

**COMMISSION  
OF THE  
EUROPEAN COMMUNITIES**

Directorate-General  
for internal market and industrial affairs

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Brussels, 5 October 1981

**THE EUROPEAN AEROSPACE INDUSTRY  
TRADING POSITION AND FIGURES**

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(Commission staff working paper)

COMMISSION 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 (COM(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 1979 and retains the presentation adopted since 1979 (see documents SEC(79)995 and SEC(80)1287).

Moreover it has not been possible to include in the paper this year the chapter entitled "The Military Aviation Market" on account of substantial changes to the relevant data. The current work in progress will enable us to include homogenous data in the next edition of the paper.

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(1) See: SEC(73)813 of 01.03.1973  
III-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

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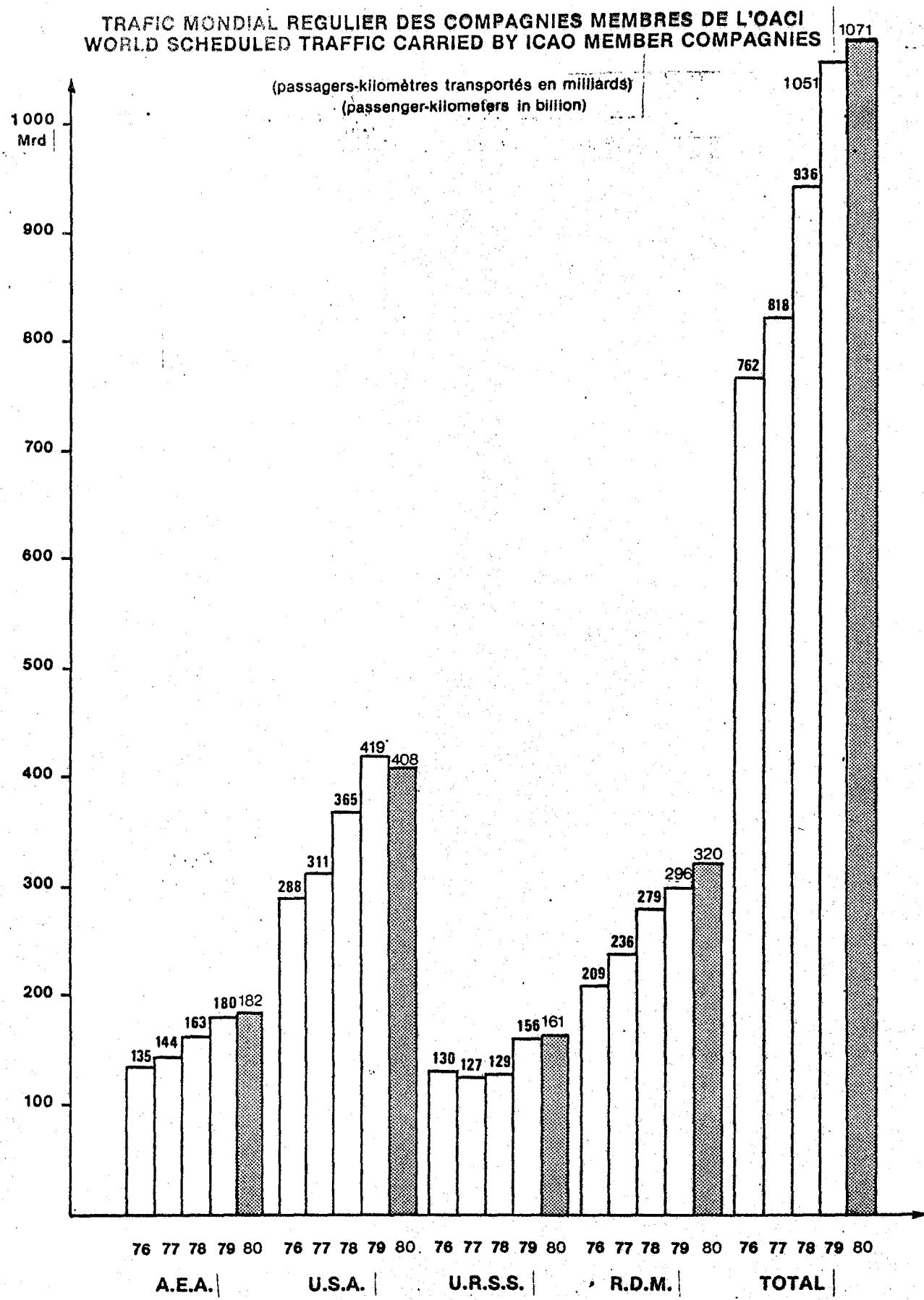
## **CHAPTER 1**

### **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 ( + %).
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% in 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 passenger kilometers transported.
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 spread of low tariffs and the continuous increase in the price of fuel oil.

TRAFFIC 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	n.a.	n.a.
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
URSS comprise				
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
1980	11,0	29050	3700	32750

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

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
<b>TOTAL</b>	<b>762</b>	<b>100</b>	<b>818</b>	<b>100</b>	<b>936</b>	<b>100</b>	<b>1051</b>	<b>100</b>	<b>1071</b>	<b>100</b>

Trend		
77/78	78/79	79/80
+ 13 %	+ 10 %	+ 1 %
+ 17 %	+ 15 %	- 3 %
+ 2 %	+ 21 %	+ 3 %
+ 18 %	+ 8 %	+ 8 %
+ 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	61,6	64,7	61,7

Notes : - 1980 : Estimates

- Source : AEA

RATES OF INCREASE IN REVENUE PASSENGERS-KM BY AEA AIRLINES

	Domestic Traffic	Intra-European Traffic	Intercontinental Traffic	TOTAL
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

## **CHAPTER 2**

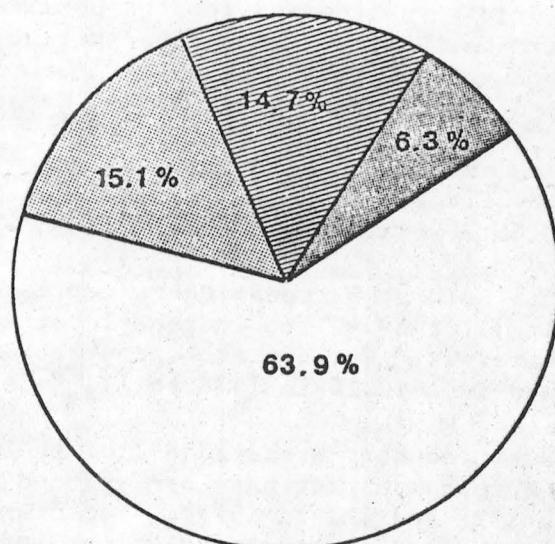
### **THE CIVIL TRANSPORT MARKET**



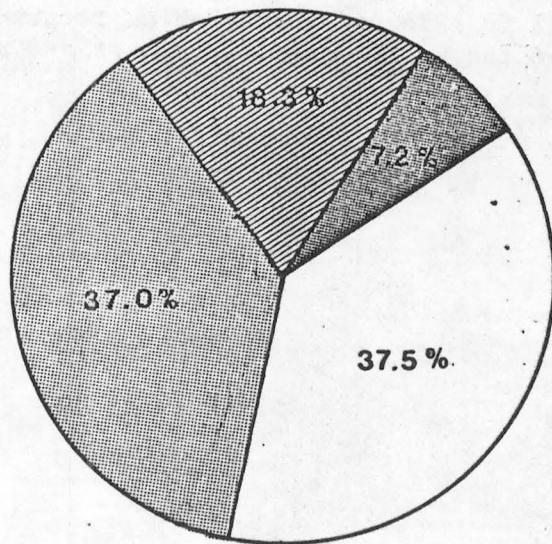
1. The figures of this chapter were prepared for the Commission by the ITA (Air Transport Institute, Paris). They cover virtually all airlines (more than 450) using all types of aircraft, turbojets and turboprops built in the United States, Europe, Japan and Canada.
2. During 1979, 131 Airbuses have been sold representing 40% (in number) of the sales of wide body aircraft and 23% of the sales of jets. The other sales of European jets related to 3 BAC 111's and 8 Fokker F.28's.
3. The share of civil fleets held by European users represents 25.5% of the world fleet (in value), or 29.4% for long-haul carriers and 23.3% for short/medium haul carriers. World market penetration of aircraft built in Europe increased from 10.2% in 1978 to 12.9% in 1979.
4. Although the United States industry produced 87% of the world fleet its penetration of the European market has been reduced to 74% in 1979 (as against 79% in 1978 and 82% in 1977). Moreover American penetration of the markets of other countries of the world was reduced to 85.4% in 1979 as against 87.3% in 1978.
5. Airbus Industry was first in 1979 among the constructors of wide body short and medium haul carriers with 37.4% (in value) of the world market as against 28.7% in 1978 and third behind Boeing and McDonnell-Douglas on the whole of the world market for short and medium haul carriers with 12.6%.

REPARTITION DU MARCHE GLOBAL  
SHARE OF THE OVERALL MARKET

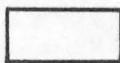
1970



1979



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



U.S.A.



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



Reste du monde  
Rest of the world

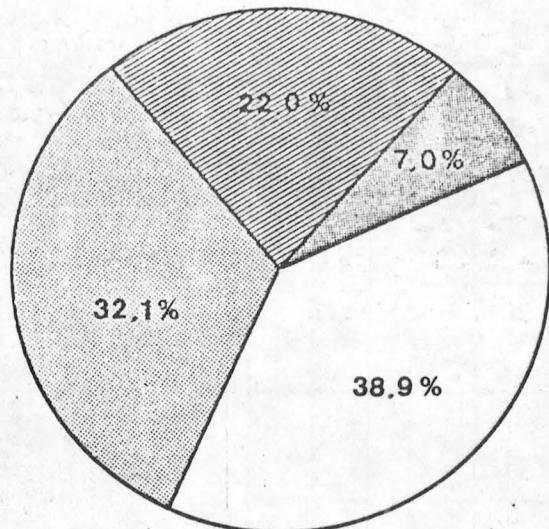
MARKET TRENDS AND MARKET SHARE WON BY COMMUNITY BUILT AIRCRAFT

( % value )

Market (Fleet)	Relative size of the Market								Market Share Won by Aircraft Built in the EEC							
	1970 %	1974 %	1976 %	1977 %	1978 %	1979 %	Evol. 70/79	1970 %	1974 %	1976 %	1977 %	1978 %	1979 %	Evol. 70/79		
EEC	14,7	18,0	17,6	17,7	17,8	18,3	+3,6	33,0	21,4	22,3	23,2	25,7	30,2	-2,8		
Other European Countries	6,3	8,0	7,9	7,8	6,7	7,2	+0,9	23,1	7,7	4,6	6,0	9,3	15,4	-7,7		
Europe	(21,0)	(26,0)	(25,5)	(25,5)	(24,5)	(25,5)	(+4,5)	(30,1)	(17,2)	(16,9)	(17,9)	(21,2)	(26,0)	(-4,1)		
United States	63,9	45,4	42,8	40,7	40,7	37,5	-26,4	2,1	0,4	0,2	0,6	2,2	2,7	+0,6		
Rest of the World	15,1	28,6	31,7	33,8	34,8	37,0	+21,9	12,1	12,6	10,9	12,7	11,9	14,1	+2,0		
WORLD	100,0	100,0	100,0	100,0	100,0	100,0	-	9,5	8,2	7,8	9,1	10,2	12,9	+3,4		

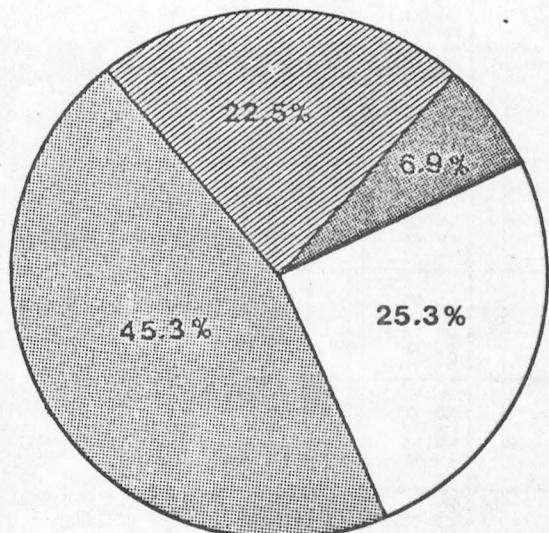
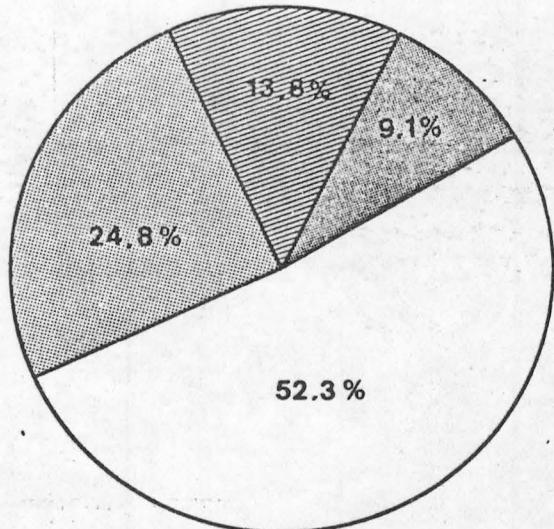
REPARTITION DU MARCHE  
BREAKDOWN OF THE MARKET

