

COMMISSION  
OF THE  
EUROPEAN COMMUNITIES

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THE EUROPEAN AEROSPACE INDUSTRY  
TRADING POSITION AND FIGURES

(Commission Staff Working Paper)

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OF THE  
EUROPEAN COMMUNITIES

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## PREFACE

This document is a compilation of the most relevant statistics available to the Commission of the European Communities on the aerospace sector in Europe and the United States.

The Directorate-General for the Internal Market and Industrial Affairs has been compiling and collating these statistics since 1972. The very first communication to the Council on this subject, dated 19 July 1972 (CC)M(72)850, already included a statistical annex on the trading position of the aerospace sector. In subsequent years (1) it became possible to make a more detailed analysis, owing mainly to the co-operation of AECMA member associations which have helped the Commission conduct a survey on turnover and employment among companies in the sector.

This paper gives the position of the aerospace sector on 31 December 1980 and retains the presentation adopted since 1979 (see documents SEC(79)995, SEC(80)1287 and III/1146/81).

Moreover the chapter entitled "The Military Aviation Market" is not included in the present paper on account of substantial changes to the relevant data.

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(1) See: SEC(73)813	of 01.03.1973
111-243/73	of 31.12.1973
SEC(75)1539	of 23.04.1975
SEC(76)2657	of 09.07.1976
SEC(77)2939	of 02.08.1977
SEC(78)3298	of 28.07.1978
SEC(79)995	of 12.06.1979
SEC(80)1287	of 23.09.1980
III/1146/81	of 05.10.1982

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CHAPTER 1

C I V I L    A I R T R A F F I C

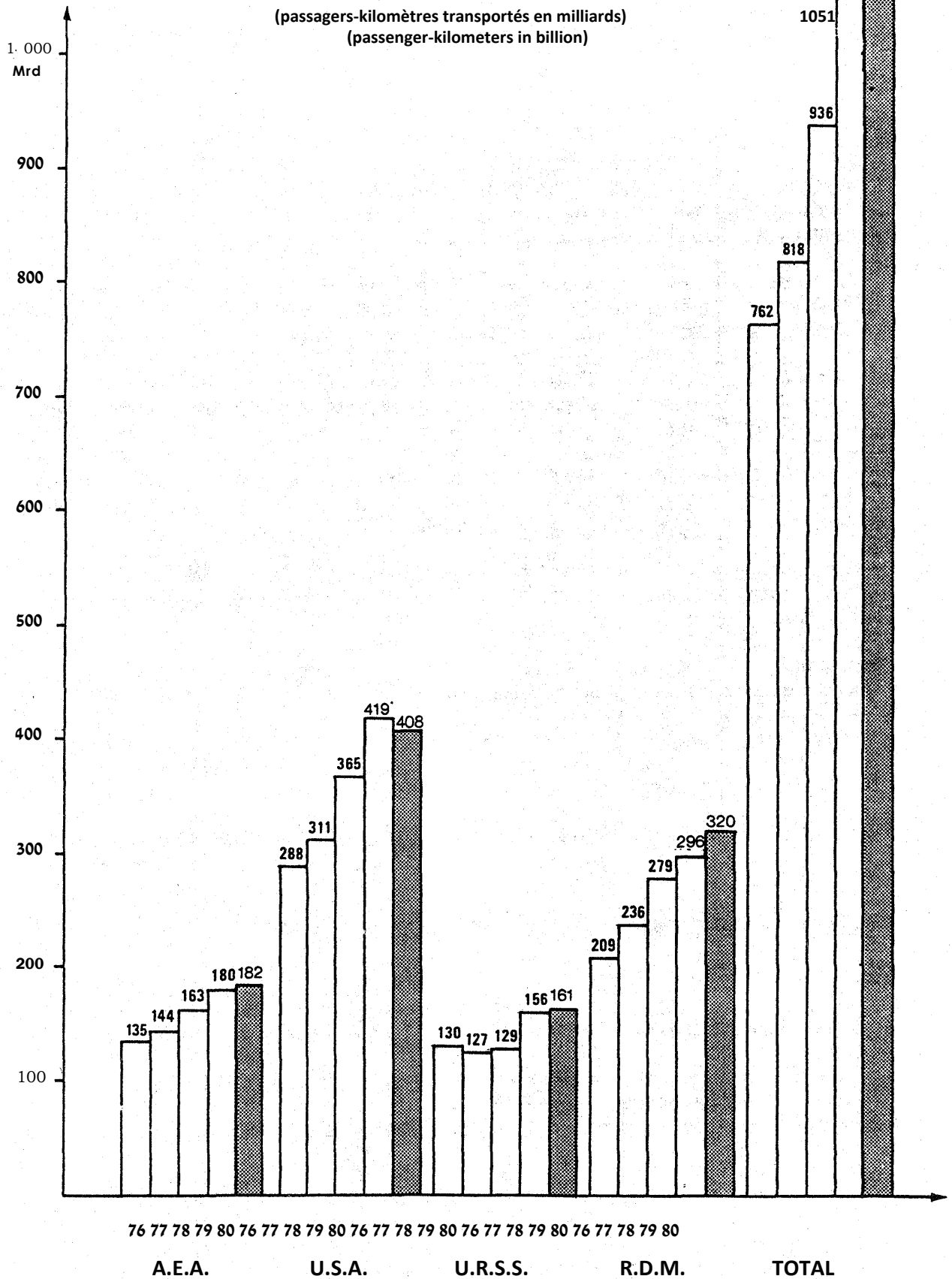
1. In 1980 the volume of world scheduled traffic increased by only 2 % compared with 1979, an amount considerably below the average of the preceding decade (more than 8%). Passenger and freight traffic showed this tendency whilst postal traffic alone achieved above average growth (8,2 %).
2. The load factor of aeroplanes fell to **63%** in 1980 as the supply of seats grew more rapidly than that of air traffic.
3. The volume of scheduled traffic of European companies, members of the A.E.A. witnessed a growth of the order of 1\$ (1979: 10\$). Intercontinental traffic increased by ~~4%~~ 1980, less than before, but nevertheless at the expense of the domestic and intra-European sectors. A breakdown into traffic zones shows that intercontinental traffic took an increasing part of the total traffic of companies, members of the A.E.A., and reached in 1980 63\$ of PKT.'
4. The pattern of world scheduled traffic shows that if member companies of the A.E.A. have experienced the effects of the stagnation in air transport, the traffic of American companies has also recorded a negative growth rate. Their investments which enable them to take advantage of the opportunities offered by a deregulation policy have however made them more susceptible to a reduction of revenues occasioned by the shread of low tariffs and the continuous increase in the price of fuel oil.

x

x

x

### TRAFIC MONDIAL REGULIER DES COMPAGNIES MEMBRES DE L'OACI WORLD SCHEDULED TRAFFIC CARRIED BY ICAO MEMBER COMPANIES



SOURCE : A.E.A.  
SOURCE : A.E.A.

WORLD SCHEDULED TRAFFIC

1) Passengers (billion)

YEAR	Passengers carried	RPK	ASK	Load Factor (%)
Not including USSR				
1973	0,404	520	942	55
1974	0,424	548	966	57
1975	0,436	575	1026	56
1976	0,475	632	1104	57
1977	0,517	691	1180	59
1978	0,581	797	1277	62
1979	0,639	901	1395	65
1980	0,632	910	...	...
Including USSR				
1973	0,489	618	1073	58
1974	0,515	656	1108	59
1975	0,534	697	1179	59
1976	0,576	762	1268	60
1977	0,610	818	1346	61
1978	0,678	936	1451	65
1979	0,738	1051	1595	66
1980	0,734	1071	1709	63

2) Freight (million tonnes)

YEAR	TFC	FTK		
		Freight	Mail	Total
Including USSR				
1973	8,2	17530	2880	20410
1974	8,7	19020	2880	21900
1975	8,7	19370	2900	22270
1976	9,3	21450	3030	24480
1977	10,0	23620	3180	26800
1978	10,6	25930	3270	29200
1979	10,9	27970	3420	31390 I
1980	11,0	29050	3700	32750 I

Notes : - RPK : Revenue Passenger-km  
 - ASK : Available Seat-km  
 - TFC : Tonnes Freight carried  
 - FTK : Freight Tonnes-km  
 - 1980 : Estimates

Source : ICAO : Airlines in 143 countries



RATES OF INCREASE IN REVENUE PASSENGERS-KM BY AEA AIRLINES

	Domestic Traffic	Intra-European Traffic	Intercontinental Traffic	TOTAL
1976-1977	8,6	12,1	4,2	7,0
1977-1978	2,3	9,0	17,3	13,1
1978-1979	10,4	6,8	11,5	10,1
1979-1980	-2,3	-3,4	4,2	1,4
1977-1980	10,3	12,4	36,4	26,2

PERCENTAGE DISTRIBUTION OF AEA AIRLINE TRAFFIC

	1976	1977	1978	1979	1980
Domestic Traffic	11,6	11,7	10,6	10,7	10,3
Intra-European Traffic	28,4	29,5	29,0	27,8	26,5
Intercontinental Traffic	60,0	58,8	60,4	61,4	63,2
Total	100,0	100,0	100,0	100,0	100,0

DISTRIBUTION OF WORLD SCHEDULED TRAFFIC

Revenue Passenger-km (billion)

Traffic Zones	1976		1977		1978		1979		1980	
	RPK	%	RPK	%	RPK	%	RPK	%	RPK	%
AEA	135	18	144	18	163	17	180	17	182	17
USA	288	38	311	38	365	39	419	40	408	38
URSS	130	17	127	15	129	15	156	15	161	15
Rest of World	209	27	236	29	279	28	296	28	320	30
TOTAL	762	100	818	100	936	100	1051	100	1071	100

	Trend		
	77/78	78/79	79/80
AEA	+ 13 %	+ 10 %	+ 1 %
USA	+ 17 %	+ 15 %	- 3 %
URSS	+ 2 %	+ 21 %	+ 3 %
Rest of World	+ 18 %	+ 8 %	+ 8 %
TOTAL	+ 14 %	+ 13 %	+ 2 %

Notes : - 1980 : Estimates

- Source : AEA (Association of European Airlines)

AEA AIRLINE TRAFFIC

TRAFFIC	RPK (million)				ASK (million)				Load Factor (%)			
	1977	1978	1979	1980	1977	1978	1979	1980	1977	1978	1979	1980
Domestic	17015	17400	19217	18774	25989	26338	28818	29448	65,5	66,1	66,7	63,8
Intra-European	42985	46859	50039	48330	73010	78970	84495	86688	58,9	59,3	59,2	56,1
Intercontinental	84359	98967	110392	115056	144405	160712	170495	186394	58,4	<b>61,6</b>	64,7	<b>61,7</b>

Notes s - 1980 ; Estimates

- Source : AEA

11-12

CHAPTER 2

THE CIVIL TRANSPORT MARKET

1. The figures of this chapter were prepared for the Commission by the ITA (Air Transport Institute, Paris). They cover virtually all airlines (more than 450) using all types of aircraft, turbo jets and turboprops built in the United States, Europe, Japan and Canada.
2. During 1980, 50 Airbuses have been sold representing 32\$ (in number) of the sales of wide body aircraft and 11% of the sales of jets. The other sales of European jets related to 2 BAC 111' s and 11 F-28' s.
3. The share of civil fleets held by European users represents 24.8 % of the world fleet in value, and 23.1 % in number, or 30.3 % in value and 27.2 % in number for long-haul carriers and 22.1 % in value and 21.9 % in number for short/medium haul carriers. The penetration of aircraft built in Europe increased in 1979-1980 by 4,1 % in the rest of the world and by 0.6 % in the european countries not members of the EEC. The penetration decreased in 1979-1980 by 3-1 % on EEC-markets and by 0.3 % on US-markets. Globally, the progression has reached 0.5 % for all the world companies (2.7 % in 1978-1979)
4. In 1980 86.5 % of the world fleet (in value) was of US origin (99.1 % for the long-haul aircraft and 80.3 % for the S/M haul aircraft). American penetration of the markets has reached 76.3 % in 1980 (1979=74.0%) in Europe and was reduced to 81.6% in 1980 (1979=85.4%) in the other countries of the world.
5. Airbus Industrie kept in 1980 its leadership among the constructors of wide body short and medium haul carriers with 35.8\$ (in value) of the world market and takes third place behind Boeing (46.8 %) and McDonnell-Douglas (22.1 %), with 13\*0 % of the sales.

