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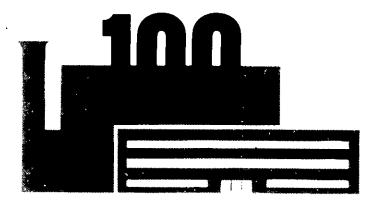
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100 COMPANIES

RECEIVING THE LARGEST DOLLAR VOLUME OF PRIME CONTRACT AWARDS

Fiscal Year 1989







DIRECTÒRATE FOR INFORMATION OPERATIONS AND REPORTS (DIOR)

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INTRODUCTION

This report presents summary data on the 100 companies and their subsidiaries receiving the largest dollar volume of Department of Defense (DoD) prime contracts awards during fiscal year (FY) 1989. Table 1, (page 7) lists the 100 companies line alphabetical order and gives their associated rank. Table 2 (page 9) identifies the parent companies in rank order, with their subsidiaries, and gives the total net value of awards for both the parent company and its subsidiaries. In many cases the parent company receives no awards itself but appears on the list because of its subsidiaries. Table 2 also shows what percent of the total awards each companies awards represent as well as the cumulative percent represented by all companies.

NOTES ON COVERAGE

Data in this report reflect the net value of both debit and credit procurement actions over \$25,000; e.g. the value of a terminated contract or other downward adjustment to a contract is deducted from a firm's total award amount, while modifications and other positive adjustments are treated as increases. Procurement actions include definitive contracts, the obligated portions of letter contracts, job orders, task orders, delivery orders, and any other orders against existing contracts. Research and development, services, construction, and supply and equipment contracts, worldwide, are included.

The report does not include those parts of indefinite quantity contracts that have not been translated into specific orders to business firms, or those contracts that have not yet become mutually binding agreements between the government and the company. The company totals do not include contracts made by other U.S. Government agencies and financed with Department of Defense funds or contracts awarded in foreign nations through their respective governments.

DATA RELATING TO COMPANIES IN THIS PUBLICATION ARE SUBJECT TO THE ACCURACY OF THE DUN & BRADSTREET CORPORATIONS DATA UNIVERSALL NUMBERING SYSTEM AND ITS ABILITY TO DESCRIBE RELATIONSHIPS OF COMPANIES.

HIGHLIGHTS

Department of Defense prime contract awards over \$25,000 totaled \$1290 billion during FY 1989, \$8.0 billion less than in FY 1988. The 100 firms and their subsidiaries receiving the largest amount of DoD contracts in FY 1989 received \$85.6 billion or 66.4 percent of this amount, primarily for aircraft, missile/space systems, ships, and electronics & communications equipment. In FY 1988 the top 100 companies received \$90.1 billion or 65.8 percent of all awards.

Exhibit A below shows that the first five companies received 22.3 percent of the total received by all companies in FY 1989, compared with 21.4 percent during FY 1988. The company ranked as number one during FY 1989, McDonnell Douglas Corp., also ranked as number one last year with awards of \$8.6 billion during FY 1989 as compared with \$8.0 billion last year. The smallest total amount received by a company in the FY 1989 Table 2 was \$110 million, compared to \$129 million in FY 1988.

Exhibit A

COMPANY	Percent of Total			
POSITION	FY 1989	FY 1988	FY 1987	FY 1986
1st	6.7%	5.8%	5.4%	5.5%
2nd	5.3	4.8	4.9	4.7
3rd	4.5	4.1	4.1	4.5
4th	2.9	3.7	3.9	3.8
5th	2.9	3.0	2.9	3.5
TOTAL 1-5	22.3	21.4	21.2	22.0
6-10	12.2	12.6	12.7	13.1
11-25	15.1	15.7	16.6	14.9
TOTAL 1-25	49.6	49.7	——————————————————————————————————	————————————————————————————————————
26-50	9.4	8.5	9.3	9.8
51-75	4.7	4.7	4.6	4.8
76-100	2.7	2.9	2.5	3.1
TOTAL 1-100	66.4%	65.8%	66.9%	67.7%

Changes in the Top 100 Companies, FY 1988 To FY 1989

Eighteen companies which did not appear on the list last year are among the top 100 companies this year. (See Exhibit B below.) Of these, one appears in position 29, one in position 31, and the balance between 60 and 100. The companies which appeared on the FY 1988 list which did not appear on this year's list are also shown in Exhibit B. Companies are considered as appearing on the list in both years despite mergers, acquisitions, divestitures, and name changes if a major component of a newly constituted company or the newly constituted company itself made the list as a component of a company in the top 100 in the prior year.

Exhibit B

Companies Listed in FY 1989 But not in FY 1988

Companies Listed in FY 1988
But not in FY 1989

Astronautics Corp. of America 1/ Bechtel Group, Inc. Brunswick Corp. CAE Industries, Ltd. 2/ Continental Maritime Industries Delta Dental Plan of California Foundation Health Corp. General Instrument Corp. Johnson Controls, Inc. 3/ Logicon, Inc. Mason Co., The De McDonnell Douglas, General Dynamics JV Montedison SPA Navcom Defense Electronics, Inc. Nisshin Service Co. Ltd. Peterson Builders, Inc. Philip Morris Companies, Inc. Smith's Industries, PLC

Bahrain National Oil **Black River Constructors** Braintree Maritime Corp. Bundesamt Fuer Wehrtechik CRS Sirrine Metcalf & Eddy JV Daimler Benz North America Day and Zimmerman, Inc. Figgie International, Inc. General Electric Co. PLC Honeywell Bull AG Motor Oil Hellas Corinth Refinery Pan Am Corp. Phelps, Inc. Royal Ordnance Ammunition PLC Singer Co. Texaco, Inc. Tiger International, Inc. 4/ United Industrial Corp.

