) S.E.P.	187	206	263	333	384	493	518	614	635	638
(US) LTV	531	546	690	1,302	1,112	889	734	611	-	-
(IT) FIAT AVIAZIONE	226	253	261	310	415	413	457	593	652	709
(FR) E.S.D.	205	229	262	277	329	387	574	585	-	-
(SW) SAAB AEROSPACE	190	213	295	499	468	607	563	568	-	-
(US) CESSNA (GENERAL DYNAMICS)	849	589	878	924	548	406	368	546	637	-
(SW) VOLVO	172	162	206	246	266	299	345	369	346	-
(FR) TURBOMECA	302	299	292	298	298	311	325	337	363	-
(US) GULSTREAM	296	289	425	392	301	286	249	272	199	377
(US) BOMBARDIER -LEARJET	560	394	515	416	263	173	185	240	231	-
(BE) F.N. MOTEURS	210	184	140	215	171	149	147	148	191	178
(BE) SABCA	100	70	56	71	70	82	92	99	82	82
(BE) SONACA	54	49	56	59	50	58	67	74	103	94
(CA) BOMBARDIER - CANADAIR	355	353	368	420	421	408	508	-	-	-
(JA) FUJI H.I.	105	112	194	212	234	233	314	-	-	-
(JA) MITSUBISHI H.I.	599	773	1,117	1,405	1,255	1,159	2,066	-	-	-
(US) GENERAL DYNAMICS	-	-	-	10,218	10,461	10,425	9,999	-	-	-
(US) MC DONNELL DOUGLAS	7,073	8,633	11,319	13,777	11,768	10,436	11,260	-	-	-
(US) NORTHROP (GROUP)	2,524	3,663	4,674	6,627	5,698	5,243	4,902	-	-	-