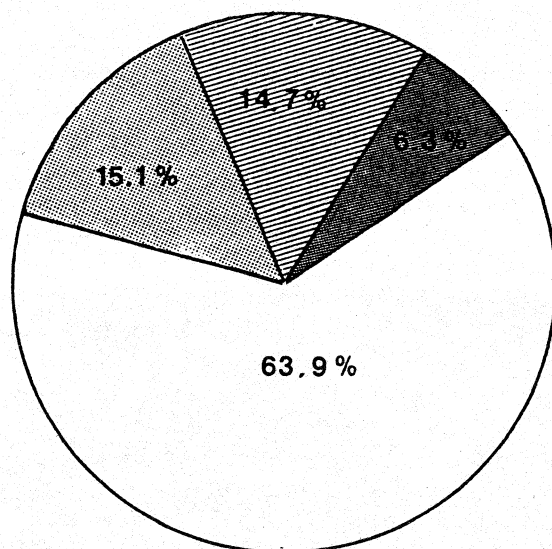
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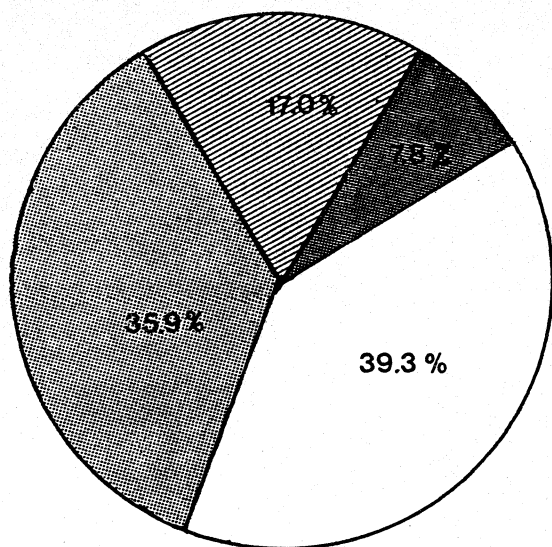
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REPARTITION DU MARCHÉ GLOBAL  
SHARE OF THE OVERALL MARKET

1970



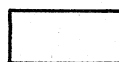
1980



C.E.E.  
E.E.C.



Europe hors C.E.E.  
Europe other than E.E.C.



U.S. A.



Reste du monde  
Rest of the world

VALUE OF AIRCRAFT IN SERVICE OR ON ORDER BUT NOT YET DELIVERED AT 3.1.12.1980

(Mio ECU)

FLETTES	LONG-HAUL			SHORT/MEDIUM-HAUL			TOTAL	%	
	USA	EUROPE	OTHERS	USA	EUROPE	OTHERS			%
Belgique-Belgis	253, 1	-	-	295, 5	106, 4	-	655, 0	0, 7	
Danmark	13, 1	-	-	58, 2	33, 0	-	104, 3	0, 1	
Deutschland	1342, 9	-	-	1211, 0	1100, 9	-	3654, 8	3, 7	
France	1315, 4	151, 2	-	416, 9	1237, 0	-	3120, 5	3, 2	
Ireland	48, 2	0, 2	0, 7	126, 1	6, 4	-	181, 6	0, 2	
Italia	858, 0	-	-	800, 1	249, 5	-	1907, 6	1, 9	
Luxembourg	123, 3	-	-	19, 4	8, 0	-	150, 7	0, 1	
Nederland	1171, 2	-	-	284, 4	395, 4	-	1851, 3	1, 9	
United Kingdom	1842, 8	133, 0	0, 7	2063, 4	1139, 0	-	5178, 9	5, 2	
CEE-EE C-EWG-EEG	6968, 0	284, 4	I**	5275, 3	4275, 6	-	16804, 7	17, 0	
Other European Countries	2633, 8	-	-	3807, 2	1228, 5	4, 2	7673, 7	7, 8	
Europe	9601, 8	284, 4	1t»	9082, 5	5504, 1	4, 2	24478, 4	24, 8	
U. S. A.	7219, 0	-	3, 5	30554, 7	948, 6	15, 4	38731, 2	39, 3	
Rest of the world	15469, 9	1, 9	7, 0	13381, 9	6437, 3	66, 5	35364, 5	35, 9	
WORLD	32290, 7	186, 3	11, 9	53009, 1	12890, 0	86, 1	98574, 1	100, 0	





MARKET SHARE WON BY COMMUNITY-BUILT AIRCRAFT

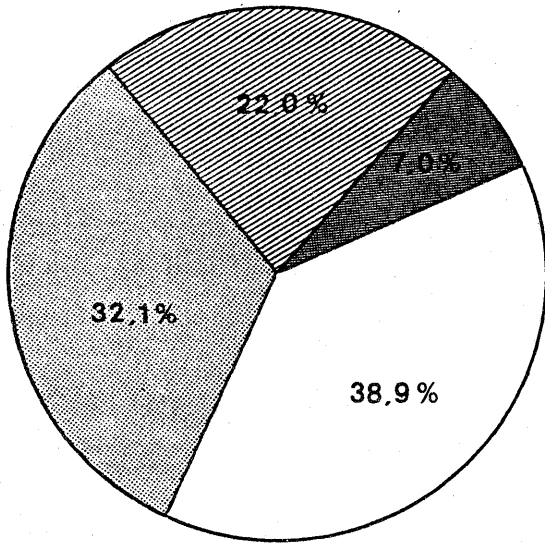
(Breakdown into Short- and Medium-Haul and Long-Haul Aircraft)

( % value )

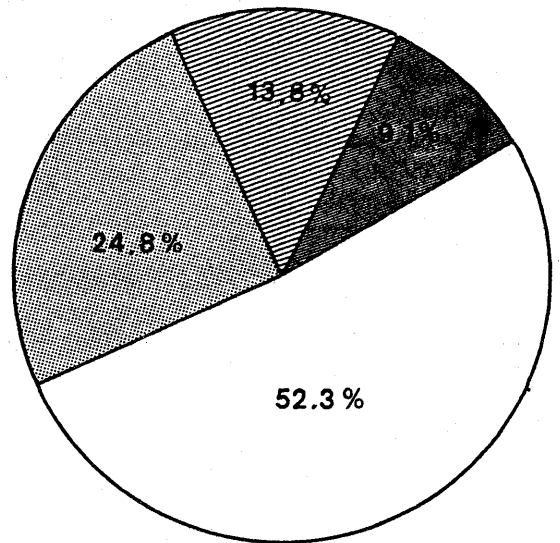
Market share won by Aircraft built in the EEC							
MARKET	1974 %	1976 %	1977 %	1978 %	1979 %	1980 %	Trend 74/80
a) <u>S/M-Haul Aircraft</u>							
CEE-EEC-EWG-EEG	42,9	38,6	42,8	44,6	48,8	44,8	+1,9
Other European Countries	14,1	10,2	9,8	15,7	23,4	24,4	+10,3
Europe	(31,5)	(29,4)	(29,7)	(35,5)	(40,7)	(37,7)	(+6,2)
U.S.A.	0,7	0,3	0,8	3,3	3,6	3,0	+2,3
Rest of the World	25,7	21,8	26,2	25,2	25,0	32,4	+6,7
WORLD	13,9	11,9	14,0	16,1	19,2	19,5	+5,6
b) <u>Long-Haul Aircraft</u>							
CEE-EEC-EWG-EEG	8,6	10,5	9,6	7,8	6,2	3,9	-4,7
Other European Countries	-	-	-	-	-	-	-
Europe	(6,5)	(7,4)	(7,4)	(6,0)	(4,8)	(2,9)	-3,6
U.S.A.	-	-	-	-	-	-	-
Rest of the World	3,0	0,1	-	-	-	-	-3,0
WORLD	2,9	2,5	2,4	1,7	1,4	0,9	-2,0

REPARTITION DU MARCHÉ  
BREAKDOWN OF THE MARKET

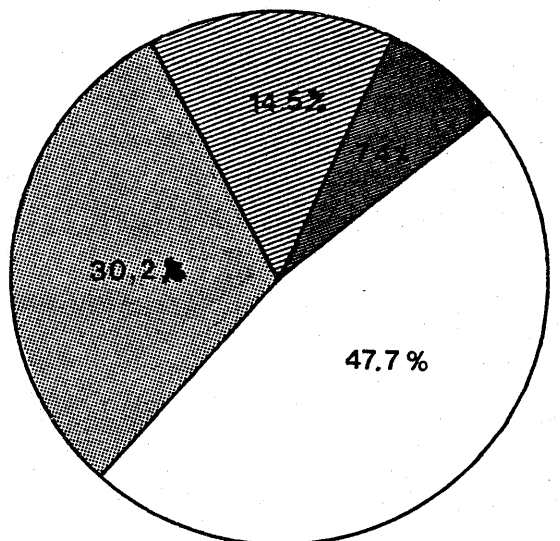
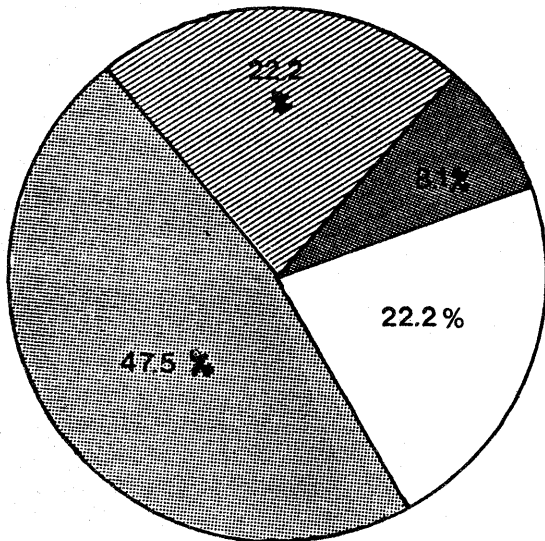
LONG-COURRIERS  
LONG-HAUL



C/M-COURRIERS  
SHORT/M EDIUM-HAUL



1974



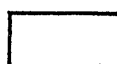
1980



C.E.E.  
E.E.C.



Europe hors C.E.E.  
Europe other than E.E.C.



U.S.A.



Reste du monde  
Rest of the world

MARKET TRENDS AND MARKET SHARE WON BY COMMUNITY-BUILT AIRCRAFT

( % value )

Market (Fleet)	Relative size of the market								Market share won by aircraft built in the EEC							
	1974 %	1976 %	1977 %	1978 %	1979 %	1980 %	Trend 74/80	1974 %	1976 %	1977 %	1978 %	1979 %	1980 %	Trend 74/80		
CEE-EEC-EWG	18,0	17,6	17,7	17,8	18,3	14,7	+3,6	21,4	22,3	23,2	25,7	30,2	33,0	-2,8		
Other European Countries	8,0	7,9	7,8	6,7	7,2	6,3	+0,9	7,7	4,6	6,0	9,3	15,4	23,1	-7,7		
Europe	(26,0)	(25,5)	(25,5)	(24,5)	(25,5)	(21,0)	(+4,5)	(17,2)	(16,9)	(17,9)	(21,2)	(26,0)	(30,1)	(-4,1)		
U.S.A.	45,4	42,8	40,7	40,7	37,5	63,9	-26,4	0,4	0,2	0,6	2,2	2,7	2,1	+0,6		
Rest of the World	28,6	31,7	33,8	34,8	37,0	15,1	+21,9	12,6	10,9	12,7	11,9	14,1	12,1	+2,0		
WORLD	100,0	100,0	100,0	100,0	100,0	100,0	-	8,2	7,8	9,1	10,2	12,9	9,5	+3,4		





SHORT- AND MEDIUM-HAUL AIRCRAFT IN SERVICE AND ON ORDER

( % value )

	1976	1977	1978	1979	1980
Standard Aircraft	72,7	74,4	70,3	66,1	63,9
Wide-Body	27,3	25,6	29,7	33,9	36,1
TOTAL (\$)	100,0	100,0	100,0	100,0	100,0
Boeing	42,2	43,5	50,5	50,2	46,8
McDonnell Douglas	29,6	28,9	21,8	20,0	22,1
Lockheed	15,5	13,0	11,0	10,0	11,2
Other US Manufacturers	0,2	0,2	0,2	0,3	0,2
Airbus Industrie	2,6	4,2	8,5	12,6	13,0
Other European	9,3	9,8	7,6	6,6	6,6
Total USA	87,5	85,6	83,5	80,5	80,3
Total Europe	11,9	14,0	16,1	19,2	19,6
Other Manufacturers	0,6	0,4	0,4	0,3	0,1
TOTAL (%)	100,0	100,0	100,0	100,0	100,0

LONG-HAUL AIRCRAFT IN SERVICE AND ON ORDER

( % value )

	1976	1977	1978	1979	1980
Standard Material	34,8	31,8	26,6	11,6	7,9
Wide-Body	62,6	65,9	71,7	88,4	92,1
Supersonic	2,6	2,3	1,7	(*)	(*)
TOTAL (%)	100,0	100,0	100,0	100,0	100,0
Boeing	66,4	68,2	68,6	65,6	63,2
McDonnell Douglas	30,6	28,4	26,9	28,7	30,8
Other US Manufacturers	0,01	0,9	2,6	M	5,1
European Manufacturers	2,9	2,4	1,8	M	0,9
Other Manufacturers	0,1	0,1	0,1	(0,06)	(0,04)
TOTAL (%)	100,0	100,0	100,0	100,0	100,0

(\*) Included in "Standard Material" - Not available separately.