- 1/ Astronautics Corp. of America acquired Kearfott Guidance division of The Singer Co.
- 2/ CAE Industries, Ltd. acquired the Link Simulation division of The Singer Co.
- 3/ Johnson Controls, Inc. acquired Pan Am World World Services from Pan Am Corp.
- 4/ Tiger International acquired by Federal Express Corp.

Some of the other major changes during this year were the acquisition of Kraft, Inc. by Philip Morris Companies; acquisition of Fairchild Weston Systems by Loral Corp.; acquisition of Gould, Inc. by Nippon Mining Co., Ltd.; acquisition of Emhart Corp. by Black and Decker Corp; and the name change of Morton Thiokol, Inc. back to Thiokol Corp.

Primary Procurement Categories of the Top 100 Companies

Although the contract work of many companies on the list includes more than one procurement category, each company has been assigned in Exhibit C (below) to the procurement category that accounts for its largest dollar volume of DoD awards; for example, General Electric Co. is a multi-industry company producing electronic and communications equipment and industrial and consumer products. For this exhibit, it has been assigned to "Aircraft", the procurement category accounting for its largest dollar volume of DoD contract awards.

Exhibit C

Procurement	Number of Companies				
Category	FY 1989	FY 1988	Change		
Aircraft Missiles Ships Tank-Automotive Ammunition Electronics Services Construction Petroleum Weapons Subsistence All Other	16 18 9 3 5 24 13 2 7 0 3	18 15 6 4 6 23 13 3 10 1	-2 +3 +3 -1 -1 +1 -3 -1 +2		

Top 10 Companies

The top 10 companies during FY 1989 are listed in Exhibit D by rank, along with its FY 1988 rank and the dollar value of the awards it received in both FY 1989 and FY 1988. Exhibit E (page 5) describes the major products of these 10 companies.

Exhibit D

RANK		RANK COMPANY NAME		· AWARDS (In Billions)		
1989	1988	OOM, ANT NAME	1989	1988		
1 2 3 4 5 6 7 8 9 10	1 2 3 5 7 8 9 6 10	McDonnell Douglas Corp. General Dynamics Corp General Electric Co. Raytheon Co. General Motors Corp. Lockheed Corp. United Technologies Corp. Martin Marietta Corp. Boeing Co., The Grumman Corp.	\$8.6 7.0 5.8 3.8 3.7 3.6 3.3 2.9 2.4	\$8.0 6.5 5.7 4.1 3.5 3.5 3.7 3.0 2.8		

Exhibit E

COMPANY

MAJOR PRODUCTS

1. McDonnell Douglas Corp.

F-18 HORNET, F-15 EAGLE, T-45 GOSHAWK, AH-64 APACHE, and AV-8 HARRIER aircraft. TOMAHAWK and HARPOON missile systems. RDT&E for C17 aircraft, missile/space systems, and electronics/communication equipment.

2. General Dynamics Corp.

F-16 FALCON fighter aircraft.
Nuclear submarines.
M-1 tank.
TOMAHAWK, STINGER, RIM-66
standard missiles, and SPARROW
missile systems.
MK-15 close-in weapon system.

3. General Electric Co.

AEGIS and Trident missile systems. F-100 and F-110 engines.
Nuclear reactors for submarines.
Underwater sound equipment.
RDT&E for missile/space systems, ships, aircraft, and electronics/communication equipment.

4. Raytheon Co.

PATRIOT, HAWK, TRIDENT,
AMRAAM, AEGIS, RIM-66
standard missiles, and PHOENIX
missile systems and components.
RDT&E electronics/communication
equipment and missile and space
systems.
Underwater Sound Equipment.

5. General Motors Corp.

AMRAAM, MAVERICK, TOW, and PHOENIX missile systems. RDT&E TRIDENT missile system. Components MK-48 Torpedo. Vehicular Power Transmission Components for M-1 Tank. Construction of Electronics and Communication Facility.

Exhibit E (Concluded)

COMPANY

MAJOR PRODUCTS

6. Lockheed Corp.

TRIDENT missile system.
C-130 HERCULES, M/R of S-3 VIKING and P-3 ORION aircraft.
RDT&E for missile/space systems, aircraft, and electronics/communication equipment.

7. United Technologies Corp.

F-100, J-52, and F-101 aircraft engines. UH-60 BLACKHAWK, SH-60 SEAHAWK, and CH-53 Sea Stallion helicopters. RDT&E and M/R of aircraft.

8. Martin Marietta Corp.

RDT&E for TITAN missile systems. A-64 APACHE aircraft. HELLFIRE Modular Missile System. Miscellaneous aircraft accessories and components. Ammunition.

9. Boeing Co., Inc. The

VSX and CHINOOK aircraft.

M&R, miscellaneous equipment,
management services, etc. for
B-52 STRATOFORTRESS,
C-135 STRATOLIFTER, E-3A and H-46
Sea Knight aircraft.

CH-47 CHINOOK helicopter.

MX-missile components and subsystems.

10. Grumman Corp.

F-14 TOMCAT, E-2 HAWKEYE, and EA-6B PROWLER aircraft. RDT&E for aircraft, missile and space systems, and electronic and communications equipment. M&R of A-6 INTRUDER aircraft.

