SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 29549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (date of earliest event reported)

August 1, 1997

Commission File Number 1-3229

NORTHROP GRUMMAN CORPORATION (Exact name of registrant as specified in its charter)

DELAWARE (State or other jurisdiction of incorporation or organization) No. 95-1055798 (I.R.S. Employer Identification No.)

1840 Century Park East, Los Angeles, California 90067 (address of principal executive offices)

(310) 553-6262

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

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NORTHROP GRUMMAN CORPORATION

Item. 5 Other Events

MERGER WITH LOGICON, INC.

Effective August 1, 1997, the company consummated the merger of its wholly owned acquisition subsidiary with and into Logicon, Inc., a leading defense information technology and services company. Each share of Logicon's common stock was converted to .6161 of a share of the company's common stock. Approximately 8.6 million shares of the company's common stock were issued for Logicon's common stock.

The merger is accounted for as a pooling of interests and, accordingly, the accompanying supplemental financial statements have been retroactively restated for all periods presented to include the results of Logicon.

Item 7.Financial Statements and Exhibits

- (a) Financial Statements
 - 1. Restated Consolidated Financial Statements of Northrop Grumman Corporation and Subsidiaries
 - a. Restated Consolidated Financial Statements of Northrop Grumman Corporation and Subsidiaries.
 - (i) Restated Consolidated Statements of Financial Position as of December, 31, 1996 and 1995.
 - (ii) Restated Consolidated Statements of Income for the Years Ended December 31, 1996, 1995 and 1994.
 - (iii) Restated Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 1996, 1995 and 1994.
 - (iv) Restated Consolidated Statements of Cash Flows for the Years Ended December 31, 1996, 1995 and 1994.
 - (v) Notes to Restated Consolidated Financial Statements for each of the three years in the period ended December 31, 1996.
 - (vi) Management's Discussion and Analysis of the Company's Restated Financial Condition and Results of Operations for each of the three years in the period ended December 31, 1996.
 - c. Independent Auditors' Report

Restated CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

December 31, \$ in millions Assets:	1996	1995
Current assets		
Cash and cash equivalents	\$ 123	\$ 56
Marketable securities		8
Accounts receivable	1,453	1,285
Inventoried costs	1,053	771
Deferred income taxes	78	26
Prepaid expenses	68	64
Total current assets	2,775	2,210
Property, plant and equipment at cost		
Land and land improvements	207	192
Buildings	806	785
Machinery and other equipment	2,114	1,899
Leasehold improvements	68	64
	3,195	2,940
Accumulated depreciation	(1,783)	(1,753)
	1,412	1,187
Other assets		
Goodwill, net of accumulated amortization		
of \$150 in 1996 and \$67 in 1995	3,470	1,439
Other purchased intangibles, net of accumulated		
amortization of \$116 in 1996 and \$36 in 1995	988	356
Prepaid pension cost, intangible		
pension asset and benefit trust fund	229	99
Deferred income taxes	520	255
Investments in and advances to		
affiliates and sundry assets	251	96
	5,458	2,245
	\$ 9,645	\$ 5,642

December 31, \$ in millions Liabilities and Shareholders' Equity:	1996	1995
Current liabilities Notes payable to banks Current portion of long-term debt Trade accounts payable Accrued employees' compensation Advances on contracts Income taxes payable Deferred income taxes Other current liabilities Total current liabilities	\$ 228 200 477 357 230 25 621 531 2,669	\$ 65 144 378 242 98 58 464 326 1,775
Long-term debt Accrued retiree benefits Other long-term liabilities Deferred income taxes	2,950 1,624 59 61	1,163 1,048 39 31
Shareholders' equity Paid-in capital Preferred stock, 10,000,000 shares authorized; none issued Common stock, 200,000,000 shares authorized; issued and outstanding 1996 - 66,527,262; 1995 - 58,019,842 Retained earnings Unfunded pension losses, net of taxes	\$ 784 1,502 (4) 2,282 9,645	\$ 273 1,325 (12) 1,586 5,642

RESTATED CONSOLIDATED STATEMENTS OF INCOME

1996		1995		1994
\$ 8,607	\$	7,272	\$	7,025
0.050		- 007		- 700
,		,		5,736
1,246		1,003		783
				282
703		572		224
12		4		9
				(31)
, ,				(109)
,		` ,		` ,
_		_		93
				40
\$ 264	\$	277	\$	53
62.6		57.8		57.6
\$ 4.22	\$	4.79	\$.92
\$	\$ 8,607 6,658 1,246 703 12 (13) (270) 432 168 \$ 264	\$ 8,607 \$ 6,658 1,246 703 12 (13) (270) 432 168 \$ 264 \$	\$ 8,607 \$ 7,272 6,658 5,697 1,246 1,003 703 572 12 4 (13) 9 (270) (137) 432 448 168 171 \$ 264 \$ 277 62.6 57.8	\$ 8,607 \$ 7,272 \$ 6,658 5,697 1,246 1,003 703 572 12 4 (13) 9 (270) (137) 432 448 168 171 \$ 264 \$ 277 \$ 62.6 57.8