CHAPTER 3

THE HELICOPTER AND LIGHT AIRCRAFT

MARKET

1. The data on the fleet of single-engined aircraft, twin-engined aircraft and executive jets have been compiled by the "Administration de l'Aéronautique belge", the "Luftfahrt Bundesamt", the "Bureau Veritas", the "Registro Aeronautico Italiano" and the "Civil Aviation Authority". Since the previous data has been compiled using the Veritas Register (International Aviation Register, Bureau Veritas, French edition) they should be used with care following the change in the data bank.
2. The data on the helicopter fleet are those provided by the Société Aérospatiale and relate to the situation on 31.12.80.
3. The French figures relate only to the fleet for Metropolitan France.
4. An inventory of European civil helicopters on the North American market shows a remarkable penetration of this market in 1980, mainly in the United States. The fleet breakdown of European design origin has increased by about 21 % compared with 1979, reaching thus 531 units, i.e. 6.1 % of the global fleet of civil helicopters in North America.

x                    x  
x                    x



CIVIL HELICOPTER FLEET IN WESTERN EUROPE AND NORTH AMERICA AT 31 DECEMBER 1980

	Fleet		Fleet Breakdown by-Design Origin			
			USA		EEC	
	Number	%	Number (*)	%	Number	%
Belgique-Belgig	27	1,9	17 (3)	63,0	10	37,0
Danmark	38	2,6	38 (2)	100,0	-	-
Deutschland	343	23,7	186 (56)	54,2	157	45,8
France	384	26,6	155 (79)	40,4	229	59,6
Hellas	18	1,2	13 (3)	72,2	5	27,8
Ireland	13	0,9	12 (1)	92,3	1	16,7
Italia	163	11,3	115 (79)	70,5	48	29,5
Luxembourg	-	-	-	-	-	-
Nederland	27	1,9	12 (0)	44,4	15	55,6
United Kingdom	432	29,9	381 (129)	88,2	51	11,8
CEE-EEC-EWG-EEG (10)	1445	100,0	929 (352)	64,3	516	35,7
Europe-Europa (**)	576	-	423 (141)	73,4	98	17,1
USA & Canada	8677	-	8146 (6)	93,9	531	6,1

(\*) The number of helicopters manufactured in Europe under licence is given in brackets.

(\*\*) Non-EEC European countries.

Source : Aerospatiale

SINGLE-ENGINE AIRCRAFT FLEET IN WESTERN EUROPE AT 31. 12. 1980

	Fleet		Fleet Breakdown by Design Origin											
	Number	%	USA		EEC		Canada		Others					
			Number	%	Number	%	Number	%	Number	%				
Belgique-Belgie **	733	100,0	454	61,9	275	37,5	-	-	4	0,6				
Danmark	775	100,0	609	78,6	142	18,3	16	2,1	8	1,0				
Deutschland	5596	100,0	2420	43,3	3018	53,9	2	0,0	156	2,8				
France	5199	100,0	1547	29,8	3608	69,4	.	.	44	0,8				
Ireland	211	100,0	99	46,9	110	52,1	.	.	2	1,0				
Italia	1105	100,0	460	41,6	629	56,9	.	.	16	1,5				
Luxembourg	40	100,0	26	65,0	11	27,5	.	.	3	7,5				
Nederland	461	100,0	385	83,5	55	11,9	1	0,2	20	4,4				
United Kingdom	4284	100,0	2471	57,7	1698	39,6	8	0,2	107	2,5				
CEE-EEC-EWG-EEG (9)	18404	100,0	8471	46,0	9546	51,9	27	0,8	360	2,0				

Source : Ministère des Communications - Administration de l' Aéronautique (B)  
 Luftfahrt Bundesamt (D)  
 Bureau Veritas (DK, F, IRL, L, NL)  
 Registro Aeronautico Italiano (I)  
 Civil Aviation Authority (UK)

TWIN-ENGINE LIGHT AIRCRAFT AND EXECUTIVE JET FLEET IN WESTERN EUROPE AT 31.12.1980

	FI<set		Fleet Breakdown by Design Origin											
			USA				EEC				Canada		Others.	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
Belgique-Belgig	84	100,0	76	90,5	8	9,5	-	-	-	-	-	-	-	
Danmark	97	100,0	84	86,6	13	13,4	-	-	-	-	-	-	-	
Deutschland	830	100,0	731	88,1	87	10,5	6	0,7	6	0,7	-	-	0,7	
France	600	100,0	490	81,7	109	18,2	1	0,1	-	-	-	-	-	
Ireland	19	100,0	19	100,0	-	-	-	-	-	-	-	-	-	
Italia	239	100,0	168	69,7	71	29,5	-	-	-	-	2	0,8	-	
Luxembourg	3	100,0	3	100,0	-	-	-	-	-	-	-	-	-	
Nederland	66	100,0	54	81,8	12	18,2	-	-	-	-	-	-	-	
United Kingdom	1243	100,0	911	73,3	279	22,5	19	1,5	34	2,7	-	-	-	
CEE-EEC-EWG-EEG (9)	3183	100,0	2536	79,7	579	18,2	26	0,8	42	1,3	-	-	-	

Source : Ministère des Communications - Administration de l'Aéronautique (B)  
 Luftfahrt Bundesamt (D)  
 Bureau Veritas (DK, F, IRL, L, NL)  
 Registro Aeronautico italiano (I)  
 Civil Aviation Authority (UK)

SINGLE-ENGINE, TWIN-ENGINE LIGHT AIRCRAFT AND EXECUTIVE JET FLEET IN WESTERN EUROPE AT 31.12.1980

	FI<set		Fleet Breakdown by Design Origin											
			USA				EEC				Canada		Others	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
Belgique-Belgis	817	100,0	530	64,9	283	34,6	-	-	4	0,5				
Danmark	872	100,0	693	79,5	155	17,8	16	1,8	8	0,9				
Deutschland	6426	100,0	3151	49,1	3105	48,3	8	0,1	162	2,5				
France	5799	100,0	2037	35,1	3717	64,1	1	0,0	44	0,8				
Ireland	230	100,0	118	51,3	110	47,8	-	-	2	0,9				
Italia	1346	100,0	628	46,7	700	52,0	-	-	8	0,6				
Luxembourg	43	100,0	29	67,4	11	25,6	-	-	3	7,0				
Nederland	527	100,0	439	83,3	67	12,7	1	0,2	20	3,8				
United Kingdom	5527	100,0	3382	61,2	1977	35,8	27	0,5	141	2,5				
CEE-EEC-EWG-EEG (9)	21587	100,0	11007	51,0	10125	46,9	53	0,2	402	1,9				

Source : Ministère des Communications - Administration de l'Aéronautique (B)  
 Luftfahrt Bundesamt (D)  
 Bureau Veritas (DK, F, IRL; L, NL)  
 Registro Aeronautico Italiano (I)  
 Civil Aviation Authority (UK)

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CHAPTER 5

I N T E R N A T I O N A L   T R A D E

- 1 • 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).
2. The entry into force of the GATT-agreement on the trade of civil aircraft has had as immediate statistical consequence the redefinition of the statistical subdivisions of the tariff positions of civil and military aeronautical goods. The new statistical data only concern the civil aeronautical products and therefore exclude the military ones.
3. In order to simplify the presentation of the data concerning the trade in these products, four groups of products have been created to cover these NIMEXE positions, as follows :

- Airframes : 8801-10 - 8802-01 - 8802-21 - 8802-41 - 8803-20  
8803-40 - 8805-40.

- Engines : 8406-03 - 8406-14 - 8406-26 - 8406-92 - 8408-01  
8408-12 - 8408-21 - 8408-32 - 8408-51 - 8408-72  
8408-82.

- Equipment : 8453-01 - 8453-09 - 8514-10 - 8515-02 - 8515-06  
8515-11 - 8515-34 - 8515-40 - 8522-40 - 9014-01  
9014-07 - 9014-12 - 9014-17 - 9028-02 - 9028-62  
9029-01 - 9029-15.

- Other Material : 3907-01 - 4009-10 - 4011-20 - 4016-10 - 6205-01  
6813-38 - 6814-10 - 7008-01 - 7325-01 - 7338-01  
8302-01 - 8307-10 - 8308-20 - 8407-01 - 8410-20  
8411-01 - 8411-52 - 8412-20 - 8415-01 - 8418-51  
8421-01 - 8422-01 - 8459-45 - 8463-11 - 8463-15  
8501-01 - 8501-03 - 8501-04 - 8501-05 - 8501-06  
8501-07 - 8508-20 - 8512-02 - 8512-11 - 8512-50  
8517-20 - 8520-01 - 8522-81 - 8523-01 - 9018-10  
9023-01 - 9024-10 - 9027-20 - 9103-10 - 9108-10  
9401-02 - 9403-11 - 9403-15 - 9403-19.

4. Data concerning the United Kingdom are not complete and do not allow the subdivision as indicated at paragraph 3. However, an estimation of the UK's intra EEC exports can be obtained using the data based on turnover supplied by the SBAC.
5. The substantial modifications of the data base do not allow the comparison of the evolution of the Intra EEC and extra EEC trade during the period 1979-1980, for the reasons quoted above.

INTRA COMMUNITY TRADE IN 1980 : AIRFRAMES - ENGINES - EQUIPMENT - OTHER MATERIAL

(1000 ECU)

	B - L	DK	D	F	IRL	I	NL	UK	EEC EXPORT
IMPOR									
EXPOR									
Belgique-Lux	-	543	9634	3453	182	904	3365	699	18780
Danmark	1262	-	2623	1294	1215	237	412	92	7135
Deutschland	47519	2684	-	37802	308	9912	34003	5851	138079
France	43317	34726	1128336	-	1878	113641	10924	5741	1338563
Ireland	678	1057	745	9	-	58	3	1036	3586
Italia	8020	207	6065	2644	23	-	626	346	17932
Nederland	9983	9164	38045	10620	130	818	-	3722	72482
United Kingdom	22723	2760	95020	81021	7746	5233	71537	-	286040
EEC IMPORT	133502	51141	1280468	136843	3736	130804	120870	17487	1874851
BALANCE	-114722	-44006	-1142389	1201720	-150	-112872	-48388	268553	-

(1) Data incomplete - See introductory Note

Source : EUROSTAT Import Tables

INTRA COMMUNITY TRADE IN 1980 : AIRFRAMES

(1000 ECU)

IMPORT EXPORT	B - L	DK	D	F	IRL	I	NL	UK (1)	EEC EXPORT
Belgique-Lux	-	120	5999	1229	47	105	2092	...	9592
Danmark	722		1918	29	1050	2	45	..	3766
Deutschland	15353	333		19598	25	1865	21501	..	58675
France	13054	26599	1102458		122	107033	6101	..	1255367
Ireland	454	1051	745	1		0	3	..	2254
Italia	6700	106	2169	1382	0		95	..	10452
Nederland	3128	439	36172	9600	4	324		..	49667
United Kingdom (*)	13791	679	28559	38499	723	1021	23109	-	106381
EEC IMPORT	53202	29327	1178020	70338	1971	110350	52946	...	1496154
BALANCE	-43610	-25561	-1119345	1185029	283	-99898	-3279	106381	-

(1) Data incomplete - See introductory Note

Source : EUROSTAT "Import" Tables



INTRA COMMUNITY TRADE IN 1980 : ENGINES

(1000 ECU)

	B - L	DK	D	F	IRL	I	NL	UK	EEC EXPORT
IMPORT									
EXPORT									
Belgique-Lux	-	4	1752	1511	1	0	14	404	3686
Danmark	362	-	340	31	0	0	9	13	755
Deutschland	26289	930	-	2091	131	4244	10201	1358	45244
France	25130	141	15359	-	1515	1876	3159	4765	51945
Ireland	12	3	0	0	-	0	0	169	184
Italia	780	0	2841	441	0	-	435	274	4771
Nederland	1609	7982	825	246	0	1	-	2915	13578
United Kingdom	7603	80	61840	21158	2286	1505	34927	-	129399
EEC IMPORT	61785	9140	82957	25478	3933	7626	48745	9898	249562
BALANCE	-58099	-8385	-37713	26467	-3749	-2855	-35167	119501	-

(1) Data incomplete - See introductory Note

Source : EUROSTAT "Import<sup>11</sup> Tables

INTRA COMMUNITY TRADE IN 1980 : EQUIPMENT

(1000 ECU)

EXPORT	B - L	DK	D	F	IRL	I	NL	UK	EEC EXPORT
Belgique-Lux	-	7	715	391	96	164	121	194	1688
Danmark	152	-	73	1108	142	143	317	55	1990
Deutschland	1339	277	-	7211	16	793	742	1028	11406
France	1805	7384	4874	-	36	1111	1437	498	17145
Ireland	131	2	0	6	-	1	0	758	898
Italia	76	4	13	280	3	-	11	37	425
Nederland	1766	448	343	111	89	117	-	524	3398
United Kingdom	708	1373	2920	9334	1189	1670	9778	-	26972
EEC IMPORT	5977	9495	8938	18441	1571	4000	12406	3094	63922
BALANCE	-4289	-7505	2468	-1296	-673	-3575	-9008	23878	-