TABLE 1

INDEX OF 100 PARENT COMPANIES WHICH RECEIVED THE LARGEST DOLLAR VOLUME OF PRIME CONTRACT AWARDS

	TISCAL 1		
R		R	
	PARENT	A	PARENT
A	Land Contract Contrac		COMPANY
N	COMPANY	N	
K		K	
56	AEROSPACE CORPORATION	16	INTERNATIONAL BUS MCHS CORP
23	ALLIED SIGNAL INC	90	ITT & VARO JV
36	AMERICAN TELE & TELG COMPANY	19	ITT CORPORATION
86	AMOCO CORPORATION	48	JOHNS HOPKINS UNIVERSITY
80	ARVIN INDUSTRIES INC	60	JOHNSON CONTROLS INC
62	ASTRONAUTICS CORP AMERICA	76	KAMAN CORPORATION
46	ATLANTIC RICHFIELD COMPANY	15	LITTON INDUSTRIES INC
1	AVONDALE INDUSTRIES INC	6	LOCKHEED CORPORATION
24	BATH HOLDING CORPORATION	88	LOGICON INC
65	BECHTEL GROUP INC	37	LORAL CORPORATION
89	BELL BOEING JV	27	LTV CORPORATION
32	BLACK & DECKER CORPORATION THE	8	MARTIN MARIETTA CORPORATION
73		64	MASON COMPANY THE
9	BOEING COMPANY THE	41	MASSACHSTTS INST OF TCHNOLOGY
95	BRUNSWICK CORPORATION	1 1	MC DONNELL DOUGLAS CORPORATION
72	C A E INDUSTRIES LTD	31	MC DONNELL DGLS GEN DYNAMCS JV
34	CFM INTERNATIONAL INC	78	MIP INSTANDSETZUNGSBETRIC
55	CHEVRON CORPORATION	43	MITRE CORPORATION
81	CHRYSLER CORPORATION	1	MOBIL CORPORATION
66	COASTAL CORPORATION THE	84	MONTEDISON SPA
59	COMPUTER SCIENCES CORPORATION	71	MORRISON KNUDSEN CORPORATION
83	CONTEL CORPORATION	42	MOTOROLA INC
98	CONTINENTAL MARITIME INDS	44	NAVCOM DEFENSE ELECTRONICS INC
68	CONTROL DATA CORPORATION	92	NISSHIN SERVICE CO LTD
82	CSX CORPORATION	100	NORTHROP CORPORATION
94	DELTA DNTL PLAN OF CALIFORNIA	38	OLIN CORPORATION
77	DIGITAL EQUIPMENT CORPORATION	45	OSHKOSH TRUCK CORPORATION
87	DRAPER CHARLES STARK LAB INC	47	PENN CENTRAL CORPORATION
50	DYNCORP	67	PETERSON BUILDERS INC
58	E SYSTEMS INC	97	PHILIP MORRIS COMPANIES INC
85	EASTMAN KODAK COMPANY	63	PHILIPS GLOEILAMPENFABRIEKEN
54	EATON CORPORATION	03	RAYTHEON COMPANY
74	EG&G INC	12	ROCKWELL INTERNATIONAL CORP
61	EMERSON ELECTRIC CO	70	ROLLS ROYCE PLC
53	EXXON CORPORATION	52	ROYAL DUTCH PETROLEUM COMPANY
25	FMC CORPORATION	40	SCIENCE APPLICATIONS INTL CORP
28	FORD MOTOR COMPANY	51	SEQUA CORPORATION .
96	FORSTMANN LITTLE & CO	79	SMITHS INDUSTRIES PLC
29	FOUNDATION HEALTH CORPORATION	91	SUNDSTRAND CORPORATION
26	GENCORP INC	49	TELEDYNE INC
2	GENERAL DYNAMICS CORPORATION	21	TENNECO INC
3	GENERAL ELECTRIC CO	20	TEXAS INSTRUMENTS INCORPORATED
99	GENERAL INSTRUMENT CORP DEL	22	TEXTRON INC
5	GENERAL MOTORS CORPORATION	35	THIOKOL CORPORATION
10	GRUMMAN CORPORATION	17	TRW INC
11	GTE CORPORATION	18	UNISYS CORPORATION
57	HARRIS CORPORATION	18	UNITED TECHNOLOGIES CORP
39	HARSCO CORPORATION	13	WESTINGHOUSE ELECTRIC CORP
33	HERCULES INCORPORATED	75	WESTINGHOUSE EDUCATION COMM
93	HEWLETT PACKARD COMPANY	69	ZENITH ELECTRONICS CORPORATION
14	HONEYWELL INC	"	QUITALI BEBUREAU SOLITOR SOLIT
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	FISCAL YEAR	303		, , , , , , , , , , , , , , , , , , ,
R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
	TOTAL	128,958,161	100.00	100.00
	TOTAL, 100 COMPANIES/SUBSIDIARIES	85,604,136	66.38	66.38
1	MC DONNELL DOUGLAS CORPORATION MC DONNELL DOUGLAS HELICOPTER MC DONNELL DOUGLAS INCO INC MC DONNELL DOUGLAS INFO SYS CO MC DONNELL DOUGLAS TRNNG SYS MC DONNELL DOUGLAS ASTRONAUTIC	7,728,306 775,861 5,343 900 39,701 67,091		
	TOTAL	8,617,202	6.68	5.68
2	GENERAL DYNAMICS CORPORATION CESSNA AIRCRAFT COMPANY INC	6,875,874 23,335		
	TOTAL	6,899,209	5.34	12.03
3	GENERAL ELECTRIC CO CANADIAN GENERAL ELECTRIC CO ELANO CORPORATION GELCO CORPORATION GENERAL ELECTRIC BASE SUPPORT MANAGMENT TCHNCAL SVCS CMPANY REUTER STOKES INC DEL TRANSPORT INTERNATIONAL POOL	5,760,148 330 1,375 809 1,852 6,129 64 321		
	TOTAL	5,771,028	4.47	16.50
4	RAYTHEON COMPANY BEECH AEROSPACE SERVICES INC BEECH AIRCRAFT CORPORATION INDIANA BEECHCRAFT INC RAYTHEON SERVICE COMPANY RAYTHEON TECH ASST CO INC RAYTHM MDTRN SSIMS CMPNY SEDCO SYSTEMS INC SWITCHCRAFT INC UNITED ENGINEERS & CONSTRS	3,441,868 88,608 104,304 284 95,768 70- 5,708 795 614 22,802		
	TOTAL -	3,760,681	2.91	19.42
5	GENERAL MOTORS CORPORATION ADAM OPEL AKTIENGESELLSCHAFT AMI INSTRUMENTS INC DELCO ELECTRONICS CORPORATION ELECTRONIC DATA SYSTEMS CORP G M HUGHES ELECTRONICS CORP HUGHES AIRCRAFT COMPANY M/A-COM TELECOMMUNICATIONS	486,484 30 200 7,172 175,452 7,195 3,014,936		
	TOTAL	3,691,507	2.86	22.28
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R A N	COMPANIES	THOUSANDS OF DOLLARS	PERCENI OF TOTAL	CUMULATIVE PERCENTS OF TOTAL
6	LOCKHEED CORPORATION ANALYTY ELECTRONIC SYSTEMS LOCKHEED AEROMOD CENTER INC LOCKHEED AEROPARTS INC LOCKHEED ELECTRONICS CO LOCKHEED ENGRG & MGT SVCS CO LOCKHEED MISSILES & SPACE CO LOCKHEED SPACE OPRTONS CMPANY METIER INC MURDOCK ENGINEERING COMPANY	1,312,882 6,280 1,547 1,269 38,205 2,400 2,087,889 1,799 717 13,784		
	SANDERS ASSOCIATES INC TOTAL	<u>184,775</u> 3,651,547	2.83	25.11
7	UNITED TECHNOLOGIES CORP ADAPTIVE OPTICS ASSOCIATES CARRIER CORPORATION HAMILTON STANDARD ELECTRONICS INTERNATIONAL FUEL CELLS CORP NORDEN SYSTEMS INC OTIS ELEVATOR COMPANY SIKORSKY INTNL PRODUCTS UNITED SPACE BOOSTERS INC UNITED TCHNLGIES CTRL SYSTEMS UNITED TCHNOLOGIES OPT SYSTEMS UNITED TECH AUTO GROUP OPRINS	3,338,780 502 2,252 88 1,425 169,326 69 42,000 110 1,100 32 608 3,556,292	2.75	27.87
8	MARTIN MARIETTA CORPORATION	3,336,504		1 to
	INTERNATIONAL LIGHT METALS TOTAL	3,336,555	2.58	30.46
9	BOEING COMPANY THE ARGOSYSTEMS INC BOEING ELECTRONICS INC TOTAL	2,844,638 23,654 124 2,868,416	2.22	32.68
10	GRUMMAN CORPORATION GRUMMAN AEROSPACE CORPORATION GRUMMAN DATA SYSTEMS CORP GRUMMAN HOUSTON CORPORATION GRUMMAN SYSTEMS SUPPORT CORP	27,118 2,297,912 47,727 349 33		100 mm m
	TOTAL	2,373,139	1.84	34.52
L	<u> </u>	<u> </u>		5.3