LONG-COURRIERS  
LONG-HAUL

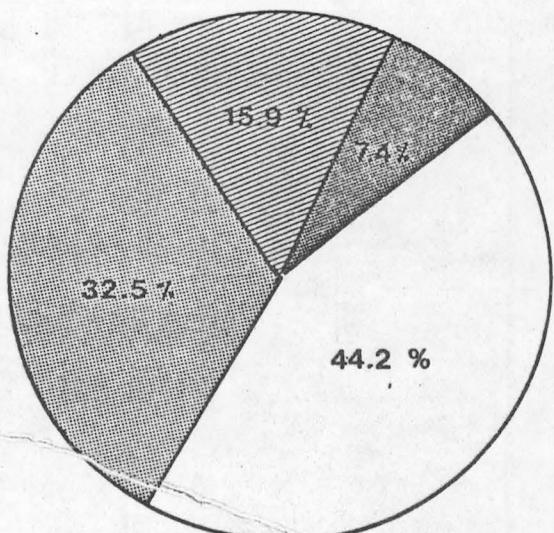


C/M-COURRIERS  
SHORT/MEDIUM-HAUL

1974



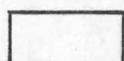
1979



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

( % value )

Market	Relative Size of the Market						Market Share Won by Aircraft Built in the EEC					
	1974 %	1976 %	1977 %	1978 %	1979 %	Trend 74/79	1974 %	1976 %	1977 %	1978 %	1979 %	Trend 74/79
<b>S/M-Haul Aircraft</b>												
EEC	13,8	13,1	12,5	14,6	15,9	+2,1	42,9	38,6	42,8	44,6	48,8	+5,9
Other European Countries	9,1	6,3	8,2	6,7	7,4	-1,7	14,1	10,2	9,8	15,7	23,4	+9,3
Europe	(22,9)	(19,4)	(20,7)	(21,3)	(23,3)	(+0,4)	31,5	29,4	29,7	35,5	40,7	+9,2
United States	52,3	52,8	51,0	50,8	44,2	-8,1	0,7	0,3	0,8	3,0	3,6	+2,9
Rest of the World	24,8	27,8	28,3	27,9	32,5	+7,7	25,7	21,8	26,2	25,2	25,0	-0,7
<b>WORLD</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>-</b>	<b>13,9</b>	<b>11,9</b>	<b>14,0</b>	<b>16,1</b>	<b>19,2</b>	<b>+5,3</b>
<b>Long-Haul Aircraft</b>												
EEC	22,0	23,5	24,9	22,3	22,5	+0,5	8,6	10,5	9,6	7,8	6,2	-2,4
Other European Countries	7,0	9,9	7,3	6,7	6,9	-0,1	0	0	0	0	0	0
Europe	(29,0)	(33,4)	(32,2)	(29,0)	(29,4)	(+0,4)	6,5	7,4	7,4	6,0	4,8	-1,7
United States	38,9	30,0	26,4	26,0	25,3	-13,6	0	0	0	0	0	0
Rest of the World	32,1	36,6	41,4	45,0	45,3	+13,2	3,0	0,1	0	0	0	-3,0
<b>WORLD</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>-</b>	<b>2,9</b>	<b>2,5</b>	<b>2,4</b>	<b>1,7</b>	<b>1,4</b>	<b>-1,5</b>

VALUE OF AIRCRAFT IN SERVICE OR ON ORDER BUT NOT YET DELIVERED AT 31 DECEMBER 1979 (MIO ECU)

FLEETS	ORIGIN	LONG-HAUL			SHORT- AND MEDIUM-HAUL			TOTAL	%	%
		USA	EUROPE	OTHER	USA	EUROPE	OTHERS			
F.R. Germany		1071,2	-	-	1065,4	1091,1	-	3227,7	3,9	21,3
Belgium		239,4	-	-	185,9	97,7	-	523,0	0,6	3,5
Denmark		15,3	-	-	171,0	21,9	-	208,2	0,3	1,4
France		1127,8	200,6	-	315,7	1166,5	-	2810,6	3,4	18,6
Ireland		58,4	0,3	0,7	91,2	5,8	-	156,4	0,2	1,0
Italy		855,5	-	-	678,7	248,8	-	1783,0	2,2	11,8
Luxembourg		141,9	-	-	18,2	6,1	-	166,2	0,2	1,1
Netherlands		1088,4	-	-	237,3	359,1	-	1684,8	2,0	11,1
United Kingdom		1594,7	213,1	6,6	1603,6	1159,1	-	4577,1	5,5	30,2
EEC		6192,6	414,0	7,3	4367,0	4156,1	-	15137,0	18,3	100,0
Other European Countries		2041,2	-	0,7	3032,2	927,7	7,0	6008,8	7,2	
Europe		8233,8	414,0	8,0	7399,2	5083,8	7,0	21145,8	25,5	
United States		7465,1	-	0,7	22796,9	856,7	21,1	31140,5	37,5	
Rest of the World		13319,0	3,6	8,0	12894,9	4337,3	113,5	30676,3	37,0	
WORLD		29017,9	417,6	16,9	43091,0	10277,8	141,6	82962,6	100,0	

FLEETS AND ORDERS (TRADING POSITION IN DECEMBER)

Type	Units					Value (mio ECU)				
	1974	1976	1977	1978	1979	1974	1976	1977	1978	1979
Long-Haul	1886	1719	1748	1844	1913	18517	22034	24197	30449	29452
S/M-Haul	4348	5042	5265	5845	6165	17337	28627	33442	44172	53510
<b>TOTAL</b>	<b>6234</b>	<b>6761</b>	<b>7013</b>	<b>7689</b>	<b>8078</b>	<b>35854</b>	<b>50661</b>	<b>57619</b>	<b>74621</b>	<b>82962</b>

## FLEETS AND ORDERS : VALUE BREAKDOWN

## BREAKDOWN OF FLEET VALUE INTO GEOGRAPHICAL ZONES

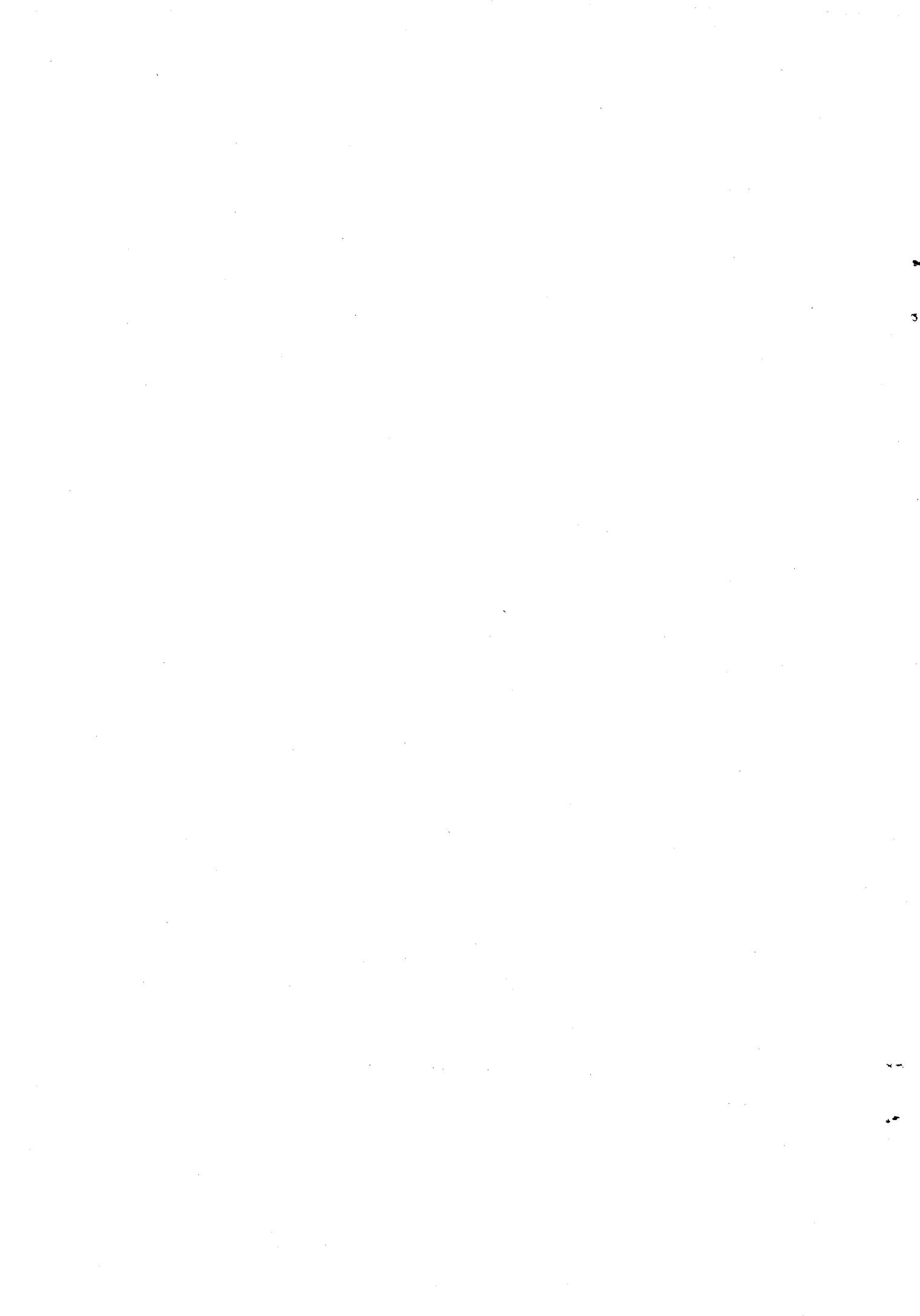
SHORT- AND MEDIUM-HAUL AIRCRAFT IN SERVICE AND ON ORDER  
(Value Breakdown)

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

LONG-HAUL AIRCRAFT IN SERVICE AND ON ORDER  
(Value Breakdown)

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

(1) Included in "Standard Aircraft" - Not available separately



### **CHAPTER 3**

#### **THE HELICOPTER MARKET**



1. The data on the fleet of single-engined aircraft, twin-engined aircraft and executive jets have been compiled by the "Luftfahrt Bundesamt", the "Administration de l'Aéronautique belge", 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 01.01.80 and 01.01.81.
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.

CIVIL HELICOPTER FLEET IN WESTERN EUROPE AND NORTH AMERICA AT 01 JANUARY 1980

	Fleet		Fleet Breakdown by Design Origin			
			USA		EEC	
	Number	%	Number (*)	%	Number	%
F.R. Germany	326	23,6	184 (54)	56	142	44
Belgium	25	1,8	16 (3)	64	9	36
Denmark	41	3,0	41 (2)	100	-	-
France	367	26,6	149 (73)	41	218	59
Ireland	12	0,8	10 (2)	83	2	17
Italy	164	11,9	118 (81)	72	46	28
Luxembourg	-	-	- -	-	-	-
Netherlands	30	2,2	15 (1)	50	15	50
United Kingdom	416	30,1	364 (117)	87	52	13
EEC	1381	100	897 (333)	64	484	36
Other European Countries	487	-	359 (131)	74	128	26
USA and Canada	8338	-	7899 (10)	95	439	5

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

Source : Aerospatiale

**CIVIL HELICOPTER FLEET IN WESTERN EUROPE AND NORTH AMERICA AT 01 JANUARY 1981**

Fleet	Fleet Breakdown by Design Origin						
	USA		EEC				
	Number	%	Number	(*)	%	Number	%
F.R. Germany	343	23,7	186	(56)	54,2	157	45,8
Belgium	27	1,9	17	(3)	63,0	10	37,0
Denmark	38	2,6	38	(2)	100,0	-	-
France	384	26,6	155	(79)	40,4	229	59,6
Greece	18	1,2	13	(3)	72,2	5	27,8
Ireland	13	0,9	12	(1)	92,3	1	16,7
Italy	163	11,3	115	(79)	70,5	48	29,5
Luxembourg	-	-	-	-	-	-	-
Netherlands	27	1,9	12	(0)	44,4	15	55,6
United Kingdom	432	29,9	381	(129)	88,2	51	11,8
EEC	1445	100,0	929	(352)	64,3	516	35,7
Other European Countries	576	-	423	(141)	73,4	98	17,1
USA and Canada	8677	-	8146	(6)	93,9	531	6,1

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

Note : The figures related to Yugoslavia, comprised under "Other European Countries", have been amended with respect to the situation as at 01.01.80, since some helicopters of American design have been recorded as if they were of EC design.

