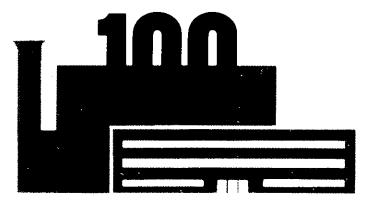
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### **100 COMPANIES**

of PRIME CONTRACT AWARDS
Fiscal Year 1986





DIRECTORATE FOR INFORMATION OPERATIONS AND REPORTS (DIOR),

#### **FOREWORD**

100 Companies Receiving the Largest Dollar Volume of Prime Contract Awards is published annually. This report contains summary data on the 100 companies including their subsidiaries, which were awarded the largest total dollar volume of Department of Defense prime contract awards during Fiscal Year 1986.

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ſ	ole 2. Listed	Ad	cco	rd	in	φ.	to	Ne	t	۷a:	lue	9																	q

#### INTRODUCTION

This report presents summary data on the 100 companies and their subsidiaries receiving the largest dollar volume of Department of Defense (DoD) prime contract awards during fiscal year (FY) 1986. Table 1, (page 7) lists the 100 companies in 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 company's 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 CORPORATION'S DATA UNIVERSAL NUMBERING SYSTEM AND ITS ABILITY TO DESCRIBE RELATIONSHIPS OF COMPANIES.

#### HIGHLIGHTS

Department of Defense prime contract awards over \$25,000 totaled \$145.7 billion during FY 1986, \$5.0 billion less than in FY 1985. The 100 firms and their subsidiaries receiving the largest amount of DoD contracts in FY 1986 received \$98.6 billion or 67.7 percent of this amount, primarily for aircraft, missile/space systems, ships, and electronics & communications equipment. In FY 1985 the top 100 companies received \$105.6 billion or 70.1 percent of all awards.

Table A below shows that the first five companies received 22.0 percent of the total received by all companies in FY 1986, compared with 22.5 percent during FY 1985. The company ranked as number one during FY 1986, General Dynamics Corporation, received awards totaling \$8.0 billion, compared with awards totaling \$8.9 billion for the number one company in FY 1985. The smallest total amount received by a company in the FY 1986 list was \$149 million, compared with \$148 million in FY 1985.

Table A

COMPANY	Percent of Total								
POSITION	FY 1983	FY 1984	FY 1985	FY 1986					
1st 2nd 3rd 4th 5th	5.3% 4.8 3.5 3.5 3.5	5.7% 4.7 4.5 3.7 3.4	5.9% 4.9 4.2 3.9 3.6	5.5% 4.7 4.5 3.8 3.5					
TOTAL 1-5 6-10 11-25 TOTAL 1-25	20.6 13.7 16.3  50.6	22.0 12.4 16.1 50.5	22.5 12.1 16.4 51.0	22.0 13.1 14.9 50.0					
26-50 51-75 76-100 TOTAL 1-100	10.7 5.3 3.3 	10.5 5.0 3.1 	11.3 4.7 3.1 70.1%	9.8 4.8 3.1 67.7%					

#### Changes in the Top 100 Companies, FY 1985 To FY 1986

Eighteen companies who did not appear on the list last year are among the top 100 companies this year. (See Table B below.) Of these, one appears in position 32, one in position 37, and the balance between positions 55 and 100. The eighteen companies who appeared on the FY 1985 list who do not appear on this year's list are also shown in Table B. Of the 82 companies appearing on the list in both Fiscal Years 1985 and 1986, 42 advanced their position, 33 are in a lower position, and 7 showed no change. 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.

#### Table B

### Companies Listed in FY 1986 But not in FY 1985

Companies Listed in FY 1985
But not in FY 1986

BAHRAIN NATIONAL OIL **BELL BOEING JV** BRUNSWICK CORP. CHRYSLER CORP. COLT INDUSTRIES, INC. DIGITAL EQUIPMENT CORP. ELECTROSPACE SYSTEMS, INC. GECINC. GATES CORP., THE HARSCO CORP. HOLLY CORP. ITT & VARO.JV MORRISON KNUDSEN CO. OLIN CORP. PACIFIC RESOURCES, INC. STEUART INVESTMENT CO., INC. TRANSAMERICA CORP. ZENITH ELECTRONICS CORP.

BRITISH PETROLEUM CO. PLC CALTEX PETROLEUM CORP. CAPITAL MARINE CORP. DAY & ZIMMERMAN, INC. DU PONT E I DE NEMOURS & CO. DUCHOSSOIS INDUSTRIES, INC. FAIRCHILD INDUSTRIES, INC. HUGHES HOW. MED. INSTITUTE 1/ I C I AMERICAN HOLDINGS, INC. KUWAIT NATIONAL PETROLEUM CO. LOGICON, INC. MARINE TRANSPORT LINES, INC. MASON&HANGER SILAS MASON CO. PACE INDUSTRIES, INC. PHIBRO-SALOMON, INC. R C A CORP. 2/ SAMWHAN CORP. TRANSWORLD OIL, INC.

Some of the major changes during the year were the divestiture of Bath Iron Works by Congoleum Corp.; divestiture of Avondale Shipyards by Ogden Corp. (now Avondale Industries); acquisition of Cessna Aircraft by General Dynamics; and acquisition of Ex-Cello Corp. by Textron, Inc.

Two other major acquisitions occurred, the acquisition of Sperry Corp. by Burroughs Corp. (now named Unisys) and the acquisition of Sanders Associates by Lockheed Corp., however, each of these companies stand on their own in this report as they were not finalized until after September 30, 1986.

<sup>&</sup>lt;sup>1</sup> Hughes Aircraft is now a subsidiary of General Motors Corp.

<sup>&</sup>lt;sup>2</sup> R C A Corp. is now a subsidiary of General Electric Co.

### 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 Table 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 table, it has been assigned to "Aircraft", the procurement category accounting for its largest dollar volume of DOD contract awards.

Table C

Procurement	Number of Companies						
Category	FY 1986	FY 1985	Change				
Aircraft Missiles Ships Tank-Automotive Ammunition Electronics Services Construction Petroleum Weapons Subsistence All Other	20 12 5 4 6 26 7 1 17 1 0	18 12 7 6 8 21 7 1 18 1 0	+2 -2 -2 -2 +5 - -1 -1				

### Companies With Prime Contract Awards

### **Totaling Over \$2 Billion**

During FY 1986, 11 companies received prime contract awards totaling over \$2 billion. Each company is listed in Table D by rank, along with its FY 1985 rank and the dollar value of the awards it received in both FY 1985 and FY 1986. Table E (page 5) describes the major products of these 11 companies.

Table D

RA	NK	COMPANY NAME		AWARDS (In Billions)																														
1986	1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1985		1986	1985
1 2 3 4 5 6 7 8 9 10	2 4 1 3 17 6 9 5 7 10	General Dynamics Corp General Electric Co. McDonnell Douglas Corp. Rockwell International Corp. General Motors Corp. Lockheed Corp. Raytheon Co. Boeing Co. United Technologies Corp. Grumman Corp. Martin Marietta Corp.	\$8.0 6.8 6.6 5.1 4.9 4.1 3.5 3.9	\$7.4 5.9 8.9 6.3 1.6 5.1 3.0 5.5 3.9 2.7																														

#### Table E

#### **COMPANY**

#### **MAJOR PRODUCTS**

1. General Dynamics Corp.	F-16 FALCON fighter aircraft. Nuclear submarines. TOMAHAWK, SPARROW, STINGER and RIM-66 standard missile systems. M-1 tank. MK-15 close-in weapon system.
2. General Electric Co.	F-100, T-700, J-85, J-79, and TF-34 turbofan and turbojet engines. Nuclear reactors for submarines. Underwater sound equipment. Transmission components for M-2 infantry fighting vehicles. RDT&E for missile and space systems and electronic and communications equipment.
3. McDonnell Douglas Corp.	F-18 HORNET, F-15 EAGLE, AH-64 APACHE, KC-10 EXTENDER, and AV-8 HARRIER aircraft. TOMAHAWK and HARPOON missile systems. RDT&E for aircraft, missile and space systems and electronics and communication equipment.
4. Rockwell International Corp.	B-1 bomber. MX, HELLFIRE, and MINUTEMAN missile systems. Space vehicles. Various electronics & communication equipment.
5. General Motors Corp.	MAVERICK, PHOENIX and TOW missile systems. T-56 aircraft engines. Guided missile systems for F-14 and F-18 fighter aircraft Fire control equipment for M-1 tank. Components MK-48 Torpedo.