RESTATED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

Year ended December 31, \$ in millions, except per share		1996	1995	1994
Paid-in Capital		1000	1000	1004
At beginning of year	\$	273	\$ 261	\$ 264
Stock issuance		493		
Employee stock awards and options				
exercised, net of forfeitures		23	12	12
Treasury stock transactions		(5)		(15)
At end of year		784	273	261
Retained Earnings				
At beginning of year		1,325	1,130	1,158
Net income		264	277	53
Cash dividends		(87)	(82)	(81)
At end of year		1,502	1,325	1,130
Unfunded Pension Losses, Net of Taxes				
At beginning of year		(12)		(2)
Change in excess of additional minimum				
liability over unrecognized prior service	costs	8	(12)	2
At end of year		(4)	(12)	
Total shareholders' equity	\$	2,282	\$ 1,586	\$ 1,391
Book value per share	•	34.30	27.34	\$ 24.18
Cash dividends per share	\$	1.60	\$ 1.60	\$ 1.60

RESTATED CONSOLIDATED STATEMENTS OF CASH FLOWS

Year ended December 31, \$ in millions Operating Activities Sources of Cash	1996	1995	1994
Cash received from customers	.	* • • • • •	A O O O O
Progress payments Other collections	\$ 2,226	\$ 2,289	\$ 2,616 5,110
Interest received	6,372 13	4,818 3	10
Income tax refunds received	12	48	11
Other cash receipts	8	7	13
Cash provided by operating activities	8,631	7,165	7,760
Uses of Cash	,	,	,
Cash paid to suppliers and employees	7,528	6,168	7,088
Interest paid	219	144	94
Income taxes paid	141	73	108
Other cash payments		3	2
Cash used in operating activities	7,888	6,388	7,292
Net cash provided by operating activities	s 743	777	468
Investing Activities of Acquistions Payment for businesses purchased,			
net of cash acquired	(2,886)	(23)	(1,898)
Additions to property, plant and equipmen		(140)	(137)
Proceeds from sale of property,	(100)	(1.0)	(10.)
plant and equipment	58	34	18
Proceeds from sale of affiliates/operation	ons 45	5	
Proceeds from sale of marketable securit	ies,		
net of purchases	9	1	46
Funding of retiree benefit trust	(25)		(31)
Dividends from affiliates, net of invest			5
Other investing activities	4	(21)	6
Net cash used in investing activities	(2,993)	(144)	(1,991)
Financing Activities Borrowings under lines of credit	2 724	152	2 271
Repayment of borrowings under	2,734	153	2,371
lines of credit	(635)	(259)	(1,200)
Proceeds from issuance of long-term debt	1,000	(200)	600
Principal payments of long-term	_,		
debt/capital leases	(1,090)	(446)	(251)
Proceeds from issuance of stock	502	8	9
Dividends paid	(87)	(82)	(78)
Other financing activities	(107)		(22)
Net cash provided by(used in)			
financing activities	2,317	(626)	1,429
Increase(decrease) in cash and cash equivalents	67	7	(04)
Cash and cash equivalents balance at	67	7	(94)
beginning of year	56	49	143
Cash and cash equivalents	30	49	1-13
·	123	\$ 56	\$ 49
•			

Year ended December 31, \$ in millions Reconciliation of Net Income to Net Cash Provided by Operating Activities:		1996	1995		1994
Net income Adjustments to reconcile net income to net cash provided	\$	264	\$ 277	\$	53
Depreciation		210	231		231
Amortization of intangible assets		165	59		43
Common stock issued to employees		10			1
Loss on disposals of property, plant					_
and equipment		32	34		33
Retiree benefits cost		52	64		33
Special termination benefits					282
Decrease(increase) in					
Accounts receivable		(111)	186		210
Inventoried costs		` 7	426		(368)
Prepaid expenses		13	(14)		` 11
Refundable income taxes			84		(84)
Increase(decrease) in					
Progress payments		84	(282)		407
Accounts payable and accruals		36	(102)		(314)
Provisions for contract losses		2	(143)		(84)
Provisions for disposal of real					
estate and other assets		50	(8)		42
Deferred income taxes		126	86		76
Income taxes payable		(33)	1		(27)
Retiree benefits		(170)	(114)		(80)
Other noncash transactions		6	(8)		3
Net cash provided by operating activities	\$	743	\$ 777	\$	468
Noncash Investing and Financing Activities: Purchase of businesses					
Fair value of assets acquired	\$	4,003	\$ 35	\$	4,273
Cash paid	(2,888)	(31)	(2,304)
Liabilities assumed	\$	1,115	\$ 4	\$	1,969

NOTES TO RESTATED CONSOLIDATED FINANCIAL STATEMENTS

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The consolidated financial statements include the accounts of the corporation and its subsidiaries. All material intercompany accounts, transactions and profits are eliminated in consolidation.

The company's financial statements are in conformity with generally accepted accounting principles. The preparation thereof requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period. Estimates have been prepared on the basis of the most current and best available information and actual results could differ from those estimates.