■ SOURCE: COMPANIES

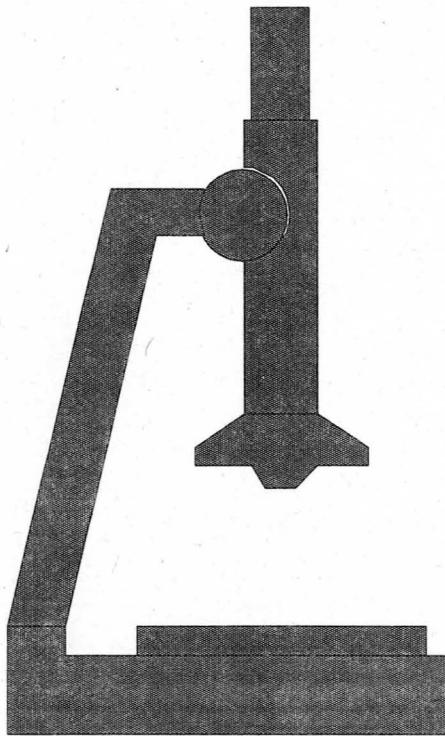
## WORKFORCE OF MAJOR AEROSPACE MANUFACTURERS

	1982	1983	1984	1985	1986	1987	1988	1989	1990E	1991E
(US) BOEING (GROUP)	90,100	81,600	93,000	104,100	115,100	125,980	134,400	145,300	-	-
(UK) BAE	78,990	77,986	75,998	75,645	75,480	86,800	84,900	83,200	-	-
(US) LOCKHEED (GROUP)	70,200	71,800	81,300	87,800	96,900	97,300	86,000	82,500	-	-
(DE) DASA (INCL. AIRBUS)	53,233	51,590	50,700	52,482	54,258	55,516	58,990	62,959	-	-
(UK) ROLLS-ROYCE (GROUP)	48,800	42,300	40,900	41,700	41,900	42,000	40,900	41,100	-	-
(US) MARTIN MARIETTA	27,962	29,370	33,093	37,116	36,845	36,597	33,990	33,267	32,875	31,983
(FR) AEROSPATIALE	36,450	35,463	35,456	34,889	34,246	32,827	32,626	32,958	33,300	33,338
(US) ROCKWELL	29,000	42,300	43,300	45,700	41,100	34,408	32,574	31,517	-	-
(US) GRUMMAN	27,300	28,800	30,900	32,000	33,400	33,700	32,000	28,900	-	-
(IT) ALERIA	18,827	18,779	18,916	19,632	19,907	20,512	20,893	21,553	-	-
(FR) SNECMA	12,595	12,950	13,442	13,862	13,918	13,434	13,482	13,955	14,300	-
(FR) DASSAULT-BREGUET	15,782	15,799	16,196	16,123	15,783	14,676	13,818	13,385	12,500	12,500
(US) ROHR (GROUP)	8,000	7,700	6,900	7,600	8,000	1	11,000	11,200	-	-
(ES) CASA	9,622	9,836	10,037	10,238	10,591	10,548	10,370	10,138	9,800	9,700
(IT) AGUSTA	-	10,421	10,064	9,793	9,703	9,711	9,888	9,826	9,900	-
(SW) SAAB AEROSPACE	6,178	6,165	6,115	6,443	6,500	6,000	6,489	6,475	-	-
(US) CESSNA (GENERAL DYNAMICS)	11,542	8,437	9,297	8,269	5,301	5,500	5,500	6,000	7,500	-
(FR) MATRA	3,712	4,357	4,810	4,846	4,933	5,017	4,747	5,086	5,273	5,328
(IT) FIAT AVIAZIONE	3,565	3,485	3,466	3,604	4,528	4,656	4,749	4,651	4,726	4,740
(JA) KAWASAKI H.I.	3,700	3,700	3,700	3,700	3,900	3,900	4,000	4,100	5,100	-
(FR) S.E.P.	3,200	3,408	3,571	3,708	3,886	3,969	4,144	4,003	4,031	4,035
(FR) TURBOMECA	4,330	4,262	4,247	4,288	4,331	4,260	3,980	3,883	3,941	-
(SW) VOLVO	3,146	3,125	3,326	3,463	3,587	3,729	3,760	3,804	3,847	3,869
(US) GULFSTREAM	2,239	2,714	2,949	3,234	3,411	3,725	3,702	3,644	3,500	2,800
(JA) I.H.I.	3,550	3,500	3,500	3,500	3,200	3,500	3,550	3,550	3,600	3,650
(JA) FUJI H.I.	1,974	2,131	2,178	2,130	2,179	2,344	2,572	2,964	-	-
(US) BOMBARDIER - LEARJET	3,169	3,756	3,398	2,705	2,599	2,640	1,940	2,851	2,831	-
(BE) SABCA	1,968	1,752	1,669	1,458	1,598	1,621	1,614	1,640	1,580	1,580
(BE) F.N. MOTEURS	2,579	2,368	2,302	2,308	2,214	1,999	1,648	1,603	1,678	1,600
(BE) SONACA	1,604	1,417	1,309	1,337	1,380	1,380	1,380	1,425	1,440	1,400
(CA) BOMBARDIER - CANADAIR	6,500	4,422	4,606	4,707	5,386	5,484	5,515	-	-	-
(FR) E.S.D.	2,490	2,525	2,725	2,799	2,915	3,023	-	-	-	-
(IS) I.A.I.	19,630	20,670	21,650	22,070	21,674	20,756	16,500	-	-	-
(NL) FOKKER B.V.	9,606	8,398	9,055	10,053	10,860	11,709	11,610	-	-	-
(UK) WESTLAND (GROUP)	12,195	12,305	11,892	11,613	10,595	9,231	9,216	-	-	-
(US) MC DONNELL DOUGLAS	60,970	62,820	72,690	83,310	92,289	99,300	109,400	-	-	-
(US) NORTHROP (GROUP)	35,500	37,200	41,500	46,900	46,000	46,000	-	-	-	-
(US) SUNDSTRAND	7,526	7,527	8,549	9,919	10,118	10,052	9,796	-	-	-

■ SOURCE: COMPANIES

# PUBLIC FINANCING OF R&D

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## PUBLIC FINANCING OF R&D

Data relating to *public financing of aerospace R&D* are supplied by the **EUROSTAT** (Statistical Office of the European Communities) and include funds for aerospace R&D granted to industry and to research centers, laboratories, universities, etc.

The data relating to space R&D comprise since 1980 credits allocated to the *European Space Agency (ESA)*.

Although a comparison of statistics from different sources can sometimes produce misleading results, it should be pointed out that the difference between the figures given in the following tables and those given in the Chapter 6 on the *turnover* of the aerospace industry is indicative of the proportion of public funds granted to non-industrial bodies.



## PUBLIC FINANCING OF AEROSPACE R-D

MIO'S ECUS

AIRCRAFT	BE	DK	DE	ES	FR	HE	IR	IT	NL	PO	UK	EC
1980	8	-	109	0	120	0	0	9	0	0	116	362
1981	4	-	168	0	112	0	0	6	0	0	219	508
1982	4	-	172	0	-	0	0	29	0	0	154	-
1983	4	-	166	0	-	0	0	15	0	0	189	-
1984	-	-	184	-	-	0	0	39	0	0	194	-
1985	-	-	343	-	-	0	0	40	0	0	203	-
1986	-	-	288	-	-	73	0	48	0	0	197	-
1987	-	-	356	-	-	8	0	41	0	0	146	-
1988	-	-	346	-	-	83	0	78	0	0	154	-
1989	-	-	379	-	-	-	0	87	0	0	178	-
SPACE	BE	DK	DE	ES	FR	HE	IR	IT	NL	PO	UK	EC
1980	31	8	290	0	328	0	1	81	36	0	87	862
1981	28	8	292	0	278	0	1	121	40	0	123	890
1982	28	9	340	0	318	0	1	92	42	0	131	961
1983	30	11	338	0	395	0	1	123	41	0	127	1,066
1984	37	12	341	0	509	1	1	216	39	0	134	1,288
1985	43	14	369	30	560	1	2	260	42	0	143	1,463
1986	50	14	453	17	713	0	2	288	53	0	173	1,765
1987	66	15	532	57	725	0	3	438	50	0	185	2,072
1988	71	17	592	85	772	0	3	515	61	0	224	2,341
1989	83	18	645	112	919	0	3	505	54	0	221	2,561
AEROSPACE	BE	DK	DE	ES	FR	HE	IR	IT	NL	PO	UK	EC
1980	38	-	399	0	448	0	1	90	36	0	203	1,224
1981	32	-	459	0	389	0	1	127	40	0	341	1,398
1982	32	-	511	0	-	0	1	121	42	0	284	-
1983	34	-	504	0	-	0	1	137	41	0	317	-
1984	-	-	524	-	-	1	1	255	39	0	328	-
1985	-	-	712	-	-	1	2	299	42	0	346	-
1986	-	-	741	-	-	73	2	336	53	0	371	-
1987	-	-	888	-	-	9	3	479	50	0	331	-
1988	-	-	938	-	-	83	3	593	61	0	379	-
1989	-	-	1,025	-	-	-	3	592	54	0	399	-