**SINGLE-ENGINED AIRCRAFT FLEET IN WESTERN EUROPE AT 01.01.1981**

	Fleet		Fleet Breakdown by Design Origin									
			USA		EEC		Canada		Others			
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
F.R. Germany	5596	100,0	2420	43,3	3018	53,9	2	0,0	156	2,8		
Belgium	733	100,0	454	61,9	275	37,5	-	-	4	0,6		
Denmark	775	100,0	609	78,6	142	18,3	16	2,1	8	1,0		
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		
Italy	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		
Netherlands	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		
EEC	18404	100,0	8471	46,0	9546	51,9	27	0,8	360	2,0		

Source : Luftfahrt Bundesamt (D)

Ministère des Communications - Administration de l'Aéronautique (B)

Bureau Veritas (DK,F,IRL,L,NL)

Registro Aeronautico Italiano (I)

Civil Aviation Authority (UK)

TWIN-ENGINED LIGHT AIRCRAFT AND EXECUTIVE JET FLEET IN WESTERN EUROPE AT 01.01.1981

Fleet			Fleet Breakdown by Design Origin									
			USA		EEC		Canada		Others			
Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
F.R. Germany	830	100,0	731	88,1	87	10,5	6	0,7	6	0,7		
Belgium	84	100,0	76	90,5	8	9,5	-	-	-	-		
Denmark	97	100,0	84	86,6	13	13,4	-	-	-	-		
France	600	100,0	490	81,7	109	18,2	1	0,1	-	-		
Ireland	19	100,0	19	100,0	-	-	-	-	-	-		
Italy	239	100,0	168	69,7	71	29,5	-	-	2	0,8		
Luxembourg	3	100,0	3	100,0	-	-	-	-	-	-		
Netherlands	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		
EEC	3183	100,0	2536	79,7	579	18,2	26	0,8	42	1,3		

Source : Luftfahrt Bundesamt (D)

Ministère des Communications - Administration de l'Aéronautique (B)

Bureau Veritas (DK,F,IRL,L,NL)

Registro Aeronautico Italiano (I)

Civil Aviation Authority (UK)

SINGLE-ENGINED, TWIN-ENGINED LIGHT AIRCRAFT AND EXECUTIVE JET FLEET IN WESTERN EUROPE AT 01.01.1981

Fleet	Fleet Breakdown by Design Origin									
	USA		EEC		Canada		Others			
	Number	%	Number	%	Number	%	Number	%	Number	%
F.R. Germany	6426	100,0	3151	49,1	3105	48,3	8	0,1	162	2,5
Belgium	817	100,0	530	64,9	283	34,6	-	-	4	0,5
Denmark	872	100,0	693	79,5	155	17,8	16	1,8	8	0,9
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
Italy	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
Netherlands	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
EEC	21587	100,0	11007	51,0	10125	46,9	53	0,2	402	1,9

Source : Luftfahrt Bundesamt (D)

Ministère des Communications - Administration de l'Aéronautique (B)

Bureau Veritas (DK,F,IRL,L,NL)

Registro Aeronautico Italiano (I)

Civil Aviation Authority (UK)

## **CHAPTER 5**

### **INTERNATIONAL TRADE**



1. The figures for external trade in aerospace products, which have been supplied by the Statistical Office of the European Communities (EUROSTAT), are incomplete in two respects:
  - (a) on-board and ground equipment are not included, since national statistics give no indication of the statistical classification of these items;
  - (b) data for the United Kingdom are not included in the figures for trade in airframes, since the UK supplies statistics on parts and spares only.

This will however require correction as soon as the data for 1980 are available.

2. The two groups of products under consideration come under the following NIMEXE tariff headings:

Airframes: 8802.10, 8802.31, 8802.33, 8802.35, 8802.36, 8802.38, 8803.90, 8805.30.

Engines: 8406.01, 8406.02, 8406.97, 8408.11, 8408.13, 8408.31, 8408.33, 8408.71.

3. The considerable increase in European exports of airframes to non-Community countries (69.5%) has greatly changed in 1979 the nature of the trade balance of the EEC with third countries. This balance, in deficit in 1978, became a noticeable surplus in 1979. This phenomenon is mainly attributable to the rise in sales of airplanes of an unladen weight exceeding 2000 kg and of helicopters of an unladen weight not exceeding 2000 kg (NIMEXE 8802.35, 8802.36, 8802.31).

4. Nevertheless if the trade balance of the EEC with all third countries shows a surplus in favour of the Community the balance of trade with the United States continues to show a substantial deficit mainly for aircraft parts and spares and aircraft of an unladen weight exceeding 15,000 kg (NIMEXE 8802.38, 8803.90). However, the insufficiency of British data relating to airframes makes it difficult to calculate the exact balance (see above).

5. As regards engines it should be noted that the United Kingdom continues to be the sole net European exporter of this type of material.

INTRA-COMMUNITY TRADE IN 1979 : AIRFRAMES AND ENGINES

(1000 ECU)

Import Export	Germany	France	Italy	Netherl.	Bel/Lux	U.K. (1)	Ireland	Denmark	EEC
F.R. Germany	-	143265	22379	39869	31997	241430	17987	4771	501698
France	924229	-	35359	22406	68759	145641	1698	3237	1201329
Italy	37872	16926	-	838	5332	36077	288	83	97416
Netherlands	55994	23739	5011	-	21503	20755	231	30494	157727
Belgium	-								
Luxembourg	11940	40950	787	31598	-	8403	1436	30494	99182
United Kingdom	302540	179592	58625	61218	16539	-	6555	4068	629443
Ireland	47	2	18	909	135	4022	-	38	5171
Denmark	11524	59	16	1523	10061	4528	945	-	28656
EEC	1344146	404533	122195	158361	154326	460856	29140	47065	2720622
BALANCE	-842448	796796	-24779	-634	-55144	168587	-23969	-18409	-

(1) Data not complete - See introductory Note

Source : EUROSTAT Import Tables

INTRA-COMMUNITY TRADE IN 1979 : AIRFRAMES

(1000 ECU)

Import Export	Germany	France	Italy	Netherl.	Bel/Lux	U.K. (1)	Ireland	Denmark	EEC
F.R. Germany	-	106386	4731	31354	19813	133126	16762	1485	313657
France	887294	-	28733	17321	51665	67221	801	2898	1055933
Italy	37693	10684	-	479	5114	10233	288	83	64574
Netherlands	47659	19136	5007	-	19441	6997	231	15238	113709
Belgium -									
Luxembourg	8299	31782	611	12210	-	7064	1412	183	61561
United Kingdom	273191	135501	14657	25073	10705	-	4371	2413	465911
Ireland	31	2	4	909	135	945	-	10	2074
Denmark	10209	57	16	983	7942	596	945	-	20748
EEC	1264376	303548	53759	88329	114815	226220	24810	22310	2098167
BALANCE	-950719	752385	10815	25380	-53254	239691	-22736	-1562	-

(1) Data not complete - See introductory note.

Source : EUROSTAT Import Tables

INTRA-COMMUNITY TRADE IN 1979 : ENGINES

(1000 ECU)

Import Export	Germany	France	Italy	Netherl.	Bel/Lux	U.K.	Ireland	Denmark	EEC
F.R. Germany	-	36879	17648	8515	12184	108304	1225	3286	188041
France	36935	-	6626	5085	17094	78420	897	339	145396
Italy	179	6242	-	359	218	25844	-	-	32842
Netherlands	8335	4603	4	-	2062	13758	-	15256	44018
Belgium -									38
Luxembourg	3641	9168	176	19388	-	1339	24	3885	37621
United Kingdom	29349	44091	43968	36145	5834	-	2184	1961	163532
Ireland	16	-	14	-	-	3039	-	28	3097
Denmark	1315	2	-	540	2119	3932	-	-	7908
EEC	79770	100985	68436	70032	39511	234636	4330	24755	622455
BALANCE	108271	44411	-35594	-26014	-1890	-71104	-1233	-16847	-

Source : EUROSTAT Import Tables

EXTRA-COMMUNITY TRADE IN 1979 : AIRFRAMES AND ENGINES

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	506653	229087	-277566	461839	74434	-387405	11374	2938	-8436	712	1144	432
France	742947	1251560	508613	702811	250255	-452556	3827	1923	-1904	3	30976	30973
Italy	159531	298036	138505	130217	47314	-82903	5508	377	-5131	99	0	-99
Netherlands	386086	297856	-88230	326178	95143	-231035	6532	1742	-4790	59	4	-55
Belgium-Lux.	308344	30376	-277968	274423	13299	-261124	2069	45	-2024	1	0	-1
United Kingdom(1)	482696	955325	472629	335422	370446	35024	27052	49882	22830	2363	36269	33906
Ireland	27377	6945	-20432	27122	1872	-25250	2	82	80	0	6	6
Denmark	131726	19507	-112219	128345	3022	-125323	353	225	-128	2	0	-2
EEC	2745360	3088692	343332	2386357	855785	-1530572	56717	57214	497	3239	68399	65160

(1) Data incomplete - See introductory Note

Source: EUROSTAT Import-Export Tables

EXTRA-COMMUNITY TRADE IN 1979 - AIRFRAMES

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	426089	156205	-269884	401805	45119	-356686	10239	1163	-9076	712	1078	366
France	430234	1062852	632618	408142	197030	-211112	1210	683	-527	0	30253	30253
Italy	110386	263633	153247	101708	33034	-68674	327	3	-324	15	0	-15
Netherlands	264115	203551	-60564	231084	28706	-202378	5267	837	-4430	59	4	-55
Belgium-Lux.	270279	16344	-253935	240315	6527	-233788	2069	3	-2066	1	0	-1
United Kingdom(1)	133902	371039	237137	106144	90694	-15450	1963	10380	8417	593	5783	5190
Ireland	22407	4886	-17521	22225	1232	-20993	1	54	53	0	6	6
Denmark	56041	7315	-48726	53488	1265	-52223	207	87	-120	2	0	-2
EEC	1713453	2085825	372372	1564911	403607	-1161304	21283	13210	-8073	1382	37124	35742

(1) Data incomplete - See introductory Note

Source: EUROSTAT Import-Export Tables

EXTRA-COMMUNITY TRADE IN 1979 : ENGINES

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	80564	72882	-7682	60034	29315	-30719	1135	1775	640	0	66	66
France	312713	188708	-124005	294669	53225	-241444	2617	1240	-1377	3	723	720
Italy	49145	34403	-14742	28509	14280	-14229	5181	374	-4807	84	0	-84
Netherlands	121971	94305	-27666	95094	66437	-28657	1265	905	-360	0	0	0
Belgium-Lux.	38065	14032	-24033	34108	6672	-27336	0	42	42	0	0	0
United Kingdom	348794	584286	235492	229278	279752	50474	25089	39502	14413	1770	30486	28716
Ireland	4970	2059	-2911	4897	640	-4257	1	28	27	0	0	0
Denmark	75685	12192	-63493	74857	1757	-73100	146	138	-8	0	0	0
EEC	1031907	1002867	-29040	821446	452178	-369268	35434	44004	8570	1857	31275	29418

Source: EUROSTAT Import-Export Tables

**EXTRA-COMMUNITY IN 1979 : AIRCRAFT ENGINES (MAX. 300 KW.)**

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	786	398	-388	696	92	-604	-	-	-	-	6	6
France	3539	514	-3025	3515	159	-3356	-	-	-	-	-	-
Italy	1438	116	-1322	1406	51	-1355	-	-	-	-	-	-
Netherlands	280	108	-172	276	84	-192	-	-	-	-	-	-
Belgium-Lux.	121	6	-115	121	5	-116	-	-	-	-	-	-
United Kingdom	2500	998	-1502	2069	155	-1914	49	57	8	-	-	-
Ireland	24	1	-23	24	1	-23	-	-	-	-	-	-
Denmark	292	20	-272	292	4	-288	-	-	-	-	-	-
EEC	8980	2161	-6819	8399	551	-7848	49	57	8	-	6	6

Source: EUROSTAT Import-Export Tables - NIMEXE 8406-01

EXTRA-COMMUNITY TRADE IN 1979 : AIRCRAFT ENGINES (MORE THAN 300 KW.)

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	25	63	38	25	-	-25	-	-	0	-	-	0
France	584	2705	2121	584	52	-532	-	868	868	-	-	0
Italy	64	59	-5	49	11	-38	-	-	0	-	-	0
Netherlands	656	6	-650	45	6	-39	-	-	0	-	-	0
Belgium-Lux.	7	358	351	3	1	-2	-	-	0	-	-	0
United Kingdom	1615	458	-1157	1203	19	-1184	-	3	3	-	-	0
Ireland	-	-	0	-	-	0	-	-	0	-	-	0
Denmark	-	66	66	-	29	29	-	-	0	-	-	0
EEC	2951	3715	764	1909	118	-1791	-	871	871	-	-	0

Source: EUROSTAT Import-Export Tables - NIMEXE 8406-02

EXTRA-COMMUNITY TRADE IN 1979 : AIRCRAFT ENGINES - PARTS AND SPARES

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	616	64	-552	556	8	-548	-	-	0	-	1	1
France	2205	5337	3132	2094	343	-1751	89	80	-9	-	2	2
Italy	859	611	-248	622	75	-547	137	-	-137	18	-	-18
Netherlands	484	81	-403	410	12	-398	67	-	-67	-	-	0
Belgium-Lux.	182	107	-75	182	61	-121	-	-	0	-	-	0
United Kingdom	5188	7904	2716	3677	897	-2780	110	274	164	96	116	20
Ireland	25	79	54	23	1	-22	1	19	18	-	-	0
Denmark	176	84	-92	173	-	-173	-	2	2	-	-	0
EEC	9735	14267	4532	7737	1397	-6340	404	375	-29	114	119	5

Source: EUROSTAT Import-Export Tables - NIMEXE 8406-97

EXTRA-COMMUNITY TRADE IN 1979 : TURBO-JETS DEVELOPING A THRUST OF LESS THAN 2500 Kg.

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	2665	1311	-1354	1946	139	-1807	175	574	399	-	-	0
France	23206	8138	-15068	23118	4252	-18866	88	-	-88	-	-	0
Italy	500	3408	2908	12	75	63	3	-	-3	-	-	0
Netherlands	123	100	-23	-	9	9	-	-	0	-	-	0
Belgium-Lux.	-	162	162	-	-	0	-	-	0	-	-	0
United Kingdom	24269	11512	-12757	16863	1193	-15670	3204	1501	-1703	-	-	0
Ireland	88	249	161	88	-	-88	-	-	0	-	-	0
Denmark	499	110	-389	499	-	-499	-	-	0	-	-	0
EEC	51350	24990	-26360	42526	5668	-36858	3470	2075	-1395	-	-	0

Source: EUROSTAT Import-Export Tables - NIMEXE 8408-11

EXTRA-COMMUNITY TRADE IN 1979 : TURBO-JETS DEVELOPING A THRUST OF MORE THAN 2500 Kg.