Statement Presentation

The accompanying financial statements have been restated for the merger of the company's wholly owned acquisition subsidiary with and into Logicon, Inc. (Logicon), which is accounted for as a pooling of interests as discussed in the footnote "Merger with Logicon, Inc."

Northrop Grumman Corporation and its Subsidiaries fiscal 1997 financial statements will reflect an after tax charge of approximately \$20 million for expenses associated with the merger, principally investment banking fees.

Nature of Operations

Northrop Grumman is a major producer of military and commercial aircraft subassemblies and defense electronics and is the prime contractor on the U.S. Air Force B-2 Stealth Bomber. The company operates in the aircraft, electronics and information technology and services industry segments within the broadly defined aerospace industry. The majority of the company's products and services are ultimately sold to the U.S. Government and the company is therefore affected by, among other things, the federal budget process.

Sales to the U.S. Government (including foreign military sales) are reported within each industry segment and in total in the Selected Financial Data. The company does not conduct a significant volume of activity through foreign operations or in foreign currencies.

Descriptions of the company's principal products and services along with industry segment data, which is considered to be an integral part of these financial statements, can be found in the Management's Discussion and Analysis section of this report. Intersegment sales are transacted at cost incurred with no profit added. Operating profit is defined to include the Other Income earned by each industry segment, but to exclude costs allocated to segments for General Corporate Expenses and State and Local Income Taxes. General corporate assets include cash and cash equivalents, corporate office furnishings and equipment, other unallocable property, investments in affiliates, prepaid pension cost, intangible pension asset, benefit trust fund assets, deferred tax assets and certain assets held for sale.

Sales

Sales under cost-reimbursement, service, research and development, and construction-type contracts are recorded as costs are incurred and include estimated earned fees or profits calculated on the basis of the relationship between costs incurred and total estimated costs (cost-to-cost type of percentage-of-completion method of accounting). Construction-type contracts embrace those fixed-price type contracts that provide for the delivery at a low volume per year or a small number of units after a lengthy period of time over which a significant amount of costs have been incurred. Sales under other types of contracts are recorded as deliveries are made and are computed on the basis of the estimated final average unit cost plus profit (units-of-delivery type of percentage-of-completion method of accounting).

Certain contracts contain provisions for price redetermination or for cost and/or performance incentives. Such redetermined amounts or incentives are included in sales when the amounts can reasonably be determined. In the case of the B-2 bomber production contract, future changes in operating margin will be recognized on a units-of-delivery basis and recorded as each equivalent production unit is delivered. Amounts representing contract change orders, claims or limitations in funding are included in sales only when they can be reliably estimated and realization is probable. In the period in which it is determined that a loss will result from the performance of a contract, the entire amount of the estimated ultimate loss is charged against income. Loss provisions are first offset against costs that are included in assets, with any remaining amount reflected in Other Current Liabilities. Other changes in estimates of sales, costs, and profits are recognized using the cumulative catch-up method of accounting. This method recognizes in the current period the cumulative effect of the changes on current and prior periods. Hence, the effect of the changes on future periods of contract performance is recognized as if the revised estimates had been the original estimates.

Contract Research and Development

Customer-sponsored research and development costs (direct and indirect costs incurred pursuant to contractual arrangements) are accounted for like other contracts.

Noncontract Research and Development

This category includes independent research and development costs and company-sponsored research and development costs (direct and indirect costs not recoverable under contractual arrangements). Independent research and development (IR&D) costs are included in administrative and general expenses (indirect costs allocable to U.S. Government contracts) whereas company-sponsored research and development costs are charged against income as incurred.

Environmental Costs

Environmental liabilities are accrued when the company determines it is responsible for remediation costs and such amounts are reasonably estimable. When only a range of amounts is established and no amount within the range is better than another, the minimum amount in the range is recorded. The company does not anticipate and record insurance recoveries before collection is probable.

Interest Rate Swap Agreements

The company may enter into interest rate swap agreements to offset the variable-rate characteristic of certain variable-rate term loans outstanding under the company's Credit Agreement. Interest on these interest rate swap agreements is recognized as an adjustment to interest expense in the period incurred.

Income Taxes

Provisions for federal, state and local income taxes are calculated on reported financial statement pretax income based on current tax law and also include, in the current period, the cumulative effect of any changes in tax rates from those used previously in determining deferred tax assets and liabilities. Such provisions differ from the amounts currently payable because certain items of income and expense are recognized in different time periods for financial reporting purposes than for income tax purposes.

The company accounts for certain contracts in process using different methods of accounting for financial statements and tax reporting and thus provides deferred taxes on the difference between the financial and taxable income reported during the performance of such contracts.

In accordance with industry practice, state and local income and franchise tax provisions are included in administrative and general expenses.

Earnings per Share

Earnings per share are based on the weighted average number of shares of common stock outstanding during each period, after giving recognition to stock splits and stock dividends. The dilutive effect of common stock equivalents, shares under stock options, was insignificant.