	FISCAL YEAR 1989						
R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL			
11	GTE CORPORATION GTE GOVERNMENT SYSTEMS CORP GTE INTERNATIONAL INC GTE LABORATORIES INC GTE PRODUCTS CONNECTICUT CORP GTE PRODUCTS CORP GTE SERVICE CORPORATION GTE SPACENET CORPORATION GTE TELECOM INC GTE TELEPHONE OPERTN NO AREA GTE TELEPHONE OPERTN SW AREA GTE TELEPHONE OPERTN SW AREA GTE TELEPHONE OPERTN WEST AREA	3,127 2,318,894 26 821 89 1,524 3,323 288 2,021 159 474 535 10,258	1.81	36.34			
	10142	2,041,000	1.01	30.34			
12	ROCKWELL INTERNATIONAL CORP ALLEN BRADLEY COMPANY COLLINS INTERNATIONAL SVC CO ROCKWELL DEL INC	1,814,638 345 317,788 31					
	TOTAL	2,132,802	1.65	37.99			
13	WESTINGHOUSE ELECTRIC CORP T S C INC XETRON CORPORATION TOTAL	1,640,844 7,758 1,011 1,649,613	1.27	39.27			
14	HONEYWELL INC HONEYWELL FEDERAL SYSTEMS HONEYWELL INC GBG TETRA TECH DATA SYSTEMS INC	1,370,878 177,641 109 6,794					
	TOTAL	1,555,422	1.20	40.48			
15	LITTON INDUSTRIES INC INGALLS SHIPBUILDING INC LITEF (LITTON TECHNISCHE WERK) LITTON SYSTEMS INC	237,717 680,678 253 517,959					
	TOTAL	1,436,607	1.11	41.59			
16	INTERNATIONAL BUS MCHS CORP IBM EUROPEAN OPERATIONS TOTAL	1,308,557 150 1,308,707	1.01	42.61			