7. Raytheon Co.

6. Lockheed Corp.

PATRIOT, SPARROW, HAWK, MAVERICK & RIM-66 standard missile systems.
RDT&E electronics & communication equipment.

C-5 GALAXY, C-130 HERCULES and P-3 ORION aircraft.

RDT&E for missile & space systems, electronics & communication

equipment and weapons.

Space vehicles.

#### Table E (Concluded)

#### **COMPANY**

#### MAJOR PRODUCTS

8. Boeing Co., Inc. The

Electronic countermeasures and aircraft accessories for B-1 bomber.

M&R, miscellaneous equipment, management services, etc., for H-46 SEA KNIGHT, B-52 STRATOFORTRESS, C-135 STRATOLIFTER, E-3A, and A-6 INTRUDER aircraft.

CH-47 CHINOOK helicopter.

MX-missile.

Miscellaneous electronics & communication equip.

9. United Technologies Corp.

F-100, J-52 and TF-30 aircraft engines.
UH-60 BLACKHAWK, CH-53 SEA STALLION
and SH-60 SEAHAWK helicopters.

10. Grumman Corp.

F-14 TOMCAT, E-2 HAWKEYE, EA-6B PROWLER, A-6 INTRUDER, and C-2 GREYHOUND aircraft. RDT&E for aircraft and electronics and communication equipment.

Space vehicle components.

11. Martin Marietta Corp.

PERSHING, HELLFIRE & SICBM missile systems.
A-64 APACHE aircraft.
Guided missile launchers.
RDT&E for MX and TITAN missile systems and space transportation systems.

# TABLE 1 INDEX OF 100 PARENT COMPANIES WHICH RECEIVED THE LARGEST DOLLAR VOLUME OF PRIME CONTRACT AWARDS

~	<u> </u>	TRI	
R	PARENT	A	PARENT
A			COMPANY
N	. COMPANY	N	COMPANI
K		K	
57	AEROSPACE CORPORATION THE	19	INTERNATIONAL BUSINESS MCHS
22	ALLIED-SIGNAL INC	98	ITT & VARO JOINT VENTURE
83	AMERADA HESS CORPORATION	28	ITT CORPORATION
25	AMERICAN TELEPHONE & TELG CO	53	JOHNS HOPKINS UNIVERSITY
50	AMOCO CORPORATION	77	LEAR SIEGLER INC
71	ASHLAND OIL INC	15	LITTON INDUSTRIES INC
34	ATLANTIC RICHFIELD COMPANY	6	LOCKHEED CORPORATION
47	AVONDALE INDUSTRIES INC	49	LORAL CORPORATION
63	BAHRAIN NATIONAL OIL	17	LTV CORPORATION THE MARTIN MARIETTA CORPORATION
45	BATH IRON WORKS CORPORATION	11   51	MASSACHUSETTS INST TECHNOLOGY
96 26	BDM INTERNATIONAL INC	3	MC DONNELL DOUGLAS CORPORATION
37	BELL BOEING JV BOEING COMPANY THE	54	MITRE CORPORATION THE
8 100	BRUNSWICK CORPORATION	59	MOBIL CORPORATION
52	BURROUGHS CORPORATION	56	MORRISON KNUDSEN CORPORATION
38	CFM INTERNATIONAL INC	75	MORTON THIOKOL INC
29	CHEVRON CORPORATION	48	MOTOR OILS HELLAS CORINTH REFI
80	CHRYSLER CORPORATION	39	MOTOROLA INC
69	COASTAL CORPORATION THE	31	NORTHROP CORPORATION
88	COLT INDUSTRIES INC	55	OLIN CORPORATION
62	COMPUTER SCIENCES CORPORATION	72	OSHKOSH TRUCK CORPORATION
68	CONTROL DATA CORPORATION	84	PACIFIC RESOURCES INC
91	DIGITAL EQUIPMENT CORPORATION	43	PAN AM CORPORATION
66	DRAPER CHÂRLES STARK LAB	61	PENN CENTRAL CORPORATION THE
73	DYNALECTRON CORPORATION	7	RAYTHEON COMPANY
82	E SYSTEMS INC	4	ROCKWELL INTERNATIONAL CORP
92	EASTMAN KODAK COMPANY	67	ROLLS ROYCE INC
20	EATON CORPORATION	24	ROYAL DUTCH PETROLEUM COMPANY
97	ELECTROSPACE SYSTEMS INC	70	SANDERS ASSOCIATES INC
64	EMERSON ELECTRIC CO	74 26	SCIENCE APPLICATIONS INTL SINGER COMPANY THE
36	EXXON CORPORATION	65	SOBERBIO INC
76 27	FIGGIE INTERNATIONAL HOLDINGS FMC CORPORATION	16	SPERRY CORPORATION
30	FORD MOTOR COMPANY	89	STEUART INVESTMENT COMPANY INC
95	G E C INCORPORATED	60	SUN COMPANY INC
78	GATES CORPORATION THE	90	SUNDSTRAND CORPORATION
33	GENCORP INC	21	T R W INC
ĩ	GENERAL DYNAMICS CORPORATION	41	TELEDYNE INC
2	GENERAL ELECTRIC COMPANY	42	TENNECO INC
5	GENERAL MOTORS CORPORATION	93	
40	GOODYEAR TIRE & RUBBER CO	18	TEXAS INSTRUMENTS INCORPORATED
58	GOULD INC	14	TEXTRON INC
10	GRUMMAN CORPORATION	86	TODD SHIPYARDS CORPORATION
23	GTE CORPORATION	81	TRACOR INC
35	HARRIS CORPORATION	99	TRANSAMERICA CORPORATION
32	HARSCO CORPORATION	87	UNITED INDUSTRIAL CORPORATION
46	HERCULES INCORPORATED	44	UNITED STATES PHILIPS TRUST
79	HEWLETT PACKARD COMPANY	1,9	UNITED TECHNOLOGIES CORP
94	HOLLY CORPORATION	13 85	WESTINGHOUSE ELECTRIC CORP ZENITH ELECTRONICS CORPORATION
12	HONEYWELL INC		