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	35909	43906	7997	18485	10743	-7742	-	-	0	-	-	0
France	77630	54922	-22708	77630	11195	-66435	-	-	0	-	-	0
Italy	4794	2512	-2282	1854	253	-1601	-	-	0	-	-	0
Netherlands	20321	21379	1058	527	-	-527	925	873	-52	-	-	0
Belgium-Lux.	30306	6088	-24218	26515	710	-25805	-	-	0	-	-	0
United Kingdom	139969	299044	159075	81861	154771	72910	5451	10631	5180	313	1442	1129
Ireland	4217	321	-3896	4178	15	-4163	-	-	0	-	-	0
Denmark	69355	7413	-61942	68697	51	-68646	-	-	0	-	-	0
EEC	382501	435585	53084	279747	177738	-102009	6376	11504	5128	313	1442	1129

Source: EUROSTAT Import-Export Tables - NIMEXE 8408-13

EXTRA-COMMUNITY TRADE IN 1979 : REACTION ENGINES OTHER THAN TURBO-JETS

(1000 ECU)

	Extra-EEC			United States			Canada			Japon		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	555	32	-523	48	-	-48	326	-	-326	-	-	0
France	2305	155	-2150	44	22	-22	-	-	0	-	-	0
Italy	115	23	-92	7	18	11	-	-	0	-	-	0
Netherlands	155	37	-118	9	28	19	-	-	0	-	-	0
Belgium-Lux.	0	915	915	-	-	0	-	-	0	-	-	0
United Kingdom	421	149	-272	413	-	-413	-	-	0	-	-	0
Ireland	0	626	626	-	24	24	-	6	6	-	-	0
Denmark	0	974	974	-	-	0	-	-	0	-	-	0
EEC	3551	2911	-640	521	92	-429	326	6	-320	-	-	0

Source: EUROSTAT Import-Export Tables - NIMEXE 8408-19

**EXTRA-COMMUNITY TRADE IN 1979 : TURBO-PROPELLERS DEVELOPING A POWER OF MAX.1100 KW**

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	3861	412	-3449	3455	-	-3455	290	370	80	-	-	0
France	1810	8541	6731	1603	825	-778	207	51	-156	-	477	477
Italy	9799	3763	-6036	6884	216	-6668	66	-	-66	66	-	-66
Netherlands	-	803	803	-	-	0	-	-	0	-	-	0
Belgium-Lux.	-	8	8	-	-	0	-	-	0	-	-	0
United Kingdom	10661	2050	-8611	2921	562	-2359	7436	1080	-6356	-	-	0
Ireland	227	0	-227	196	-	-196	-	-	0	-	-	0
Denmark	528	359	-169	484	-	-484	45	34	-11	-	-	0
EEC	26886	15936	-10950	15543	1603	-13940	8044	1535	-6509	66	477	411

Source: EUROSTAT Import-Export Tables - NIMEXE 8408-31

EXTRA-COMMUNITY TRADE IN 1979 : TURBO-PROPELLERS DEVELOPING A POWER OF MORE THAN 1100 KW

(1000 ECU)

	Extra-EEC			United States			Canada			Japon		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	532	406	-126	313	-	-313	-	-	0	-	-	0
France	947	3906	2959	-	-	0	707	137	-570	-	-	0
Italy	19677	5024	-14653	10098	-	-10098	3725	50	-3675	-	-	0
Netherlands	584	2165	1581	-	93	93	-	-	0	-	-	0
Belgium-Lux.	24	-	-24	-	-	0	-	-	0	-	-	0
United Kingdom	17284	11101	-6183	8187	888	-7299	3302	2159	-1143	-	-	0
Ireland	-	-	0	-	-	0	-	-	0	-	-	0
Denmark	157	-	-157	157	-	-157	-	-	0	-	-	0
EEC	39205	22602	-16603	18755	981	-17774	7734	2346	-5388	-	-	0

Source: EUROSTAT Import-Export Tables - NIMEXE 8408-33

EXTRA-COMMUNITY TRADE IN 1979 : PARTS AND SPARES OF REACTION ENGINES OR OF TURBO-PROPELLERS

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	35615	26290	-9325	34510	17729	-16781	344	831	487	-	59	59
France	200487	104490	-95997	186081	36377	-149704	1526	104	-1422	3	244	241
Italy	11899	18887	6988	7577	13581	6004	1250	324	-926	-	-	0
Netherlands	99368	69626	-29742	93827	66205	-27622	273	32	-241	-	-	0
Belgium-Lux.	7425	6388	-1037	7287	5995	-1292	-	42	42	-	-	0
United Kingdom	146887	251070	104183	112084	121267	9183	5537	23797	18260	1361	28928	27567
Ireland	389	783	394	388	599	211	-	3	3	-	-	0
Denmark	4678	3166	-1512	4555	1673	-2882	101	102	1	-	-	0
EEC	506748	480700	-26048	446309	263426	-182883	9031	25235	16204	1364	29231	27867

Source: EUROSTAT Import-Export Tables - NIMEXE 8408-71

EXTRA-COMMUNITY TRADE IN 1979 : GLIDERS

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	514	3769	3255	61	1037	976	-	28	28	8	150	142
France	138	649	511	123	17	-106	-	-	0	-	-	0
Italy	37	-	-37	11	-	-11	-	-	0	-	-	0
Netherlands	81	-	-81	-	-	0	-	-	0	-	-	0
Belgium-Lux.	9	21	12	-	-	0	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	-	-	0	-	-	0	-	-	0	-	-	0
Denmark	11	11	0	3	-	-3	-	-	0	-	-	0
EEC	790	4450	3660	198	1054	856	-	28	28	8	150	142

(1) Not available on EUROSTAT

Source: EUROSTAT Import-Export Tables - NIMEXE 8802.10

EXTRA-COMMUNITY TRADE IN 1979 : HELICOPTERS, UNLADEN WEIGHT MAX. 2000 Kg

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	4627	19232	14605	1320	1236	-84	-	-	0	-	-	0
France	232	68074	67842	118	18137	18019	-	-	0	-	3804	3804
Italy	2189	16773	14584	1755	2749	994	-	-	0	-	-	0
Netherlands	-	129	129	-	129	129	-	-	0	-	-	0
Belgium-Lux.	-	-	0	-	-	0	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	-	-	0	-	-	0	-	-	0	-	-	0
Denmark	156	98	-58	156	-	-156	-	-	0	-	-	0
EEC	7204	104306	97102	3349	22251	18902	-	-	0	-	3804	3804

(1) Not available on EUROSTAT

Source: EUROSTAT Import-Export Tables - NIMEXE 8802.31

EXTRA-COMMUNITY TRADE IN 1979 : HELICOPTERS, (UNLADEN WEIGHT EXCEEDING 2000 KG.)

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	966	1328	362	966	-	-966	-	-	0	-	-	0
France	1035	43625	42590	1035	4722	3687	-	-	0	-	4015	4015
Italy	24789	96764	71975	23149	-	-23149	-	-	0	-	-	0
Netherlands	-	-	0	-	-	0	-	-	0	-	-	0
Belgium-Lux.	-	-	0	-	-	0	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	-	-	0	-	-	0	-	-	0	-	-	0
Denmark	-	31	31	-	-	0	-	-	0	-	-	0
EEC	26790	141748	114958	25150	4722	-20428	-	-	0	-	4015	4015

(1) Not available on EUROSTAT

Source: EUROSTAT Export-Import Tables - NIMEXE 8802.33

EXTRA-COMMUNITY TRADE IN 1979 : AIRPLANES & HYDROPLANES, UNLADEN WEIGHT NOT EXCEEDING 2000 KG.)

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	8332	1544	-6788	7741	33	-7708	260	-	-260	-	85	85
France	7181	7606	425	7015	840	-6175	-	63	63	-	-	0
Italy	655	22639	21984	655	11	-644	-	-	0	-	-	0
Netherlands	1275	-	-1275	1213	-	-1213	-	-	0	-	-	0
Belgium-Lux.	1190	35	-1155	1190	-	-1190	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	24	-	-24	15	-	-15	-	-	0	-	-	0
Denmark	539	39	-500	531	-	-531	-	-	0	-	-	0
EEC	19196	31863	12667	18360	884	-17476	260	63	-197	-	85	85

(1) Not available on EUROSTAT

Source: EUROSTAT Export-Import Tables - NIMEXE 8802.35

EXTRA-COMMUNITY TRADE IN 1979 : AIRPLANES & HYDROPLANES

(unladen weight exceeding 2000 Kg, but not exceeding 15000 Kg.)

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	31677	20915	-10762	30751	5331	-25420	-	-	0	-	-	0
France	18678	368961	350283	16364	63138	46774	334	-	-334	-	-	0
Italy	11366	15504	4138	8859	977	-7882	-	-	0	-	-	0
Netherlands	3987	71956	67969	2561	970	-1591	1425	-	-1425	-	-	0
Belgium-Lux.	3918	639	-3279	656	38	-618	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	2719	151	-2568	2719	151	-2568	-	-	0	-	-	0
Denmark	5490	1681	-3809	5490	-	-5490	-	-	0	-	-	0
EEC	77835	479807	401972	67400	70605	3205	1759	-	-1759	-	-	0

(1) Not available on EUROSTAT

Source: EUROSTAT Export-Import Tables - NIMEXE 8802.36

**EXTRA-COMMUNITY TRADE IN 1979 : AIRPLANES & HYDROPLANES**

(unladen weight exceeding 15000 Kg.)

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	212090	76959	-135131	212090	26102	-185988	-	-	0	-	-	0
France	207159	350323	143164	207159	84107	-123052	-	-	0	-	21216	21216
Italy	21273	13539	-7734	21257	1815	-19442	-	-	0	-	-	0
Netherlands	114144	54302	-59842	114144	-	-114144	-	-	0	-	-	0
Belgium-Lux.	72254	5417	-66837	67398	145	-67253	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	14201	-	-14201	14201	-	-14201	-	-	0	-	-	0
Denmark	35497	-	-35497	35497	-	-35497	-	-	0	-	-	0
EEC	676618	500540	-176078	671746	112169	-559577	-	-	0	-	21216	21216

(1) Not available on EUROSTAT

Source: EUROSTAT Export-Import Tables - NIMEXE 8802.38

EXTRA-COMMUNITY TRADE IN 1978 : PARTS & SPARES OF AIRCRAFT

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	160187	32278	-127909	147342	11353	-135989	3826	1004	-2822	704	840	136
France	193045	215891	22846	174445	23755	-150690	523	620	97	-	1218	1218
Italy	49908	98301	48393	45853	27480	-18373	327	3	-324	15	-	-15
Netherlands	144226	77150	-67076	112823	27599	-85224	2376	831	-1545	59	4	-55
Belgium-Lux.	192892	9597	-183295	171055	6344	-164711	2069	3	-2066	1	-	-1
United Kingdom	133902	371039	237137	106144	90694	-15450	1963	10380	8417	593	5783	5190
Ireland	4600	4735	135	4427	1081	-3346	1	54	53	-	6	6
Denmark	13902	5455	-8447	11699	1265	-10434	207	87	-120	2	-	-2
EEC	892662	814446	-78216	773788	189571	-584217	11292	12982	1690	1374	7851	6477

Source: EUROSTAT Export-Import Tables - NIMEXE 8803.90

EXTRA-COMMUNITY TRADE IN 1978 : GROUND FLYING TRAINERS; PARTS THEREOF

(1000 ECU)

	Extra-EEC			United States			Canada			Japan		
	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance	Import	Export	Balance
F.R. Germany	7696	180	-7516	1534	27	-1507	6153	131	-6022	-	3	3
France	2766	7723	4957	1883	2314	431	19	-	-19	-	-	0
Italy	169	113	-56	169	2	-167	-	-	0	-	-	0
Netherlands	402	14	-388	343	8	-335	41	6	-35	-	-	0
Belgium-Lux.	16	635	619	16	-	-16	-	-	0	-	-	0
United Kingdom(1)	-	-	0	-	-	0	-	-	0	-	-	0
Ireland	863	-	-863	863	-	-863	-	-	0	-	-	0
Denmark	446	-	-446	112	-	-112	-	-	0	-	-	0
EEC	12358	8665	-3693	4920	2351	-2569	6213	137	-6076	-	3	3

(1) Not available on EUROSTAT

Source: EUROSTAT Export-Import Tables - NIMEXE 8805.30

## **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.
4. The data relating to Japanese turnover have been recalculated and are based on data of the SJAC (Society of Japanese Aerospace Companies) rather than of the MITI (Ministry of International Trade and Industry).