■ SOURCE: EUROSTAT

**PUBLIC FINANCING OF AEROSPACE R-D**

(AS % OF TOTAL PUBLIC FINANCING OF R-D)

AIRCRAFT	BE	DK	DE	ES	FR	HE	IR	IT	NL	PO	UK	EC
1980	1.5	-	1.6	0.0	2.3	0.0	0.0	0.7	0.0	0.0	2.8	2.0
1981	0.9	-	2.4	0.0	1.7	0.0	0.0	0.3	0.0	0.0	3.6	2.3
1982	0.8	-	2.1	0.0	-	0.0	0.0	1.3	0.0	0.0	2.3	-
1983	0.7	-	2.0	0.0	-	0.0	0.0	0.5	0.0	0.0	2.8	-
1984	-	-	2.1	-	-	0.0	0.0	1.2	0.0	0.0	2.7	-
1985	-	-	3.6	-	-	0.0	0.0	1.1	0.0	0.0	2.6	-
1986	-	-	2.9	-	-	73.3	0.0	1.1	0.0	0.0	2.9	-
1987	-	-	3.3	-	-	8.1	0.0	0.8	0.0	0.0	2.1	-
1988	-	-	3.2	-	-	73.4	0.0	1.4	0.0	0.0	2.1	-
1989	-	-	3.3	-	-	-	0.0	1.5	0.0	0.0	2.5	-
SPACE	BE	DK	DE	ES	FR	HE	IR	IT	NL	PO	UK	EC
1980	6.3	3.6	4.3	0.0	6.2	0.4	0.9	6.2	2.9	0.0	2.1	4.8
1981	5.5	3.2	4.1	0.0	4.1	0.4	1.7	5.8	3.1	0.0	2.0	4.0
1982	5.4	3.4	4.2	0.0	4.3	0.3	1.5	4.1	3.0	0.0	2.0	3.9
1983	5.4	3.4	4.0	0.0	4.8	0.0	1.3	4.4	2.8	0.0	1.9	4.0
1984	6.2	3.3	3.9	0.0	5.6	0.5	1.6	6.4	2.6	0.0	1.8	4.4
1985	6.6	3.2	3.9	3.7	5.6	0.6	1.6	7.1	2.7	0.0	1.8	4.6
1986	7.7	2.7	4.5	2.1	7.0	0.3	1.9	6.5	3.1	0.0	2.6	5.5
1987	9.9	2.6	5.0	5.7	6.8	0.3	2.7	8.8	2.8	0.0	2.7	6.1
1988	10.6	2.3	5.5	6.8	6.7	0.3	3.0	9.0	3.3	0.1	3.1	6.5
1989	10.4	2.3	5.7	6.3	7.5	-	2.8	8.7	2.8	0.1	3.1	6.8
AEROSPACE	BE	DK	DE	ES	FR	HE	IR	IT	NL	PO	UK	EC
1980	7.8	-	5.9	0.0	8.5	0.4	0.9	6.9	2.9	0.0	4.9	6.8
1981	6.4	-	6.5	0.0	5.8	0.4	1.7	6.1	3.1	0.0	5.7	6.2
1982	6.2	-	6.3	0.0	-	0.3	1.5	5.3	3.0	0.0	4.3	-
1983	6.1	-	6.0	0.0	-	0.0	1.3	4.9	2.8	0.0	4.6	-
1984	-	-	6.0	-	-	0.5	1.6	7.6	2.6	0.0	4.5	-
1985	-	-	7.5	-	-	0.6	1.6	8.2	2.7	0.0	4.4	-
1986	-	-	7.4	-	-	73.6	1.9	7.6	3.1	0.0	5.5	-
1987	-	-	8.3	-	-	8.5	2.7	9.7	2.8	0.0	4.8	-
1988	-	-	8.7	-	-	73.7	3.0	10.4	3.3	0.1	5.2	-
1989	-	-	9.0	-	-	-	2.8	10.2	2.8	0.1	5.5	-