TOTAL   \$145,742,058   100.00   100.00	R A N	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF
TOTAL, 100 COMPANIES & THEIR SUBSIDIARIES 98,621,062 67.67 67.67  1. GENERAL DYNAMICS CORPORATION 7,974,786 CESSNA AIRCRAFT COMPANY INC 25,223 DATAGRAPHIX INC 11,785 GENERAL DYNAMICS/VALLEY SYS 995  TOTAL 8,012,975 5.50 5.50  2. GENERAL ELECTRIC COMPANY 5,583,088 CALMA COMPANY 3,861 CANADIAN GENERAL ELECTRIC CO 1,791 ELANO CORPORATION 1,668 ELANO EAST CORP 196 GENERAL ELECTRIC MED SYS 79 MANAGEMENT & TECHNICAL SVS CO 10,021 NATIONAL READACASTRING CO INC 82 RCA BASE SUPPORT SERVICES INC 1,218,876 RCA GLOBAL COMPUNICATIONS INC 24,461 RCA SARNOFF DAVID RESEARCH 691 RCA STORM COMPANIES FOR CO	K		Donado	10121	TOTAL
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CESSNA AIRCRAFT COMPANY INC		TOTAL, 100 COMPANIES & THEIR SUBSIDIARIES	98,621,062	67.67	67.67
DATAGRAPHIN GMBH DATAGRAPHIN INC GENERAL DYNAMICS/VALLEY SYS  TOTAL  TOTAL  8,012,975  5.50  5.50  5.50  2. GENERAL ELECTRIC COMPANY CALMA COMPANY CALMA COMPANY CALMA COMPANY CALMA COMPANY GENERAL ELECTRIC CO ELANO CASPICATION ELANO EAST CORP GENERAL ELECTRIC MED SYS MANAGEMENT & TECHNICAL SVS CO NATIONAL BROADCASTING CO INC RCA BASE SUPPORT SERVICES INC RCA GLOROPATION RCA GLOBAL COMMUNICATIONS INC RCA SARNOFF DAVID RESEARCH RCA SARROFF DAVID RESEARCH RCA SARROFF DAVID RESEARCH RCA SARROFF DAVID RESEARCH RCA SARROFF DAVID RESEARCH RCA SERVICE CO REUTER STOKES INC DEL  3. MC DONNELL DOUGLAS CORPORATION TOTAL  MC DONNELL DOUGLAS CORPORATION SHORT JOHN & ASSOCIATES FOR TYMNET MC DINL DGLS NIWK VITEK SYSTEMS INC  4. ROCKWELL INTERNATIONAL CORP ALLEN BRANLEY COMPANY COLLINS INTERNATIONAL SV CO ROCKWELL TELECOMMUNICATIONS 180  TOTAL  TOTAL  5,589,681 3.84 18.55	1.		7,974,786		
DATAGRAPHIX INC   GENERAL DYNAMICS/VALLEY SYS   995		CESSNA AIRCRAFT COMPANY INC	25,223		
GENERAL DYNAMICS/VALLEY SYS   995		DATAGRAPHIX GMBH	186		
TOTAL		DATAGRAPHIX INC	11,785		
2. GENERAL ELECTRIC COMPANY CALMA COMPANY CANADIAN GENERAL ELECTRIC CO ELANO CORPORATION ELANO CORPORATION ELANO CAST CORP GENERAL ELECTRIC MED SYS TOP MANAGEMENT & TECHNICAL SVS CO 10,021 NATIONAL BROADCASTING CO INC RCA BASE SUPPORT SERVICES INC RCA CORPORATION RCA CORPORATION RCA GLOBAL COMMUNICATIONS INC RCA SARNOFF DAVID RESEARCH RCA SERVICE CO REUTER STOKES INC DEL  TOTAL  3. MC DONNELL DOUGLAS CORPORATION INCO INC MC DONNELL DOUGLAS HELICOPTER SHORT JOHN & ASSOCIATES TYMBET MC DINIL DGLS NTWK VITEK SYSTEMS INC  4. ROCKWELL INTERNATIONAL CORP ALLEN BRADLEY COMPANY COLLINS INTERNATIONAL SV CO ROCKWELL TELECOMMUNICATIONS 180  TOTAL  5,589,681 3.84 18.55		GENERAL DYNAMICS/VALLEY SYS	995		
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GENERAL ELECTRIC MED SYS   79   MANAGEMENT & TECHNICAL SVS CO   10,021   NATIONAL BROADCASTING CO INC   82   RCA BASE SUPPORT SERVICES INC   1,954   RCA GORPORATION   1,218,876   RCA GLOBAL COMMUNICATIONS INC   24,461   RCA SARNOFF DAVID RESEARCH   691   RCA SERVICE CO   29   REUTER STOKES INC DEL   282      TOTAL   6,847,079   4.70   10.20					
MANAGEMENT & TECHNICAL SVS CO					
NATIONAL BROADCASTING CO INC   RCA BASE SUPPORT SERVICES INC   1,954     RCA CORPORATION   1,218,876     RCA GLOBAL COMMUNICATIONS INC   24,461     RCA SARNOFF DAVID RESEARCH   691     RCA SERVICE CO   29     REUTER STOKES INC DEL   282     TOTAL   6,847,079   4.70   10.20					1
RCA BASE SUPPORT SERVICES INC   1,954   RCA CORPORATION   1,218,876   RCA GLOBAL COMMUNICATIONS INC   24,461   RCA SARNOFF DAVID RESEARCH   691   RCA SERVICE CO   29   REUTER STOKES INC DEL   282      TOTAL   6,847,079   4.70   10.20					
RCA CORPORATION   1,218,876   RCA GLOBAL COMMUNICATIONS INC   24,461   RCA SARNOFF DAVID RESEARCH   691   RCA SERVICE CO   29   REUTER STOKES INC DEL   282      TOTAL   6,847,079   4.70   10.20					
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TOTAL 6,847,079 4.70 10.20  3. MC DONNELL DOUGLAS CORPORATION 6,334,211 INCO INC 12,790 MC DONNELL DOUGLAS HELICOPTER 231,741 SHORT JOHN & ASSOCIATES 6,672 TYMNET MC DNNL DGLS NTWK 754 VITEK SYSTEMS INC 143  TOTAL 6,586,311 4.52 14.72  4. ROCKWELL INTERNATIONAL CORP 5,582,715 ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55			1		
3. MC DONNELL DOUGLAS CORPORATION 6,334,211 INCO INC 12,790 MC DONNELL DOUGLAS HELICOPTER 231,741 SHORT JOHN & ASSOCIATES 6,672 TYMNET MC DNNL DGLS NTWK 754 VITEK SYSTEMS INC 143  TOTAL 6,586,311 4.52 14.72  4. ROCKWELL INTERNATIONAL CORP 5,582,715 ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55		REUTER STOKES INC DEL			
INCO INC  MC DONNELL DOUGLAS HELICOPTER SHORT JOHN & ASSOCIATES TYMNET MC DNNL DGLS NTWK VITEK SYSTEMS INC  TOTAL  ROCKWELL INTERNATIONAL CORP ALLEN BRADLEY COMPANY COLLINS INTERNATIONAL SV CO TOTAL  TOTAL  TOTAL  12,790 231,741 6,672 754 754 754 754 754 755 143 755 7582,715 71,195		TOTAL	6,847,079	4.70	10.20
MC DONNELL DOUGLAS HELICOPTER 231,741 SHORT JOHN & ASSOCIATES 6,672 TYMNET MC DNNL DGLS NTWK 754 VITEK SYSTEMS INC 143  TOTAL 6,586,311 4.52 14.72  4. ROCKWELL INTERNATIONAL CORP 5,582,715 ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55	3.	MC DONNELL DOUGLAS CORPORATION	6,334,211		
### SHORT JOHN & ASSOCIATES		INCO INC	12,790		
TYMNET MC DNNL DGLS NTWK VITEK SYSTEMS INC  TOTAL  TOTAL  ROCKWELL INTERNATIONAL CORP ALLEN BRADLEY COMPANY COLLINS INTERNATIONAL SV CO FOCKWELL TELECOMMUNICATIONS  TOTAL  TOTAL  TOTAL  5,589,681  3.84  18.55	i	MC DONNELL DOUGLAS HELICOPTER	231,741		
VITEK SYSTEMS INC  143  TOTAL  6,586,311  4.52  14.72  4. ROCKWELL INTERNATIONAL CORP 5,582,715 ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL  5,589,681 3.84 18.55		SHORT JOHN & ASSOCIATES	6,672		Ì
TOTAL 6,586,311 4.52 14.72  4. ROCKWELL INTERNATIONAL CORP 5,582,715 ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55		TYMNET MC DNNL DGLS NTWK	754		
4. ROCKWELL INTERNATIONAL CORP 5,582,715 ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55		VITEK SYSTEMS INC	143		
ALLEN BRADLEY COMPANY 1,195 COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55		TOTAL	6,586,311	4.52	14.72
ALLEN BRADLEY COMPANY COLLINS INTERNATIONAL SV CO ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55	4.	ROCKWELL INTERNATIONAL CORP	5,582.715		
COLLINS INTERNATIONAL SV CO 5,591 ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55					1
ROCKWELL TELECOMMUNICATIONS 180  TOTAL 5,589,681 3.84 18.55			- I		1
			-		
9			5,589,681	3.84	18.55
	-	9			