(1) Data incomplete - See introductory Note

Source : EUROSTAT "Import" Tables

INTRA COMMUNITY TRADE IN 1980 : OTHER MATERIAL

(1000 ECU)

EXPORT	B - L	DK	D	F	IRL	I	NL	UK	EEC EXPORT
Belgique-Lux	-	412	1168	322	38	635	1138	101	3814
Danmark	26	-	292	126	23	92	41	24	624
Deutschland	4538	1144	-	8902	136	3010	1559	3465	22754
France	3328	602	5645	-	205	3621	227	478	14106
Ireland	81	1	0	2	-	57	0	109	250
Italia	464	97	1042	541	20	-	85	35	2284
Nederland	3480	295	705	663	37	376	-	283	5839
United Kingdom (1)	621	628	1701	12030	3548	1037	3723	-	23288
EEC IMPORT	12538	3179	10553	22586	4007	8828	6773	4495	72959
BALANCE	-8724	-2555	12201	-8480	-3757	-6544	-934	18793	-

(1) Data incomplete - See introductory Note

Source : EUROSTAT "Import" Tables

## EXTRA-COMMUNITY TRADE IN 1980 : AIRFRAMES - ENGINES - EQUIPMENT - OTHER MATERIAL

(1000 ECU)

	Extra-EE (2)			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
Belgique - Lux.	228225	35303	-192922	207305	6721	-200584	2276	36	-2240	72	62	-10
Danmark	183894	14493	-169401	175216	6390	-168826	639	1014	375	53	0	-53
Deutschland	539560	184245	-355315	493249	53462	-439787	4882	1107	-3775	316	2144	1828
France	954968	1066835	111867	919449	300502	-618947	3977	3508	-469	189	61676	61487
Ireland	25676	14126	-11550	25407	2802	-22605	23	102	79	10	8	-2
Italia	199831	42024	-157807	190992	6651	-184341	138	313	175	49	70	21
Nederland	162941	133314	-29627	141074	75415	-65659	5131	183	-4948	23	8	-15
United Kingdom (1)	353345	17961	-335384	331490	3570	-327920	12760	110	-12650	408	42	-366
CEE -EE C-EWG-EEG	2648440	1508301	-1140139	2484182	455513	-2028669	29826	6373	-23453	1120	64010	62890

(1) Data incomplete - See introductory Note

Source : EUROSTAT Import-Export Tables

EXTRA-COMMUNITY TRADE IN 1980 : AIRFRAMES

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
Belgique - Lux.	189298	24769	-164529	170687	3919	-166768	2250	16	-2234	0	7	7
Danmark	66457	3140	-63317	62011	1425	-60586	76	85	9	1	0	-1
Deutschland	452167	85416	-366751	426144	19272	-406872	1295	133	-1162	199	1816	1617
France	544300	912461	368161	518339	244057	-274282	89	611	522	37	55943	55906
Ireland	13847	5220	-8627	13798	623	-13175	0	87	87	0	0	0
Italia	185416	14190	-171226	182361	4583	-177778	108	0	-108	0	0	0
Nederland	18696	35666	16970	9129	4919	-4210	4137	116	-4021	6	1	-5
United Kingdom (1)	0	0	0	0	0	0	0	0	0	0	0	0
CEE-EEC-EWG-EEG	1470181	1080862	-389319	1382469	278798	-1103671	7955	1048	-6907	243	57767	57524

(1) Data incomplete - See introductory Note

Source : EUROSTAT Import-Export Tables

## EXTRA-COMMUNITY TRADE IN 1900 : ENGINES

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
Belgique - Lux.	32385	4533	-27852	31362	1335	-30027	0	0	0	0	0	0
Danmark	102759	5748	-97011	100079	1353	-98726	352	529	177	0	0	0
Deutschland	62352	54643	-7709	44556	15221	-29335	3479	508	-2971	25	181	156
France	331543	98259	-233284	329351	48389	-280962	1666	1521	-145	29	1639	1610
Ireland	5268	2224	-3044	5193	945	-4248	0	10	10	0	0	0
Italia	7934	3516	-4418	4972	823	-4149	10	37	27	0	0	0
Nederland	119898	83621	-36277	111227	67877	-43350	4	3	-1	0	0	0
United Kingdom (1)	221411	351	-221060	205226	75	-205151	11245	3	0	3	13	10
CEE-EEC-EWG-EEG	883550	252895	-630655	831966	136018	-695948	16756	2611	-14145	57	1833	1776

(1) Data incomplete - See introductory Note

Source : EUROSTAT Import-Export Tables

EXTRA-COMMUNITY TRADE IN 1980 : EQUIPMENT

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
Belgique - Lux.	4659	2399	-2260	3920	1230	-2690	22	20	-2	71	54	-17
Danmark	11432	3967	-7465	10572	3055	-7517	80	274	194	1	0	-1
Deutschland	18886	21714	2828	17296	11992	-5304	35	443	408	50	17	-33
France	42383	29653	-12730	36205	3907	-32298	2126	1179	-947	82	3494	3412
Ireland	4530	5265	735	4440	812	-3628	7	1	-6	6	1	-5
Italia	3434	5927	2493	2554	444	-2110	18	131	113	38	0	-38
Nederland	16593	9338	-7255	14439	1907	-12532	971	59	-912	17	1	-16
United Kingdom (1)	106454	14892	-91562	102066	2719	-99347	1350	93	0	59	20	-39
CEE-EE C-EWG-EEG	208371	93155	-115216	191492	26066	-165426	4609	2200	-2409	324	3587	3263

(1) Data incomplete - See introductory Note

Source : EUROSTAT Import-Export Tables

EXTRA-COMMUNITY TRADE IN 1980 : OTHER MATERIAL

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
Belgique - Lux.	1883	3602	1719	1336	237	-1099	4	0	-4	1	1	0
Danmark	3246	1638	-1608	2554	557	-1997	131	126	-5	51	0	-51
Deutschland	6155	22472	16317	5253	6977	1724	73	23	-50	42	130	88
France	36742	26462	-10280	35554	4149	-31405	96	197	101	41	600	559
Ireland	2031	1417	-614	1976	422	-1554	16	4	-12	4	7	3
Italia	3047	18391	15344	1105	801	-304	2	145	143	11	70	59
Nederland	7754	4689	-3065	6279	712	-5567	19	5	-14	0	6	6
United Kingdom (1)	25480	2718	-22762	24198	776	-23422	165	14	0	346	9	-337
CEE-EE C-EWG-EEG	86338	81389	-4949	78255	14631	-63624	506	514	8	496	823	327

(1) Data incomplete - See introductory Note

Source : EUROSTAT Import-Export Tables



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CHAPTER 6

TURNOVER OF THE  
AEROSPACE INDUSTRY

1. The survey made each year in conjunction with the industrial associations in each Member State enables the turnover of the European aerospace industry to be broken down by type of customer and sector.

2. Mention should be made of the following distinctions:

(a) In each Member State:

- Overall Turnover

This includes transactions between aerospace companies within individual Member States. Consequently, it does not show the output of the aerospace industry as such since it does not separate out intermediate trade in each Member State.

- Final Turnover in each Member State

This does not include transactions between aerospace companies within individual Member States, and thus represents to some extent the output of the aerospace industry as such.

Thus, the difference between overall turnover and final turnover (for each Member State) is an indication of the sale of aerospace goods and services between companies within individual Member States in different subsectors (airframes, engines, equipment and space) and between companies within individual Member States in the same subsectors (e.g. subcontracting between airframe manufacturers for certain sub-assemblies).

(b) Within the EEC as a whole:

" Final EEC Turnover

This represents the output of the EEC as a whole in that it separates out intra-Community transactions. Community turnover is given in the table entitled: "Final Turnover - Breakdown into Civil and Military Contracts".

3. The constant value figures have been completely revised on account of changes made by the Statistical Office of the European Communities on the Gross Domestic Product and the price index.

M. With a view to eliminating double counting in international programs, the data relating to Germany was amended from 1978 onwards.

5. The items considered in the various subsectors are as follows:

\_\_\_\_\_ (a) Airframes : (Aeroplanes, helicopters, gliders), missiles, their parts and spares.

\_\_\_\_\_ (b) Engines : (Piston, turboprop and turbojet engines), their parts and spares, equipment and accessories for installation in the equipment mentioned under (a).

\_\_\_\_\_ (c) Equipment : All equipment for (a) and (b) (finished products, parts and spares, sub-assemblies), including test and ground-training equipment.

\_\_\_\_\_ (d) Space : Space vehicles, satellites, launch vehicles, ground installations.

6. In 1980 the turnover of the European aerospace industry broke new records, reaching more than 17 billion ECU. The final turnover of the EEC increased in the period 1979-1980 by 41.1 % at current prices, and by 21.8 % at 1975 prices and exchange rates. The average growth rate per annum for the decade can be estimated at 15.7 % at current prices, and at 5.7 % at constant prices.

7. The breakdown of aerospace turnover of the principal producing countries of the West highlights the regular growth of the European share since 1972 at the expense of the American share (at current prices). On the basis of constant values however, the maximum recorded in 1976 by the European industry (30.2 %) has not been exceeded, even though the final turnover rose substantially in 1980.

8. The bilateral and/or multilateral cooperation between the different Member States of the Community is responsible for the increase in the trade between the undertakings of the Community during the decade 1970-1980. The proportion of final turnover of the EEC exported to industrial undertakings in the EEC, which accounted for 10.2 % in 1970, reached 17.7 % in 1980, an annual growth rate of 5.7 %.

9. The tables on pages 59 and 60 (which show the evolution of the final turnover of the EEC versus that of the USA) highlight the growth of the EEC in comparison to the USA. Indeed the final turnover of the EEC represented 25.2 % of that of the USA in 1970, and 43.2 % in 1980.

FINAL TURNOVER

(Million ECU)

	B	D	F	I	NL	U.K	EEC (1)	USA	CANADA	JAPAN
(current prices)										
1970	39	770	1310	227	113	1576	4035	21779	...	295
1971	53	823	1386	219	119	1610	4210	18750	...	306
1972	65	908	1529	359	169	2125	5155	17993	586	396
1973	61	1138	1993	353	160	2137	5842	17437	537	525
1974	74	1213	2263	361	141	2500	6552	18735	625	557
1975	99	1279	2924	494	227	2894	7917	19016	622	651
1976	111	1531	3790	491	280	3106	9309	22046	762	755
1977	114	1433	3933	568	301	3425	9774	23017	782	850
1978	132	1705	4220	623	285	3889	10854	25300	790	1046
1979	215	2097	4739	773	336	4129	12289	27174	1032	934
1980	319	2710	6294	1028	336	6647	17334	31545	(1100)	871
(1975 prices and exchange rates)										
1970	66	1291	2135	317	209	2211	6229	24725	...	475
1971	85	1249	2170	289	200	2082	6075	20668	...	463
1972	95	1282	2209	451	256	2656	6949	20409	721	532
1973	81	1388	2583	435	213	2797	7497	20559	670	618
1974	85	1305	2765	407	160	2884	7606	19533	640	567
<u>1975</u>	<u>99</u>	<u>1279</u>	<u>2924</u>	<u>494</u>	<u>227</u>	<u>2894</u>	<u>7917</u>	<u>19016</u>	<u>622</u>	<u>651</u>
1976	98	1367	3459	478	242	3003	8647	18787	608	638
1977	89	1160	3457	502	232	3053	8493	18878	642	628
1978	97	1284	3458	520	206	3175	8740	21590	730	645
1979	152	1494	3567	587	23 2	2854	8886	22917	952	632
1980	218	1854	4276	678	221	3576	10823	25079	(929)	601

(1) The sum of all turnovers of all Member States (greater than the final EEC turnover, since intra-Community transactions between EEC aerospace manufacturers have not been deducted).