Cash and Cash Equivalents

Cash and cash equivalents include interest-earning debt instruments that mature in three months or less from the date purchased.

Accounts Receivable

Accounts receivable include amounts billed and currently due from customers, amounts currently due but unbilled (primarily related to contracts accounted for under the cost-to-cost type of percentage-of-completion method of accounting), certain estimated contract changes, claims in negotiation and amounts retained by the customer pending contract completion.

Inventoried Costs

Inventoried costs primarily relate to work in process under fixed-price type contracts (excluding those included in unbilled accounts receivable as previously described). They represent accumulated contract costs less the portion of such costs allocated to delivered items. Accumulated contract costs include direct production costs, factory and engineering overhead, production tooling costs, and allowable administrative and general expenses (except for general corporate expenses and IR&D allocable to commercial contracts, which are charged against income as incurred).

In accordance with industry practice, inventoried costs are classified as a current asset and include amounts related to contracts having production cycles longer than one year.

Depreciable Properties

Property, plant and equipment owned by the company are depreciated over the estimated useful lives of individual assets. Capital leases providing for the transfer of ownership upon their expiration or containing bargain purchase options are amortized over the estimated useful lives of individual assets. Most of these assets are depreciated using declining-balance methods, with the remainder using the straight-line method, with the following lives:

	Years
Land improvements	5-20
Buildings	5-45
Machinery and other equipment	1-18
Leasehold improvements	Length of lease

Goodwill and Other Purchased Intangible Assets

Goodwill and other purchased intangible assets are amortized on a straight-line basis over periods of 40 years and a weighted average 15 years, respectively. Goodwill and other purchased intangibles balances are included in the identifiable assets of the industry segment to which they have been assigned and amortization is charged against the respective industry segment operating profit. The recoverability of goodwill and other purchased intangibles is evaluated at least annually considering the projected future profitability and cash flow at the operations to which they relate. When it is determined that an impairment has occurred, an appropriate charge to operations is recorded.

Acquisitions

On March 28, 1996, Logicon acquired Geodynamics Corporation (Geodynamics) for a cash purchase price of \$32 million. Geodynamics specializes in remote sensing, geographic information systems, modeling and simulation, software development, and systems engineering and integration for the Department of Defense and other government agencies. The operations of Geodynamics since the acquisition date are included in the information technology and services segment.

On March 1, 1996 the company purchased substantially all of the defense and electronics systems business (ESG) of Westinghouse Electric Corporation at a cost of \$2.9 billion and financed the transaction with new borrowings. The operations of ESG have been consolidated with Northrop Grumman effective March 1, 1996 and are included in the electronics industry segment.

On February 16, 1995, Logicon acquired Syscon Corporation (Syscon), which operated as an indirectly wholly owned subsidiary of Harnischfeger Industries, Inc., for a cash purchase price of \$45 million. Syscon is engaged principally in the business of providing systems development, systems integration and systems services to the U.S. government and commercial enterprises. The operations of Syscon since the acquisition date are included in the information technology and services segment.

In April 1994 the company purchased the outstanding stock of Grumman Corporation (Grumman) at a cost of \$2.1 billion and financed the transaction mainly with new borrowings. The operations of Grumman since acquisition are included in the industry segments to which products are associated.

In August 1994 the company purchased the remaining 51 percent interest in Vought Aircraft Company (Vought) for \$130 million cash. The company had previously purchased a 49 percent interest in Vought for \$45 million in September 1992. The operations of Vought since August 1994 are included in the aircraft industry segment.

The purchase method of accounting was used to record all five acquisitions with estimated fair values being assigned to assets and liabilities. The excess of the purchase price over the net tangible assets acquired was assigned to identifiable intangible assets and the remaining balance to goodwill.

The following unaudited pro forma financial information combines Northrop Grumman's, ESG's, Geodynamics' and Syscon's results of operations, as if the acquisitions had taken place on January 1, 1995, and is not necessarily indicative of future operating results of Northrop Grumman.

<pre>\$ in millions, except per share</pre>	1996	1995
Sales	\$ 8,907	\$ 9,777
Net income	244	160
Earnings per share	3.90	2.77

MERGER WITH LOGICON, INC.

Effective August 1, 1997, the company consummated the merger of its wholly owned acquisition subsidiary with and into Logicon, Inc., a leading defense information technology and services company. Each share of Logicon's common stock was converted to .6161 of a share of the company's common stock. Approximately 8.6 million shares of the company's common stock was issued for Logicon's common stock then outstanding.

The merger is accounted for as a pooling of interests, and accordingly the accompanying financial statements give retroactive effect for all periods presented to include the results of Logicon.