R A N	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
17	TRW INC ESL INCORPORATED T R W ELECTRONIC PRODUCTS INC TOTAL	1,224,096 68,247 1,211 1,293,554	1.00	43.61
18	UNISYS CORPORATION SYSTEM DEVELOPMENT CORPORATION TIMEPLEX INC UNISYS CANADA INC UNISYS PERIPHERALS CORPORATION	1,158,189 81,996 3,888 464 84 1,244,621	0.96	44.57
19	ITT CORPORATION FEDERAL ELECTRIC CORPORATION FELEC SERVICES INC ITT ARCTIC SERVICES INC ITT BASE SERVICES INC ITT DIALCOM INC ITT GILFILLAN SHERATON CORPORATION THE	762,986 120,587 127,926 5,083 5,602 100 140,999 39	0.90	45.48
20	TEXAS INSTRUMENTS INCORPORATED TEXAS INSTRUMENTS ASIA LIMITED TOTAL	945,494 767 946,261	0.73	46.21
21	TENNECO INC CASE J I COMPANY MONROE AUTO EQUIPMENT COMPANY NEWPORT NEWS INDUSTRIAL CORP NEWPORT NEWS SHPBLDING DRYDOCK TOTAL	25 26,335 26 11 889,496 915,893	0.71	46.92
22	TEXTRON INC AIRFOIL TEXTRON AVCO CORPORATION AVCO RESEARCH LABORATORY INC BABCO INDUSTRIES INC BELL HELICOPTER INTERNATIONAL BELL HELICOPTER TEXTRON INC CADILLAC GAGE TEXTRON INC EX CELL O CORPORATION H R TEXTRON INC NORWOOD PRECISION PDTS TEXTRON TEXTRON LYCOMING TOTAL	94,596 2,716 394,593 34,134 2,511 2,647 331,258 12,852 12,769 18,608 956 813	0.70	47.62

FISCAL YEAR 1989						
R A N	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL		
23	ALLIED SIGNAL INC ALLIED SIGNAL AEROSPACE CO SIGNAL RESEARCH CENTER INC UOP INC	199,539 705,444 555 101				
	TOTAL	905,639	0.70	48.33		
24	AVONDALE INDUSTRIES INC AVONDALE GULFPORT MARINE	832,161 45,816				
	TOTAL	878,977	0.68	49.01		
25	FMC CORPORATION LINK BELT CONSTRUCTION EQP CO	793,953 1,875_				
	TOTAL	795,828	0.61	49.63		
26	GENCORP INC AEROJET AEROJET ELECTRO SYSTEMS AEROJET ORDNANCE AEROJET TECHSYSTEMS TOTAL	199,525 306,208 280,990 531 1,480 788,734	0.61	50.24		
27	LTV CORPORATION AM GENERAL CORPORATION LTV AEROSPACE & DEF CO LTV ENERGY PROD TOTAL	7,311 215,095 533,167 1,461 757,034	0.58	50.82		
28	FORD MOTOR COMPANY BDM CORPORATION BDM INTERNATIONAL INC BDM MANAGEMENT SERVICES CO BDM SERVICES COMPANY FORD AEROSPACE COMMCTIONS CORP	1,474 8,678 154,902 10,516 11,739 566,702	0.58	51.41		
29	FOUNDATION HEALTH CORPORATION	639,309				
	TOTAL	639,309	0.49	51.90		
30	NORTHROP CORPORATION NORTHROP WRLDWIDE AIRCRAFT SVC	556,112 74,967				
	TOTAL	631,079	0.48	52.39		

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
31	MC DONNELL DGLS GEN DYNAMCS JV TOTAL	620,000 620,000	0.48	52.87
32	BELL BOEING JV TOTAL	<u>552,173</u> 552,173	0.42	53.30
33	HERCULES INCORPORATED SIMMONDS PRECISION PRODUCTS TOTAL	504,280 32,995 537,275	0.41	53.72
34	CFM INTERNATIONAL INC	517,276 517,276	0.40	54.12
35	THIOKOL CORPORATION OMNECO INC TOTAL	513,797 192 513,989	0.39	54.52
36	AMERICAN TELE & TELG COMPANY A T & T COMMUNICATIONS INC A T & T GUILFORD CENTER A T & T INFORMATION SYSTEMS A T & T PARADYNE CORP A T & T TECHNOLOGIES INC BELL TELEPHONE LABS INC WESTERN ELECTRIC SAUDI ARABI TOTAL	49,537 4,184 25 36,582 2,039 397,713 60 69 490,209	0.38	54.90