■ SOURCE: EUROSTAT

## ANNEXES



## EXCHANGE RATES

1 ECU =

	BFR	DM	PTA	FF	LIT	HFL	UKL	US \$	CA \$	YEN	SEK
1970	51.112	3.741	71.36	5.678	638.9	3.700	0.4259	1.022	-	368.0	-
1971	50.866	3.646	72.57	5.772	647.4	3.658	0.4286	1.048	-	363.8	-
1972	49.361	3.577	72.00	5.657	654.3	3.600	0.4489	1.122	-	339.7	-
1973	47.801	3.276	71.81	5.468	716.5	3.429	0.5023	1.232	-	333.2	-
1974	45.912	3.087	68.84	5.675	791.7	3.171	0.5135	1.202	1.170	339.7	5.240
1975	45.569	3.049	70.27	5.319	809.5	3.135	0.5600	1.241	1.236	360.7	5.141
1976	43.166	2.815	74.74	5.345	930.2	2.955	0.6216	1.118	1.102	331.2	4.867
1977	40.883	2.648	86.82	5.606	1,006.8	2.800	0.6537	1.141	1.214	305.8	5.119
1978	40.061	2.556	97.42	5.740	1,080.2	2.754	0.6639	1.274	1.454	267.1	5.749
1979	40.165	2.511	91.97	5.830	1,138.4	2.749	0.6463	1.370	1.606	300.5	5.872
1980	40.598	2.524	99.70	5.869	1,189.2	2.760	0.5985	1.392	1.626	315.0	5.881
1981	41.295	2.514	102.68	6.040	1,263.2	2.775	0.5531	1.116	1.338	245.4	5.635
1982	44.712	2.376	107.56	6.431	1,323.8	2.614	0.5605	0.980	1.208	243.5	6.143
1983	45.438	2.271	127.50	6.771	1,349.9	2.537	0.5870	0.890	1.097	211.4	6.821
1984	45.442	2.238	126.57	6.872	1,381.4	2.523	0.5906	0.789	1.021	187.1	6.511
1985	44.914	2.226	129.13	6.795	1,448.0	2.511	0.5890	0.763	1.042	180.6	6.521
1986	43.798	2.128	137.46	6.800	1,461.9	2.401	0.6715	0.984	1.367	165.0	6.996
1987	43.041	2.071	142.16	6.929	1,494.9	2.334	0.7046	1.154	1.530	166.6	7.310
1988	43.429	2.074	137.60	7.036	1,537.3	2.335	0.6644	1.182	1.456	151.5	7.242
1989	43.381	2.070	130.41	7.024	1,510.5	2.335	0.6733	1.102	1.304	151.9	7.099
1990	42.527	2.052	129.11	6.929	1,519.7	2.320	0.7139	1.256	1.465	184.5	7.503
1991	42.664	2.048	128.43	6.956	1,530.8	2.337	0.6991	1.325	1.531	180.9	7.584

■ SOURCE: COMMISSION SERVICES

**GROSS DOMESTIC PRODUCT AT MARKET PRICES****BILLION ECU AT CURRENT PRICES**

	BE	DE	ES	FR	IT	NL	UK	EC 12	USA	CDN	JAPAN
1970	24.7	180.5	36.8	139.8	105.1	32.7	121.2	676.9	987.3	-	199.3
1971	27.2	205.9	40.8	153.2	112.7	37.3	134.3	751.0	1,045.5	-	221.8
1972	31.3	230.3	48.3	174.6	122.0	42.9	143.6	837.3	1,073.0	-	272.0
1973	36.7	280.0	58.4	206.6	135.0	51.3	147.3	968.1	1,091.9	-	337.7
1974	44.8	319.0	74.5	229.6	154.3	63.0	162.8	1,109.9	1,211.6	129.0	395.2
1975	49.8	336.8	85.7	276.0	171.2	70.2	188.3	1,245.8	1,276.6	137.7	411.2
1976	59.7	398.4	97.0	318.2	188.0	85.3	200.7	1,428.3	1,578.5	178.1	502.9
1977	68.1	452.3	105.9	342.1	213.0	98.2	222.4	1,591.1	1,724.2	178.0	607.0
1978	74.6	502.8	115.5	380.3	234.7	107.8	252.7	1,764.6	1,741.6	164.8	765.3
1979	79.4	554.5	143.1	425.6	272.2	114.9	305.5	2,001.1	1,798.5	170.7	737.4
1980	85.0	585.9	152.5	478.5	326.0	122.0	385.5	2,247.2	1,930.9	189.2	762.4
1981	86.6	613.0	165.5	524.0	367.4	127.1	458.6	2,468.6	2,695.6	264.2	1,048.8
1982	87.0	672.5	181.9	563.8	411.8	141.1	495.3	2,696.5	3,186.0	307.7	1,107.1
1983	90.7	737.6	174.4	591.7	469.2	150.2	515.7	2,879.9	3,767.0	366.8	1,326.0
1984	97.5	784.5	198.4	634.8	526.4	158.6	547.6	3,111.5	4,717.6	432.4	1,592.5
1985	105.5	822.2	216.0	691.7	561.3	166.5	601.3	3,341.2	5,199.2	455.2	1,751.8
1986	113.8	907.5	232.4	743.0	613.1	178.5	565.0	3,537.4	4,249.0	366.0	2,000.2
1987	120.5	968.6	251.2	765.1	655.3	184.7	591.2	3,727.3	3,866.3	356.5	2,060.3
1988	127.0	1,017.5	287.9	804.2	701.8	193.3	696.2	4,031.6	4,074.3	409.7	2,405.8
1989	138.3	1,079.8	340.6	863.0	783.5	204.0	750.9	4,382.3	4,665.0	494.1	2,553.5
1990	150.7	1,178.0	382.5	927.4	855.5	218.6	774.3	4,728.1	4,311.2	460.4	2,264.5
1991	160.3	1,271.7	421.1	980.0	926.7	227.7	849.8	5,093.4	4,322.8	467.6	2,456.7