Operating results of the separate companies for each year are as follows:

<pre>\$ in millions, except per share</pre>		1996	1995	1994
Revenues				
Previously reported	\$ 8	3,071	\$ 6,818	\$ 6,711
Logicon		536	454	314
	\$ 8	3,607	\$ 7,272	\$ 7,025
Net income				
Previously reported	\$	234	\$ 252	\$ 35
Logicon		30	25	18
	\$	264	\$ 277	\$ 53
Earnings per share				
Previously reported	\$	4.33	\$ 5.11	\$.72
Restated to give effect to pooling	\$	4.22	\$ 4.79	\$.92

MARKETABLE SECURITIES

Marketable securities are as follows:

\$ in millions 1996 1995

Available for sale securities (mature within one year)

U.S. government and government agencies

Amortized cost bas	is (plus interest)	\$ - \$8
Fair value (plus i	nterest)	- 8
Gross unrealized l	OSS	\$ - \$ -

The specific identification method has been used to determine cost for each security. There have been no realized gains or losses from the sale of available for sale securities during 1996 or 1995. The net unrealized holding loss on available for sale securities which was included in stockholders' equity at December 31, 1995, was immaterial.

ACCOUNTS RECEIVABLE

Unbilled amounts represent sales for which billings have not been presented to customers at year end, including differences between actual and estimated overhead and margin rates. These amounts are usually billed and collected within one year. Progress payments are, however, received on a number of fixed-price contracts accounted for using the cost-to-cost type percentage-of-completion method.

Amounts due upon contract completion are retained by customers until work is completed and customer acceptance is obtained.

In 1996 the company terminated an agreement that was entered into in 1995 with a financial institution to sell designated pools of its commercial accounts receivables, with limited recourse, in amounts up to \$75 million. At December 31, 1995, \$34 million of accounts receivable had been sold.

Accounts receivable at December 31, 1996, are expected to be collected in 1997 except for approximately \$255 million due in 1998 and \$188 million due in 1999 and later. These amounts principally relate to long-term contracts with the U.S. Government.

Allowances for doubtful amounts represent mainly estimates of overhead type costs which may not be successfully negotiated and collected.

Accounts receivable were comprised of the following:

<pre>\$ in millions Due from U.S. Government, long-term contracts</pre>	1996	1995
Current accounts Billed Unbilled Progress payments received Net current accounts Due upon contract completion	\$ 458 3,493 (2,721) 1,230 2	1,154 9
Due from other customers, long-term contracts Current accounts	1,232	1,163
Billed	78	14
Unbilled	47	50
	125	64
Total due, long-term contracts Trade and other accounts receivable	1,357	1,227
Due from U.S. Government	75	61
Due from other customers	76	65
Total due, trade and other	151 1,508	126 1,353
Allowances for doubtful amounts	(55) \$ 1,453	(68) \$ 1,285

INVENTORIED COSTS

Inventoried costs were comprised of the following:

\$ in millions	1996	1995
Production costs of contracts in process	\$ 1,169	\$ 924
Excess of production cost of delivered items		
over the estimated average unit cost	105	85
Administrative and general expenses	199	166
	1,473	1,175
Progress payments received	(533)	(428)
	940	747
Product inventories - at the lower of		
average cost or market	113	24
	\$ 1,053	\$ 771

Inventoried costs relate to long-term contracts in process and include expenditures for raw materials and work in process beyond what is required for recorded orders. These expenditures are incurred to help maintain stable and efficient production schedules. The excess of production costs of delivered and in process items over the estimated average costs is carried in inventory under the learning curve concept. Under this concept, production costs per unit are expected to decrease over time due to efficiencies arising from continuous improvement in the performance of repetitive tasks. However, no material amount representing claims, unamortized tooling or other deferred costs is included in inventoried costs.

The ratio of inventoried administrative and general expenses to total inventoried costs is estimated to be the same as the ratio of total administrative and general expenses incurred to total contract costs incurred.

According to the provisions of U.S. Government contracts, the customer has title to, or a security interest in, substantially all inventories related to such contracts.

INCOME TAXES

Income tax expense, both federal and foreign (which arises primarily from work performed abroad by domestic operations), was comprised of the following:

<pre>\$ in millions</pre>	1996	1995	1994
Currently payable			
Federal income taxes	\$ 60	\$ 89	\$ 74
Foreign income taxes	2	1	1
	62	90	75
Change in deferred federal income taxes	106	81	(35)
	\$ 168	\$ 171	\$ 40

Income tax expense differs from the amount computed by multiplying the statutory federal income tax rate times the income before income taxes due to the following:

<pre>\$ in millions</pre>	1996	1995	1994
Income tax expense at statutory rate	\$ 151	\$ 157	\$ 33
Goodwill amortization	16	13	9
Provision for nondeductible expenses	4	4	4
Benefit from ESOP dividends	(3)	(3)	(4)
Dividend exclusion			(2)
	\$ 168	\$ 171	\$ 40

Deferred income taxes arise because of differences in the treatment of income and expense items for financial reporting and income tax purposes. The principal type of temporary difference stems from the recognition of income on contracts being reported under different methods for tax purposes than for financial reporting.