	FISCAL TEAR IS	909		
R		THOUSANDS OF	PERCENT OF	CUMULATIVE
N	COMPANIES			PERCENT OF
R		DOLLARS	TOTAL	TOTAL
37	LORAL CORPORATION LORAL AMERICAN BERYLLIUM CORP	270,125 261		
1	LORAL CONIC	10,554		
•	LORAL CONTROL SYSTEMS	1,179		
	LORAL DATA SYSTEMS LORAL ELECTRO OPTICAL SYSTEMS	13,855 22,954		
]	LORAL ELECTRONIC SYSTEMS	71,551		
1	LORAL FAIRCHILD SYSTEMS INC LORAL HYCOR INC	49,416 1,033		
1	LORAL INFORMATION DISPLAY SYS	2,033		
1	LORAL INSTRUMENTATION LORAL MICROWAVE FSI	200 896		,
1	LORAL MICROWAVE FSI LORAL MICROWAVE NARDA	1,908		
	LORAL MICROWAVE NARDA WEST	976		
	LORAL MICROWAVE WAVECOM LORAL RANDTRON SYSTEMS	159 1,724	'	
	LORAL ROLM MIL SPEC COMPUTERS	1,629		
	LORAL SOLARTRON LORAL SYSTEMS MFG CO	488 52		
	LORAL TERRACOM	76		
	TOTAL	451,069	0.34	55.25
	101111		• • • •	
38	OLIN CORPORATION	334,128		
	GENERAL DEFENSE CORPORATION	76,173 231		
	PACIFIC ELECTRO DYNAMICS INC PHYSICS INTERNATIONAL COMPANY	18,801		
	RAVENNA ARSENAL	9,023		
	ROCKET RESEARCH CO	508_		
	TOTAL	438,864	0.34	55.59
39	HARSCO CORPORATION	432,764		
	TOTAL	432,764	0.33	55.93
	TOTAL	432,704	0.33	33.33
40	SCIENCE APPLICATIONS INTL CORP	405,382		:
	AMERICAN SYSTEMS ENGRG CORP SAIC ARCHITECTS INC	9,252 97		
	TOTAL	414,731	0.32	56.25
41	MASSACHSTTS INST OF TCHNOLOGY	412,480		
'-	TOTAL	412,480	0.31	56.57
	TOTAL	712,400	0.31	30.31
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R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
42	MORRISON KNUDSEN CORPORATION MK FERGUSON COMPANY MORRISON KNUDSEN COMPANY INC MORRISON KNUDSEN ENGINEERS MORRISON KNUDSEN INTL CO MORRISON KNUDSEN SERVICES INC NATIONAL PROJECTS INC NATIONAL STL SHPBLDING CMPANY WESTERN AIRCRAFT MAINTENANCE TOTAL	0 183 27,413 7,820 15,524 1,070 5,656 331,719 145	0.30	56.87
43	MITRE CORPORATION	388,517		
	TOTAL	388,517	0.30	57.17
44	MOTOROLA INC CODEX CORPORATION MOTOROLA COMMUNICATIONS & ELEC MOTOROLA INFORMATION SYSTEMS TEGAL CORPORATION UNIVERSAL DATA SYSTEMS DEL	362,262 3,358 10,827 1,348 357 102		
	TOTAL	378,254	0,29	57.46
45	OSHKOSH TRUCK CORPORATION TOTAL	<u>360,478</u> 360,478	0.27	57.74
46	ATLANTIC RICHFIELD COMPANY ARCO METALS COMPANY ARCO POWER TECHNOLOGY	336,894 27 493 337,414	0.26	58.00
	TOTAL	337,414	0,20	38.00
47	PENN CENTRAL CORPORATION G & H TECHNOLOGY INC GK TECHNOLOGIES INCORPORATED MARATHON MFG COMPANY VITRO CORPORATION VITRO SERVICES CORPORATION	182 1,603 1,882 6,532 281,004 42,275		
	TOTAL	3 3 3, 47 8	0.25	58.26
48	JOHNS HOPKINS UNIVERSITY TOTAL	328,231 328,231	0.25	58.52

R A N K	FISCAL YEAR 19	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
49	TELEDYNE INC TELEDYNE EXPLORATION CO TELEDYNE INDUSTRIES INC TOTAL	2,287 62 317,615 319,964	0.24	58.77
50	DYNCORP DYNAIR AVIATION GROUP DYNAIR SYSTEM SERVICES DYNASPAN SERVICES COMPANY DYNCORP APPLIED TECHNOLOGY ITS INTERNATIONAL SERVICE GMBH SEA MOBILITY INC	250,703 857 1,052 22,913 22,199 5,607 		
	TOTAL	312,103	0.24	59.01
51	SEQUA CORPORATION ATLANTIC RESEARCH CORPORATION CHROMALLOY GAS TURBINE CORP CHROMALLOY PRECISION PRODUCTS JANUS SYSTEMS	131,091 123,139 55,502 68 1,058		
	TOTAL	310,858	0.24	59.25
52	ROYAL DUTCH PETROLEUM COMPANY PHIPINAS SHELL PETROLEUM SCALLOP CORP SHELL EASTERN PETROLEUM PTE LT SHELL INTERNATIONAL PETROLEUM SHELL NEDERLAND RAFFINADERE SHELL OIL COMPANY SHOWA SHELL SEIKYU K K TOTAL	0 90 37,055 54 173 26,038 240,665 2,170	0.23	59.49
53	EXXON CORPORATION ESSO AG ESSO STANDARD OIL SA LTD EXXON SHIPPING CO IMPERIAL OIL CO INC TOTAL	282,196 7,009 460 176 16,378 306,219	0.23	59.72
54	EATON CORPORATION ADDINGTON LABORATORIES INCORPO AMERICAN NUCLEONICS CORP EATON CONSOLIDATED CONTROLS EATON KENWAY INCORPORATED PACIFIC SIERRA RESEARCH CORP	291,732 41- 645 1,592 429 10,137 304,494	0.23	59,96
	TOTAL	304,454	V.23	33,30