■ SOURCE: COMMISSION SERVICES

## GROSS DOMESTIC PRODUCT AT MARKET PRICES

BN ECU AT 1985 PRICES AND EXCHANGE RATES

	BE	DE	ES	FR	IT	NL	UK	EC 12	USA	CDN	JAPAN
1970	73.8	594.6	143.5	467.1	356.9	118.9	451.7	2,318.2	3,445.9	252.7	918.4
1971	76.5	611.7	150.1	489.2	362.7	124.1	461.1	2,391.7	3,557.6	267.0	957.9
1972	80.6	637.6	162.1	508.4	372.4	128.3	477.8	2,492.0	3,737.8	281.9	1,038.2
1973	85.3	667.4	174.7	536.4	400.0	134.0	510.8	2,645.1	3,916.7	304.1	1,120.0
1974	88.7	669.3	183.9	551.0	421.9	139.3	503.4	2,687.4	3,888.7	317.0	1,106.2
1975	87.5	658.7	184.9	548.3	410.9	139.3	498.8	2,662.0	3,848.8	325.2	1,135.0
1976	92.3	694.3	191.0	572.7	437.6	146.5	512.8	2,789.6	4,036.2	345.6	1,189.3
1977	92.7	714.8	196.7	592.9	452.8	149.8	524.0	2,872.0	4,215.7	358.2	1,252.2
1978	95.3	735.3	199.6	613.0	469.4	153.6	543.5	2,960.7	4,431.3	374.5	1,316.2
1979	97.3	765.8	199.2	632.8	497.6	157.1	558.7	3,064.5	4,518.8	388.5	1,384.4
1980	101.5	776.2	201.7	641.8	517.8	158.5	546.4	3,103.9	4,515.7	394.8	1,445.9
1981	100.5	777.5	201.2	649.6	523.6	157.5	539.0	3,109.1	4,617.5	409.2	1,501.8
1982	102.0	772.5	203.7	664.5	528.7	155.3	548.7	3,135.5	4,499.0	396.0	1,544.4
1983	102.3	784.1	207.4	669.3	530.9	157.4	567.9	3,185.7	4,675.1	408.5	1,593.1
1984	104.6	806.2	211.1	679.3	547.1	162.3	579.9	3,261.5	5,010.3	434.8	1,672.9
1985	105.5	822.2	216.0	691.7	561.3	166.5	601.3	3,341.2	5,199.2	455.2	1,751.8
1986	107.2	841.4	223.0	706.8	575.8	169.8	622.4	3,427.7	5,346.3	469.0	1,795.5
1987	109.2	856.7	235.4	719.7	593.0	171.7	651.9	3,519.6	5,543.9	490.1	1,871.0
1988	113.8	888.4	247.1	743.5	616.3	176.3	678.8	3,651.8	5,797.6	514.7	1,978.5
1989	118.5	917.8	259.0	770.4	635.6	183.4	693.4	3,771.3	5,944.4	530.4	2,074.1
1990	122.6	957.5	268.2	789.4	651.6	189.8	704.1	3,878.7	6,008.5	536.6	2,199.5
1991	125.2	987.0	275.2	809.6	666.5	193.7	708.9	3,966.8	6,025.9	543.1	2,291.9