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

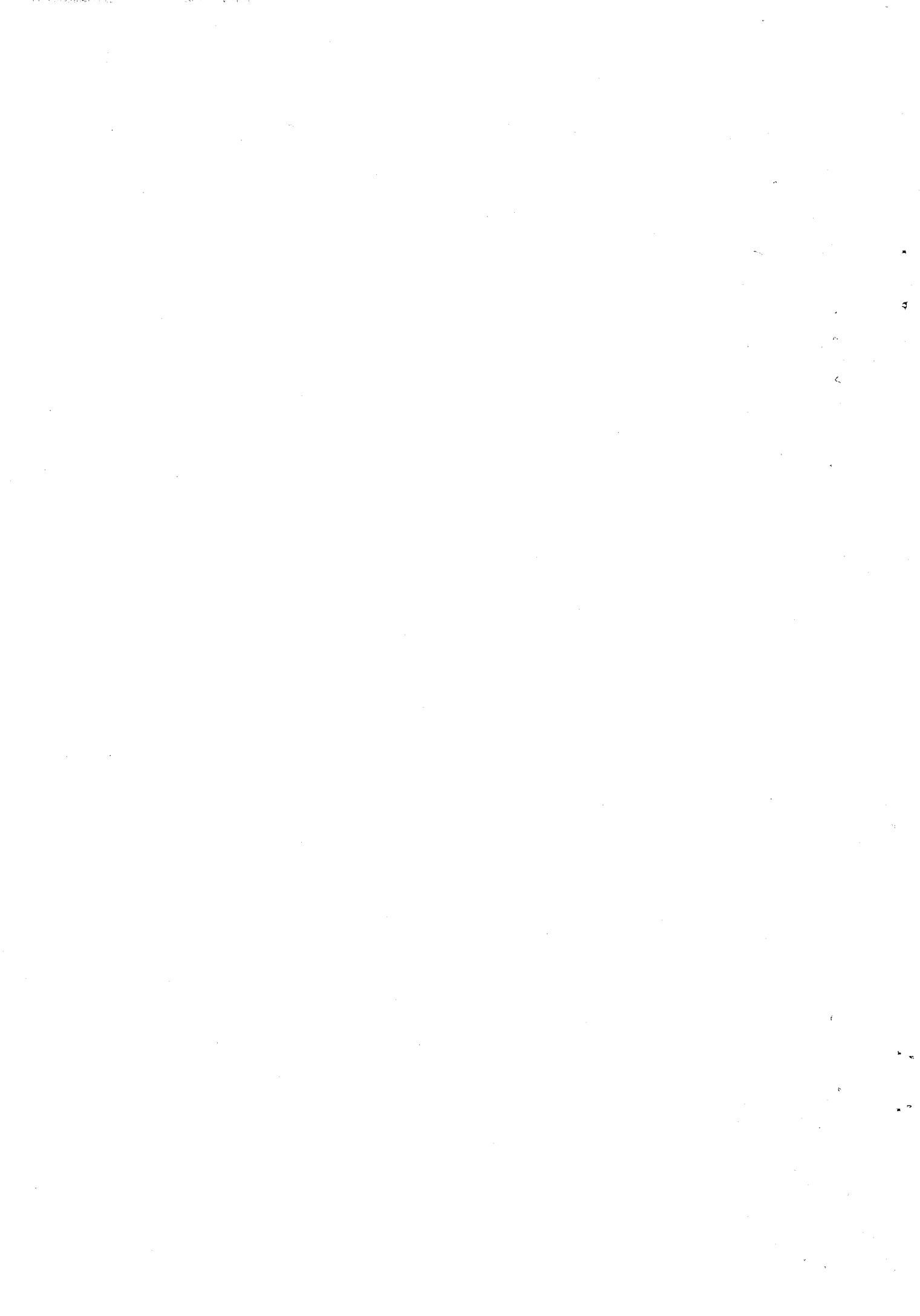
- (a) Airframes: (Aeroplanes, helicopters, gliders), missiles, their parts and spares.
- (b) Engines: (Piston, turboprop and turbojet engines), their parts and spares, equipment and accessories for installation in the equipment mentioned under (a).
- (c) Equipment: All equipment for (a) and (b) (finished products, parts and spares, sub-assemblies), including test and ground-training equipment.
- (d) Space: Space vehicles, satellites, launch vehicles, ground installations.

6. In 1979 the turnover of the European aerospace industry broke new records. European industry is about half as active as that of the United States (at current prices) having a growth in turnover of 17.8% at current prices between 1978 and 1979 and of 5.8% at 1975 prices and exchange rates. The average growth rate of the European aerospace industry for the whole decade may be estimated at 12.7% at current prices and at 4.5% at constant prices.

The growth of the American aerospace industry may for its part, be assessed at an average of 3.6% at current prices, and at - 0,1% at 1975 prices and exchanges rates during the same period.

- 7. The breakdown of aerospace turnover of the principal producing countries of the West brings out 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 trend is reversed and favours the United States as from 1977.
- 8. The breakdown of European turnover between civil and military business has remained at the 1978 level, that is 28% for civil business and 72% for military business: it is therefore all the more remarkable that the turnover of the American aerospace industry is divided as for half between civil business and half for military business. It may be recalled that in 1978 that the proportions were of the order of 65% for military business and 35% for civil business.

9. The breakdown of final EEC turnover by market does not confirm any tendency except that exports of equipment have increased and that these are progressing regularly at the expense of public contracts. Nevertheless the share of export turnover has declined in 1979 (37.9%) in favour of public contracts (52.8%) and of the internal civil market (9.6%). A situation more or less comparable to that of 1978 may be observed in 1979 where public contracts represented 49% of the turnover and exports 41%.



FINAL TURNOVER

(Million ECU)

	F.R.G.	B	F	I	NL	U.K.	EEC(1)	USA	CANADA	JAPAN
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(current prices)

1970	770	39	1310	227	113	1576	4035	21779	n.a	295
1971	823	53	1386	219	119	1610	4210	18750	n.a	306
1972	908	65	1529	359	169	2125	5155	17993	586	396
1973	1138	61	1993	353	160	2137	5842	17437	537	525
1974	1213	74	2263	361	141	2500	6552	18735	625	557
1975	1279	99	2924	494	227	2894	7917	19016	622	651
1976	1531	111	3790	491	280	3106	9309	22046	762	755
1977	1433	114	3933	568	301	3425	9774	23017	782	850
1978	1705	132	4220	623	285	3889	10854	23991	790	1046
1979	2590	215	4739	773	336	4129	12782	27054	1032	934

(1975 prices and exchange rates)

1970	1291	66	2131	317	209	2216	6230	24896	n.a	468
1971	1249	85	2170	289	200	2085	6078	20886	n.a	458
1972	1282	95	2209	451	256	2662	6955	20616	722	529
1973	1388	81	2580	435	213	2798	7495	20756	671	621
1974	1376	85	2765	407	160	2885	7678	19726	640	572
1975	1279	99	2924	494	227	2894	7917	19016	622	651
1976	1367	98	3459	478	242	3014	8658	18912	608	644
1977	1160	89	3454	502	232	3068	8505	19012	642	633
1978	1282	97	3458	519	206	3197	8759	20609	730	655
1979	1839	152	3572	589	233	2883	9268	22992	956	645

(1) The sum of the final 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	23991	65,4		10854	29,6		790	2,2		1046	2,8	
1979	27054	64,7		12782	30,6		1032	2,5		934	2,2	

(1975 prices and exchange rates)

	U.S.A			CEE (1)			CANADA			JAPAN		
	Mio	ECU	%	Mio	ECU	%	Mio	ECU	%	Mio	ECU	%
1972	20616	71,5		6955	24,1		722	2,5		529	1,9	
1973	20756	70,2		7495	25,4		671	2,3		621	2,1	
1974	19726	68,9		7678	26,8		640	2,3		572	2,0	
1975	19016	67,4		7917	28,1		622	2,2		651	2,3	
1976	18912	65,6		8658	30,1		608	2,1		644	2,2	
1977	19012	66,0		8505	29,5		642	2,2		633	2,2	
1978	20609	67,0		8759	28,4		730	2,4		655	2,1	
1979	22992	67,9		9268	27,4		956	2,8		646	1,9	

- (1) The sum of the final 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 1979

(Mio ECU at current prices)

	Mio ECU	Breakdown by subsector (%)			
		Airframe	Engines	Equipment	Space
F.R. Germany	3076,6	72,9	5,9	17,1	4,1
Belgium	217,5	47,1	36,3	9,3	7,3
France	5774,5	62,4	17,3	18,6	1,7
Italy	990,6	66,3	17,0	13,9	2,8
Netherlands	338,2	88,3	0,0	8,2	3,5
United Kingdom	4822,8	34,4	33,1	29,8	2,7
EEC	15220,2	56,3	19,8	21,2	2,7
United States	---	51,8	13,5	16,8	18,6
(1)					(2)

(1) Figures estimated from final turnover.

(2) Including missiles.

TREND IN FINAL TURNOVER OF THE AEROSPACE INDUSTRY

AND GDP, 1975 - 1979

(in ECU at constant prices)

	% over the period		Mean annual growth rate	
	Turnover	GDP	Turnover	GDP
FR Germany	43,8	16,8	9,5	4,0
Belgium	53,1	11,9	11,2	2,9
France	22,1	15,1	5,1	3,5
Italy	19,2	16,1	4,5	3,8
Netherlands	2,6	13,0	0,6	3,1
U.K.	-0,4	10,0	-0,1	2,4
EEC (1)	17,1	14,2	4,0	3,4
U.S.A.	20,9	18,8	4,9	4,4

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

PERCENTAGE OF GDP REPRESENTED BY TURNOVER OF THE AEROSPACE INDUSTRY 1979

(in ECU at constant prices)

FR Germany	0,46 %
Belgium	0,27 %
France	1,14 %
Italy	0,33 %
Netherlands	0,31 %
U.K.	1,41 %
EEC (1)	0,73 %
U.S.A.	1,57 %

(1) The sum of the final 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

Breakdown into civil and military contracts

(Mio ECU at current prices)

YEAR	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	23991	35	65
1979	10652	28	72	27054	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
F.R. Germany	4,8	14,7	12,1	22,8	28,7	28,8	24,1
Belgium	42,0	56,9	60,3	59,4	54,4	37,5	26,3
France	10,7	9,3	10,8	7,8	8,4	8,6	9,8
Italy	14,6	11,0	15,0	9,1	7,4	16,9	11,8
Netherlands	2,3	5,6	6,3	7,5	9,7	11,6	11,0
United Kingdom	13,0	13,6	15,4	18,0	18,2	17,9	20,7
TOTAL EEC	11,3	12,5	13,5	14,3	15,3	16,0	16,7

BREAKDOWN OF FINAL EEC TURNOVER IN 1979 BY CUSTOMER CATEGORY

(Mio ECU at current prices)

Customer	Civil	Military	Total
<u>STATES</u>	<u>741,1</u>	<u>4718,0</u>	<u>5459,1</u>
-R&D contracts	188,8	1687,3	1876,1
-Modifications, Repairs, Maintenance	45,4	757,6	803,0
-Sales	506,9	2273,1	2780,0
 <u>AEROSPACE MANUFACTURERS IN NON-MEMBER COUNTRIES</u>	 <u>377,2</u>	 <u>332,4</u>	 <u>709,6</u>
 <u>FINAL USERS</u>	 <u>1921,9</u>	 <u>2561,6</u>	 <u>4483,5</u>
-EEC	988,0	168,7	1156,7
-Non-member countries	933,9	2392,9	3326,8
 <u>TOTAL</u>	 <u>3040,2</u>	 <u>7612,0</u>	 <u>10652,2</u>
%	28,5	71,5	100,0

PERCENTAGE BREAKDOWN OF FINAL TURNOVER BY CUSTOMER CATEGORY

Customers	1977		1978		1979	
	Civil	Military	Civil	Military	Civil	Military
<u>STATES</u>	<u>5,0</u>	<u>59,8</u>	<u>4,4</u>	<u>42,8</u>	<u>7,0</u>	<u>44,2</u>
-R&D contracts	2,9	12,6	2,3	13,4	1,8	15,8
-Modifications, Repairs, Maintenance	) 2,1	) 47,2	0,4	6,7	0,4	7,1
-Sales	)	)	1,7	22,7	4,8	21,3
<u>AEROSPACE MANU-</u> <u>FACTURERS IN NON-</u> <u>MEMBER COUNTRIES</u>	<u>1,8</u>	<u>2,3</u>	<u>2,6</u>	<u>2,7</u>	<u>3,5</u>	<u>3,1</u>
<u>FINAL USERS</u>	<u>18,6</u>	<u>12,5</u>	<u>20,7</u>	<u>26,8</u>	<u>18,1</u>	<u>24,1</u>
-EEC	13,4	-	9,6	2,1	9,3	1,6
-Non-member countries	5,2	12,5	11,1	24,7	8,8	22,5
<u>TOTAL</u> (%)	25,4	74,6	27,7	72,3	28,5	71,5

PERCENTAGE BREAKDOWN OF FINAL EEC TURNOVER BY MARKET

	1975	1976	1977	1978	1979
<b>1. Aerospace</b>					
-State	56,6	51,5	64,9	49,4	52,8
-Domestic civil market	8,2	12,9	13,4	9,6	9,3
-Exports	35,2	35,6	21,7	41,0	37,9
<b>2. Aviation</b>					
-State	56,3	51,0	65,4	49,0	53,2
-Domestic civil market	7,6	12,4	12,5	9,4	8,2
-Exports	36,1	36,6	22,1	41,6	38,6
<b>2.1 Airframes</b>					
-State	52,5	46,3	65,3	44,8	53,0
-Domestic civil market	6,8	12,8	12,4	7,8	6,2
-Exports	40,7	40,9	22,3	47,4	40,8
<b>2.2 Engines</b>					
-State	60,4	58,2	65,8	51,8	49,1
-Domestic civil market	7,9	11,9	14,7	12,1	12,2
-Exports	31,7	29,9	19,5	36,1	38,7
<b>2.3 Equipment</b>					
-State	63,8	62,0	65,3	60,1	58,7
-Domestic civil market	10,3	11,4	10,1	12,3	11,7
-Exports	25,9	26,6	24,6	27,6	29,6

