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I N S T I T U T E O F S C I E N C E A N D T E C H N O L O G Y • T H E U N I V E R S I T Y O F M I C H I G A N

A N N A R B O R , M I C H I G A N

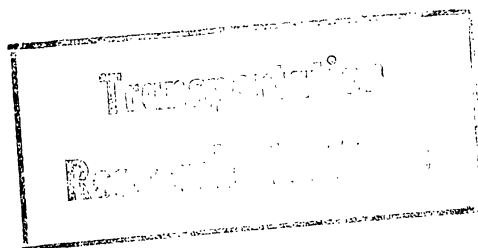


UMTRI

AESA - UNIVERSITY OF MICHIGAN
MERCHANT SHIP MARKETING SEMINAR

84295

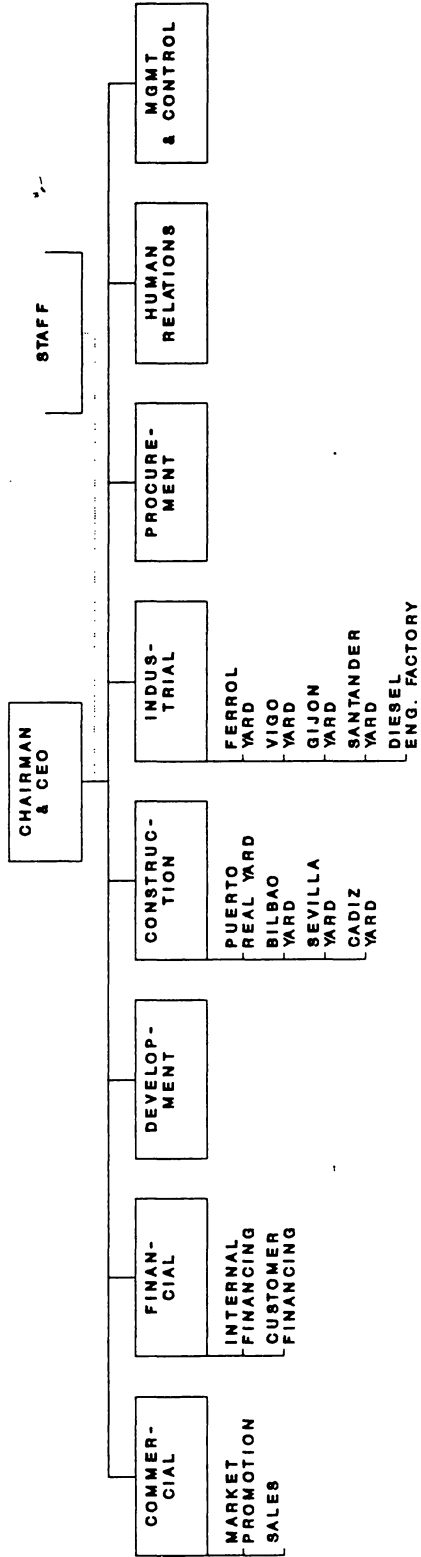
*ASTILLEROS
ESPAÑÓLES*
THE GROUP - THEIR FIGURES



ANN ARBOR, APRIL 14-15, 1993

PC:MI039392

AESA ORGANIZATION

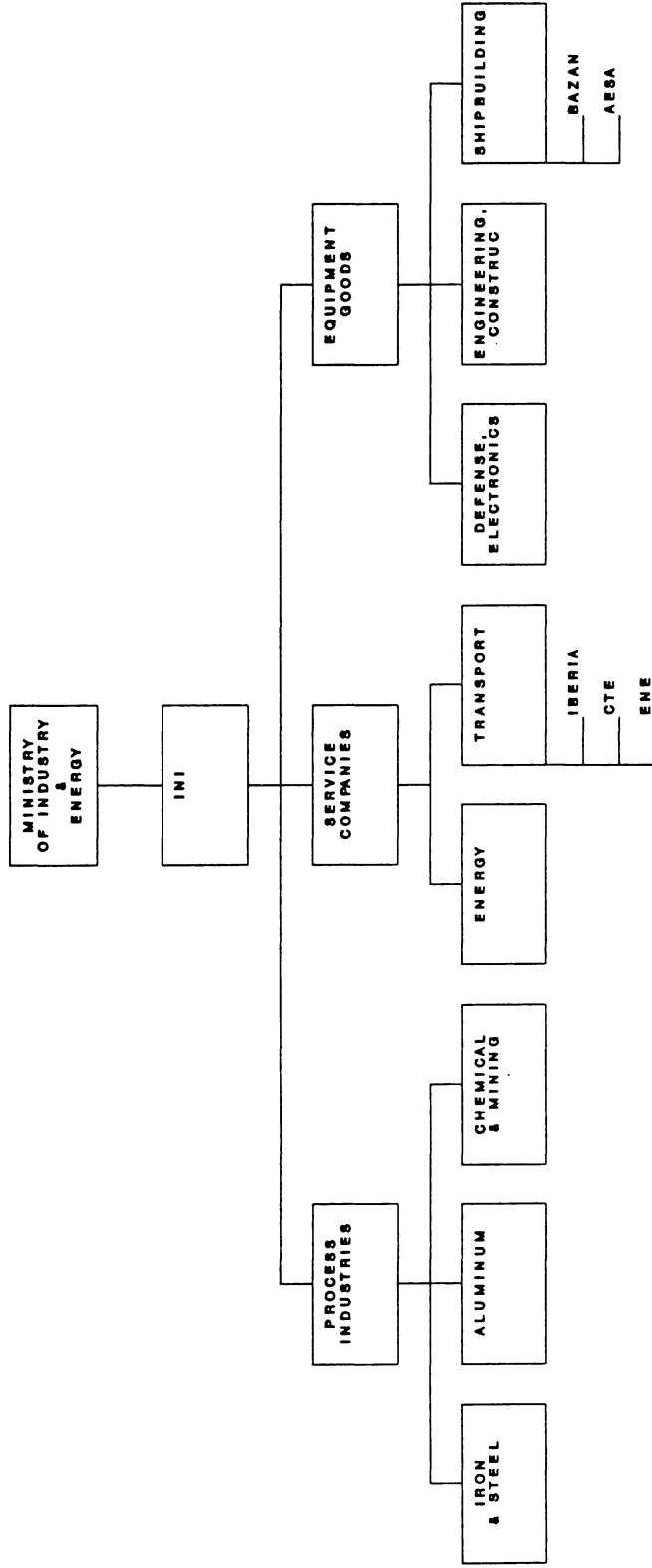


Transparencia
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PC:ORGAESA

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GOVERNMENT-INI-AESA



ASTILLEROS ESPAÑOLES: FACTS AND FIGURES