The tax effects of significant temporary differences and carryforwards that gave rise to year-end deferred federal and state tax balances, as categorized in the Consolidated Statements of Financial Position, were as follows:

\$ in millions Deferred tax assets		1996	1995
Deductible temporary differences Retiree benefit plan expense Provision for estimated expenses Income on contracts Other	\$	602 79 49 41 771	\$ 421 25 14 36 496
Taxable temporary differences Purchased intangibles Excess tax over book depreciation Retiree benefit plan income(expenses) Administrative and general expenses period		(110) (64)	(124) (71) (18)
costed for tax purposes	\$	(174) 597	\$ (2) (215) 281
Deferred tax liabilities Taxable temporary differences			
Income on contracts Administrative and general expenses	\$	873	\$ 799
period costed for tax purposes Retiree benefit plan income(expense) Excess tax over book depreciation Other		1 1 9 14	1 (7) 1 16
Deductible temporary differences		898	810
Provision for estimated expenses Retiree benefit plan expense		(86) (1) (87)	(121) (2) (123)
Tax carryforwards Tax credits Alternative minimum tax credit		(39) (90) (129)	(102) (90) (192)
Not deferred to liebility	\$	`682´	\$ `495´
Net deferred tax liability Total deferred tax liabilities (taxable temporary differences above)	\$:	1,072	\$ 1,025
Less total deferred tax assets (deductible temporary differences and tax carryforwards a	bove)	987 85	\$ 811 214

The tax carryforward benefits are expected to be used in the periods in which net deferred tax liabilities mature. The expiration dates for these tax credit carryforwards are in various amounts over the years 1997 through 2007. The alternative minimum tax credit can be carried forward indefinitely.

NOTES PAYABLE TO BANKS AND LONG-TERM DEBT

The company has available short-term credit lines in the form of money market facilities with several banks. The amount and conditions for borrowing under these credit lines depend on the availability and terms prevailing in the marketplace. No fees or compensating balances are required for these credit facilities. At December 31, 1996, \$226 million was outstanding at a weighted average interest rate of 6.44 percent. At December 31, 1995, \$65 million was outstanding at a weighted average interest rate of 6.15 percent. At December 31, 1994, \$171 million was outstanding at a weighted average interest rate of 7 percent.

Additionally, the company has a credit agreement with a group of domestic and foreign banks to provide for three credit facilities: \$1.8 billion available on a revolving credit basis through March 2002; a variable interest rate \$500 million two-year term loan due March 1, 1998, that was repaid in July 1996; and a variable interest rate \$1.5 billion six-year term loan due in 24 quarterly installments of \$62.5 million plus interest beginning June 1996. Effective November 1, 1996, the Credit Agreement was further amended to reduce the \$1.5 billion term loan to \$1.05 billion payable in 21 quarterly installments of \$50 million plus interest beginning March 1, 1997. The company pays, at least quarterly, interest on the outstanding debt under the Credit Agreement at rates that vary based in part on the company's credit rating and leverage ratio. At December 31, 1996, \$1.05 billion under the term loan was outstanding at a weighted average interest rate of 5.97 percent. Principal payments permanently reduce the amount available under this agreement as well as the debt outstanding.

At December 31, 1996, \$500 million at a weighted average interest rate of 5.79 percent was outstanding under the company's revolving credit facility. In 1995 there were no borrowings under the company's revolving credit facility. Under these agreements, in the event of a "change in control," the banks are relieved of their commitments. Compensating balances are not required under these agreements.

The company's credit agreements contain restrictions relating to the payment of dividends, acquisition of the company's stock, aggregate indebtedness for borrowed money and interest coverage. At December 31, 1996, \$326 million of retained earnings were unrestricted as to the payment of dividends. Total indebtedness for all types of borrowed money is limited under the company's credit agreement covenants. At December 31, 1996, indebtedness was limited to \$7.4 billion.

Long-term debt consisted of the following:

\$ in millions	1996	1995
Notes due 1999, 8.4%	\$	\$ 143
Notes due 2004, 8.625%	350	350
Notes due 2006, 7%	400	
Debentures due 2016, 7.75%	300	
Debentures due 2024, 9.375%	250	250
Debentures due 2026, 7.875%	300	
Mortgages		1
Revolving credit facility	500	
Term loans payable to banks due in quarterly		
installments through 2002 at floating rates	1,050	563
	3,150	1,307
Less current portion	200	144
·	\$ 2,950	\$ 1,163

During the first quarter of 1996 the company sold to institutional investors \$400 million of 7 percent notes due 2006, \$300 million of 7 3/4 percent debentures due 2016 and \$300 million of 7 7/8 percent debentures due 2026. The proceeds from this issuance were used to finance a portion of the purchase price of ESG. The debt indenture contains restrictions relating to limitations on liens, sale and leaseback arrangements and funded debt of subsidiaries.

In November 1995 the notes due in 1999 were called for redemption at face value, on January 2, 1996. The December 31, 1995 balance of \$143 million was classified as current. The debentures due in 2024 are callable after October 15, 2004 at a premium of 4 percent declining to par after 2013.

The principal amount of long-term debt outstanding at December 31, 1996, due in each of the years 1997 through 2001 is \$200 million with \$2,150 million due after five years.