	FISCAL YEAR 1989					
R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT: OF TOTAL		
55	CHEVRON CORPORATION CHEVRON U S A INC TOTAL	303,250 303,250	0.23	60.20		
56	AEROSPACE CORPORATION TOTAL	301,430 301,430	0.23	60.43		
57	HARRIS CORPORATION INTERSIL INC LANIER BUSINESS PRODUCTS INC LANIER WORLDWIDE INC TOTAL	277,186 3,528 3,144 2,309 286,167	0.22	60.65		
58	E SYSTEMS INC SERV AIR INC TOTAL	206,288 77,747 284,035	0.22	60.87		
59	COMPUTER SCIENCES CORPORATION TOTAL	249,550 249,550	0.19	61.06		
60	JOHNSON CONTROLS INC	245,922 245,922	0.19	61.26		
61	EMERSON ELECTRIC CO AUTOMATIC SWITCH COMPANY BECKMAN INDUSTRIAL CORP ELECTRONIC NAVIGATION INDS EMERSON POWER TRANSMISSION CO FLOW TECHNOLOGY INC HAZELTINE CORPORATION KRAUTKRAMER BRANSON INC LIEBERT CORPORATION MIDWEST COMPONENTS INC RANTEC DIV EMERSON ELEC CO ROSEMOUNT INC ROSEMOUNT OFFICE SYSTEMS INC SOUTHWEST MOBILE SYSTEMS CORP VACCO INDUSTRIES TOTAL	139,125 357 401 457 109 257 45,276 100 3,183 86 36 15,387 637 32,710 2,831 240,952	0.18	61.44		

FISCAL TEAR 1989					
R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL	
62	ASTRONAUTICS CORP AMERICA KEARFOTT GUIDANCE NAVIG CORP	31,139 193,765			
	TOTAL	224,904	0.17	61.62	
63	PHILIPS GLOEILAMPENFABRIEKEN AIRPAX CORP GENERAL ATRONICS CORP MAGNAVOX COMPANY INC MAGNAVOX GOVT & INDSTRL ELCTR MAGNAVOX OVERSEAS LTD NEW ENGLAND RESEARCH CENTER NORTH AMERICAN PHILIPS CORP PHILIPS COMPNTS DSCRTE PRD DIV PHILIPS CONSUMER ELECTRONICS PHILIPS ELECTRONIC INSTRUMENTS PHILIPS INFORMATION SYSTEMS CO PHILIPS INTERNATIONAL BV PHILIPS LIGHTING CO PHILIPS MEDICAL SYS NO AMERICA SIGNETICS CO	29 1,376 2,499 307 204,371 203 650 551 239 82 5,046 36 798 994 3,164 141			
	TOTAL	220,486	0.17	61.79	
64	MASON COMPANY THE MASON & HANGER ENGINEERING MASON CHAMBERLAIN INC MASON HANGER SILAS MASN INC WV TOTAL	2,051 138,905 77,636 218,592	0.16	61.96	
65	BATH HOLDING CORPORATION BATH IRON WORKS CORPORATION	217,783			
	TOTAL	217,783	0.16	62.13	
66	COASTAL CORPORATION THE BELCHER NEW ENGLAND INC BELCHER OIL CO OF NEW YORK BELCHER OIL COMPANY COASTAL EAGLE PT OIL COMPANY COASTAL REFINING & MARKETING MOUNTAIN INDUS GAS COMPANY PACIFIC REFINING COMPANY	9,527 4,800 4,278 3,436 183,909 1,981 6,470			
	TOTAL	214,401	0.16	62.29	
67	PETERSON BUILDERS INC	212,854			
	TOTAL	212,854	0.16	62.46	
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R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
68	CONTROL DATA CORPORATION CONTROL DATA CANADA LIMITED TOTAL	207,982 3,044 211,026	0.16	62.62
69	ZENITH ELECTRONICS CORPORATION VERITECHNOLOGY ELECTRONICS ZENITH DATA SYSTEMS CORP TOTAL	165,893 5,021 37,708 208,622	0.15	62.78
70	ROLLS ROYCE PLC ROLLS ROYCE INC TOTAL	823 206,755 207,578	0.16	62.94
71	MONTEDISON SPA INTERMARINE U S A SELM SERVIZI ELETTRICI MONTEDI TOTAL	0 111,482 85,005 196,487	0.15	63.10
72	C A E INDUSTRIES LTD ALLEN CORPORATION OF AMERICA TOTAL	181,517 	0.14	63.24
73	BLACK & DECKER CORPORATION THE ADVANCED TECHNOLOGY INC EMHART INDUSTRIES INC PLANNING RESEARCH CORPORATION TOTAL	0 95,234 113 87,108 182,455	0.14	63.38

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
74	EG&G INC E G & G ALMOND INSTRUMENTS INC E G & G ASTROPHYSICS E G & G BIRTCHER INDUST PRODS E G & G CEA BERKLEONICS E G & G CEA BERKLEONICS E G & G CEA BERKLEONICS E G & G ELECTRONIC COMPONENTS E G & G FRANK HILL ASSOCIATES E G & G GEOMETRICS INC E G & G GEOMETRICS INC E G & G GEOMETRICS INC E G & G INTERTECH INC E G & G MASON RESEARCH INST E G & G POWER SYSTEMS E G & G PRESSURE SCIENCE E G & G PRINCETON APPLIED RES E G & G ROTRON E G & G SEALOL INC E G & G SPECIAL PROJECTS INC E G & G WASHINGTON ALALYTL SVC E G & G WRIGHT COMPONENTS	24,456 2,398 120 102 314 747 25 2,362 134 98 777 46,921 1,211 1,381 115 596 229 18,294 434 1,813 931 71,206 772		
75	WESTMARK SYSTEMS INC TRACOR AEROSPACE INC TRACOR APPLIED SCIENCES INC TRACOR FLIGHT SYSTEMS INC TRACOR HYDRONAUTICS INC TRACOR INSTRUMENTS AUSTIN INC TRACOR MARINE INC TRACOR NORTHERN INC TRACOR XRAY INC	175,436 0 1,896 141,199 21,144 1,859 209 1,900 142 61	0.13	63.52
76	TOTAL KAMAN CORPORATION ELECTROMAGNETIC LAUNCH KAMAN AEROSPACE CORPORATION KAMAN INSTRUMENTATION CORP KAMAN SCIENCES CORPORATION KAMATICS CORPORATION LOCUS INC RAYMOND ENGINEERING INC TOTAL	168,410 19,498 4,903 56,863 133 50,082 6,717 10,722 19,106	0.13	63.65 63.78
77	DIGITAL EQUIPMENT CORPORATION DIGITAL EQUIPMENT GMBH DIGITAL EQUIPMENT INTL TOTAL	163,549 880 1,237_ 165,666	0.12	63.91