BREAKDOWN OF STATE BACKING BY CONTRACT TYPE IN 1979

(Mio ECU at current prices)

	E.E.C		United States	
	Mio ECU	%	Mio ECU	%
R&D contracts	1876,1	33,4	n.a	n.a
Civil	188,8	3,4	n.a	n.a
Military	1687,3	30,0	n.a	n.a
Purchase & maintenance Contracts	3751,7	66,6	n.a	n.a
Civil	552,3	9,8	n.a	n.a
Military	3199,4	56,8	n.a	n.a
TOTAL	5627,8	100,0	14629	100,0
As % of final turnover	(10652,2	52,8	(27054)	54,1

BREAKDOWN BY SUBSECTOR OF STATE BACKING IN THE EEC IN 1979

(Mio ECU at current prices)

	Mio ECU	%
Airframes	3576,2	63,5
Engines	960,6	17,1
Equipement	976,2	17,3
Space	114,8	2,1
Total	5627,8	100,0

BREAKDOWN OF STATE BACKING FOR THE EEC AVIATION INDUSTRY  
BY CONTRACT AND SUBSECTOR (%)

	1975	1976	1977	1978	1979
<b>AIRFRAMES</b>					
-R&D contracts					
civil	6,2	3,0	1,9	2,7	2,0
military	38,3	39,5	15,8	27,3	30,7
-Purchase & maintenance contracts					
civil	1,4	1,6	2,4	4,5	12,8
military	54,1	55,9	79,9	65,5	54,5
TOTAL	100,0	100,0	100,0	100,0	100,0
<b>ENGINES</b>					
-R&D contracts					
civil	9,4	6,1	3,8	3,8	3,1
military	27,6	28,8	29,7	32,5	34,2
-Purchase & maintenance contracts					
civil	4,3	3,5	3,6	2,2	3,1
military	58,7	61,6	62,9	61,5	59,6
TOTAL	100,0	100,0	100,0	100,0	100,0
<b>EQUIPEMENT</b>					
-R&D contracts					
civil	1,5	0,3	0,3	0,6	0,7
military	22,5	21,5	24,2	25,9	26,4
-Purchase & maintenance contracts					
civil	3,5	3,2	5,8	5,0	4,2
military	72,5	75,0	69,7	68,5	68,7
TOTAL	100,0	100,0	100,0	100,0	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 %	-2,4 %	-13,9 %	-16,1 %
1971-1972	22,4 %	14,4 %	-4,0 %	-1,3 %
1972-1973	13,3 %	7,8 %	-3,1 %	0,7 %
1973-1974	12,2 %	2,4 %	7,4 %	-5,0 %
1974-1975	20,8 %	3,1 %	1,5 %	-3,6 %
1975-1976	17,6 %	9,4 %	15,9 %	-0,5 %
1976-1977	5,0 %	-1,8 %	4,4 %	0,5 %
1977-1978	11,0 %	3,0 %	4,2 %	8,4 %
1978-1979	17,8 %	5,8 %	12,8 %	11,6 %
Average 70-79	12,7 %	4,5 %	3,6 %	- 0,1 %

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	45,2	100,0
1979	47,2	100,0

(1975 prices and exchange rates)

Year	EEC %	USA %
1970	25,0	100,0
1971	29,1	100,0
1972	33,7	100,0
1973	36,1	100,0
1974	38,9	100,0
1975	41,6	100,0
1976	45,8	100,0
1977	44,7	100,0
1978	42,5	100,0
1979	40,3	100,0

## CHAPTER 7

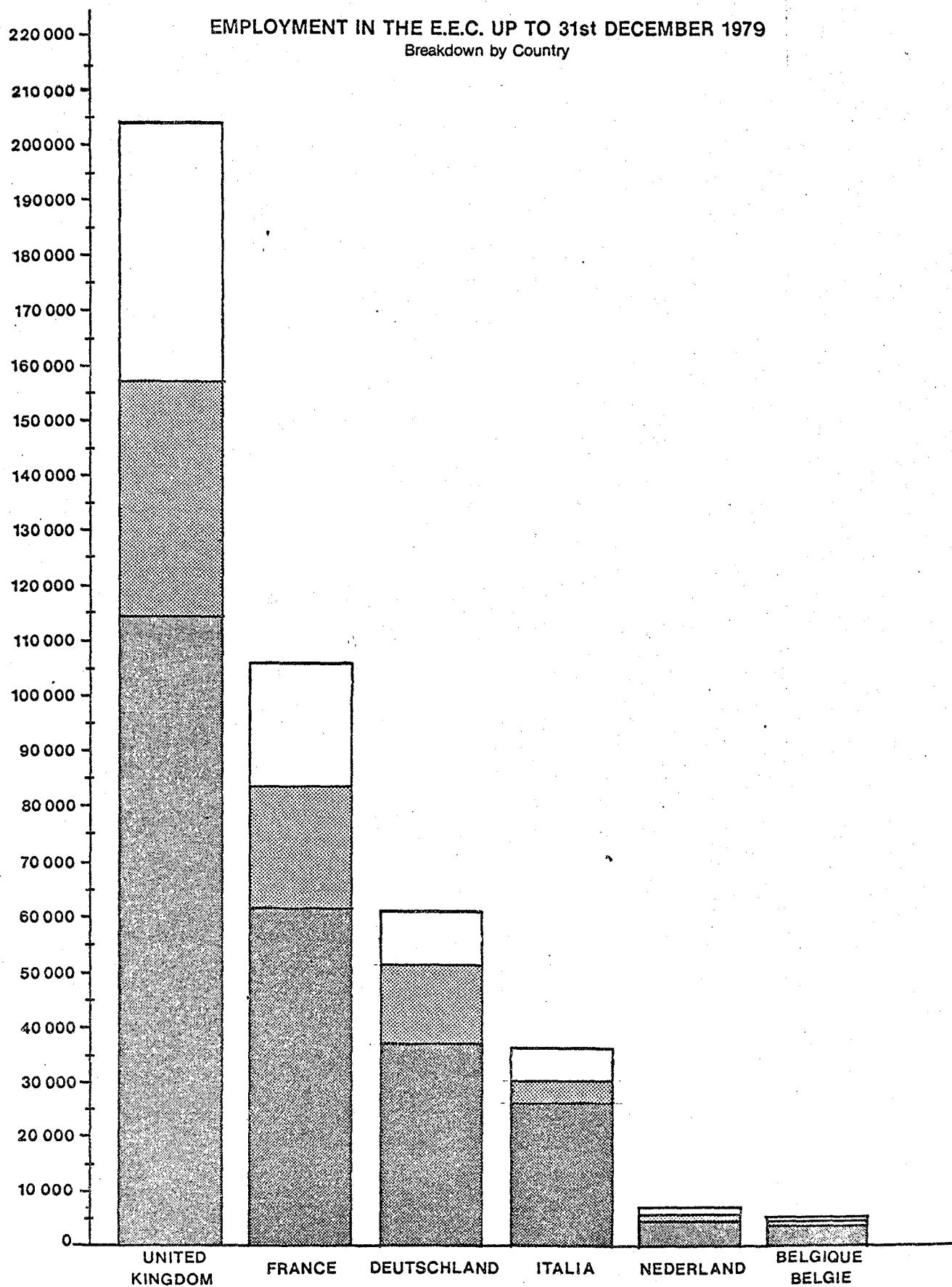
### EMPLOYMENT IN THE AEROSPACE INDUSTRY



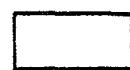
1. The figures for employment in the European aerospace industry are taken from the results of the annual survey conducted in conjunction with the national industrial associations.
2. The production items taken into consideration in the various subsectors are the same as those given in the previous chapter 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.
4. The tables showing the distribution of the workforce by occupational grading should be interpreted with a certain amount of caution, since they are not based on standard international definitions.
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 increasing productivity.

EFFECTIFS DANS LA C.E.E. AU 31 DECEMBRE 1979  
Répartition par pays

EMPLOYMENT IN THE E.E.C. UP TO 31st DECEMBER 1979  
Breakdown by Country



R&D  
R&D



Commercialisation et gestion  
Marketing and Management



Production  
Production

EMPLOYMENT TRENDS

	1972	1973	1974	1975	1976	1977	1978	1979
F.R. Germany	52455	52985	52982	51914	51367	52416	56348	60886
Belgium	4941	4380	4422	4025	5015	4895	5068	6272
France	108525	106132	106769	108915	107454	103295	103424	106297
Italy	28500	30000	30000	30768	31991	32080	34036	36570
Netherlands	6600	7000	6555	7682	7865	7320	7382	7935
United Kingdom	207500	201700	210100	233792	227402	219251	214918	204381
E.E.C.	408521	402197	410828	437096	431094	419257	421176	422321
United States	912000	956000	982000	941000	896000	893000	974000	1099000
Canada	28800	31700	28400	27300	25300	28900	33800	37700
Japan	(26000)	(26026)	(25550)	(26746)	n.a.	23756	25398	25653

WORKFORCE IN THE EEC ON 31 DECEMBER 1979

Breakdown by subsector

	AIRFRAMES & SPACE	ENGINES	EQUIPMENT	TOTAL
<u>Occupational grading</u>				
1.Engineers & managerial staff	31350	13490	19774	64614
2.Executive staff				
- technical	51370	20056	23919	95345
- administrative	35493	12393	17201	65087
3.Skilled workers	80232	45974	40510	166716
4.Non-skilled workers	16047	4806	9706	30559
<b>TOTAL</b>	<b>214492</b>	<b>96719</b>	<b>111110</b>	<b>422321</b>
<u>Main activity</u>				
1.R&D	39302	18824	27213	85339
2.Production	131341	56449	61180	248970
3.MARKETING & management	43849	21446	22717	88012
<b>TOTAL</b>	<b>214492</b>	<b>96719</b>	<b>111110</b>	<b>422321</b>
<b>Breakdown (%)</b>	<b>50,8</b>	<b>22,9</b>	<b>26,3</b>	<b>100,0</b>

WORKFORCE IN THE EEC ON 31 DECEMBER 1979

Breakdown by country

	F.R.G	B	F	I	NL	U.K.	E.E.C	%
<u>Occupational grading</u>								
1.Engineers & managerial staff	9297	565	15153	975	700	37924	64614	15,3
2.Executive staff								
- technical	14704	1112	37292	8733	1244	32260	95345	22,6
- administrative	10904	752	13954	4967	1651	32859	65087	15,4
3.Skilled workers	21243	3390	37754	15073	3587	85669	166716	39,5
4.Non-skilled workers	4718	453	2144	6822	753	15669	30559	7,2
TOTAL	60866	6272	106297	36570	7935	204381	422321	100,0
<u>Main activity</u>								
1.R&D	14200	230	22073	4742	1191	42903	85339	20,2
2.Production	37107	5243	61147	25744	5479	114250	248970	59,0
3.Marketeting & management	9559	799	23077	6084	1265	47228	88012	20,8
TOTAL	60866	6272	106297	36570	7935	204381	422321	100,0

BREAKDOWN OF THE WORKFORCE IN THE EEC ON 31 DECEMBER 1979

(Airframes & space subsectors)

	F.R.G	B	F	I	NL	U.K.	E.E.C	%
<u>Occupational grading</u>								
1.Engineers & managerial staff	5969	364	9958	574	493	13992	31350	14,6
2.Executive staff								
- technical	10369	734	22263	5960	820	11224	51370	23,9
- administrative	8104	499	8210	3879	1156	13645	35493	16,5
3.Skilled workers	12833	2015	18464	10101	2977	33842	80232	37,4
4.Non-skilled workers	3501	101	822	4756	448	6419	16047	7,6
<b>TOTAL</b>	<b>40776</b>	<b>3713</b>	<b>59717</b>	<b>25270</b>	<b>5894</b>	<b>79122</b>	<b>214492</b>	<b>100,0</b>
<u>Main activity</u>								
1.R&D	10512	170	11828	3610	1111	12071	39302	18,3
2.Production	24382	2850	36139	17257	4436	46277	131341	61,2
3.MARKETING & management	5882	693	11750	4403	347	20774	43849	20,5
<b>TOTAL</b>	<b>40776</b>	<b>3713</b>	<b>59717</b>	<b>25270</b>	<b>5894</b>	<b>79122</b>	<b>214492</b>	<b>100,0</b>

BREAKDOWN OF THE WORKFORCE IN THE EEC ON 31 DECEMBER 1979

(Engines subsector)

	F.R.G	B	F	I	NL	U.K.	E.E.C	%
<u>Occupational grading</u>								
1.Engineers & managerial staff	1100	125	2792	185	-	9288	13490	13,9
2.Executive staff								
- technical	1288	183	7901	1220	-	9464	20056	20,7
- administrative	1212	203	2587	454	-	7937	12393	12,8
3.Skilled workers	4563	970	8233	2672	-	29536	45974	47,5
4.Non-skilled workers	268	326	358	1252	-	2602	4806	5,1
TOTAL	8431	1807	21871	5783	-	58827	96719	100,0
<u>Main activity</u>								
1.R&D	991	42	4686	284	-	12821	18824	19,5
2.Production	5589	1701	11962	4538	-	32659	56449	58,4
3.Marketeting & management	1851	64	5223	961	-	13347	21446	22,1
TOTAL	8431	1807	21871	5783	-	58827	96719	100,0