FINAL TURNOVER OF THE AEROSPACE INDUSTRY IN THE MAIN WESTERN PRODUCING

COUNTRIES & JAPAN

(current prices)

	U. S. .A		EEC (1)		CANADA		JAPAN	
	Mio ECU	%	Mio ECU	%	Mio ECU	%	Mio ECU	%
1972	17993	74,6	5155	21,4	586	2,4	396	1,6
1973	17437	71,6	5842	24,0	537	2,2	525	2,2
1974	18735	70,8	6552	24,7	625	2,4	557	2,1
1975	19016	67,4	7917	28,1	622	2,2	651	2,3
1976	22046	67,1	9309	28,3	762	2,3	755	2,3
1977	23017	66,9	9774	28,4	782	2,3	850	2,4
1978	25300	66,6	10854	28,6	790	2,1	1046	2,7
1979	27174	65,6	12289	29,7	1032	2,5	934	2,2
1980	31545	(62,0)	17334	(34,1)	(1100)	(2,2)	872	(1,7)

(1975 prices and exchange rates)

	U. S. .A		EEC (1)		CANADA		JAPAN	
	Mio ECU	%	Mio ECU	%	Mio ECU	%	Mio ECU	%
1972	20409	71,3	6949	24,3	720	2,5	532	1,9
1973	20559	70,1	7497	25,5	670	2,3	618	2,1
1974	19533	68,9	7606	26,8	640	2,3	567	2,0
<u>1975</u>	<u>19016</u>	<u>67,4</u>	<u>7917</u>	<u>28,1</u>	<u>622</u>	<u>2,2</u>	<u>651</u>	<u>2,3</u>
1976	18787	65,5	8647	30,2	608	2,1	638	2,2
1977	18876	65,9	8493	29,7	642	2,2	628	2,2
1978	21590	68,1	8740	27,6	730	2,3	645	2,0
1979	22917	68,6	8886	26,6	952	2,9	632	1,9
1980	25079	(67,0)	10823	(28,9)	(929)	(2,5)	601	(1,6)

- (1) The sum of all turnovers of all Member States (greater than the final EEC turnover, since intra-Community transactions between EEC aerospace manufacturers have not been deducted).

OVERALL TURNOVERS OF THE MEMBER STATES IN 1980

(Mio ECU at current prices)

	Mio ECU	Breakdown by subsector (%)			
		Airframes	Engines	Equipment	Space
Belgique	332,9	44,5	37,7	13,5	4,3
Deutschland	3359,2	58,6	10,1	25,1	6,2
France	7636,5	63,2	17,1	17,5	2,2
Italia	1229,7	68,4	13,5	15,4	2,7
Nederland	335,5	93,1	0,0	4,4	2,5
United Kingdom	7646,0	39,1	27,7	30,7	2,5
CEE-EEC-EWG	20539,8	54,0	19,7	23,3	3,0
U. S. A. (79)	...	49,6	14,6	17,1	18,7
U. S. A. (80)	...	48,6	15,2	19,0	17,2
(1)					(2)

(1) Figures estimated from final turnover.

(2) Including missiles.

TREND IN FINAL TURNOVER OF THE AEROSPACE INDUSTRY  
AND GDP« 1975 -1980

(in ECU at constant prices)

	% over the periode		Mean annual growth rate	
	Turnover	GDP	Turnover	GDP
Belgique	120,2	15,1	17,1	2,9
Deutschland	45,0	19,0	7,7	3,5
France	46,2	16,8	7,9	3,2
Italia	37,2	20,8	6,5	3,9
Nederland	-2,6	19,2	-0,5	3,6
United Kingdom	23,6	8,3	<b>4,3</b>	1,6
CEE-EEC-EWG (1)	36,7	16,7	6,5	3,1
United States	31,9	19,1	5,7	3,6
Canada	(49,4)	15,6	(8,4)	2,9
Japan	-7,7	28,2	-1,5	5,1

PERCENTAGE OF GDP REPRESENTED BY TURNOVER OF THE AEROSPACE INDUSTRY

(in ECU at constant prices)

	1975	1976	1977	1978	1979	1980
Belgique	0,20	0,19	0,17	0,18	0,26	0,38
Deutschland	0,38	0,38	0,32	0,34	0,37	0,46
France	1,07	1,21	1,17	1,13	1,13	1,34
Italia	0,32	0,29	0,30	0,30	0,33	0,36
Nederland	0,34	0,34	0,31	0,26	0,29	0,28
United Kingdom	1,55	1,55	1,56	1,57	1,39	1,77
CEE-EEC-EWG (1)	0,74	0,77	0,74	0,73	0,72	0,87
United States	1,53	1,45	1,38	1,51	1,57	1,70
Canada	0,47	0,43	0,46	0,49	0,62	(0,61)
Japan	0,16	0,15	0,14	0,14	0,13	0,12

- (1) The sum of all turnovers of all Member States (greater than the final EEC turnover, since intra-Community transactions between EEC aerospace manufacturers have not been deducted).

FINAL TURNOVER OF THE E. E. C. AND THE U. S. A.

Breakdown into civil and military contracts

(Mio ECU at current prices)

	E. E. C.			United States		
	Mio ECU	civil %	military %	Mio ECU	civil %	military %
1974	5732	30	70	18735	35	65
1975	6848	28	72	19016	33	67
1976	7974	28	72	22046	37	63
1977	8274	25	75	23017	37	63
1978	9116	28	72	25300	39	61
1979	10103	27	73	27174	50	50
1980	14274	28	72	31545	50	50

PROPORTION OF FINAL TURNOVER OF EACH MEMBER STATE EXPORTED TO

INDUSTRIAL UNDERTAKINGS IN OTHER MEMBER STATES (\$)

	1973	1974	1975	1976	1977	1978	1979	1980
Belgique	42.0	56.9	60.3	59.4	54.4	37.5	26.3	27.8
Deutschland	4.8	14.7	12.1	22.8	28.7	28.8	32.4	36.7
France	10.7	9.3	10.8	7.8	8.4	8.6	9.8	9.3
Italia	14.6	11.0	15.0	9.1	7.4	16.9	11.8	26.1
Nederland	2.3	5.6	6.3	7.5	9.7	11.6	11.0	2.9
United Kingdom	13.0	13.6	15.4	18.0	18.2	17.9	20.7	17.2
CEE-EEC-EWG	11.3	12.5	13.5	14.3	15.3	16.0	17.8	17.7



BREAKDOWN OF FINAL EEC TURNOVER IN 1980 BY CUSTOMER CATEGORY

(Mio ECU at current prices)

	Civil	Military	TOTAL
<u>STATES</u>	585,0	6016,6	6601,6
-R&D Contracts	340,5	1724,0	2064,5
-Modifications, Repairs, Maintenance	66,5	980,0	1046,5
-Sales	178,0	3312,6	3490,6
<u>AEROSPACE MANU- FACTURERS IN NON- MEMBER COUNTRIES</u>	689,8	561,7	1251,5
<u>FINAL USERS</u>	2764,1	3656,6	6420,7
-EEC	1303,2	643,6	1946,8
-Non-member countries	1460,9	3013,0	4473,9
TOTAL	4038,9	10234,9	14273,8
%	28	72	100,0

PERCENTAGE BREAKDOWN OF FINAL TURNOVER BY CUSTOMER CATEGORY

Customers	1978		1979		1980	
	Civil	Military	Civil	Military	Civil	Military
<u>STATES</u>	M	<u>42,8</u>	<u>4,1</u>	I' L1	<u>4,1</u>	<u>22,9</u>
-R&D Contracts	2,3	13,4	1,9	13,2	2,4	12,1
-Modifications, Repairs, Maintenance	0,4	6,7	0,5	7,7	0,5	6,9
-Sales	1,7	22,7	1,7	23,2	1,2	23,2
 <u>AEROSPACE MANU- FACTURERS IN NON- MEMBER COUNTRIES</u>	<u>2,6</u>	ii7	<u>3,8</u>	<u>3,3</u>	<u>4,8</u>	<u>3,9</u>
 <u>FINAL USERS</u>	<u>20,7</u>	<u>106,8</u>	<u>19,2</u>	<u>25j 5</u>	<u>19,3</u>	<u>25,6</u>
“E•E•C.	9,6	2,1	9,8	1,8	9,1	4,5
-Non-member countries	11,1	24,7	9,4	23,7	10,2	21,1
 TOTAL <i>it)</i>	27,7	72,3	27,1	72,9	28,2	71,8

PERCENTAGE BREAKDOWN OF FINAL EEC TURNOVER BY MARKET

	1975	1976	1977	1978	1979	1980
1. <u>Aerospace</u>						
-State	56,6	51,5	64,9	49,4	50,0	50,8
-Domestic civil market	8,2	12,9	13,4	9,6	9,8	9,1
-Exports	35,2	35,6	21,7	41,0	40,2	40,1
2. <u>Aviation</u>						
-State	56,3	51,0	65,4	49,0	50,3	50,8
-Domestic civil market	7,6	12,4	12,5	9,4	8,7	8,2
-Exports	36,1	36,6	22,1	41,6	41,0	41,0
2.1 <u>Airframes</u>						
-State	52,5	46,3	65,3	44,8	47,4	49,1
-Domestic civil market	6,8	12,8	12,4	7,8	6,9	6,3
-Exports	40,7	40,9	22,3	47,4	45,7	44,6
2.2 <u>Engines</u>						
-State	60,4	58,2	65,8	51,8	49,1	47,8
-Domestic civil market	7,9	11,9	14,7	12,1	12,2	11,7
-Exports	31,7	29,9	19,5	36,1	38,7	40,5
2.3 <u>Equipment</u>						
-State	63,8	62,0	65,3	60,1	61,0	59,8
-Domestic civil market	10,3	11,4	10,1	12,3	10,8	10,4
-Exports	25,9	26,6	24,6	27,6	28,2	29,8

BREAKDOWN OF STATE BACKING BY CONTRACT TYPE IN 1980

(Mio ECU at current prices)

	E.E • C •		U. i3. A.	
	Mio ECU	%	Mio ECU	<i>i</i>
<u>R&amp;D Contracts</u>	2064,5	28,5	• • •	• • •
-civil	340,5	4,7	• • •	• • •
-military	1724,0	23,8	• • •	• • •
<u>Purchase &amp; maintenance Contracts</u>	5180,7	71,5	• • •	• • •
-civil	244,5	3,4	• • •	• • •
-military	4936,2	68,1	• • •	• • •
TOTAL	7245,2	100,0	16979	100,0
As % of final turnover	(14273,8)	50,7	(31545)	53,8

BREAKDOWN BY SUBSECTOR OF STATE BACKING IN THE EEC IN 1980

(Mio ECU at current prices)

	Mio ECU	%
Airframes	4149,9	57,3
Engines	1356,1	18,7
Equipment	1504,8	20,8
Space	234,4	3,2
TOTAL	7245,2	100,0



TREND IN EEC AND USA FINAL AEROSPACE TURNOVERS (%)

	EEC		UNITED STATES	
	Current Prices	Constant Prices	Current Prices	Constant Prices
1970-1971	4,3 %	-2,5 %	-13,9 *	-16,4 %
1971-1972	22,4 %	14,4 %	-4,0 %	-1,2 %
1972-1973	13,3 %	7,9 %	-3,1 %	0,7 *
1973-1974	<b>12,2</b> %	1,5 *	7,4 %	-5,0 %
1974-1975	<b>20,8</b> %	4,1 *	1,5 %	-2,7 ?
1975-1976	<b>17,6</b> %	9,2 %	15,9 İ	-1,2 *
1976-1977	5,0 %	-1,8 %	4,4 *	0,5 *
<b>1977-1978</b>	<b>11,0</b> %	2,9 <i>f</i>	9,9 %	14,4 %
1978-1979	<b>13,2</b> %	1,7 *	7,4 <i>f</i>	<b>6,1</b> *
<b>1979-1980</b>	41,1 %	21,8 *	16,1 %	9,4 %
1970-1980 (1)	15,7 %	5,7 *	3,8 \$	0,1 »

(1) Mean annual growth rate

TREND IN EEC FINAL TURNOVER AS A PERCENTAGE OF

FINAL TURNOVER IN THE USA

(at current prices)

YEAR	EEC %	USA %
1970	18,5	100,0
1971	22,5	100,0
1972	28,7	100,0
1973	33,5	100,0
1974	35,0	100,0
1975	41,6	100,0
1976	42,2	100,0
1977	42,5	100,0
1978	42,9	100,0
1979	45,2	100,0
1980	55,0	100,0

(1975 prices and exchange rates)

YEAR	EEC %	USA %
1970	25,2	100,0
1971	29,4	100,0
1972	34,0	100,0
1973	36,5	100,0
1974	38,9	100,0
1975	41,6	100,0
1976	46,0	100,0
1977	45,0	100,0
1978	40,5	100,0
1979	38,8	100,0
1980	43,2	100,0