	<u>1987</u>	<u>1992</u>
* NUMBER OF YARDS	13	9
* WORKFORCE	17,000	10,000
* SALES	M Pts M US\$	100,000 1,000
OF WHICH, FOR EXPORT:	50 %	75 %
* WORLD MARKET SHARE:	1 - 1.5 %	2,5 - 3 %

MORE THAN 1,000 SHIPS DELIVERED TO MORE THAN 50 COUNTRIES

ASTILLEROS ESPAÑOLES: CURRENT POSITION

ORDERBOOK AT JAN 1st,1993:

- * 19 SHIPS UNDER CONSTRUCTION
- * 740,000 GT
- * 380,000 CGT
- * 185 BILLION PTS. (1.85 BILLION US \$)

CONTRACTS FROM 1987 THRU 1992:

- * 126 SHIPS
- * 2,330,000 GT
- * 1,460,000 CGT
- * 434 BILLION PTS. (4.34 BILLION US \$)

SHIPS DELIVERED 1987-1992:

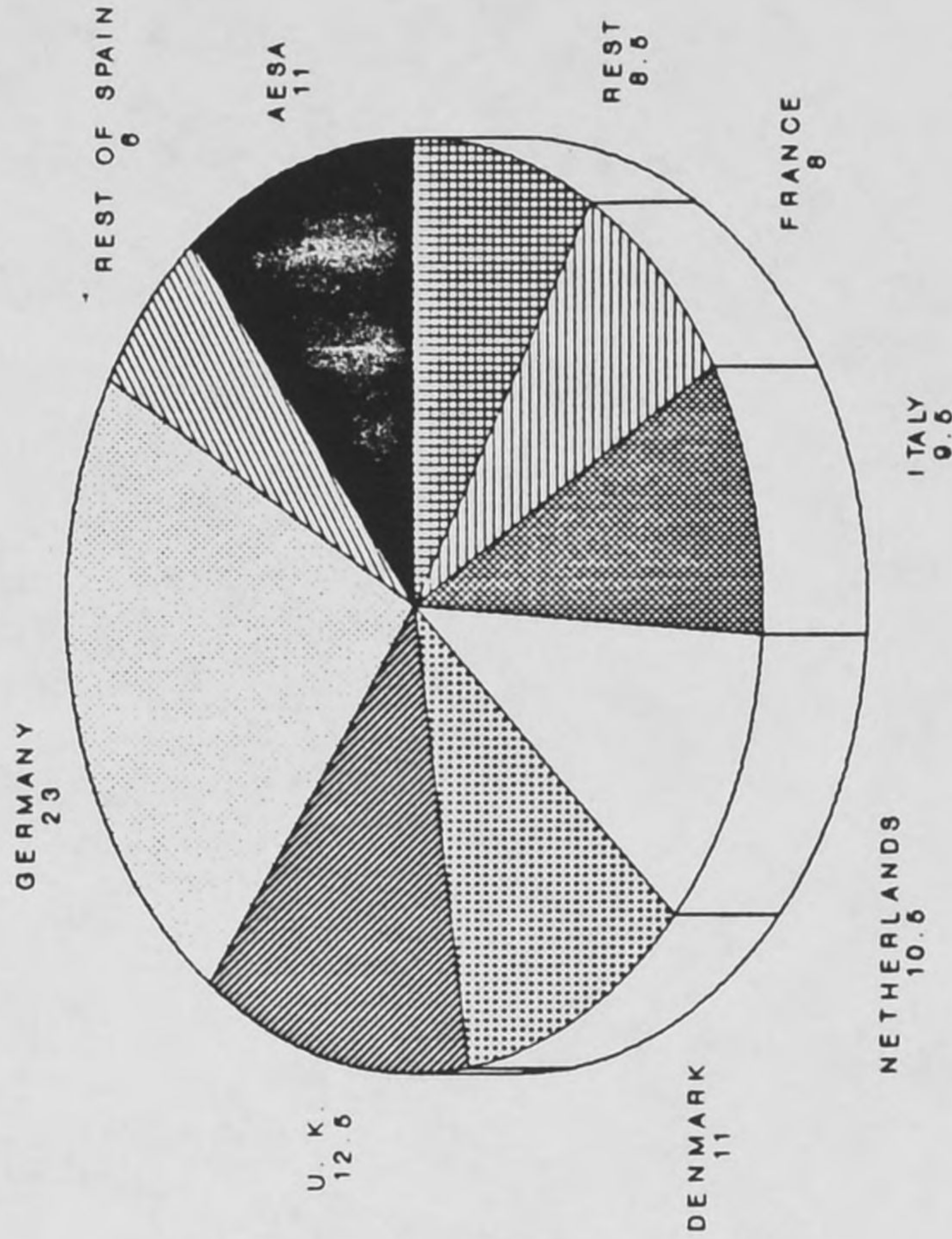
- * 120 SHIPS
- * 1,470,000 GT
- * 1,025,000 CGT
- * 290 BILLION PTS. (2.9 BILLION US \$)