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
78	MIP INSTANDSETZUNGSBETRIC	165,467		
	TOTAL	165,467	0.12	64.03
79	SMITHS INDUSTRIES PLC AERO ELECTRIC CONNECTOR CO THE SIMS INC SMITHS INDUSTRIES INC USA TIMES MICROWAVE SYSTEMS INC TOTAL	0 165 42 162,402 731 163,340	0.12	64,16
80	ARVIN INDUSTRIES INC CALSPAN CORPORATION SYSTEMS RESEARCH LABORATORIES TOTAL	80,960 81,185 162,145	0.12	64.29
81	CHRYSLER CORPORATION ACUSTAR INC CHRYSLER MOTORS CORPORATION CHRYSLER TECHNOLOGIES ARBRN SY GULFSTREAM AEROSPACE CORP DEL GULFSTREAM AEROSPACE CORP GA PENTASTAR ELECTRONICS INC TOTAL	0 64 412 127,974 293 20,972 10,789	0.12	64.41
82	CSX CORPORATION JEFFBOAT INCORPORATED SEA-LAND SERVICE INC TOTAL	0 89 159,820 159,909	0.12	64.53
83	CONTEL CORPORATION AMERICAN SATELLITE COMPANY CONTEL FEDERAL SYSTEMS INC CONTEL OF CALIFORNIA INC INDEPENDENT COMMUNICATIONS TOTAL	7,075 104,725 46,014 373 1,563	0.12	64.66
84	MOBIL CORPORATION MOBIL OIL HONG KONG LTD MOBIL OIL ITALIANA SPA TOTAL	159,445 92 58 159,595	0.12	64.78
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FISCAL YEAR 1989__

R A N	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
85	EASTMAN KODAK COMPANY CYCLOTOMICS INC DATATAPE INCORPORATED EASTMAN TECHNOLOGY INC EIKONIX CORPORATION HOLSTON DEFENSE CORPORATION STERLING DRUG INC STERLING PRODUCTS INTL WINTHROP PRODUCTS INC	51,109 29 5,843 50 69 96,980 149 1,228 57	0.12	64.90
86	AMOCO CORPORATION AMOCO PERFORMANCE PRODUCTS AMOCO TECHNOLOGY CO SOLAREX CORP TOTAL	148,459 792 200 52- 149,399	0.11	65.02
87	DRAPER CHARLES STARK LAB INC	140,640 140,640	0.10	65.13
88	LOGICON INC EAGLE TECHNOLOGY INC R & D ASSOCIATES TOTAL	73,997 22,039 41,716 137,752	0.10	65.23
89	BECHTEL GROUP INC BECHTEL CONSTRUCTION CORP BECHTEL NATIONAL INC BECHTEL OPERATING SVCS CORP BECHTEL SOFTWARE INC BECON SERVICES CORPORATION PMB SYSTEMS ENGINEERING INC TOTAL	27,828 20,629 86,047 287 62 951 46	0.10	65.34
90	ITT & VARO JV	133,436 133,436	0.10	65.44
91	SUNDSTRAND CORPORATION FALK CORPORATION THE SIGNATRON INC SULLAIR CORPORATION SUNDSTRAND DATA CONTROL INC SUNDSTRAND SERVICE CORPORATION	123,308 40 1,378 1,267 5,500 244		
	TOTAL	131,737	0.10	65.55

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
92	NAVCOM DEFENSE ELECTRONICS INC	127,904		
	TOTAL	127,904	0.09	65.64
93	HEWLETT PACKARD COMPANY HEWLETT PACKARD GMBH VERTRIEBS	122,749 405		
	TOTAL	123,154	0.09	65.74
94	DELTA DNTL PLAN OF CALIFORNIA	120,508		
	TOTAL	120,508	0.09	65.83
95	BRUNSWICK CORPORATION	120,422		
	TOTAL	120,422	0.09	65.93
96	FORSTMANN LITTLE & CO FL AEROSPACE CORP HYPERION INDUSTRIES CORP LEAR SIEGLER DVERSFED HOLDINGS PEABODY BARNES INC PEABODY FLOWAY INC PTC AEROSPACE PULLMAN COMPANY THE	0 18,152 657 99,329 580 238 165 243	0.09	66.02
97	PHILIP MORRIS COMPANIES INC ALL AMERICAN GOURMET CO THE GENERAL FOODS CORPORATION KRAFT INC MAYER OSCAR FOODS CORPORATION TOTAL	63,943 69 36,955 7,497 9,625	0.09	66.11
98	CONTINENTAL MARITIME INDS CONTINUTAL MRTIME OF SAN DIEGO TOTAL	33,818 82,791 116,609	0.09	66,20
99	GENERAL INSTRUMENT CORP DEL E M SYSTEMS INC TOTAL	113,338 1,865 115,203	0.08	66.29
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	FISCAL YEAR 1989				
R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL	
100	NISSHIN SERVICE CO LTD	109,861			
	TOTAL	109,861	0.08	66.38	
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