R		THOUSANDS	PERCENT	CUMULATIVE
A		OF	OF	PERCENT OF
N	COMPANIES	DOLLARS	TOTAL	TOTAL
K				
_	CONTRACT MORODIC CORPORATION	1,142,448		
5.	GENERAL MOTORS CORPORATION	179	ļ	1
	ADAM OPEL AKTIENGESELLSCHAFT	177,265	1	
	ELECTRONIC DATA SYSTEMS CORP	366		
	GENERAL MOTORS OF CANADA LTD	3,709,017		
	HUGHES AIRCRAFT COMPANY	39,882		
	HUGHES COMMUNICATION INTL	139		
	SMITH DETROIT DIESEL ALLISON	242		
	TOTAL	5,069,296	3.48	22.03
_	TOTAL CORPORATION	2,825,487		
6.	LOCKHEED CORPORATION DIALOG INFORMATION SERVICES	57		
	LOCKHEED AEROMOD CENTER INC	5,779		
	LOCKHEED DATAPLAN INC	3,479		1
	LOCKHEED ELECTRONICS COMPANY	43,095		1
	LOCKHEED ENGRG & MGT SVS CO	2,786		
	LOCKHEED MISSILES & SPACE CO	1,947,648		1
	LOCKHEED MISSILES & SPACE CO	61,578		
	MURDOCK ENGINEERING COMPANY	6,409		
		4,896,318	3.36	25.39
	TOTAL	.,000,020		<b>,</b>
7.	RAYTHEON COMPANY	3,738,262		1
•	AMANA REFRIGERATION INC	1,166	i e	
	BEECH AEROSPACE SERVICES INC	80,495		
	BEECH AIRCRAFT CORPORATION	163,567		
	INDIANA BEECHCRAFT INC	328	1	
	IOWA MFG CO	665		
	MACHLETT LABORATORIES INC	28		1
	RAYTHEON MIDDLE E SYSTEMS CO	384		1
	RAYTHEON SERVICE COMPANY	60,583		
	RAYTHEON TECH ASST CO	47		
	RAYTHN MOTRRN SSTMS CMPNY	2,296	1	
	SALT LAKE BEECHCRAFT INC	180		1
	SEDCO SYSTEMS INC	2,682		1
	SEISCOR TECHNOLOGIES INC	90		
	SPEED QUEEN COMPANY	32		
	SWITCHCRAFT INC	383		
	UNITED ENGINEERS & CONSTRS	385		
	TOTAL	4,051,573	2.78	28.17
	10			
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R A		THOUSANDS	PERCENT OF	CUMULATIVE PERCENT OF
N	COMPANIES	DOLLARS	TOTAL	TOTAL
K		<u> </u>		ļ <u>-</u>
8.	BOEING COMPANY THE	3,493,648		
٠.	B E & C ENGINEERS INC	90		
	BOEING GEORGIA INCORPORATED	56		
	BOEING TECHNICAL OPERATIONS	61,006	ļ	
	HYDRAULIC UNITS INCORPORATED	1,226	ļ	
;	TOTAL	3,556,026	2.44	30.61
0	INTER MECANICI OCTEC CORD	3,251,796		
9.	UNITED TECHNOLOGIES CORP	2,506		
	CARRIER CORPORATION	1,129		
:	ELLIOTT CO	206	ļ	1
	ELLIOTT TURBOMACHINERY CO INC ESSEX GROUP INC	382		
	GIFFEN SERVICE COMPANY	65	ļ	
	HAMILTON STANDARD ELECTRONICS	4,234		
	HAMILTON STANDARD ELECTRONICS HAMILTON TEST SYSTEMS INC	621	i	[
		170,042		
	NORDEN SYSTEMS INC	369		
	OTIS ELEVATOR COMPANY	346	İ	
	PRATT & WHITNEY CANADA INC SIKORSKY SUPPORT SERVICES INC	87,851	Ī	
;		2,244		
,	TURBO POWER & MARINE SYSTEMS	123		
!	UNITED SPACE BOOSTERS INC UNITED TECH AUTO HLDNGS INC	5,100		
;	TOTAL	3,527,014	2.42	33.03
10.	GRUMMAN CORPORATION	1,406		
	GRUMMAN AEROSPACE CORPORATION	2,926,500		
	GRUMMAN DATA INFORMATION SVS	370		
	GRUMMAN DATA SYSTEMS CORP	23,880		
	GRUMMAN HOUSTON CORPORATION	15,136		
	GRUMMAN SYSTEMS SUPPORT CORP	138		
	GRUMMAN-CTEC INC	65		
	TOTAL	2,967,495	2.04	35.06
11.	MARTIN MARIETTA CORPORATION	2,291,646		
	MARTIN MARIETTA AEROSPACE	639,931		
	MARTIN MARIETTA DATA SYST	3,414		
	MATHEMATICA INC	406		
	TOTAL	2,935,397	2.01	37.08
	11			
			;	

R A		THOUSANDS	PERCENT OF	CUMULATIVE PERCENT OF
N K	COMPANIES	DOLLARS	TOTAL	TOTAL
12.	HONEYWELL INC	1,609,824		
	HONEYWELL BULL AG	65 <sup>.</sup>		
	HONEYWELL INFORMATION SYSTEMS	203,441		1
	TETRA TECH INC	33,115		
	TOTAL	1,846,445	1.27	38.35
13.	WESTINGHOUSE ELECTRIC CORP	1,704,301		
	T S C INC	8,419		
	UNIMATION INC	56		
	XETRON CORPORATION	414		
	TOTAL	1,713,190	1.18	39.52
14.	TEXTRON INC	105,419		
	ACCURATE BUSHING CO INC	229		1
	ACE INDUSTRIES INC	14,184		İ
	ATLANTIC AEROSPACE INC	41		
	AVCO CORPORATION	773,337		Í
	AVCO RESEARCH LABORATORY INC	39,282		
	BABCO INDUSTRIES INC BELL HELICOPTER TEXTRON INC	1,382 631,216		
	BRYANT GRINDER CORPORATION	375		
	CADILLAC GAGE COMPANY	56,206		
	EX CELL O CORPORATION	19,124		
	H R TEXTRON INC	20,003		
	MC CORD GASKET CORPORATION	95		
	NORWOOD PRECISION PRODUCTS INC	4,976		
	PUROLATOR TECHNOLOGIES INC	5,177		
	TOTAL	1,671,046	1.15	40.67
15.	LITTON INDUSTRIES INC	49,908		
	INTERNATIONAL LASER SYSTEMS	122		
	ITEK CORPORATION	69,292		
	ITEK OPTICAL SYSTEMS	672		İ
	LITEF (LITTON TECHNISCHE WERKE)	49		
	LITTON AERO PRODUCTS	233		
	LITTON BUSINESS SYSTEMS INC	179 100		}
	LITTON COMPUTER SERVICES	982		
	LITTON INDUSTRIAL PRODUCTS INC LITTON SYSTEMS INC	1,541,737		
	TOTAL	1,663,274	1.14	41.81
	12			