■ SOURCE: COMMISSION SERVICES

## GDP DEFULATOR AT MARKET PRICES

1985 = 100 - IN NATIONAL CURRENCY

	BE	DE	ES	FR	IT	NL	UK	EC 12	USA	CDN	JAPAN
1970	38.1	51.0	14.2	25.0	13.0	40.6	19.4	29.2	38.4	33.6	44.2
1971	40.2	55.1	15.3	26.6	13.9	43.8	21.2	31.4	40.3	34.7	46.7
1972	42.7	58.0	16.6	28.6	14.8	47.9	22.9	33.6	42.2	36.7	49.3
1973	45.8	61.7	18.6	31.0	16.7	52.3	24.6	36.6	45.0	39.9	55.6
1974	51.6	66.1	21.6	34.8	20.0	57.1	28.2	41.3	49.1	45.7	67.2
1975	57.8	70.0	25.2	39.4	23.3	62.9	35.9	46.8	53.9	50.2	72.4
1976	62.2	72.6	29.4	43.7	27.6	68.5	41.3	51.2	57.3	54.5	77.6
1977	66.9	75.3	36.2	47.6	32.7	73.1	47.1	55.4	61.2	57.9	82.1
1978	69.8	78.5	43.7	52.4	37.3	77.0	52.4	59.6	65.6	61.4	86.0
1979	73.0	81.7	51.1	57.7	43.0	80.1	60.0	65.3	71.5	67.7	88.6
1980	75.7	85.6	58.4	64.4	51.7	84.6	71.7	72.4	78.0	74.8	92.0
1981	79.2	89.0	65.4	71.7	61.2	89.2	79.9	79.4	85.4	82.9	94.9
1982	84.9	92.9	74.4	80.3	71.2	94.6	85.9	86.0	90.9	90.1	96.7
1983	89.7	95.9	83.0	88.1	82.4	96.4	90.5	90.4	94.0	94.5	97.4
1984	94.3	97.8	92.1	94.5	91.8	98.2	94.7	95.4	97.4	97.4	98.6
1985	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1986	103.5	103.1	110.9	105.2	107.5	100.5	103.5	103.2	102.5	102.4	101.8
1987	105.7	105.2	117.5	108.4	114.1	100.0	108.5	105.9	105.5	106.8	101.6
1988	107.9	106.7	124.2	112.0	120.9	101.9	115.7	110.4	108.9	111.2	102.0
1989	112.7	109.4	132.8	115.8	128.6	103.4	123.8	116.2	113.3	116.6	103.6
1990	116.4	113.4	142.6	119.8	137.8	106.4	133.3	121.9	118.1	120.6	105.2
1991	121.6	118.5	152.2	123.9	147.0	109.4	142.3	128.4	124.6	126.5	107.4

■ SOURCE: COMMISSION SERVICES

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER BY CUSTOMERS

## AIRFRAME AND MISSILES (MIO ECU)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
STATE	2,479	3,556	3,699	3,697	3,815	4,248	4,517	5,598	5,819	6,360	6,233
R-D CONTRACTS	769	1,169	1,093	1,133	1,137	1,312	1,597	1,660	1,955	2,031	1,694
- CIVIL	69	70	101	103	103	123	59	55	272	420	88
- MILITARY	701	1,099	992	1,030	1,034	1,189	1,538	1,605	1,683	1,611	1,607
MAINTENANCE	344	487	554	600	657	626	817	836	964	1,080	1,147
- CIVIL	21	15	28	31	39	45	32	29	16	24	19
- MILITARY	322	473	526	569	618	581	785	807	947	1,056	1,128
PROCUREMENT	1,366	1,900	2,052	1,963	2,021	2,310	2,104	3,102	2,901	3,249	3,392
- CIVIL	91	440	78	64	90	240	87	57	137	143	143
- MILITARY	1,275	1,460	1,974	1,899	1,930	2,069	2,017	3,045	2,763	3,106	3,249
AEROSPACE MANUFACTURERS	1,533	2,059	3,042	4,017	4,786	5,456	5,422	5,196	5,972	5,418	7,437
NATIONAL	536	737	938	1,212	1,356	1,441	1,346	1,317	1,408	1,494	2,172
- CIVIL	266	394	532	463	588	892	832	862	768	810	1,154
- MILITARY	270	343	405	749	768	549	514	455	640	684	1,018
OTHER EC STATES	840	1,100	1,744	2,432	2,924	3,626	3,654	3,119	3,079	3,125	4,042
- CIVIL	229	304	446	723	1,159	1,360	1,296	1,466	1,316	1,606	2,511
- MILITARY	611	796	1,298	1,708	1,765	2,266	2,357	1,653	1,763	1,519	1,531
NON-EC COUNTRIES	157	221	361	374	506	389	422	759	1,485	799	1,223
- CIVIL	69	95	143	254	409	313	335	371	595	569	604
- MILITARY	88	127	217	120	97	76	87	388	890	229	619
FINAL USERS	3,035	3,038	4,302	5,875	6,785	6,590	7,328	7,438	6,956	7,771	9,079
NATIONAL (CIVIL)	328	245	349	410	473	335	500	569	368	367	425
OTHER EC STATES	163	222	592	514	714	548	499	600	278	415	861
- CIVIL	105	161	169	160	205	245	241	332	176	304	648
- MILITARY	58	61	423	354	508	303	258	268	103	111	213
NON-EC COUNTRIES	2,544	2,571	3,361	4,951	5,599	5,708	6,328	6,269	6,310	6,989	7,792
- CIVIL	656	607	980	1,290	1,145	1,957	2,118	1,857	2,960	2,238	3,101
- MILITARY	1,888	1,965	2,380	3,661	4,454	3,751	4,210	4,411	3,350	4,751	4,691
TOTAL	7,048	8,653	11,044	13,589	15,386	16,294	17,267	18,231	18,747	19,549	22,749