ASTILLEROS ESPAÑOLES: ORDERBOOK BY COUNTRY

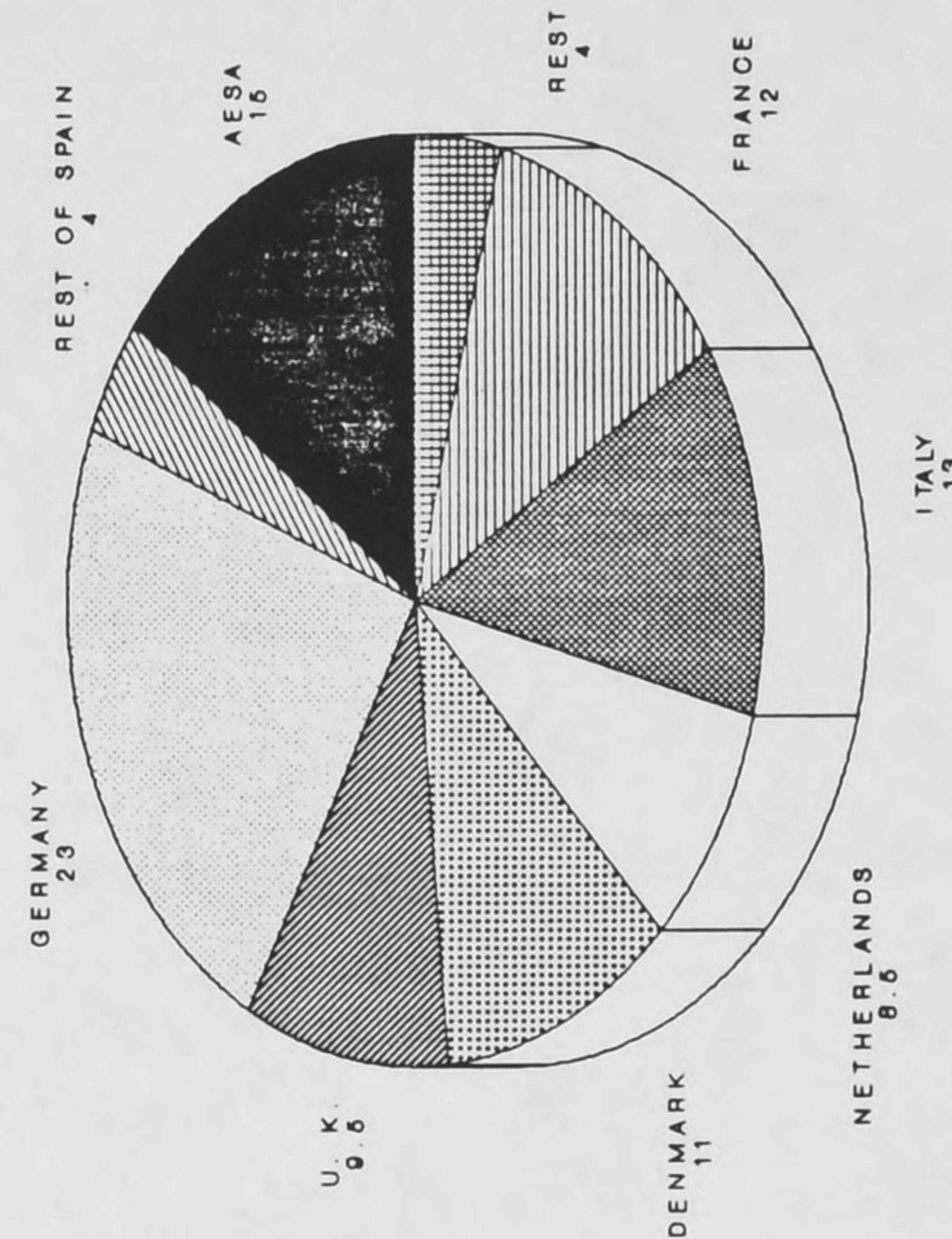
(JAN 1st. 1993)