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
16.	SPERRY CORPORATION	1,556,731		<del> </del>
	TOTAL	1,556,731	1.07	42.88
17.	LTV CORPORATION THE  AM GENERAL CORPORATION  LTV AEROSPACE & DEF CO  LTV ENERGY PRODUCTS COMPANY  OIL STATES INDUSTRIES CO INC	19,541 583,463 795,166 903 768		
	SIERRA RESEARCH CORPORATION	44,746		
	TOTAL	1,444,587	0.99	43.87
18.	TEXAS INSTRUMENTS INCORPORATED TEXAS INSTRUMENTS ASIA LIMITED	1,430,585 4,301		
	TOTAL	1,434,886	0.98	44.85
19.	INTERNATIONAL BUSINESS MCHS I B M INSTRUMENTS INC I B M WORLD TRADE CORPORATION ROLM CORPORATION	1,356,472 71 1,025 1,650		
	TOTAL	1,359,218	0.93	45.79
20.	EATON CORPORATION ADDINGTON LABS MICRO PROD ANALYTICAL ASSESSMENTS CORP EATON-KENWAY INCORPORATED MASTER SPECIALTIES COMPANY PACIFIC SIERRA RESEARCH CORP	1,053,709 2,964 2,169 2 586 8,641		
	TOTAL	1,068,071	0.73	46.52
21.	T R W INC  ESL INC  T R W ELECTRONIC PRODUCTS INC  TRW MICROWAVE INC  ULTIMATE COMPUTER SERVICE INC	913,152 92,300 45,232 1,816 60		
	TOTAL	1,052,560	0.72	47.24
	13			
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R		THOUSANDS	PERCENT	CUMULATIV
A		OF	OF	PERCENT O
N K	COMPANIES	DOLLARS	TOTAL	TOTAL
22.	ALLIED-SIGNAL INC	542		
1	AIR SUPPLY INTERNATIONAL	46		
ŀ	ALLIED ANALYTICAL SYSTEM	230	t I	
ŀ	ALLIED CHEMICAL CORP	607		
	ALLIED CORPORATION	611,436		į
I	AMEX SYSTEMS INC	36,287		1
i	AMPEX CORPORATION	40,625		
l	BARON BLAKESLEE INC	72		
	BENDIX AVELEX INC	1,303		
	BENDIX FIELD ENGINEERING CORP	106,653		
	GARRETT CORPORATION THE	226,024		
	KING RADIO CORPORATION	3,893	ļ	
	M P B CORPORATION	5,623		
	NEPTUNE INTERNATIONAL CORP	68		i
1	REVERE CORPORATION OF AMER NJ	3,500		
	SIGMA INSTRUMENTS INC	835		
ĺ	SIGNAL COMPANIES INC THE	3,556	ļ.	
	SIGNAL RESEARCH CENTER INC	250		İ
	UOP INC .	1,262		
	TOTAL	1,042,812	0.72	47.96
23.	GTE CORPORATION	652		
	G T E LABORATORIES INC	2,777		
	G T E SERVICE CORPORATION	180,030		ŀ
	GENERAL TELE CO NORTHWEST	353		
	GENERAL TELE CO SOUTHWEST	2,770		
	GENERAL TELEPHONE CO ALASKA	37	ļ	
	GENERAL TELEPHONE CO MIDWEST	86		
	GENERAL TELEPHONE CO OHIO	369		
	GENERAL TELEPHONE COMPANY CAL	2,378	•	
	GENERAL TELEPHONE COMPANY FLA	723		
	GENERAL TELEPHONE COMPANY IND	61	1	
	GENERAL TELEPHONE COMPANY SO	271		
	GTE COMMUNICATION SYSTEMS CORP	1,111	İ	
	GTE GOVERNMENT SYSTEMS INC	605,668		
	GTE LENKURT INCORPORATED	1,556		
	GTE PRODUCTS CORPORATION DEL	195,483		ļ
	GTE SPRINT COMM CORP	2,164		İ
	GTE SYLVANIA INC	16,910		
	GTE TELECOM INC	10,310		1
	GTE TELENET	102	ļ	
	GTE VALERON CORPORATION	38		
	HAWAIIAN TELEPHONE COMPANY	17,369		
	TOTAL	1,041,218	0.71	48.67
	14		i	L.

R A		THOUSANDS	PERCENT OF	CUMULATIVE PERCENT OF
N	COMPANIES	DOLLARS	TOTAL	
ĸ		DOMARS	TOTAL	TOTAL
24.	ROYAL DUTCH PETROLEUM COMPANY	o		
	PHIPINAS SHELL PETROLEUM	534		
	SCALLOP CORP	211,280		
1	SHELL CO OF HONG KONG LTD THE	47		
	SHELL CO OF THE ISLANDS	4,216		
	SHELL EASTERN PETROLEUM PTE LT	58,757		
	SHELL INTERNATIONAL PETROLEUM	14,800		
	SHELL INTERNATIONAL TRADING	4,439		1
	SHELL MARKETS	647		
	SHELL OIL COMPANY	687,963		
	SHOWA SHELL SEIKYU K K	3,113		
	TOTAL	985,796	0.68	49.35
25.	AMERICAN TELEPHONE & TELG CO	384,185		
•••	A T & T INFORMATION SYSTEMS	131,991		
	A T & T TECHNOLOGIES INC	392,747		
	A T & T TELETYPE CORP DEL	2,309		
	SANDIA CORPORATION	1,603		
	WESTERN ELC GOVERNMENT SV CO	383		
	WESTERN ELECTRIC SAUDI ARABI	432		
	TOTAL	913,650	0.63	49.97
26.	SINGER COMPANY THE	835,825		
	ALLEN CORPORATION OF AMERICA	9,944		
•	E M SYSTEMS INC	672		
	HRB SINGER INC	24,037		•
	SINGER COMMUNICATION CORP	86		
	TOTAL	870,564	0.60	50.57
27.	FMC CORPORATION	863,022		
	TOTAL	863,022	0.59	51.16
28.	ITT CORPORATION	533,064		
1	FEDERAL ELECTRIC CORPORATION	259,506		
	ITT BASE SERVICES INC	1,998		
	ITT INDUSTRIES OF CANADA LTD	35	}	
	ITT SYSTEMS INC	685	1	
	ITT TELECOM PRODUCTS CORP	3,389		
	SCOTT O M & SONS COMPANY INC	36		
	SHERATON CORPORATION THE	35		
	15			
1				1