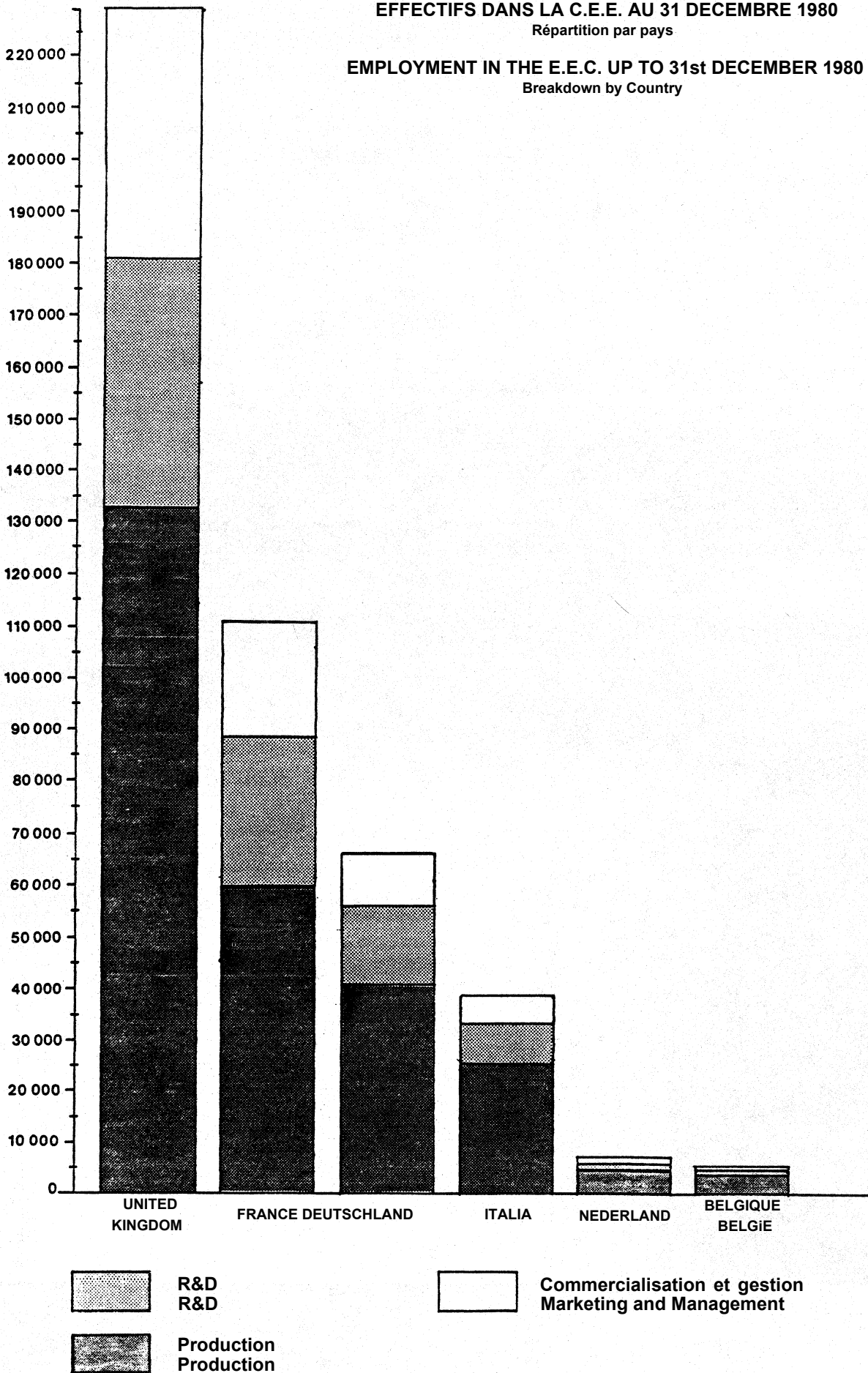
CHAPTER 7

EMPLOYMENT IN THE  
AEROSPACE INDUSTRY



**EFFECTIFS DANS LA C.E.E. AU 31 DECEMBRE 1980**  
Répartition par pays

**EMPLOYMENT IN THE E.E.C. UP TO 31st DECEMBER 1980**  
Breakdown by Country



1. The figures for employment in the European aerospace industry are taken from the results of the annual survey conducted in conjunction with the national industrial associations.
2. The production items taken into consideration in the various sub-sectors are the same as those given in the previous chapter on turnover.
3. Since the Italian industrial association was unable to provide detailed figures, 1800 units should be added to the figures for Italy in the various tables (Subsector equipment).
4. The tables showing the distribution of the workforce by occupational grading should be interpreted with a certain amount of caution, since there are definitions lacking of international uniformity.
5. The fluctuations in employment in the Community from year to year make it impossible to detect a definite trend. However, on the whole, it can be considered that employment in this sector is relatively stable. In view of the increase in turnover, this is a sign of increased productivity.

x

x

x

EMPLOYMENT TRENDS

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Belgique	4941	4380	4422	4025	5015	4895	5068	6272	7032
Deutschland	52455	52985	52982	51914	51367	52416	56348	60886	66086
France	108525	106132	106769	108915	107454	103295	103424	106297	110783
Italia	28500	<b>30000</b>	30000	30768	31991	32080	34036	36570	39134
Nederland	6600	7000	6555	7682	7865	7320	7382	7935	8862
United Kingdom	207500	201700	210100	233792	227402	219251	214918	204381	229821
CEP-EEC-EWG	408521	402197	410828	437096	431094	419257	421176	422321	461718
United States	912000	956000	982000	941000	896000	893000	977000	1115000	1190000
Canada	28800	31700	28400	27300	25300	28900	33800	37700	• • •
Japan	26000	26026	25550	26746	• • •	23756	25398	25653	• • •

WORKFORCE IN THE E. E. C. ON 31 DECEMBER 1980

(Breakdown by subsector)

	AIRFRAMES & SPACE	ENGINES	EQUIPMENT	TOTAL
<u>Occupational grading</u>				
1 • Engineers & Managerial staff	36459	14167	24568	75194
2. Executive staff	56021	19336	26895	102252
- technical	39954	13831	20280	74065
- administrative				
3» Skilled workers	82265	49948	45398	177611
4. Non-skilled workers	16870	5820	9906	32596
TOTAL	231569	<b>103102</b>	127047	461718
<u>Main activity</u>				
1 • R&D	50400	16042	32725	99167
2. Production	136898	67204	67841	271943
3. Marketing & Management	44271	19856	26481	90608
TOTAL	231569	<b>103102</b>	127047	461718
Breakdown (%)	50, 2	22, 3	27, 5	100, 0

WORKFORCE IN THE EEC ON 31 DECEMBER 1980

(Breakdown by country)

	B	D	F	I	NL	U. K	E. E. C	*
<u>Occupational grading</u>								
1. Engineers & managerial staff	585	11033	16817	1341	788	44630	75194	16, 3
2. Executive staff	1269	16296	38840	8120	1388	36339	102252	22, 1
- technical	765	10882	15787	6905	1843	37883	74065	16, 0
- administrative								
3. Skilled workers	3842	22240	37221	15825	4003	94480	177611	38, 5
4. Non-skilled workers	571	5635	2118	6943	840	16489	32596	7, 1
TOTAL	7032	66086	110783	<b>39134</b>	8862	229821	461718	100, 0
<u>Main activity</u>								
1. R&D	156	15520	29081	5373	1335	47702	99167	21, 5
2. Production	6041	40055	59790	27579	6117	132361	<b>271943</b>	58, 9
3. Marketing & Management	835	10511	21912	6182	1410	49758	90608	19, 6
TOTAL	7032	66086	110783	<b>39134</b>	8862	229821	461718	100, 0

BREAKDOWN OF THE WORKFORCE IN THE EEC ON 31 DECEMBER 1980

(Airframes and Space subsectors)

	B	D	F	I	NL	Ü.K	E. E. C	%
<u>Occupational grading</u>								
1. Engineers & managerial staff	364	7363	10880	814	556	16482	36459	15, 7
2. Executive staff	865	11325	22973	5269	915	14674	56021	24, 2
- technical	458	7864	9076	5695	1290	15571	39954	17, 3
- administrative								
3. Skilled workers	2195	12783	17851	10784	3323	35329	82265	35, 5
4. Non-skilled workers	118	4332	810	4842	500	6268	16870	7, 3
TOTAL	4000	43667	61590	27404	6584	88324	231569	100, 0
<u>Main activity</u>								
1. R&D	95	11366	17614	4098	1246	15981	50400	21, 8
2. Production	3234	25863	33567	19012	4953	50269	136898	59, 1
3. Marketing & Management	671	6438	10409	4294	385	22074	44271	19, 1
TOTAL	4000	43667	61590	27404	6584	88324	231569	100, 0

BREAKDOWN OF THE WORKFORCE IN THE EEC ON 31 DECEMBER 1980

(Engines subsector)

	B	D	F	I	NL	U. K	E. E. C	%
<u>Occupational grading</u>								
1. Engineers & managerial staff	140	1155	3170	290	0	9412	14167	13, 7
2. Executive staff	235	1351	8309	1199	0	8242	19336	18, 8
- technical	222	1226	3195	570	0	8618	13831	13, 4
- administrative								
3. Skilled workers	1248	4770	8112	2781	0	33037	49948	48, 4
4. Non-skilled workers	417	199	330	1197	0	3677	5820	5, 7
TOTAL	2262	8701	23116	6037	0	62986	103102	100, 0
<u>Main activity</u>								
1. R&D	42	1001	5548	381	0	9070	16042	15, 6
2. Production	2147	5644	12089	4557	0	42767	67204	65, 2
3. Marketing & Management	73	2056	5479	1099	0	11149	19856	19, 2
TOTAL	2262	8701	23116	6037	0	62986	103102	100, 0

BREAKDOWN OF THE WORKFORCE IN THE EEC ON 31 DECEMBER 1980

(Equipment subsector)

	B	D	F	I	NL	U.K	E. E. C	%
<u>Occupational grading</u>								
1. Engineers & managerial staff	81	2515	2767	237	232	18736	24568	19,3
2. Executive staff	169	3620	7558	1652	473	13423	26895	21,2
- technical	85	1792	3516	640	553	13694	20280	16,0
- administrative								
3« Skilled workers	399	4687	11258	2260	680	26114	45398	35,7
4. Non-skilled workers	36	1104	978	904	340	6544	9906	7,8
TOTAL	770	13718	26077	5693	2278	78511	127047	100,0
<u>Main activity</u>								
1. R&D	19	3153	5919	894	89	22651	32725	25,8
2. Production	660	8548	14134	4010	1164	39325	67841	53,4
3» Marketing & Management	91	2017	6024	789	1025	16535	26481	20,8
TOTAL	770	13718	26077	5693	2278	78511	127047	100,0



70-72

CHAPTER 8

COMPANIES

1. The figures for the turnover and workforce of the major American and European airframe and engine manufacturers have been taken from information supplied by the companies themselves or are published in their annual balance sheets.
2. The data relating to General Electric and United Technologies cover only their aviation operations and do not include all the activities of the groups to which they belong.
3. The turnover/employment ratio is certainly not the best way of measuring productivity, since it inconveniently overestimates the position of manufactures which undertake little R&D activity and/or carry-out more work under license or under sub-contracts.

If individual company data is aggregated at US or Community level for example, these distortions appear to lose their significance, as was pointed out in a former version of this document. (1)

Whilst, during the period 1970-1975, the ratio turnover/employment in the USA as compared to the European Community was 2.03» its value is assessed at 1.15 for 1980. Therefore, even if this kind of international comparison entails an error margin due to monetary factors, it is worth noting the increase in productivity of the European aerospace companies which have strongly improved their position with respect to their american competitors.

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(1) ' ' The European Aerospace Industry - Trading Position and Figures  
SEC(77) 2939, Page 47, Table 69.