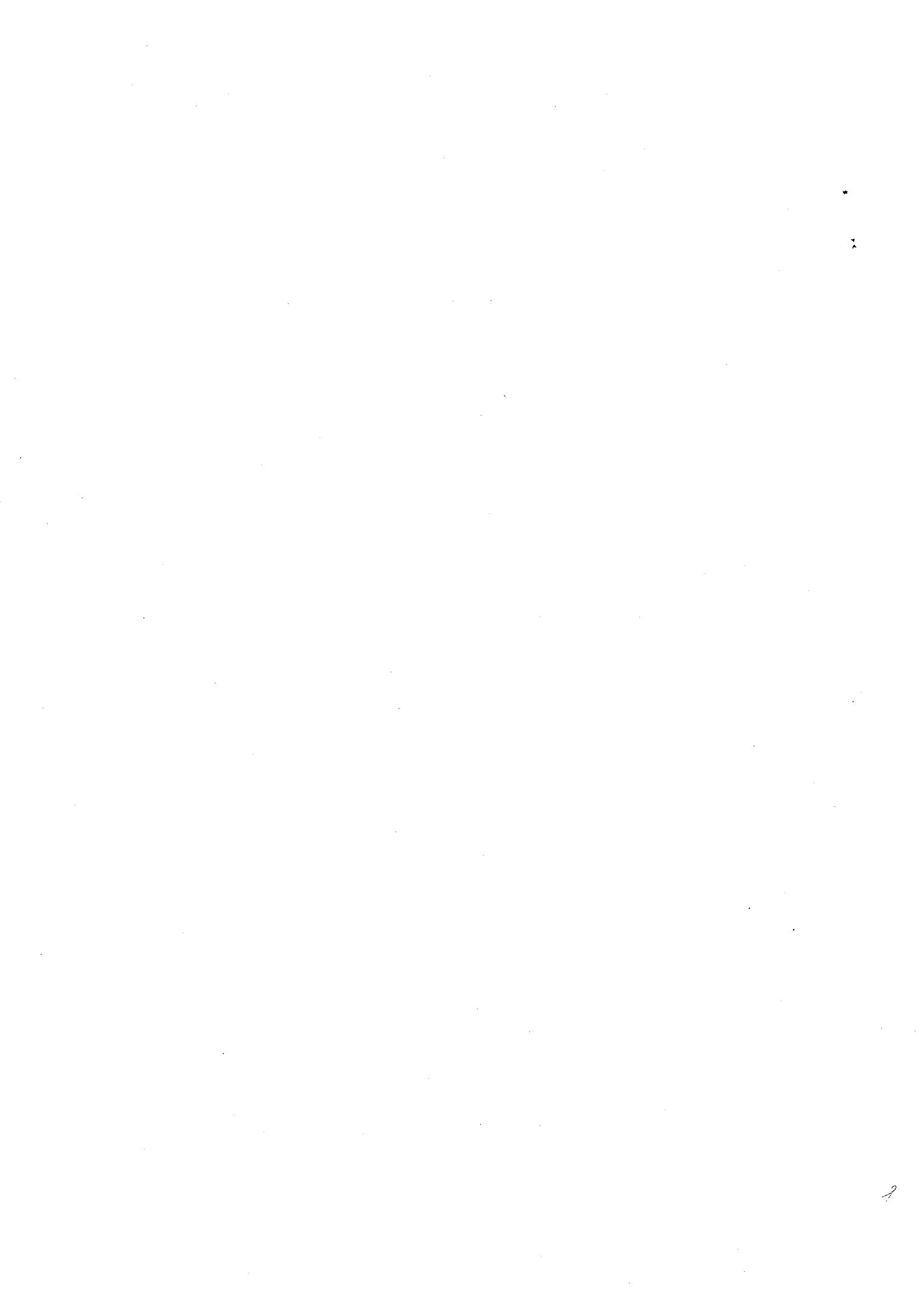
BREAKDOWN OF THE WORKFORCE IN THE EEC ON 31 DECEMBER 1979

(Equipement subsector)

	F.R.G	B	F	I	NL	U.K.	E.E.C	%
<u>Occupational grading</u>								
1.Engineers & managerial staff	2228	76	2403	216	207	14644	19744	17,8
2.Executive staff	3047	195	7128	1553	424	11572	23919	21,5
- technical	1588	50	3157	634	495	11277	17201	15,5
3.Skilled workers	3847	405	11057	2300	610	22291	40510	36,5
4.Non-skilled workers	949	26	964	814	305	6648	9706	8,7
<b>TOTAL</b>	<b>11659</b>	<b>752</b>	<b>24709</b>	<b>5517</b>	<b>2041</b>	<b>66432</b>	<b>111110</b>	<b>100,0</b>
<u>Main activity</u>								
1.R&D	2697	18	5559	848	80	18011	27213	24,5
2.Production	7136	692	13046	349	1043	35314	61180	55,1
3.MARKETING & management	1826	42	6104	720	918	13107	22717	20,4
<b>TOTAL</b>	<b>11659</b>	<b>752</b>	<b>24709</b>	<b>5517</b>	<b>2041</b>	<b>66432</b>	<b>111110</b>	<b>100,0</b>

## **CHAPTER 8**

### **C O M P A N I E S**



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-DOUGLAS	4358	82550	3850	82736
3	5	USA	LOCKHEED	3876	74600	2960	66500
4	3	USA	PRATT & WHITNEY	(3874)	(70000)	3345	n.d.
5	4	USA	GENERAL DYNAMICS	3407	84400	2961	n.d.
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.	(1745)	(34000)	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	n.d.
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	345	8195
22	20	USA	VOUGHT	n.d.	n.d.	359	9570
23	18	I	AGUSTA (Group)	378	9358	381	9201
24	26	D	M.T.U.	276	6594	202	6398
25	25	JPN	MITSUBISHI H.I.	n.d.	n.d.	247	5925
26	24	I	AERITALIA	233	11500	293	10950
27	28	F	TURBOMECA	218	4400	182	4366
28	27	JPN	ISHIKAWAJIMA HARIMA	n.d.	n.d.	187	4503
29	29	JPN	KAWASAKI H.I.	n.d.	n.d.	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	n.d.	3348
36	38	B	SABCA	98	1870	79	1860
37	34	CDN	DE HAVILLAND	n.d.	n.d.	(90)	(4700)
38	35	SWE	VOLVO FLYGMOTOR	92	2500	83	2500
39	39	CDN	CANADAIR LTD	n.d.	n.d.	72	(5400)
40	40	I	ALFA ROMEO AVIO	34	1250	33	(1300)

Note : Bracketed Figures are estimates

TURNOVER (SALES) AND WORKFORCE OF THE MAJOR AEROSPACE MANUFACTURERS

1977 - 1978

(Mio ECU at current values)

· RANK '78	'77	STATE	COMPANY	1978		1977	
				SALES	WORKFORCE	SALES	WORKFORCE
1	1	USA	BOEING	4433	81200	3615	66900
2	2	USA	Mc DONNELL-DOUGLAS	3242	82736	3107	61577
3	4	USA	PRATT & WHITNEY	2790	n.d.	2810	60811
4	3	USA	LOCKHEED	2735	55100	2934	55100
5	5	USA	GENERAL DYNAMICS	2516	77100	2543	73300
6	7	F	AEROSPATIALE	1658	33152	1695	34400
7	8	USA	GENERAL ELECTRIC	(1542)	(24000)	(1535)	(22000)
8	9	USA	NORTHROP	1436	31176	1403	26225
9	6	USA	ROCKWELL INTL.	1356	27303	1948	31626
10	10	UK	BRITISH AEROSPACE	1347	70160	1315	68800
11	12	F	DASSAULT-BREGUET	1101	15183	1016	14819
12	13	UK	ROLLS-ROYCE	973	52590	906	52640
13	11	USA	GRUMMAN	956	19700	1106	21200
14	14	D	M.B.B.	828	22290	680	20664
15	15	USA	CESSNA	685	19000	544	17500
16	16	F	SNECMA	462	10679	409	10816
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	10066
20	20	NL	FOKKER	298	7425	300	7365
21	22	I	AGUSTA (Group)	286	8884	254	8245
22	23	F	MATRA	273	(4100)	233	(3900)
23	21	D	DORNIER	269	7427	273	6864
24	24	UK	WESTLAND (Group)	251	12169	212	12894
25	25	I	AERITALIA	223	9610	n.d.	9330
26	31	JPN	ISHIKAWAJIMA H. (*)	204	2500	141	1937
27	26	SWE	SAAB (Aerospace)	194	6307	205	6556
28	30	D	M.T.U.	172	6092	153	5819
29	27	JPN	KAWASAKI H.I. (*)	170	3214	183	3900
30	29	F	S.E.P.	149	2436	165	2463
31	32	SP	CASA	127	7949	97	7903
32	28	F	TURBOMECA	113	4357	168	4480
33	33	CDN	DE HAVILLAND	94	4000	n.d.	n.d.
34	34	I	FIAT AVIAZIONE	90	2650	86	2610
35	35	SWE	VOLVO FLYGMOTOR	76	2100	72	2070
36	37	B	SABCA	69	1835	53	1835
37	36	UK	SHORTS	66	6504	60	6438
38	38	CDN	CANADAIR LTD.	57	4871	n.d.	n.d.
39	40	B	F.N. HERSTAL	42	1352	26	985
40	39	I	ALFA ROMEO AVIO	29	1657	29	1627

Note : Bracketed Figures are estimates

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

TURNOVER OF THE EEC HELICOPTER MANUFACTURERS

(Mio ECU at current value)

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,)
	TOTAL EEC	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
	TOTAL EEC	22614	22507	22077	22088

(1) Helicopter activity only.

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

## **CHAPTER 9**

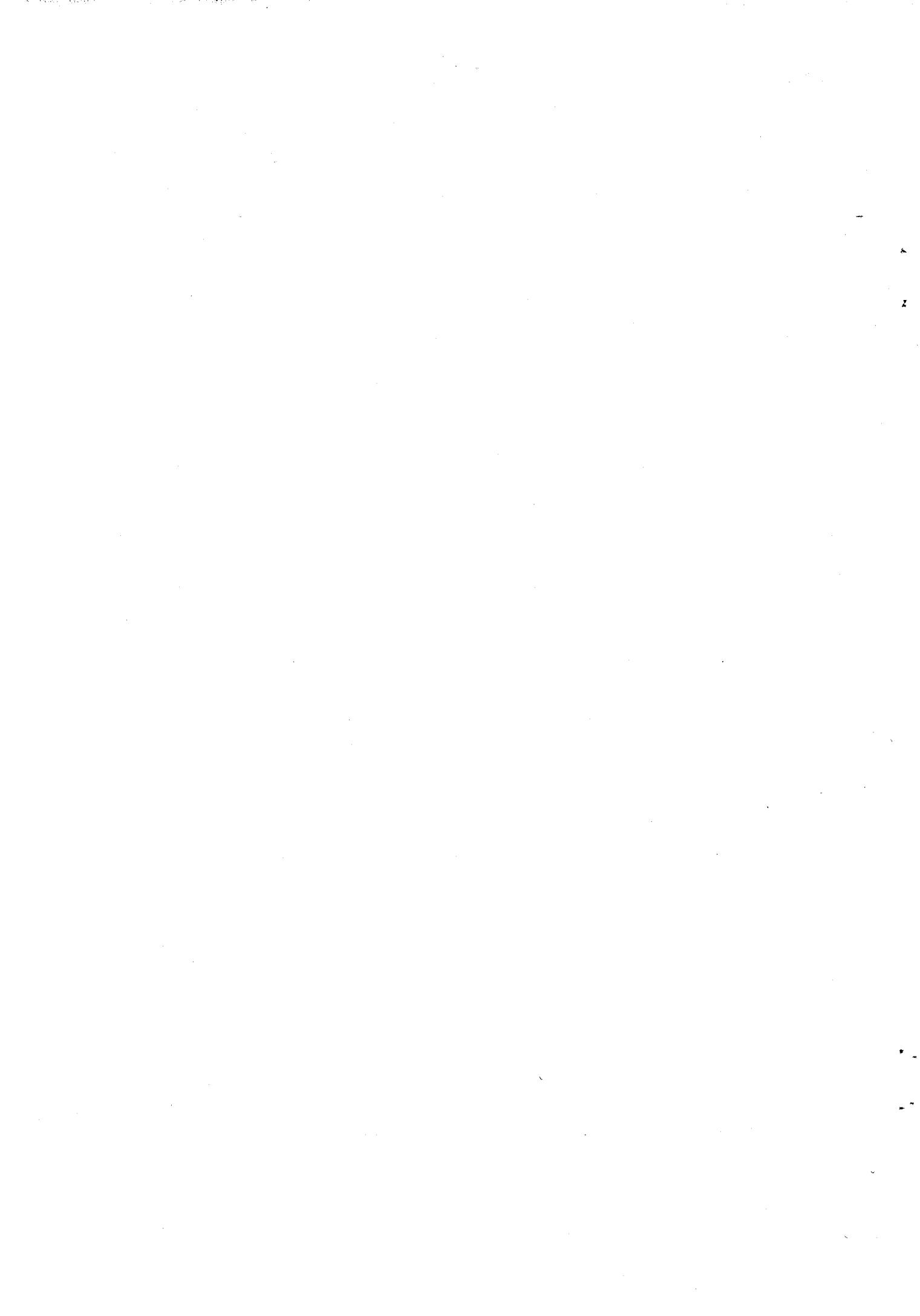
**PUBLIC FINANCING OF R&D IN THE  
CIVIL AEROSPACE INDUSTRIES**



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. 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.
3. 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.
4. For the EEC Member States taken as a whole, 72 % of R&D funds granted to the aerospace industry in 1979 is devoted to civil aviation R&D and 28 % to space R&D. In 1980 these proportions became 70 % (civil aviation R&D), and 30 % (space R&D).
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 some 69 % of aerospace R&D funds for civil aviation goes to industry and the remaining 28 % to other research bodies compared with approximately 73 % and 27 % respectively in 1978.