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
28.	ITT CORPORATION (CONT.)			
	United States transm systems	628		
	TOTAL	799,376	0.55	51.71
29.	CHEVRON CORPORATION  CHEVRON CHEMICAL COMPANY  CHEVRON INTERNATIONAL OIL CO  CHEVRON USA INC  G A TECHNOLOGIES INC	1,067 28 2,738 740,186 48,122		
	HARSHAW CHEMICAL COMPANY	2,344		
	TOTAL	794,485	0.55	52.26
30.	FORD MOTOR COMPANY FORD AEROSPACE COMMUNICATIONS SUN COUNTRY FORD TRACTOR INC	6,075 745,971 37		
į	TOTAL	752,083	0.52	52.77
31.	NORTHROP CORPORATION NORTHROP SERVICES INC NORTHROP WORLDWIDE AIRCRFT SV WILCOX ELECTRIC INC	640,975 23,720 76,864 463		
	TOTAL	742,022	0.51	53.28
32.	HARSCO CORPORATION	707,087		
	TOTAL	707,087	0.49	53.77
33.	GENCORP INC  AEROJET ELECTROSYSTEMS CO AEROJET GENERAL CORPORATION AEROJET HEAVY METALS COMPANY AEROJET ORDNANCE & MFG CO AEROJET TACTICAL SYSTEMS AEROJET TECHSYSTEMS RKO GENERAL INC	2,874 90,570 172,704 626 362,013 7,842 6,671 44		
	TOTAL	643,344	0.44	54.21
	<b>16</b>			

R		THOUSANDS	PERCENT	CUMULATIVE
A	COMPANIES	OF	OF	PERCENT OF
N K	COMPACIBO	DOLLARS	TOTAL	TOTAL
34.	ATLANTIC RICHFIELD COMPANY	641,370		
04.	ARCO EXPLORATION & TECHNOLOGY	292		
	ARCO METALS COMPANY	199		
	ARCO PIPE LINE COMPANY	49		
	CHEM LINK INC	169		
				1
	TOTAL	642,079	0.44	54.65
35.	HARRIS CORPORATION	533,709		
	HARRIS DATA COMMUNICATIONS INC	249		
	LANIER BUSINESS PRODUCTS INC	7,526		
	SCIENTIFIC CALCULATIONS INC	103		
		- FA1 FOO	0.37	55.02
	TOTAL	541,587	0.37	55.02
36.	EXXON CORPORATION	110,311		
٠	ESSO A G	16,216	!	
	ESSO BERMUDA	88		
	ESSO STANDARD OIL SA LTD	3,026	1	
	ESSO UK P L C	32	İ	1
	EXXON CO USA	392,688		
	EXXON OFFICE SYSTEMS	32	<u> </u>	1
	IMPERIAL OIL CO INC	6,617	i	
	RELIANCE ELECTRIC COMPANY	2,980		
	TOTAL	531,990	0.37	55.39
37.	BELL BOEING JV	514,908		
	TOTAL	514,908	0.35	55.74
38.	CFM INTERNATIONAL INC	512,272		
	TOTAL	512,272	0.35	56.09
39.	MOTOROLA INC	464,866	1	
35.	CODEX CORPORATION	9,208	İ	
	MOTOROLA COMMUNICATIONS ELCR	24,310	1	j
	MOTOROLA COMMUNICATIONS INTL	767		
	MOTOROLA COMPUTER SYSTEMS INC	10,641		
	MOTOROLA INC SEMICONDUCTOR	46		
	UNIVERSAL DATA SYSTEMS INC DEL	317		
	TOTAL	510,155	0.35	56.44
	19			
	17			
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R A		THOUSANDS OF	PERCENT OF	CUMULATIVE
N K	COMPANIES	DOLLARS	TOTAL	PERCENT OF
		-		
40.	GOODYEAR TIRE & RUBBER CO	92,381		
- 1	AIR TREADS INC	3,319		
- 1	GOODYEAR AEROSPACE CORPORATION	402,994		
	MOTOR WHEEL CORPORATION	202		
	TOTAL	498,896	0.34	56.78
41.	TELEDYNE INC	240,718		
	CURTISS-WRIGHT CORPORATION	7,861		
1	CURTISS-WRIGHT/MARQUETTE INC	1,234		
	TARGET ROCK CORPORATION	483		
	TELEDYNE AEROSPACE SYSTEMS	201 <del>9</del> 65		
	TELEDYNE ENERGY SYSTEMS	_ :		
	TELEDYNE EXPLORATION COMPANY TELEDYNE INDUSTRIES INC	133 234,970		
[	TELEDINE INDUSTRIES INC TELEDYNE MICRONETICS	234,970		
ŀ	TELEDINE POWDER ALLOYS	94		
	TELEDYNE REPUBLIC MFG	847		
	TOTAL	487,625	0.33	57.12
42.	TENNECO INC	o		
1	CASE J I COMPANY	10,209		
	EKCO PRODUCTS INC	39		
	MONROE AUTO EQUIPMENT COMPANY	213		
	NEWPORT NEWS INDUSTRIAL CORP	594		
1	NEWPORT NEWS SHPBLDG/DRYDCK CO	465,906		
	PACKAGING CORPORATION OF AMER	136		
	TENNECO OIL COMPANY	90		
	TOTAL	477,187	0.33	57.44
43.	PAN AM CORPORATION	0		
	PAN AM WORLD SERVICES INC	468,316		]
	T G S TECHNOLOGY INC	8,392		
	TOTAL	476,708	0.33	57.77
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R		THOUSANDS	PERCENT	CUMULATIV
A		OF	OF	PERCENT O
N K	COMPANIES	DOLLARS	TOTAL	TOTAL
				<u> </u>
44.	UNITED STATES PHILIPS TRUST	0	4	ļ
	AIRPAX CORPORATION	4,585		1
	AMPEREX ELECTRONIC CORP	4,847		
	ANCHOR BRUSH COMPANY INC	389		1
	EDAX INTERNATIONAL INC	60		
	GENERAL ATRONICS CORP	1,309		
	MAGNAVOX COMPANY INC THE	26,779		
	MAGNAVOX ELECTRONIC SYSTEMS CO	4,180		
	MAGNAVOX GOVT & IND ELECT CO	406,167		)
	MAGNAVOX OVRSEAS LTD	26		
	MEPCO/CENTRALAB INC	482		İ
	N A P CONSUMER ELECTRONICS	289		
	NEW ENGLAND RES CTR INC	3,870		Į.
	NORTH AMERICAN PHILIPS CORP	2,327		
	NORTH AMERICAN PHILIPS LTG	5,639		•
	PHILIPS E C G INC	2,070		•
	PHILIPS ELECTRONIC INSTRS	1,478		l
	PHILIPS MEDICAL SYSTEMS	9,368		İ
	S & H MEDICAL SYSTEMS INC	90		1
į	SIGNETICS CORPORATION	408	ı.	
	TOTAL	474,363	0.33	58.10
45.	BATH IRON WORKS CORPORATION	464,928		
	TOTAL	464,928	0.32	58.42
46.	HERCULES INCORPORATED	394,382		
	CHAMPLAIN CABLE CORP	56		
	ESGRAPH INCORPORATED	56		1
	SIMMONDS PRECISION PRODUCTS	28,856		
	TOTAL	423,350	0.29	58.71
47.	AVONDALE INDUSTRIES INC	394,675		
	TOTAL	394,675	0.27	58.98
48.	MOTOR OILS HELLAS CORINTH REF	380,628		
	TOTAL	380,628	0.26	59.24
49.	LORAL CORPORATION	67,567		
	FREQUENCY SOURCES INC	283		
	LORAL INSTRUMENTATION	489		
	LORAL AMERICAN BERYLLIUM CORP 19	539		