<u>COUNTRY</u>	<u>NUMBER OF SHIPS</u>	<u>CGT</u>	
1. SPAIN	4	65,000	
2. NORWAY	9	200,000	
3. MEXICO	4	97,000	
4. UK	1	28,000	
5. MOROCCO	1	15,000	
			EXPORT 79%
			DOMESTIC 21%
			84%
			16%

AESA'S MARKET SHARE IN EEC CAPACITY (% CGT)



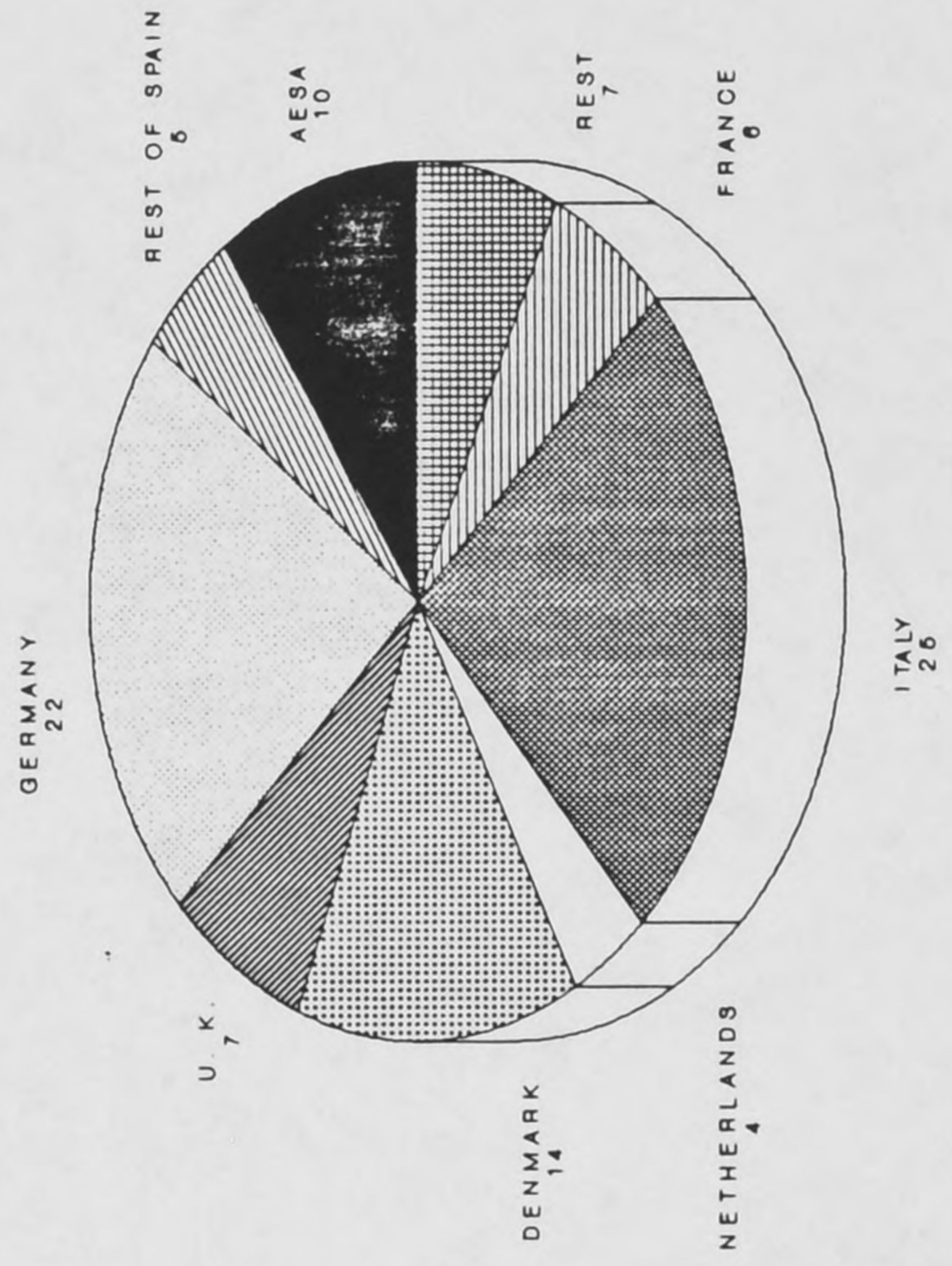
1987



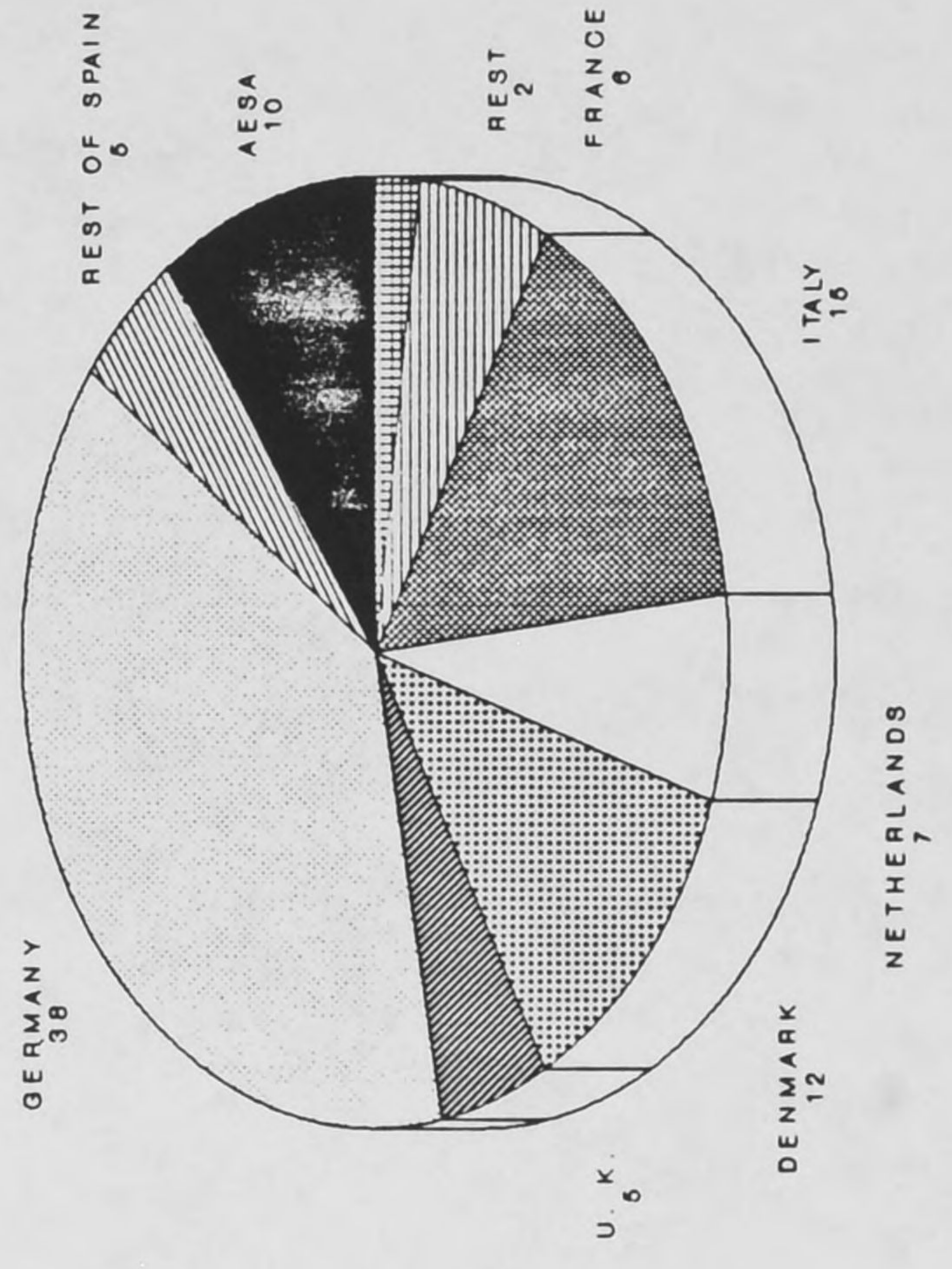
1992

AESA'S MARKET SHARE IN EEC

ORDERBOOK (% CGT)