FAIR VALUE OF FINANCIAL INSTRUMENTS

The following methods and assumptions were used by the company in estimating its fair value disclosures for financial instruments:

The carrying amount reported in the Consolidated Statements of Financial Position for Cash and Cash Equivalents, Accounts Receivable and amounts borrowed under the company's short-term credit lines approximate their fair value.

The fair value of the long-term debt was calculated based on interest rates available for debt with terms and due dates similar to the company's existing debt arrangements.

The company has limited involvement with derivative financial instruments and does not use them for trading purposes. To mitigate the variable rate characteristic of the term loans, the company entered into interest rate swap agreements maturing at various dates through May 1999 with several banks resulting in a fixed interest rate of 6.23 percent on a notional amount of \$425 million at December 31, 1996. Unrealized gain(loss) on interest rate swap agreements are calculated based upon the amounts at which they could be settled at current interest rates. The market gain(loss) on interest rate swaps was \$(1) million, \$(7) million and \$7 million at December 31, 1996, 1995 and 1994 respectively. The institutions have options to extend \$200 million of the swaps through May 1998. The company expects the banks to fully satisfy their obligations under the arrangements.

Carrying amounts and the related estimated fair values of the company's financial instruments at December 31 of each year are as follows:

<pre>\$ in millions</pre>	1996	1995
Long-term debt Carrying amount Fair value	\$ 3,150 3,221	\$ 1,307 1,405
Interest rate swap agreements Notional amount Gains(losses)	425 (1)	300 (7)

RETIREMENT BENEFITS

The company sponsors several defined-benefit pension plans covering substantially all employees. Pension benefits for most employees are based on the employee's years of service and compensation during the last ten years before retirement. It is the policy of the company to fund at least the minimum amount required for all qualified plans, using actuarial cost methods and assumptions acceptable under U.S. Government regulations, by making payments into a trust separate from the company. Five of the company's fifteen qualified plans which cover over 80 percent of all employees, were in a legally defined full-funding limitation status at December 31, 1996. To protect the assets in the master trust from a "change in control" the trust agreement and the Northrop Grumman Pension Plan were appropriately amended during 1991.

The company and subsidiaries also sponsor defined-contribution plans in which most employees are eligible to participate. Company contributions, up to 4 percent of compensation, are based on a matching of employee contributions.

In addition, the company and its subsidiaries provide certain health care and life insurance benefits for retired employees. Employees achieve eligibility to participate in these contributory plans upon retirement from active service and if they meet specified age and years of service requirements. Election to participate must be made at the date of retirement. Qualifying dependents are also eligible for medical coverage. Approximately 85 percent of the company's current retirees participate in the medical plans. The cost and funded status for the medical and life benefits are combined in the tables that follow because (1) life benefits constitute an insignificant amount of the combined cost, and (2) for those plans with assets, the assets in trust for each plan can be used to pay benefits under either plan. Plan documents reserve the company's right to amend or terminate the plans at any time. Premiums charged retirees for medical coverage are based on years of service and are adjusted annually for changes in the cost of the plans as determined by an independent actuary. In addition to this medical inflation cost-sharing feature, the plans also have provisions for deductibles, copayments, coinsurance percentages, out-of-pocket limits, schedule of reasonable fees, managed care providers, maintenance of benefits with other plans, Medicare carve-out and a maximum lifetime benefit of from \$250,000 to \$1,000,000 per covered individual. It is the policy of the company to fund the maximum amount deductible for income taxes into the VEBA trust established for the Northrop Retiree Health Care Plan for Retired Employees for payment of benefits

The cost to the company of these plans in each of the last three years is shown in the following table.

\$ in millions		1996		1995		1994
Defined benefit pension plans						
Actual return on assets	\$(:	L,379)	\$(1	1,856)	\$	25
Deferral of actual return on assets		618		1,233		(541)
Expected return on assets		(761)		(623)		(516)
Service cost		174		125		176
Interest cost		570		520		372
Amortization of unrecognized items						
Transition asset, net		(42)		(42)		(42)
Prior service costs		41		31		14
Net gain from previous years	_	(21)	_	(34)	_	(40)
Net periodic pension income	\$	(39)	\$	(23)	\$	(36)
Defined-contribution plans	\$	84	\$	63	\$	66
Retiree health care and life insurance benefit p	lans					
Actual return on assets	\$	(60)	\$	(95)	\$	22
Deferral of actual return on assets		38		76		(42)
Expected return on assets		(22)		(19)		(20)
Service cost		27		20		28
Interest cost		91		89		61
Amortization of unrecognized						
gain from previous years		(5)		(3)		(2)
Excess dependent cost Net periodic postretirement benefit cost	\$	91	\$	87	\$	2 69

In addition to the net periodic pension income and postretirement benefit cost, in 1994 the company recognized the effect of an early retirement incentive program of \$250 million for pension and \$32 million for postretirement benefits. The total \$282 million effect on the company's 1994 operating margin is shown in the Consolidated Statements of Income under the caption Special Termination Benefits.

Major assumptions as of each year-end used in the accounting for the defined-benefit plans are shown in the following table. Pension cost is determined using all three factors as of the end of the preceding year, whereas the funded status of the plans, shown later, uses only the first two factors, as of the end of each year.