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIV PERCENT O TOTAL
49.	LORAL CORPORATION (CONT.)			
	LORAL DATA SYSTEMS CONIC	4,002		
	LORAL ELECTRO OPTICAL SYSTEMS	63,775		ļ
ı	LORAL ELECTRONIC SYSTEMS	199,441		
	LORAL HYCOR INC	16,855		
1	LORAL RANDTRON SYSTEMS	727		
1	LORAL SOUTHCOM INTERNATIONAL	303		
	NARDA MICROWAVE CORPORATION	3,076		
, ,	ROLM MIL-SPEC COMPUTER	19,758		1
	WAVECOM INC	222		
	TOTAL	377,037	0.26	59.50
50.	AMOCO CORPORATION	370,993		1
	AMOCO TRANSPORT CO INC DEL	86		
	TOTAL .	371,079	0.25	59.75
51.	MASSACHUSETTS INST TECHNOLOGY	368,010		
	TOTAL	368,010	0.25	60.00
52.	BURROUGHS CORPORATION	69,425		
- 1	BURROUGHS DEVTSCHCAND GMBH	66		1
i	BURROUGHS FSSG	1,800		
	BURROUGHS MACHINES LTD	57	!	
	MEMOREX CORPORATION	7,846		
	S D C INTEGRATED SERVICES	644		1
	SYSTEM DEVELOPMENT CORPORATION	260,080		
	TOTAL	339,918	0.23	60.24
53.	JOHNS HOPKINS UNIVERSITY	317,626		
	TOTAL	317,626	0.22	60.46
54.	MITTE CORPORATION THE	310,011		
	TOTAL	310,011	0.21	60.67
55.	OLIN CORPORATION	273,884	<u> </u>	
	PACIFIC ELECTRO DYNAMICS INC	162		1
	PHYSICS INTERNATIONAL COMPANY	22,051		
	RAVENNA ARSENAL INC	9,301		
	ROCKCOR INC 20	1,233		

A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
55.	OLIN CORPORATION (CONT.)	•		
	TOTAL	306,631	0.21	60.88
56.	MORRISON KNUDSEN CORPORATION	164,608		
	MK-FERGUSON COMPANY	3,609		
	MORRISON KNUDSEN INTL CO	50		
	MORRISON-KNUDSEN ENGINEERS INC	765		
	NATIONAL STL SHIPBUILDING CO	60,467		1
	NATIONAL STRUCTURE INC	74,100		
	TOTAL	303,599	0.21	61.09
57.	AEROSPACE CORPORATION THE	301,781		
	TOTAL	301,781	0.21	61.29
58.	GOULD INC	283,322		
	AMERICAN MICROSYSTEMS INC	37		
	GOULD COMPUTER SYSTEMS INC	10,749		
	GOULD DEFENSE SYSTEMS INC DEL	6,271		
	TOTAL	300,379	0.21	61.50
59.	MOBIL CORPORATION	0		
	MOBIL OIL CORPORATION	299,599		
	TOTAL	299,599	0.21	61.71
60.	SUN COMPANY INC	0		
	FAUVER J N CO INC	37		
	MONTOUR AUTO SERVICE CO	429		
	PUERTO RICO SUN OIL CO INC	93,541		
	ROTO SWING INC	39		1
	SUN REFINING & MARKETING CO	200,396		
	TOTAL	294,442	0.20	61.91
61.	PENN CENTRAL CORPORATION THE	2,539		
1	AERO MECHANISM INC	263		
	BUCKEYE GAS PRODUCTS COMPANY	512		
	G & H TECHNOLOGY INC	803		1
	GENERAL CABLE CO	81		[
ļ	GK TECHNOLOGIES INC	36		Ì
1	MARATHON LE TOURNEAU COMPANY 21	639		

R		THOUSANDS	PERCENT	CUMULATIVE
A	COMPANIES	OF	OF	PERCENT OF
N K	COMPANIES	DOLLARS	TOTAL	TOTAL
61.	PENN CENTRAL CORPORATION THE (CONT.)	<u> </u>		
	MARATHON MANUFACTURING CO	5,020		
i	P C C TECHNICAL INDUSTRIES INC	207,169		
- 1	SPRAGUE ELECTRIC COMPANY	737		
	VITRO CORPORATION	74,302		
	TOTAL	292,101	0.20	62.10
62.	COMPUTER SCIENCES CORPORATION	288,086		
	TOTAL	288,086	0.20	62.30
63.	BAHRAIN NATIONAL OIL	282,720		
	TOTAL	282,720	0.19	62.49
64.	EMERSON ELECTRIC CO	226,807		
	APPLETON ELECTRIC CO	505		ļ
	ATWOOD & MORRILL CO INC	160		Ì
	AUTOMATIC SWITCH COMPANY	749	]	
	BECKMAN INDUSTRIAL CORP	570		
	BRANSON INTERNATIONAL PLASMA	30	}	
	CHANCE A B CO	26	İ	
	ELECTRONIC NVGTN IND INC	46		
	MORSE INDUSTRIAL CORP	62		1
	RIDGE TOOL COMPANY THE	139		
	ROSEMOUNT INC	11,710		
	SOUTHWEST MOBILE SYSTEMS CORP	31,139		
	SWECO INC	75 6,457		
	VACCO INDUSTRIES	68		
	XOMOX CORPORATION			
	TOTAL	278,543	0.19	62.68
65.	SOBERBIO INC	0	ļ	
	PRIDE REFINING INC	275,924		
	TOTAL	275,924	0.19	62.87
66.	DRAPER CHARLES STARK LAB	265,983		
	TOTAL	265,983	0.18	63.06
67.	ROLLS ROYCE INC	262,846		
	TOTAL	262,846	0.18	63.24
	22			1

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
68.	CONTROL DATA CORPORATION	254,876		
	CONTROL DATA CANADA LIMITED	153		
	´ TOTAL	255,029	0.17	63.41
69.	COASTAL CORPORATION THE	o		
	BELCHER NEW ENGLAND INC	11,204		
	BELCHER OIL CO OF NY INC	10,841		1
	BELCHER OIL COMPANY	23,002		
	BELCHER TERMINALS INC	233		
	COASTAL REFINING & MARKETING	85,118		
	COASTAL STATES TRADING INC	83,548		
	COASTAL TANKSHIPS U S A INC	942		
	PACIFIC REFINING COMPANY	33,074		
	TOTAL	247,962	0.17	63.58
70.	SANDERS ASSOCIATES INC	239,980		
,0.	ANALYTYX ELECTRONIC SYSTEMS	6,263		
	CALIFORNIA COMPUTER PRODUCTS	229		
	TOTAL	246,472	0.17	63.75
71.	ASHLAND OIL INC	141,578		
	APAC INC	189		
	APAC VIRGINIA INC	2,699		]
	ASHLAND COAL INC	198		
	ASHLAND CONSTRUCTION INC	160		
	ASHLAND OIL TRNSPRTN	2,766		
	ASHLAND PETROLEUM CO	4,709-		
	ATEC INC	1,424		
	DANIEL MANN JOHNSON MENDENHLL	5,706		Ì
	DMJM PHILLIPS REISTER HALEY	188		
	DREW CHEMICAL CORPORATION	307		
	HOLMES & NARVER INC	91,823		
	RILEY CORPORATION	128		
	SCIENTIFIC GAS PRODUCTS INC	28		
	UHL & LOPEZ ENGINEERS INC UNITED STATES RILEY CORP	33		1
	VANGUARD	192 92		
	TOTAL	242,802	0.17	63.92
	23			
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R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
72.	OSHKOSH TRUCK CORPORATION	242,113		
	TOTAL	242,113	0.17	64.08
73.	DYNALECTRON CORPORATION  C F E EQUIPMENT CORP  C F E SERVICES INC  DYN LOGISTICS SERVICES INC  HELI DYNE SYSTEMS INC  ITS INT SVC GMBH  PAC ORD INC  SERVAIR CORPORATION	230,468 228 506 1,990 124 3,464 3,120 1,340		
	TOTAL	241,240	0.17	64.25
74.	SCIENCE APPLICATIONS INTL  JRB ASSOCIATES	232,208 4,111		
	TOTAL	236,319	0.16	64.41
75.	MORTON THIOKOL INC	235,705		
	TOTAL	235,705	0.16	64.57
76.	FIGGIE INTERNATIONAL HOLDINGS FIGGIE INTERNATIONAL INC	0 234,484		
	TOTAL	234,484	0.16	64.73
77.	LEAR SIEGLER INC  DEVELOPMENTAL SCIENCES INC  IDENTI-KIT COMPANY INC  L S I AVIONIC SYSTEMS	176,461 36,317 139 19,741		
	TOTAL	232,658	0.16	64.89
78.	GATES CORPORATION THE GATES ENERGY PRODUCTS INC GATES LEARJET CORPORATION GATES RUBBER COMPANY THE JET ELECTRONICS & TECHNOLOGY	0 1,215 217,824 782 12,774		
	TOTAL	232,595	0.16	65.05
	24			
	1	•		1