TURNOVER (SALES) AND WORKFORCE OF THE MAJOR AEROSPACE MANUFACTURERS

1979 . 1980

(Mio ECU at current values)

RANK		STATE	COMPANY	1980		1979	
*80	' 79			SALES	WORKFORCE	SALES	WORKFORCE
1	1	USA	BOEING	6772	106300	6168	98300
2	2	USA	Mc DONNELL-DUGLAS	4358	82550	3850	82736
3	5	USA	LOCKHEED	3876	74600	2960	66500
4	3	USA	PRATT & WHITNEY	(3874)	(70000)	3345	...
5	4	USA	GENERAL DYNAMICS	3407	84400	2961	...
6	7	UK	BRITISH AEROSPACE	2378	77500	1589	73410
7	6	F	AEROSPATIALE	2244	34422	1951	33833
8	10	UK	ROLLS-ROYCE	2102	58800	1312	57800
9	11	F	DASSAULT-BREGUET	1830	15660	1222	15553
10	9	USA	GENERAL ELECTRIC	(1800)	(24000)	(1600)	(23000)
11	8	USA	ROCKWELL INTL.	(1580)	(32000)	1441	30927
12	13	D	M. B. B.	1309	26287	1059	24500
13	14	USA	GRUMMAN	1242	28000	875	19600
14	12	USA	NORTHROP	1189	30200	1156	...
15	15	USA	CESSNA	718	18024	685	16000
16	16	F	SNECMA	594	11460	513	10800
17	19	F	MATRA	440	(4600)	364	(4300)
18	17	D	V. F. W.	427	12185	385	11177
19	21	NL	FOKKER	409	8862	351	7935
20	23	UK	WESTLAND (Group)	408	12662	307	12380
21	22	D	DORNIER	401	8454	375	8195
22	20	USA	VOUGHT	...	...	359	9570
23	18	I	AGUSTA (Group)	<b>378</b>	<b>9358</b>	381	9201
24	26	D	M. T. U.	276	659*1	202	6398
25	25	JPN	MITSUBISHI H. I. (*)	...	...	247	5925
26	24	I	AERITALIA	233	11500	293	10950
27	28	F	TURBOMECA	218	4400	182	4366
28	27	JPN	ISHIKAWAJIMA H. («)	...	...	187	4503
29	29	JPN	KAWASAKI H. I. (*)	...	...	178	2870
30	30	SWE	SAAB (Aerospace)	180	5952	156	5930
31	32	SP	CASA	160	8270	107	8027
32	31	F	S. E. P.	155	2775	133	2502
33	33	UK	SHORTS	152	6629	104	6648
34	36	B	F. N. HERSTAL	131	2282	80	1831
35	37	I	FIAT AVIAZIONE	124	3555	...	33**8
36	38	B	SABCA	98	1870	79	1860
37	<b>34</b>	CDN	DE HAVILLANO	...	...	(90)	(4700)
38	35	SWE	VOLVO FLYGMOTOR	92	2500	83	2500
39	39	CDN	CANADAIR LTD	...	...	72	(5400)
40	40	I	ALFA ROMEO AVIO	34	1250	33	(1300)

(\*) i Figures are related to fiscal years (from 01.04 to 31.03)

TURNOVER (SALES) AND WORKFORCE OF THE MAJOR AEROSPACE MANUFACTURERS

1977 - 1978

(Mio ECU at current values)

RANK		STATE	COMPANY	1978		1977	
»78	»77			SALES	WORKFORCE	SALES	WORKFORCE
1	1	USA	BOEING	4433	<b>81200</b>	3615	<b>66900</b>
2	2	USA	Mc DONNELL-DOUGLAS	3242	82736	3107	61577
3	4	USA	PRATT & WHITNEY	2790	...	<b>2810</b>	<b>60811</b>
4	3	USA	LOCKHEED	2735	55100	2934	55100
5	5	USA	GENERAL DYNAMICS	<b>2516</b>	77100	2543	73300
6	7	F	AEROSPATIALE	<b>1658</b>	33152	1695	34400
7	8	USA	GENERAL ELECTRIC	(1542)	(24000)	(1535)	( <b>22000</b> )
8	9	USA	NORTHROP	1436	31176	1403	26225
9	6	USA	ROCKWELL INTL.	1356	<b>27303</b>	1948	<b>31626</b>
10	10	UK	BRITISH AEROSPACE	1347	<b>70160</b>	1315	<b>68800</b>
11	12	F	DASSAULT-BREGUET	<b>1101</b>	15183	<b>1016</b>	14819
12	13	UK	ROLLS-ROYCE	973	52590	<b>906</b>	52640
13	11	USA	GRUMMAN	956	19700	<b>1106</b>	<b>21200</b>
14	14	D	M. B. B.	<b>828</b>	<b>22290</b>	<b>680</b>	20664
15	15	USA	CESSNA	685	<b>19000</b>	544	17500
16	16	F	SNECMA	462	10679	409	<b>10816</b>
17	18	JPN	MITSUBISHI H. I. (*)	427	5900	358	6000
18	17	USA	VOUGHT	347	8511	374	7634
19	19	D	V. F. W.	338	10255	341	<b>10066</b>
20	20	NL	FOKKER	<b>298</b>	7425	<b>300</b>	7365
21	22	I	AGUSTA (Groupe)	<b>286</b>	8884	254	8245
22	23	F	MATRA	273	(4100)	233	(3900)
23	21	D	DORNIER	269	7427	273	6864
24	24	UK	WESTLAND (Groupe)	251	12169	<b>212</b>	12894
25	25	I	AERITALIA	223	<b>9610</b>	...	9330
26	31	JPN	ISHIKAWAJIMA H. (*)	204	2500	141	1937
27	26	SUE	SAAB (Aerospace)	194	6307	205	6556
28	30	D	M. T. U.	172	<b>6092</b>	153	5819
29	27	JPN	KAWASAKI H. I. (*)	170	3214	183	3900
30	29	F	S. E. P.	149	2436	165	2463
31	32	ESP	CASA	127	7949	97	7903
32	28	F	TURBOMECA	113	4357	<b>168</b>	4480
33	33	CDN	DE HAVILLAND	94	4000	...	...
34	34	I	FIAT AVIAZIONE	90	2650	<b>86</b>	<b>2610</b>
35	35	SUE	VOLVO FLYGMOTOR	76	<b>2100</b>	72	2070
36	37	8	SABCA	69	1835	53	1835
37	36	UK	SHORTS	<b>66</b>	6504	60	6438
38	38	CDN	CANADAIR LTEE.	57	4871	...	...
39	40	B	F. N. HERSTAL	42	1352	<b>26</b>	985
40	39	I	ALFA ROMEO AVIO	29	1657	29	1627

(\*) s Figures are related to fiscal years (from 01.04 to 31.03)

TURNOVER OF THE EEC HELICOPTER MANUFACTURERS

(Mio ECU at current prices)

STATE	COMPANY	1980	1979	1978	1977
F	AEROSPATIALE	536,9	437,0	443,0	429,9
UK	WESTLAND (1)	307,3	223,0	182,5	143,5
I	AGUSTA (2)	247,2	274,0	237,0	237,6
D	M. B. B.	118,5	90,0	83,7	(67,)
CEE*-EEC-EWG-EEG		1209,9	1024,0	946,2	878,0

WORKFORCE OF THE EEC HELICOPTER MANUFACTURERS

STATE COMPANY	1980	1979	1978	1977	
F AEROSPATIALE	7424	7457	7327	7448	
UK WESTLAND (1)	7000	7000	7000	7500	
I AGUSTA (2)	6090	6050	5950	5640	
D M. B. B.	2100	2000	1800	1500	
CEE-EEC-EWG-EEG		22614	22507	22077	22088

(1) Helicopter activity only

(2) Including the part of SIAI MARCHETTI related to helicopter activity

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CHAPTER 9

PUBLIC FINANCING OF R&D IN THE  
CIVIL AEROSPACE INDUSTRIES

1. The figures given in the following tables were supplied by the SOEC (1) and include funds for research and development granted to industry and to research centres, laboratories, universities, etc.
2. For the EEC Member States taken as a whole, 30 % of R&D funds granted to the aerospace industry in 1980 is devoted to civil aviation R&D and 70 % to space R&D.
3. The data relating to space R&D comprise since 1980 credits allocated to the European Space Agency. This must be taken into account when comparing the data set out below with that of previous years.
4. The marked growth of Italian R&D credits for civil aviation manufacture is to be explained by the inclusion as from 1980 of R&D credits allocated to multilateral programmes.
5. 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 table and those given in the chapter on the turnover of the aerospace industry is indicative of the proportion of public funds granted to non-industrial bodies.  
It would therefore appear that in 1980 some 94 % of aerospace R&D funds for civil aviation goes to industry and the remaining 6 % to other research bodies compared with approximately 69 % and 31 % respectively in 1979.

x

x

x

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(1) Statistical Office of the European Communities

PUBLIC FINANCING OF AEROSPACE R&D

YEAR 1979

	Civil Aviation manufacture			Space			Total		
	a	b	c	a	b	c	a	b	c
Belgique	644	0,9	0,1	24941	33,8	5,3	25585	34,7	5,4
Danmark	-	-	-	9291	36,4	3,8	9291	36,4	3,8
Deutschland	79654	13,9	1,3	265827	46,3	4,2	345481	60,2	5,5
France	149585	32,1	3,3	207052	44,4	4,6	356637	76,5	7,9
Ireland	-	-	-	1346	14,9	2,4	1346	14,9	2,4
Italia	614	0,7	0,1	88094	103,5	9,5	88708	104,2	9,6
Nederland	4932	7,8	0,4	35526	63,3	3,4	39918	71,1	3,8
United Kingdom	37064	29,1	1,2	69259	54,3	2,2	106323	83,4	3,4
CCE-CEC-KEG (1)	-	-	-	1839	7,0	0,8	1839	7,0	0,8
CEE-EEC-EWG	272493	18,9	1,6	703175	48,7	4,2	975668	67,6	5,8

YEAR 1980

	Civil Aviation manufacture			Space			Total		
	a	b	c	a	b	c	a	b	c
Belgique	7576	9,8	1,4	29176	37,6	5,6	30752	47,7	7,0
Danmark	-	-	-	7863	26,1	3,6	7863	26,1	3,6
Deutschland	108959	16,2	1,6	289893	43,0	4,3	398852	59,2	5,9
France	119953	24,3	2,3	328338	66,4	6,2	448291	90,7	8,5
Italia	8950	3,9	0,7	81337	35,9	6,2	90287	39,8	6,9
Ireland	-	-	-	546	14,7	0,1	546	14,7	0,1
Nederland	-	-	-	35684	50,9	3,2	35684	50,9	3,2
United Kingdom	116091	45,0	2,8	87385	33,9	2,1	203476	78,9	4,9
CCE-CEC-KEG (1)	• • •	e ) »	• • •	• • •	• » •	• f »	• • •	• • •	• • •
CEE-EEC-EWG	361529	19,7	1,8	860222	46,9	4,4	1221751	66,6	6,2

- a. 1000 ECU at current prices
- b. % of appropriations for Productivity, Industrial Technology and fare R&D
- c. % of total R&D appropriations

(1) Financing provided by the Commission of European Communities



PUBLIC FINANCING OF AEROSPACE R&D

1976 - 1980

PERCENTAGE BREAKDOWN BY COUNTRY

	Civil Aviation manufacture					Space					Total				
	1976	1977	1978	1979	1980 (1)	1976	1977	1978	1979	1980	1976	1977	1978	1979	1980 (1)
Belgique	0,1	• » •	0,2	0,3	2,1	4,2	4,4	4,1	3,6	3,4	2,6	•	2,9	2,6	3,0
Danmark	-	-	-	-	-	1,5	1,7	1,4	1,3	0,9	1,0	1,2	1,0	1,0	0,6
Deutschland	19,3	23,8	30,9	29,2	30,1	37,2	36,0	36,3	37,8	33,7	30,6	33,1	34,7	35,4	32,7
France	43,2	51,5	49,1	54,9	33,2	32,4	32,0	30,4	29,4	38,2	36,4	39,3	36,1	36,6	36,7
Ireland	-	-	-	-	-	-	-	-	0,2	0,1	-	-	-	0,1	0,0
Italia	-	0,2	-	0,2	2,5	10,0	10,1	12,1	12,5	9,5	6,3	7,2	8,4	9,1	7,4
Nederland	3,1	4,6	1,9	1,8	-	3,8	4,7	5,7	5,1	4,1	3,6	4,9	4,5	4,1	2,9
U.K.	34,3	19,9	17,9	13,6	32,1	10,9	10,8	9,7	9,8	10,1	19,5	14,1	12,2	10,9	16,7
CCE-CEC-KEG	-	-	-	-	• •	-	0,3	0,3	0,3	• •	-	0,2	0,2	0,2	• •
CEE-BEC-EWG	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

(1) Approximative figures, since data on appropriations for civil aviation manufacture R&D in Belgium is not available

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A N N E X E S

EXCHANGE RATES

1 ECU =

	DM	FF	LIT	HFL	BFR	UK £	PTA	DKR	US \$	CA \$	YEN
1970	3,741	5,677	638,8	3,700	51,11	0,4259	71,361	7,666	1,022	•	368,0
1971	3,645	5,772	647,4	3,657	50,86	0,4285	72,570	7,752	1,047	•	363,8
1972	3,576	5,657	654,2	3,599	49,36	0,4489	72,203	7,789	1,121	1,111	339,7
1973	3,276	5,467	716,4	3,428	47,80	0,5023	71,811	7,415	1,231	1,232	333,1
1974	3,083	5,733	775,7	3,202	46,39	0,5098	68,823	7,259	1,192	1,166	347,4
<u>1975</u>	<u>3,049</u>	<u>5,319</u>	<u>809,5</u>	<u>3,134</u>	<u>45,56</u>	<u>0,5600</u>	<u>71,159</u>	<u>7,122</u>	<u>1,240</u>	<u>1,262</u>	<u>367,6</u>
1976	2,815	5,344	930,1	2,955	43,16	0,6215	74,739	6,761	1,118	1,102	331,2
1977	2,648	5,606	1006,0	2,800	40,88	0,6537	86,847	6,855	1,141	1,214	305,8
1978	2,556	5,740	1080,2	2,754	40,06	0,6639	97,429	7,019	1,274	1,454	267,1
1979	2,511	5,829	1138,4	2,749	40,16	0,6464	97,966	7,207	1,371	1,606	300,3
1980	2,524	5,869	1189,2	2,760	40,60	0,5985	99,702	7,827	1,392	1,626	315,0