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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
Germany	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
Italy	614	0,7	0,1	88094	103,5	9,5	88708	104,2	9,6
Netherlands	4932	7,8	0,4	35526	63,3	3,4	39918	71,1	3,8
Belgium	644	0,9	0,1	24941	33,8	5,3	25585	34,7	5,4
U.K.	37064	29,1	1,2	69259	54,3	2,2	106323	83,4	3,4
Ireland	-	-	-	1346	14,9	2,4	1346	14,9	2,4
Denmark	-	-	-	9291	36,4	3,8	9291	36,4	3,8
C.E.C (1)	-	-	-	1839	7,0	0,8	1839	7,0	0,8
TOTAL	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
Germany	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
Italy	8950	3,9	0,7	81337	35,9	6,2	90287	39,8	6,9
Netherlands	-	-	-	35684	50,9	3,2	35684	50,9	3,2
Belgium	7576	9,8	1,4	29176	37,6	5,6	30752	47,4	7,0
U.K.	116091	45,0	2,8	87385	33,9	2,1	203476	78,9	4,9
Ireland	-	-	-	546	14,7	0,1	546	14,7	0,1
Denmark	-	-	-	7863	26,1	3,6	7863	26,1	3,6
C.E.C (1)	n.a	-	-	n.a	-	-	n.a	-	-
TOTAL	361529	19,7	1,8	860222	46,9	4,4	1221751	66,6	6,2

a. 1000 EUA 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 the European Communities

PUBLIC FINANCING OF AEROSPACE R&D IN 1976-1980

PERCENTAGE BREAKDOWN BY COUNTRY

	Civil Aviation Manufacture					Space					Total				
	1976	1977 (1)	1978	1979	1980	1976	1977	1978	1979	1980	1976	1977 (1)	1978	1979	1980
Germany	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
Italy	-	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
Netherlands	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
Belgium	0,1	na	0,2	0,3	2,1	4,2	4,4	4,1	3,6	3,4	2,6	na	2,9	2,6	3,0
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
Ireland	-	-	-	-	-	-	-	-	0,2	0,1	-	-	-	0,1	0,0
Denmark	-	-	-	-	-	1,5	1,7	1,4	1,3	0,9	1,0	1,2	1,0	1,0	0,6
C.E.C.	-	-	-	-	na	-	0,3	0,3	0,3	na	-	0,2	0,2	0,2	na
TOTAL	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) Approximate figures, since data on appropriations for civil aviation manufacture R&D in Belgium is not available.

A N N E X E S



EXCHANGE RATES

1 ECU (European Currency Unit) =

	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)

	FRG	B	F	I	NL	U.K.	EEC	E	USA	CANADA	JAPAN
1970	73,2	66,1	65,6	56,5	63,9	54,1	63,3	56,0	72,1	66,1	63,1
1971	78,8	69,7	69,3	60,6	69,4	59,1	68,0	60,5	75,8	68,2	66,1
1972	83,1	74,1	73,6	64,4	75,9	64,0	72,7	65,8	78,9	71,6	69,2
1973	88,1	79,2	79,4	71,9	82,3	68,5	78,4	73,5	83,4	78,2	76,7
1974	94,0	89,0	88,2	85,1	89,9	78,9	87,6	85,7	91,3	90,3	92,1
1975	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1976	103,4	107,5	110,1	118,0	108,9	114,4	110,4	116,7	105,1	109,5	105,6
1977	107,3	115,4	120,0	140,6	115,8	130,3	121,7	143,3	111,4	117,1	111,5
1978	111,5	120,2	131,7	160,3	121,8	144,2	132,5	172,3	119,6	124,6	115,8
1979	116,0	125,0	145,4	184,7	126,5	165,3	146,0	199,5	130,1	137,4	118,2

GROSS DOMESTIC PRODUCT AT MARKET PRICES

(current prices)

(Million ECU)

YEAR	FRG	B	F	I	NL	U.K.	EEC	E	USA	CANADA	JAPAN
1970	181417	24693	137831	98425	30962	119475	613185	36101	959862	n.a.	200161
1971	207063	27170	151145	105821	35448	133258	682298	40237	1012745	n.a.	222703
1972	230929	31327	173429	114822	40759	140767	757688	47669	1041494	94212	273014
1973	280365	36711	203777	125263	49033	144828	870433	57645	1057159	99496	339376
1974	320131	44366	222939	142726	59424	162272	986424	74132	1179489	124030	389415
1975	339094	49838	273032	154875	66803	185961	1108605	84576	1230291	127678	405126
1976	398807	59563	313941	168421	81272	199536	1268805	96792	1516503	173475	505575
1977	453304	67990	335445	188802	93357	218285	1409185	105685	1655528	172471	609213
1978	504399	74449	371701	205856	102273	246432	1562056	116318	1657928	158466	767463
1979	557639	79049	416955	236160	108785	292825	1753600	143820	1714460	(165574)	737917

GROSS DOMESTIC PRODUCT AT MARKET PRICES

(1975 prices and exchange rates)

(Million ECU)

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	FRG	B	F	I	NL	U.K.	EEC	E	USA	CANADA	JAPAN
1970	304087	41897	224449	137457	57192	168065	967736	64642	1097007	n.a.	317366
1971	314240	43517	236587	139715	59635	172592	1001800	67846	1128715	n.a.	333577
1972	325908	45810	250546	144190	61673	176406	1042054	73369	1193620	115837	364717
1973	342085	48640	263991	154328	65192	189607	1103153	79135	1258387	124209	401020
1974	344472	50806	272524	160720	67498	187377	1122642	83657	1242168	126905	399648
1975	339094	49838	273032	154875	66803	185961	1108605	84576	1230289	127678	405126
1976	356238	52473	286502	163968	70356	193689	1164636	87123	1299768	138213	431311
1977	366857	52875	294810	167081	72025	195564	1191648	89996	1366283	141441	454577
1978	379243	54447	304539	171378	73808	202642	1229521	92425	1426941	145826	481280
1979	396079	55740	314284	179873	75428	204498	1270700	93185	1461336	(153353)	510196

THE SPANISH AEROSPACE INDUSTRY

The figures given below have been calculated using data on employment and turnover for the Spanish aerospace industry as supplied to the Commission by ATECMA.

These results have been compiled using the questionnaire previously used by the trade associations who form the members of AECMA and the Commission departments.

It should be noted that the turnover figure used for calculations is the final Spanish national turnover and not the final turnover at community level as defined in chapter 6, paragraph 2.b. For the purpose of this study, Spain is taken to be a third country, even though it actively participates in certain European aerospace programs, in particular the Airbus program.

Nevertheless, the turnover at Community level which would be Spain's turnover were it a member of the Community, is indicated hereafter in order to show the share of turnover due to trade with the countries of the Community.

x  
x      x

(All data in current values)

Overall Turnover in 1979	:	131,4 Mio ECU
Final National Turnover in 1979	:	130,6 Mio ECU
Final Turnover at community level :		98,2 Mio ECU
Proportion of Spain's final turnover exported to industrial undertakings in EEC member states :		24,8 %
Percentage of GDP represented by turnover of the aerospace industry 1979	:	0,09 %
Average exchange rate in 1979	:	1 ECU = 97,97 PTA

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

SPAIN : OVERALL TURNOVER

(Mio ECU at current prices)

YEAR	Mio ECU	Breakdown by subsectors (%)			
		Airframes	Engines	Equipement	Space
1978	133,2	88,6	3,5	2,9	5,0
1979	131,4	86,2	1,8	5,9	6,1

SPAIN : BREAKDOWN OF FINAL TURNOVER BY CUSTOMER CATEGORY

(Mio ECU at current prices)

Customers	1978			1979		
	Civil	Military	Total	Civil	Military	Total
<u>STATE</u>	<u>1,2</u>	<u>44,8</u>	<u>46,0</u>	<u>1,9</u>	<u>47,4</u>	<u>49,3</u>
-R&D contracts	0,1	20,6	20,7	0,3	1,1	1,4
-Modifications, Repairs, Maintenance	0,6	20,5	21,1	0,4	19,1	19,5
-Sales	0,5	3,7	4,2	1,2	27,2	28,4
<u>AEROSPACE MANUFACTURERS IN NON-MEMBER COUNTRIES</u>	<u>25,7</u>	<u>21,6</u>	<u>47,3</u>	<u>26,6</u>	<u>9,0</u>	<u>35,6</u>
<u>FINAL USERS</u>	<u>1,0</u>	<u>38,2</u>	<u>39,2</u>	<u>14,5</u>	<u>31,2</u>	<u>45,7</u>
- EEC	0,1	-	0,1	6,1	-	6,1
- Non-member countries	0,9	38,2	39,1	8,4	31,2	39,6
<b>TOTAL</b>	<b>27,9</b>	<b>104,6</b>	<b>132,5</b>	<b>43,0</b>	<b>87,6</b>	<b>130,6</b>
<b>%</b>	<b>21,1</b>	<b>78,9</b>	<b>100,0</b>	<b>32,9</b>	<b>67,1</b>	<b>100,0</b>

PERCENTAGE BREAKDOWN OF SPAIN'S FINAL TURNOVER BY CUSTOMER CATEGORY

Customers	1978			1979		
	Civil	Military	Total	Civil	Military	Total
<u>STATE</u>	1,0	33,8	34,8	1,4	36,3	37,7
-R&D contracts	0,1	15,5	15,6	0,2	0,9	1,1
-Modifications, Repairs, Maintenance	0,5	15,5	16,0	0,3	14,6	14,9
-Sales	0,4	2,8	3,2	0,9	20,8	21,7
<u>AEROSPACE MANUFACTURERS IN NON-MEMBER COUNTRIES</u>	<u>19,3</u>	<u>16,3</u>	<u>35,6</u>	<u>20,4</u>	<u>6,9</u>	<u>27,3</u>
<u>FINAL USERS</u>	<u>0,8</u>	<u>28,8</u>	<u>29,6</u>	<u>11,1</u>	<u>23,9</u>	<u>35,0</u>
- EEC	0,1	-	0,1	4,7	-	4,7
- Non-member countries	0,7	28,8	29,5	6,4	23,9	30,3
<b>TOTAL (%)</b>	<b>21,1</b>	<b>78,9</b>	<b>100,0</b>	<b>32,9</b>	<b>67,1</b>	<b>100,0</b>

SPAIN : PERCENTAGE BREAKDOWN OF FINAL TURNOVER BY MARKET

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

SPAIN : BREAKDOWN OF STATE BACKING FOR THE AVIATION INDUSTRY

BY CONTRACT AND SUBSECTOR

(percentage)

	1978	1979
<u>AIRFRAMES</u>		
-R&D contracts		
civil	0,3	0,5
military	51,5	2,3
-Purchase & Maintenance contracts		
civil	-	-
military	48,2	97,2
TOTAL	100,0	100,0
<u>ENGINES</u>		
-R&D contracts		
civil	-	-
military	-	-
-Purchase & Maintenance contracts		
civil	-	-
military	100,0	100,0
TOTAL	100,0	100,0
<u>EQUIPEMENT</u>		
-R&D contracts		
civil	-	-
military	5,9	2,9
-Purchase & Maintenance contracts		
civil	64,7	45,7
military	29,4	51,4
TOTAL	100,0	100,0

SPAIN : BREAKDOWN OF STATE BACKING BY CONTRACT TYPE

(Mio ECU at current prices)

	1978		1979	
	Mio ECU	%	Mio ECU	%
R&D contracts	20,7	45,0	1,4	2,8
Civil	0,1	0,2	0,3	0,6
Military	20,6	44,8	1,1	2,2
Purchase & Maintenance contracts	25,3	55,0	47,9	97,2
Civil	1,1	2,4	1,6	3,2
Military	24,2	52,6	46,3	94,0
TOTAL	46,0	100,0	49,3	100,0
As % of final turnover	(132,5)	34,7	(130,6)	37,7

BREAKDOWN BY SUBSECTOR OF STATE BACKING IN SPAIN

(Mio ECU at current prices)

Subsector	1978		1979	
	Mio ECU	%	Mio ECU	%
Airframes	39,8	86,5	43,8	88,8
Engines	4,5	9,8	1,9	3,9
Equipement	1,7	3,7	3,5	7,1
Space	0,04	0,2	0,1	0,2
Total	46,04	100,0	49,3	100,0

SPAIN : AEROSPACE WORKFORCE ON 31 DECEMBER 1979

	AIRFRAMES	ENGINES	EQUIPEMENT	SPACE	TOTAL	%
<u>Occupational grading</u>						
1.Engineers & managerial staff	465	19	89	44	617	8,4
2.Executive staff						
- technical	857	20	97	60	1034	14,1
- administrative	1077	42	78	24	1221	16,7
3.Skilled workers	3320	121	261	22	3724	50,8
4.Non-skilled workers	694	12	29	-	735	10,0
<b>TOTAL</b>	<b>6413</b>	<b>214</b>	<b>554</b>	<b>150</b>	<b>7331</b>	<b>100,0</b>
<u>Main activity</u>						
1.R&D	207	-	41	36	284	3,9
2.Production	5723	214	469	101	6507	88,8
Marketing & Management	483	-	44	13	540	7,3
<b>TOTAL</b>	<b>6413</b>	<b>214</b>	<b>554</b>	<b>150</b>	<b>7331</b>	<b>100,0</b>