R		THOUSANDS	PERCENT	CUMULATIVE
A	COMPANIES	OF	OF	PERCENT O
N K	COMPANIES	DOLLARS	TOTAL	TOTAL
79.	HEWLETT PACKARD COMPANY	223,673		
	HEWLETT PACKARD GMBH VERTRIEBS	490		
	TOTAL	224,163	0.15	65.21
BO.	CHRYSLER CORPORATION	29,869		
	GULFSTREAM AEROSPACE CORP DEL	38,877		
	GULFSTREAM AEROSPACE CORP GA	149,647		
	TOTAL,	218,393	0.15	65.36
81.	TRACOR INC	85,632		
	F S I SERVICES INC	1,637		
	FLIGHT SYSTEMS INC	17,062		
1	M B ASSOCIATES INTERNATIONAL	5,633		
	TRACOR AEROSPACE AUSTIN INC	11,504		
	TRACOR APPLIED SCIENCES INC	20,495		
	TRACOR MARCON INC	39		
	TRACOR MARINE INC	20,864		
ı	TRACOR MBA TRACOR NORTHERN INC	29,578 247		
i	TRACOR NORTHERN INC	820		
	WESTRONICS INC OF TEXAS	151		
	TOTAL	193,662	0.13	65.49
32.	E SYSTEMS INC	152,683		
	SERV AIR INC	39,463		
i	TOTAL	192,146	0.13	65.62
33.	AMERADA HESS CORPORATION	31,434		
	HESS OIL VIRGIN ISLANDS CORP	154,757		
	TOTAL	186,191	0.13	65.75
34.	PACIFIC RESOURCES INC	54		
1	HAWAIIAN INDEPENDENT REFINERY	168,382		
ĺ	PRI ASIA PTE LTD	3,326		
	PROMANA INC	5,535		
	SOUTH PACIFIC RESOURCES INC	3,672		
	TOTAL	180,969	0.12	65.87
	25	:.		
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_ l		THOUSANDS	PERCENT	CUMULATIV
A	COMPANIES	OF	OF	PERCENT OF
N K	COMPANIES	DOLLARS	TOTAL	TOTAL
85.	ZENITH ELECTRONICS CORPORATION	141,369	·	
	VERITECHNOLOGY ELCR CORP DEL	177		
	ZENITH DATA SYSTEMS CORP	33,717		·
	ZENITH INTEQ INC	832		
	TOTAL	176,095	0.12	65.99
86.	TODD SHIPYARDS CORPORATION	52,460		
	ARO CORPORATION	5,221		
	TODD PACIFIC SHIPYARDS CORP	118,095		
	TOTAL	175,776	0.12	66.11
87.	UNITED INDUSTRIAL CORPORATION	0		
	A A I CORPORATION	172,248		
	DETROIT STOKER COMPANY	197		
	TOTAL	172,445	0.12	66.23
88.	COLT INDUSTRIES INC	108,731		
	DELAVAN INC	5,357		
	GARLOCK INC	486		
	MENASCO INC	47,947		ł
	WALBAR INC	8,237		
	TOTAL	170,758	0.12	66.35
89.	STEUART INVESTMENT COMPANY INC	0		
	STEUART PETROLEUM COMPANY	170,165		
	TOTAL	170,165	0.12	66.47
90.	SUNDSTRAND CORPORATION	150,800		
ł	FALK CORPORATION THE	548-		
	SIGNATRON INC	256		
	SULLAIR CORPORATION	1,434		
	SUNDSTRAND DATA CONTROL INC	11,405		
	SUNDSTRAND SERVICE CORPORATION	4,663		
	WULFSBERG ELECTRONICS INC	60		
	TOTAL	168,070	0.12	66.58
91.	DIGITAL EQUIPMENT CORPORATION	164,548		
	DIGITAL EQUIPMENT GMBH	1,011		
	DIGITAL EQUIPMENT INTL	163		
	TOTAL 26	165,722	0.11	66.70

R	<del>.</del>	THOUSANDS	PERCENT	CUMULATIVE
A		OF	OF	PERCENT OF
N	COMPANIES	DOLLARS	TOTAL	TOTAL
K	· · · · · · · · · · · · · · · · · · ·			TOTAL
92.	EASTMAN KODAK COMPANY	59,835		
·	DATATAPE INCORPORATED	7,753		1
ľ	EIKONIX CORPORATION	293		
]	HOLSTON DEFENSE CORPORATION	97,040		
	NOLSION DEFENSE CORPORATION			
	TOTAL	164,921	0.11	66.81
93.	TEXACO INC	145,416		
- 1	DEUTSCHE TEXACO AG	9,533		1
- 1	TEXACO CAMBEAN INC	668		
	TEXACO LTD	6,923		
	TEXACO PANAMA INC	1,112		
	TOTAL	163,652	0.11	66.92
94.	HOLLY CORPORATION	o		
·	NAVAJO REFINING COMPANY	161,126		
	TOTAL	161,126	0.11	67.03
95.	G E C INCORPORATED	0		
- '	CINCINNATI ELECTRONICS CORP	25,885		
	CIRCUIT TECHNOLOGY INC	1,419	!	
	DICK A B COMPANY INC DEL	2,891	ı	•
- !	G E C AVIONICS LTD	94,920		
	MARCONI ELECTRONICS INC	2,636		
- 1				
	MARCONI-ELLICOTT LTD	2,937		
	PICKER INTERNATIONAL INC	29,792		
ŀ	TOTAL	160,480	0.11	67.14
96.	BDM INTERNATIONAL INC	0		}
	BDM CORPORATION THE	149,510		ļ
	BDM MANAGEMENT SERVICES CO	9,232		
	BDM SERVICES COMPANY	93		
	ZAPEX CORPORATION	1 <del>96</del>		
	TOTAL	159,031	0.11	67.25
97.	ELECTROSPACE SYSTEMS INC	153,619		
	TOTAL	153,619	0.11	67.36
	TOTAL	153,619	0.11	67.3
	27			

R A N K	COMPANIES	THOUSANDS OF DOLLARS	PERCENT OF TOTAL	CUMULATIVE PERCENT OF TOTAL
98.	ITT & VARO JOINT VENTURE	152,867		
	TOTAL	152,867	0.10	67.46
99.	TRANSAMERICA CORPORATION TRANSAMERICA AIRLINES INC TRANSAMERICA DELAVAL INC	0 109,240 43,563		
	TOTAL	152,803	0.10	67.57
100.	BRUNSWICK CORPORATION STG ELECTROSYSTEMS INC	148,428 544		
	TOTAL	148,972	0.10	67.67
			9	
			į	
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