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER BY CUSTOMERS

SPACE-(MIO ECU)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
STATE	110	115	229	242	351	450	478	743	482	633	892
R-D CONTRACTS	90	86	210	152	214	259	284	480	234	431	550
- CIVIL	86	83	196	145	208	180	277	473	231	429	549
- MILITARY	4	3	14	7	6	79	7	7	3	1	2
MAINTENANCE	0	3	5	1	3	5	6	19	16	18	19
- CIVIL	0	3	1	0	0	0	1	13	8	12	13
- MILITARY	0	0	4	1	2	5	5	6	8	6	6
PROCUREMENT	20	25	15	90	134	185	188	244	233	185	323
- CIVIL	18	22	5	85	108	176	187	174	152	162	280
- MILITARY	2	4	10	5	26	9	1	70	81	23	44
AEROSPACE MANUFACTURERS	135	152	196	277	534	509	507	662	834	830	789
NATIONAL	32	55	56	102	147	95	110	216	257	413	296
- CIVIL	32	54	49	97	143	94	108	215	256	404	294
- MILITARY	0	1	7	5	4	0	2	1	1	9	2
OTHER EC STATES	94	91	120	159	362	353	338	414	519	348	464
- CIVIL	94	89	109	158	357	329	338	413	518	344	461
- MILITARY	0	2	11	1	6	24	0	1	1	4	3
NON-EC COUNTRIES	9	6	20	16	24	61	59	32	58	68	29
- CIVIL	7	5	19	14	19	41	49	32	57	68	29
- MILITARY	2	1	1	1	6	20	10	1	2	0	0
FINAL USERS	114	165	218	256	161	174	331	525	877	481	782
NATIONAL (CIVIL)	9	6	10	14	13	17	95	219	342	234	334
OTHER EC STATES	48	115	145	180	81	91	184	221	171	169	296
- CIVIL	48	115	145	180	81	91	184	221	170	169	248
- MILITARY	0	0	0	0	0	0	0	0	1	0	48
NON-EC COUNTRIES	56	44	62	62	67	66	52	85	365	77	152
- CIVIL	54	27	40	29	26	32	9	39	329	77	151
- MILITARY	2	17	22	32	41	34	42	46	36	0	2
TOTAL	359	432	643	775	1,046	1,132	1,316	1,930	2,193	1,944	2,464

■ SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER BY CUSTOMERS

## ENGINE (MIO ECU)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
STATE	917	907	1,213	1,175	1,281	1,255	1,373	1,361	1,538	1,751	1,757
R-D CONTRACTS	344	358	290	324	346	375	292	326	253	390	341
- CIVIL	36	29	29	21	31	24	16	20	33	46	25
- MILITARY	308	328	261	303	315	351	276	305	219	344	316
MAINTENANCE	157	164	286	297	325	326	388	373	352	367	439
- CIVIL	3	6	25	17	10	9	15	7	6	31	49
- MILITARY	154	158	261	281	315	317	372	367	346	336	390
PROCUREMENT	416	385	637	553	610	555	694	662	933	995	977
- CIVIL	18	22	46	40	35	19	16	17	105	209	223
- MILITARY	398	362	590	513	576	535	677	645	829	785	755
AEROSPACE MANUFACTURERS	1,065	1,354	1,722	2,704	2,966	2,828	3,251	3,477	3,786	3,927	4,357
NATIONAL	339	510	627	877	975	738	775	951	884	842	875
- CIVIL	113	153	315	448	389	256	284	329	388	347	418
- MILITARY	225	358	312	429	586	482	491	622	496	495	458
OTHER EC STATES	511	556	573	1,041	1,156	1,205	1,398	1,263	1,365	1,235	1,547
- CIVIL	43	36	53	78	103	87	102	108	131	211	283
- MILITARY	468	520	520	963	1,052	1,118	1,296	1,155	1,234	1,024	1,264
NON-EC COUNTRIES	216	288	522	786	836	886	1,078	1,263	1,537	1,850	1,935
- CIVIL	127	172	382	553	513	605	872	970	1,280	1,599	1,796
- MILITARY	89	115	141	233	323	281	206	293	257	251	139
FINAL USERS	699	761	1,063	1,149	1,394	1,165	1,212	1,822	1,861	1,764	1,883
NATIONAL (CIVIL)	203	221	286	234	214	294	237	293	440	402	478
OTHER EC STATES	52	71	164	146	213	143	124	108	120	271	272
- CIVIL	18	16	41	34	136	65	56	80	47	28	94
- MILITARY	35	55	123	112	76	78	68	29	73	243	179
NON-EC COUNTRIES	443	469	612	769	967	728	851	1,420	1,301	1,090	1,133
- CIVIL	180	188	292	328	438	243	330	568	621	485	485
- MILITARY	263	281	320	441	529	485	521	852	681	605	648
TOTAL	2,682	3,022	3,998	5,028	5,642	5,249	5,836	6,659	7,185	7,442	7,998