PRICE INDICES - BASIS : GDP AT MARKET PRICES

1975 = 100

YEAR	B	D	F	I	NL	U. K	EEC 9	E	USA	CANADA	JAPAN
1970	66, 1	73, 2	65, 5	56, 5	63, 9	54, 1	62, 2	56, 0	72, 6	66, 1	62, 2
1971	69, 7	78, 8	69, 3	60, 6	69, 4	59, 1	66, 9	60, 5	76, 6	68, 1	65, 4
1972	74, 0	83, 1	73, 6	64, 4	75, 9	64, 0	71, 5	65, 7	79, 7	71, 6	68, 8
1973	79, 2	88, 1	79, 3	71, 8	82, 3	68, 5	77, 3	73, 5	84, 2	78, 2	77, 0
1974	88, 8	94, 0	88, 2	85, 1	89, 9	78, 8	87, 0	85, 7	92, 2	90, 3	92, 9
1975	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0
1976	107, 5	103, 4	110, 1	118, 0	108, 9	114, 7	110, 5	116, 7	105, 8	109, 4	106, 6
1977	115, 1	107, 3	119, 9	140, 5	115, 8	130, 8	121, 3	143, 3	112, 2	117, 2	112, 6
1978	119, 8	111, 3	131, 7	160, 0	121, 8	145, 0	131, 3	179, 1	120, 4	124, 7	117, 8
1979	124, 9	115, 6	145, 6	185, 1	126, 9	166, 9	143, 5	200, 0	131, 1	138, 0	120, 7
1980	130, 3	121, 0	162, 4	222, 8	133, 5	198, 5	158, 9	227, 2	141, 2	152, 6	124, 4

GROSS DOMESTIC PRODUCT - BASIS : GDP AT MARKET PRICES

Mio ECU at current prices

YEAR	B	D	F	I	NL	U. K	EEC 9	E	USA	CANADA	JAPAN
1970	24693	181417	137831	98425	30962	119573	613234	36100	967095	• • •	199141
1971	27170	207063	151145	105821	35448	133370	682351	40237	1024175	• • •	221622
1972	31308	230929	173429	114822	40759	140925	757770	47669	1051773	95484	271714
1973	36715	280365	203777	125263	49033	145005	870436	57646	1067714	101060	337427
1974	44328	320131	222939	142726	59424	162733	986816	74131	1191160	127694	386125
1975	49840	339094	273032	154875	66803	186843	1109397	84576	1240039	132132	402613
1976	59591	398806	313941	168421	81272	200060	1268900	96793	1525583	175089	500745
1977	68046	453304	336168	188802	98186	219580	1415601	105684	1667095	174457	603193
1978	74555	503265	372963	205750	107843	247738	1569042	116318	1673184	160675	758707
1979	79313	555162	418462	236853	114540	296889	1763429	143013'	1734090	165574	729050
1980	83898	589856	469401	283720	120735	375919	1987432	151824	1858109	180873	748519

GROSS DOMESTIC PRODUCT AT MARKET PRICES

Mio ECU at 1975 prices and exchange rates

YEAR	B	D	F	I	NL	U. K	EEC 9	E	USA	CANADA	JAPAN
1970	41893	304087	224449	137457	57192	168206	967839	64642	1097007	...	320511
1971	43513	314240	236587	139716	59635	172733	1001909	67846	1128715	...	335274
1972	45816	325907	250546	144190	61673	176570	1042195	73369	1193621	117357	364833
1973	48646	342084	263991	154327	65192	189838	1103176	79135	1258388	126198	396940
1974	50818	344472	272524	160720	67498	187941	1123178	83657	1242169	130670	392819
1975	49840	339094	273032	154875	66803	186843	1109375	84575	1240038	132132	402026
1976	52497	356238	286501	163967	70356	193584	1164308	87122	1299769	139800	423342
1977	53024	366857	295413	167080	75750	196021	1196416	89996	1366282	143999	445600
1978	54707	378915	305688	171568	77788	202492	1234451	88932	1426940	148397	468010
1979	55975	395390	314951	179918	79161	205289	1275269	92413	1461335	152738	493669
1980	57380	403421	318901	187047	79610	202421	1293456	93647	1476664	152740	515398



SPAIN : FINAL TURNOVER

YEAR	Mio ECU at current prices	Mio ECU at 1975 prices & exchange rates
1978	132,5	105,3
1979	130,6	90,1
1980	184,2	113,8

SPAIN : OVERALL TURNOVER

(Mio ECU at current prices)

	Mio ECU	Breakdown by subsector (%) *			
		Airframes	Engines	Equipment	Space
1978	133,2	88,6	3,5	2,9	5,0
1979	131,4	86,2	1,8	5,9	6,1
1980	184,5	83,1	3,6	8,3	5,0



SPAIN : BREAKDOWN OF FINAL TURNOVER BY CUSTOMER CATEGORY

(Mio ECU at current prices)

Customer Category	1978		1979		1980	
	Civil	Military	Civil	Military	Civil	Military
<u>STATE</u>	<i>hi</i>	<u>44,8</u>	<u>1,9</u>	<u>47,4</u>	<u>7,0</u>	<u>74,8</u>
-R&D contracts	0,1	20,6	0,3	1,1	1,8	2,3
-Modifications, Repairs, Maintenance	0,6	20,5	0,4	19,1	0,9	18,8
-Sales	0,5	3,7	1,2	27,2	4,3	53,7
<u>AEROSPACE MANUFACTURERS IN NON-MEMBER COUNTRIES</u>	<u>25,7</u>	<u>21,6</u>	<u>26,6</u>	<u>9,0</u>	<u>37,0</u>	JiUI
<u>FINAL USERS</u>	<b>M</b>	<u>38,2</u>	<u>14,5</u>	<u>31,2</u>	<u>21,6</u>	<u>29,1</u>
-EEC	0,1	-	6,1	-	0,2	-
-Non-member countries	0,9	38,2	8,4	31,2	21,4	29,1
<b>TOTAL</b>	27,9	104,6	43,0	87,6	65,6	118,6
<b>%</b>	21,1	78,9	32,9	67,1	35,6	64,4

PERCENTAGE BREAKDOWN OF SPAIN' S FINAL TURNOVER BY CUSTOMER CATEGORY

Customers	1978		1979		1980	
	Civil	Military	Civil	Military	Civil	Military
<u>STATE</u>	<u>1,0</u>	<u>33,8</u>	<u>1,4</u>	<u>36,3</u>	<u>3,8</u>	<u>40,6</u>
-R&D contracts	0,1	15,5	0,2	0,9	1,0	1,2
-Modifications, Repairs, Maintenance	0,5	15,5	0,3	14,6	0,5	10,2
-Sales	0,4	2,8	0,9	20,8	2,3	29,2
<u>AEROSPACE MANUFACTURERS IN NON-MEMBER COUNTRIES</u>	<u>19,3</u>	<u>16,3</u>	<u>20,4</u>	<u>6,9</u>	<u>20,1</u>	<u>8,0</u>
<u>FINAL USERS</u>	<u>0,8</u>	<u>28,8</u>	<u>11,1</u>	<u>23,9</u>	<u>11,7</u>	<u>15,8</u>
-EEC	0,1	-	4,7	-	0,1	-
-Non-member countries	0,7	<b>28,8</b>	6,4	23,9	11,6	15,8
<b>TOTAL (%)</b>	21,1	78,9	32,9	67,1	35,6	64,4

SPAIN : PERCENTAGE BREAKDOWN OF FINAL TURNOVER BY MARKET

	1978	1979	1980
1. <u>Aerospace</u>			
-State	34,7	37,7	44,4
-Domestic civil market	0,1	4,7	0,1
-Exports	65,2	57,6	55,5
2. <u>Aviation</u>			
-State	36,5	40,2	46,4
-Domestic civil market	0,1	2,8	0,1
-Exports	63,4	57,0	53,5
2.1 <u>Airframes</u>			
-State	33,8	38,7	40,4
-Domestic civil market	-	3,0	0,1
-Exports	66,2	58,3	59,5
2.2 <u>Engines</u>			
-State	95,7	82,6	92,4
-Domestic civil market	-	-	-
-Exports	4,3	17,4	7,6
2.3 <u>Equipment</u>			
-State	48,6	49,3	88,0
-Domestic civil market	2,9	-	0,7
-Exports	48,5	50,7	11,3

SPAIN : BREAKDOWN OF STATE BACKING FOR THE AVIATION INDUSTRY  
BY CONTRACT TYPE

(Mio ECU et current prices)

	1979		1980	
	Mio ECU	%	Mio ECU	%
<u>R&amp;D contracts</u>	<u>V*</u>	<u>2,8</u>	<u>4,1</u>	<u>5,0</u>
Civil	0,3	0,6	1,8	0,2
Military	1,1	2,2	2,3	44,8
<u>Purchase &amp; Maintenance contracts</u>	<u>47,9</u>	<u>97,2</u>	<u>77,7</u>	<u>95,0</u>
Civil	1,6	3,2	5,2	6,4
Military	46,3	94,0	72,5	88,6
TOTAL	49,3	100,0	81,8	100,0
As % of final turnover	(130,6)	37,7	(184,2)	44,4

SPAIN : BREAKDOWN BY SUBSECTOR OF STATE BACKING

Subsector	1979		1980	
	Mio ECU	%	Mio ECU	%
Airframes	43,8	88,8	61,9	75,7
Engines	1,9	3,9	6,1	7,5
Equipment	3,5	7,1	13,2	16,1
Space	0,1	0,2	0,6	0,7
Total	49,3	100,0	81,8	100,0

SPAIN : PERCENTAGE BREAKDOWN OF STATE BACKING FOR THE AVIATION INDUSTRY

BY CONTRACT AND SUBSECTOR

	1978	1979	1980
<u>AIRFRAMES</u>			
<u>-R&amp;D contracts</u>			
civil	0,3	0,5	0,3
military	51,5	2,3	1,9
<u>-Purchase &amp; Maintenance contracts</u>			
civil	-	-	-
military	48,2	97,2	97,8
TOTAL	100,0	100,0	100,0
<u>ENGINES</u>			
<u>-R&amp;D contracts</u>			
civil	-	-	-
military	-	-	-
<u>-Purchase &amp; Maintenance contracts</u>			
civil	-	-	-
military	100,0	100,0	100,0
TOTAL	100,0	100,0	100,0
<u>EQUIPMENT</u>			
<u>-R&amp;D contracts</u>			
civil-	-	-	9,8
military	5,9	2,9	8,3
<u>-Purchase &amp; Maintenance contracts</u>			
civil	64,7	45,7	39,4
military	29,4	51,4	42,5
TOTAL	100,0	100,0	100,0

SPAIN : AEROSPACE WORKFORCE ON 31 DECEMBER 1980

	AIRFRAMES	ENGINES	EQUIPMENT	SPACE	TOTAL	%
<u>Occupational grading</u>						
1. Engineers & managerial staff	493	20	112	43	668	8,2
2. Executive staff -technical -administrative	997 1170	20 46	112 60	67 15	1196 1291	14,6 15,8
3. Skilled workers	3875	126	199	21	4221	51,6
4. Non-skilled workers	755	14	32	0	801	9,8
TOTAL	7290	226	515	146	8177	100,0
<u>Main activity</u>						
1. R & D	222	0	52	60	334	4,1
2. Production	6516	226	417	69	7228	88,4
3. Marketing & Management	552	0	46	17	615	7,5
TOTAL	7290	226	515	146	8177	100,0

INDEX OF ABBREVIATIONS USED IN THE PRESENT DOCUMENT

CEC	:	Commission of the European Communities
EEC	:	European Economic Community
EEC 6	:	EEC - 6 Member States (B, D, F, L, I, NL)
EEC 9	:	EEC - 9 Member States (B, DK, D, F, L, IRL, I, NL, UK)
EEC 10	:	EEC - 10 Member States (B, DK, D, GR, F, L, IRL, I, NL, UK)
Intra-EEC	:	With Member States of the EEC only
Extra-EEC	:	With countries not member of the EEC
B	:	Belgium
CDN	:	Canada
DK	:	Denmark
D	:	Federal Republic Germany
E	:	Spain
GR	:	Greece
F	:	France
L	:	Luxembourg
IRL	:	Ireland
I	:	Italy
JPN	:	Japan
NL	:	Netherlands
SWE	:	Sweden
UK	:	United Kingdom
USA	:	United States of America
ECU	:	European Currency Unit
BFR	:	Belgian Franc
DKR	:	Danish Crown
DM	:	German Mark
CA\$	:	Canadian Dollar
FF	:	French Franc
HFL	:	Dutch Guilder
LIT	:	Italian Lira
PTA	:	Spanish Peseta
UK£	:	Pound Sterling
US\$	:	US Dollar
YEN	:	Japanese Yen
Mia	:	Billion
Mio	:	Million
GIP	:	Gross Internal Product
R&D	:	Research and Development

INDEX OF USED SIGNS

..•	:	Data not available
.,.	:	Decimal data not available
-	:	Data nil or negligible
( )	:	Estimate