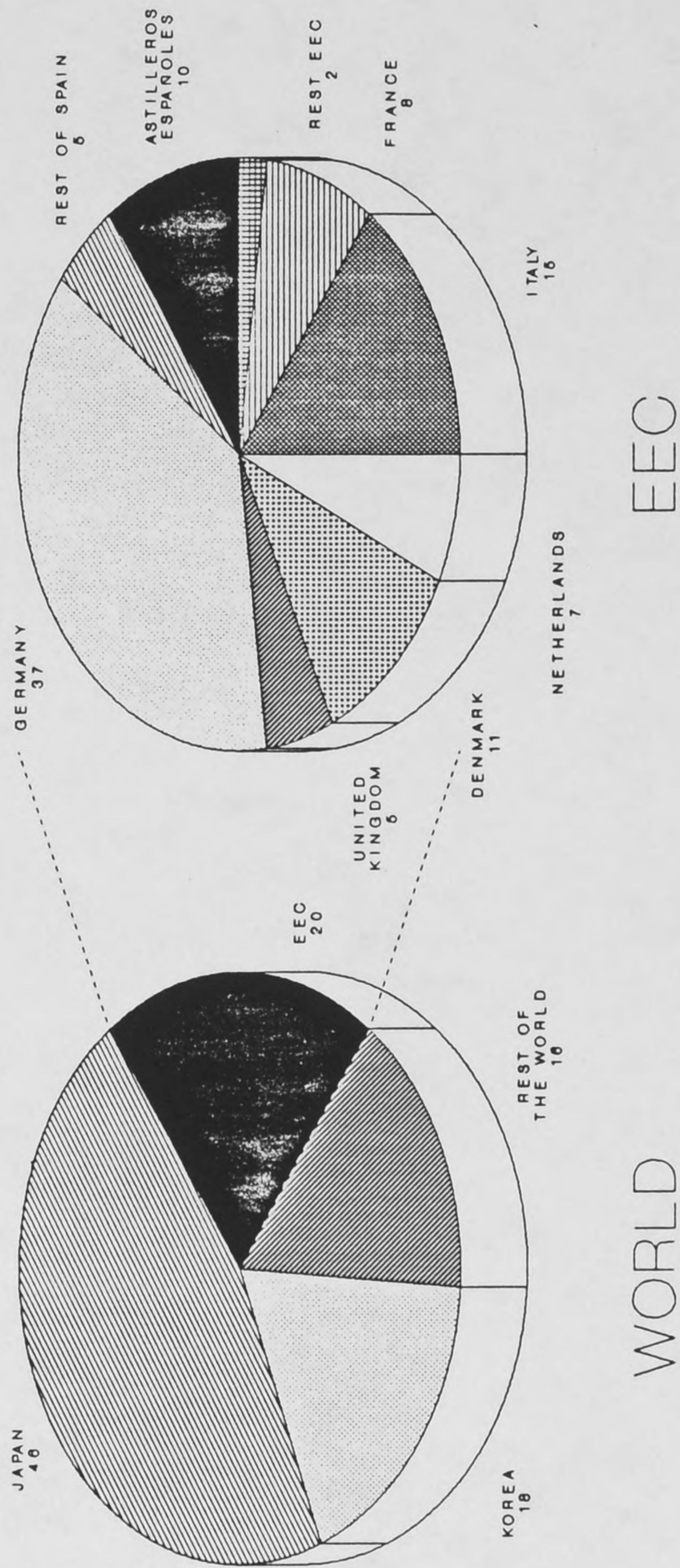


1987

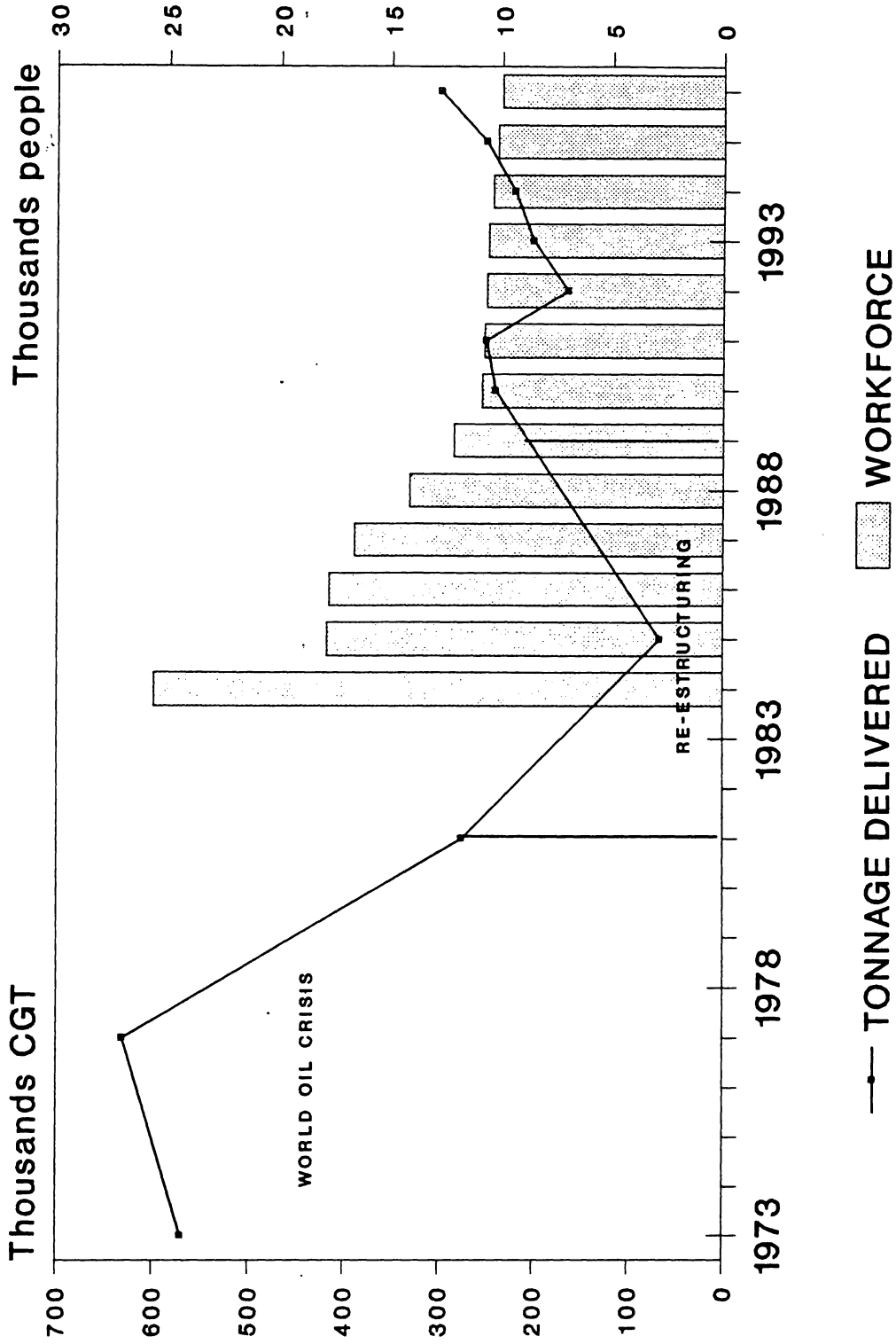


1992

ASTILLEROS ESPAÑOLES' MARKET SHARE DELIVERIES(%CGT) CURRENT POSITION



ASTILLEROS ESPAÑOLES



ASTILLEROS ESPAÑOLES: PRODUCTIVITY EVOLUTION

IN THE WHOLE GROUP:

- 40% REDUCTION IN WORKFORCE (1987 - 1992)
- CLOSE TO 50% MORE PRODUCTIVITY

IN PUERTO REAL SHIPYARD:

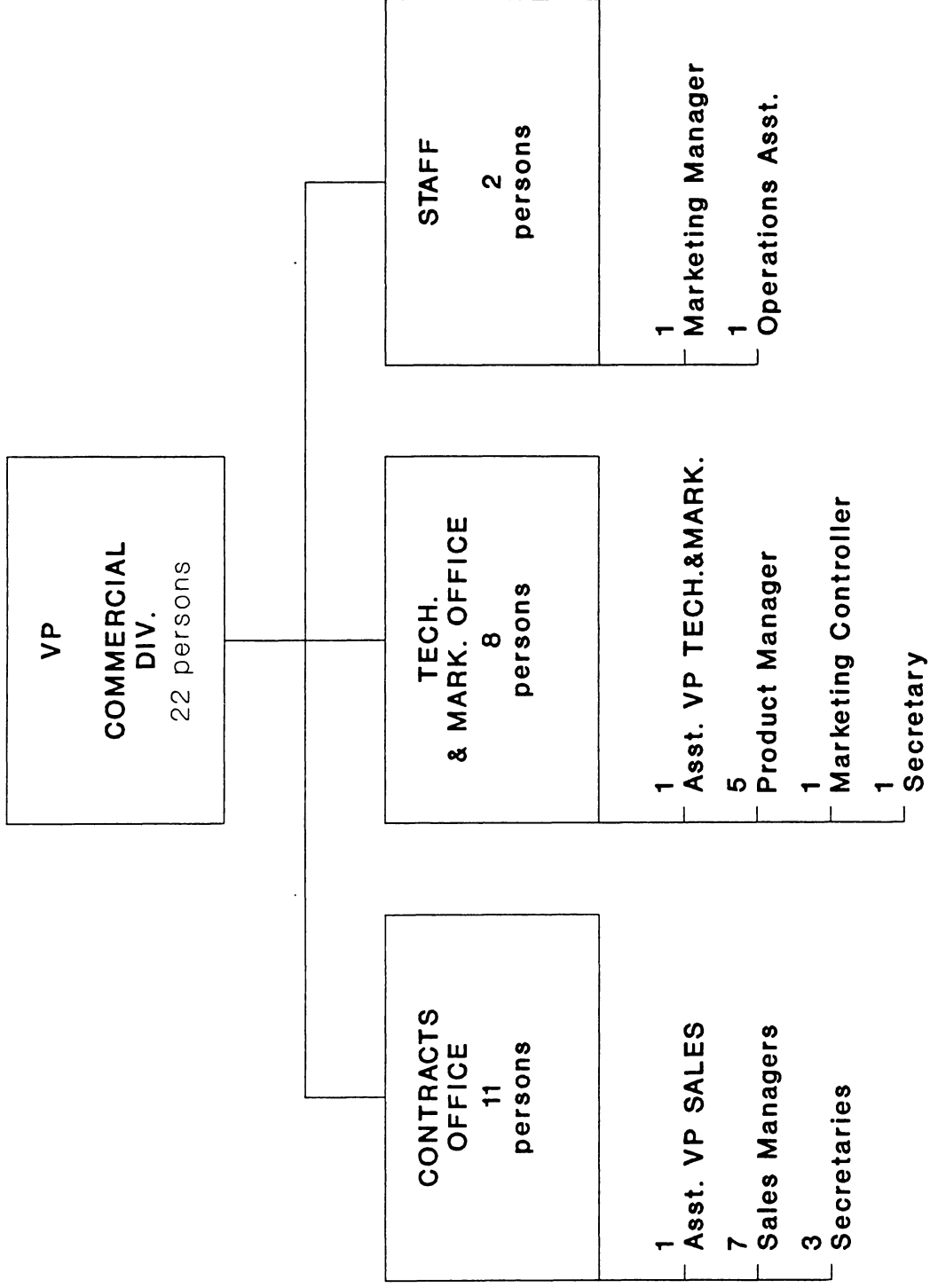
- CLOSE TO 50% WORKFORCE REDUCTION
- 3.5 TIMES MORE CGT/MAN.YEAR

ASTILLEROS ESPAÑOLES

TECHNOLOGYCAL COOPERATION

- * COOPERATION AGREEMENT
M.H.I. (JAPAN)
- * PARTICIPATION IN THE EUREKA 353 'FASP' PROJECT
E.E.C. COUNTRIES
- * CAD/CAM. PROGRAMS
SENER (SPAIN)
KOCKUMS (SWEDEN)
- * MODULAR CABINS DESIGN AND CONSTRUCTION
MASA YARDS (FINLAND)
- * FERRIES AND PASSENGER VESSELS DESIGN
ELOMATIC (FINLAND)
- * COOPERATION AND LICENCES
SULZER (SWITZERLAND)
MAN B&W (DENMARK)
MOSS ROSEMBERG (NORWAY)
- * ECOLOGICAL E3 VLCC PROJECT
BREMER VULKAN (GERMANY)
CHANTIERS DE L'ATLANTIQUE (FRANCE)
FINCANTIERI (ITALY)
HOWALDTSWERKE DEUTSCHE WERFT (GERM.)