SOURCE: INDUSTRIAL ASSOCIATIONS

## BREAKDOWN OF EC OVERALL AEROSPACE TURNOVER BY CUSTOMERS

## EQUIPMENT (MIO ECU)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
STATE	834	866	1,434	1,663	1,837	2,234	2,946	2,937	4,102	4,593	4,677
R-D CONTRACTS	236	237	444	451	456	546	716	663	1,120	1,316	1,015
- CIVIL	6	5	7	7	4	7	13	9	181	365	108
- MILITARY	230	232	437	445	451	539	703	654	939	951	907
MAINTENANCE	163	153	210	253	266	278	390	456	629	667	708
- CIVIL	10	18	12	20	9	10	10	26	26	87	97
- MILITARY	153	136	198	233	257	268	381	430	603	580	611
PROCUREMENT	435	476	779	958	1,115	1,410	1,840	1,818	2,352	2,610	2,954
- CIVIL	35	17	51	39	40	62	34	60	272	372	355
- MILITARY	400	459	729	919	1,076	1,348	1,806	1,757	2,081	2,238	2,599
AEROSPACE MANUFACTURERS	1,401	1,717	2,546	3,412	3,586	3,973	4,141	4,423	5,812	5,892	6,094
NATIONAL	960	1,115	1,521	1,847	2,026	2,334	2,433	2,353	3,472	3,605	3,796
- CIVIL	252	301	493	487	524	646	568	641	944	992	1,109
- MILITARY	708	814	1,028	1,360	1,502	1,687	1,866	1,712	2,527	2,612	2,687
OTHER EC STATES	317	410	679	1,015	1,080	1,120	1,030	1,137	1,487	1,335	1,462
- CIVIL	51	61	126	218	253	259	227	258	370	307	293
- MILITARY	266	349	553	797	827	860	803	879	1,117	1,028	1,169
NON-EC COUNTRIES	124	192	346	549	480	519	678	933	854	952	836
- CIVIL	72	103	143	174	108	111	169	308	298	348	292
- MILITARY	52	89	204	376	372	408	509	625	556	604	544
FINAL USERS	523	534	730	942	923	1,297	1,104	1,337	1,931	2,406	2,441
NATIONAL (CIVIL)	148	150	201	219	211	204	291	340	413	539	668
OTHER EC STATES	89	93	131	167	153	145	148	161	444	457	315
- CIVIL	25	52	57	78	39	41	84	72	153	252	133
- MILITARY	65	42	74	89	114	104	64	89	291	205	182
NON-EC COUNTRIES	286	291	398	556	558	947	665	836	1,075	1,410	1,458
- CIVIL	141	125	156	360	324	394	310	382	326	597	726
- MILITARY	144	167	242	196	234	553	355	454	749	813	732
TOTAL	2,758	3,118	4,710	6,017	6,345	7,504	8,191	8,696	11,845	12,891	13,211

SOURCE: INDUSTRIAL ASSOCIATIONS

## Index of Abbreviations

<b>EC 10</b>	10 Member States: BE, DK, DE, HE, FR, IR, IT, LU, NL, UK	<b>EC 12</b> <b>EUR</b>	EC 10 + Es + Po Western Europe
<i>intra-EC</i>	<i>with EC Member States only</i>		
<i>EC</i>	European Community	<i>ECU</i>	European Currency Unit
<i>BE</i>	Belgium	<i>BFR</i>	Belgian Franc
<i>DK</i>	Denmark	<i>CDK</i>	Danish Crown
<i>DE</i>	Federal Republic of Germany	<i>DM</i>	German Mark
<i>ES</i>	Spain	<i>PTA</i>	Peseta
<i>FR</i>	France	<i>FF</i>	French Franc
<i>HE</i>	Greece	<i>DRA</i>	Drachma
<i>IR</i>	Ireland	<i>IR£</i>	Irish Punt
<i>IT</i>	Italy	<i>LIT</i>	Italian Lira
<i>LX</i>	Luxembourg	---	
<i>NL</i>	Netherlands	<i>HFL</i>	Dutch Guilder
<i>UK</i>	United Kingdom	<i>UK£</i>	Pound Sterling
<i>AUS</i>	Australia	<i>AUS\$</i>	Australian Dollar
<i>CDN</i>	Canada	<i>CA\$</i>	Canadian Dollar
<i>JPN</i>	Japan	<i>YEN</i>	Japanese Yen
<i>SWE</i>	Sweden	<i>SEK</i>	Swedish Crown
<i>USA</i>	USA	<i>US\$</i>	US Dollar
<i>GDP</i>	Gross Domestic Product	<i>R&amp;D</i>	Research and Development
<i>I.C.A.O.</i>	International Organization for Civil Aviation	<i>O.E.C.D.</i>	Organization for Economic Cooperation and Development
<i>A.E.A.</i>	Association of European Airlines		

## Index of Signs Used

<i>Mio</i>	Million	- or NA	Data not available
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