COMMERCIAL DIVISION ORGANIZATION



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Transportation
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AIIM SCANNER TEST CHART # 2

Spectra

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Century Schoolbook Bold

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Bodoni Italic

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Greek and Math Symbols

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 6 PT ΑΒΓΔΕΕΘΗΙΚΑΜΝΟΠΦΡΣΤΥΩΧΨΖαβγδεξθηικλμνοπφρστνωχψζ≥≠", / ≤ ± = ≠ > < > < > < ≡
 8 PT ΑΒΓΔΕΕΘΗΙΚΑΜΝΟΠΦΡΣΤΥΩΧΨΖαβγδεξθηικλμνοπφρστνωχψζ≥≠", / ≤ ± = ≠ > < > < > < ≡
 10 PT ΑΒΓΔΕΕΘΗΙΚΑΜΝΟΠΦΡΣΤΥΩΧΨΖαβγδεξθηικλμνοπφρστνωχψζ≥≠", / ≤ ± = ≠ > < > < > < ≡

White



Black



Isolated Characters

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MESH HALFTONE WEDGES

65

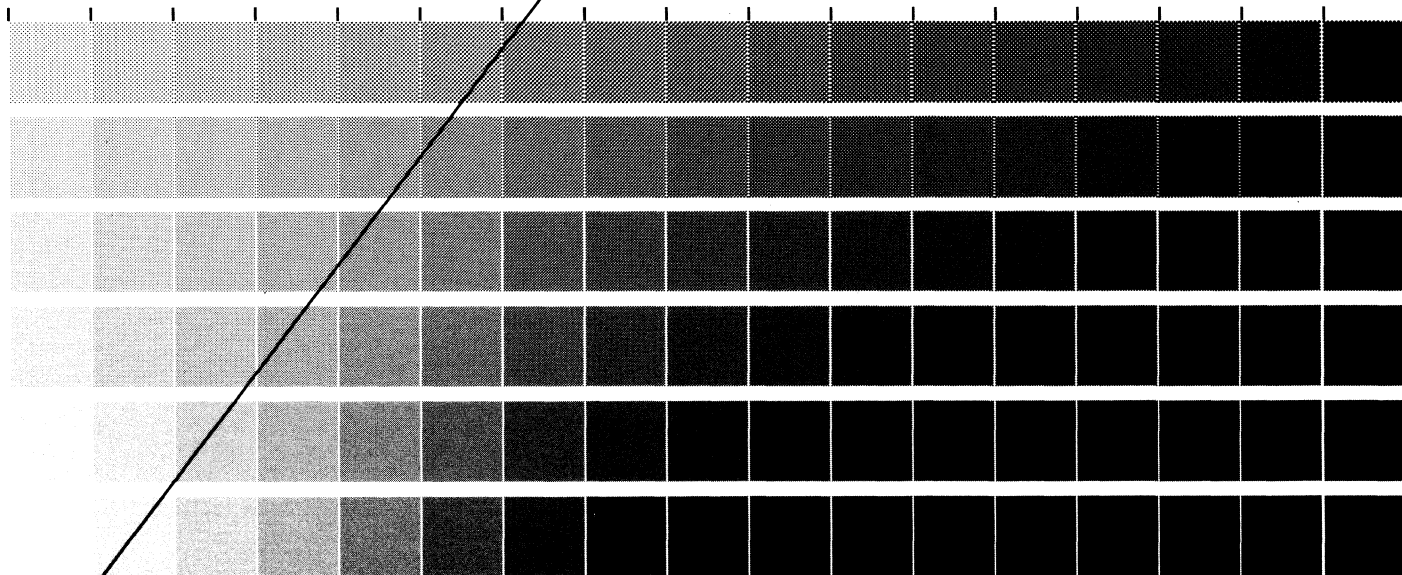
85

100

110

133

150



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ROCHESTER INSTITUTE OF TECHNOLOGY, ONE LOMB

RIT ALPHANUMERIC RESOLUTION TEST OBJECT, RT-171

PRODUCED BY GRAPHIC ARTS RESEARCH CENTER



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2	233E	2	5555
3	3E3E	3	5555
4	E225	4	5555
5	5223	5	5555
6	2E55	6	5555
		7	5555



0	3E3E	0	0
1	2533	1	5555
2	233E	2	5555
3	3E3E	3	5555
4	E225	4	5555
5	5223	5	5555
6	2E55	6	5555
		7	5555



0	3E3E	0	0
1	2533	1	5555
2	233E	2	5555
3	3E3E	3	5555
4	E225	4	5555
5	5223	5	5555
6	2E55	6	5555
		7	5555