	1996	1995	1994
Discount rate for obligations	7.50%	7.00%	8.25%
Rate of increase for compensation	4.50	5.00	5.25
Expected long-term rate of return			
on plan assets	9.00	9.00	8.75

These assumptions were also used in retiree health care and life insurance benefit calculations with one modification. Since, unlike the pension trust, the earnings of the VEBA trust are taxable, the above 9 percent expected rate of return on plan assets was reduced accordingly to 5.25 percent after taxes. A significant factor used in estimating future per capita cost, for the company and its retirees, of covered health care benefits is the health care cost trend rate assumption. The rate used was 7 percent for 1996 and is assumed to decrease gradually to 6 percent for 2006 and remain at that level thereafter. An additional one-percentage-point of increase each year in that rate would result in a \$12 million annual increase in the aggregate of the service and interest cost components of net periodic postretirement benefit cost, and a \$111 million increase in the accumulated postretirement benefit obligation at December 31, 1996.

The following tables set forth the funded status and amounts recognized in the Consolidated Statements of Financial Position at each year-end for the company's defined-benefit pension and retiree health care and life insurance benefit plans. The summary showing pension plans whose accumulated benefits are in excess of assets at December 31, 1996, is comprised of seven qualified plans along with twelve unfunded nonqualified plans for benefits provided to directors, officers and employees either beyond those provided by, or payable under, the company's main plans.

The company revised its estimate of the discount rate for obligations and rate of increase for compensation assumptions in calculating the funded status of the plans at December 31, 1996. The changes resulted in a \$483 million decrease in the projected benefit obligation for pension plans and a \$59 million decrease in the accumulated postretirement benefit obligation.

<pre>\$ in millions Pension plans whose assets exceed accumulated benefits</pre>		1996		1995
Actuarial present value of benefit obligations				
Vested benefits	\$	6,255	\$	6,572
Nonvested benefits	Ψ	328	Ψ	320
Accumulated benefit obligations		6,583		6,892
Effect of assumed salary rate increases		391		469
Projected benefit obligations		6,974		7,361
Less market value of plan assets		9,184		8,319
Excess of assets over projected benefit obligations		2,210)		(958)
Unrecognized items	`	_,,		(555)
Net transition asset		247		289
Prior service costs		(248)		(286)
Net gain		2,067		921
Accrued retiree benefits pension asset included in		,		
Consolidated Statements of Financial Position	\$	(144)	\$	(34)
Pension plans whose accumulated benefits exceed assets		,		` ,
Actuarial present value of benefit obligations				
Vested benefits	\$	839	\$	311
Nonvested benefits		51		8
Accumulated benefit obligations		890		319
Effect of assumed salary rate increases		145		15
Projected benefit obligations		1,035		334
Less market value of plan assets		436		177
Excess of projected benefit obligations over assets		599		157
Unrecognized items				
Net transition obligation		(3)		(3)
Prior service costs		(16)		(5)
Net gain(loss)		(10)		(31)
Additional minimum liability		22		29
Accrued retiree benefits liability included in				
Consolidated Statements of Financial Position	\$	592	\$	147

Pension plan assets at December 31, 1996, were comprised of 49 percent domestic equity type investments in listed companies (including 4 percent in Northrop Grumman common stock), 17 percent equity investments listed on international exchanges, 27 percent in fixed income type investments, principally U.S. Government securities, 3 percent in venture capital and real estate investments, and 4 percent in cash. The investment in Northrop Grumman represents 4,798,523 shares, or seven percent of the company's total shares outstanding.

Effective January 1, 1995, the company adopted amendments to two of the company's retirement plans to cap the maximum years of service credit that an employee can earn and adjusted the amount of service credit earned each year. The effect of these changes was to increase the projected benefit obligation at December 31, 1994 by \$210 million.

\$ in millions		1996	1995
Retiree health care and life insurance benefit plans			
Accumulated postretirement benefit obligation (APBO)			
Retirees	\$	841	\$ 960
Fully eligible active employees		81	88
Active employees not yet eligible		383	288
	:	1,305	1,336
Less market value of plan assets		468	433
Excess of APBO over assets		837	903
Unrecognized items			
Prior service cost		(2)	(1)
Net gain(loss)		191	(15)
Accrued retiree benefits liability included in			
Consolidated Statements of Financial Position	\$:	1,026	\$ 887

Retiree health care and life insurance plan assets at December 31, 1996, were almost entirely comprised of equity type investments in listed companies.

CONTINGENCIES

The corporation and its subsidiaries have been named as defendants in various legal actions. Based upon available information, it is the company's expectation that those actions are either without merit or will have no material adverse effect on the company's results of operations or financial position.

In accordance with company policy on environmental remediation, the estimated cost to complete remediation has been accrued where it is probable that the company will incur such costs in the future, including those for which it has been named a Potentially Responsible Party by the Environmental Protection Agency or similarly designated by other environmental agencies. To assess the potential impact on the company's financial statements, management estimates the total reasonably possible remediation costs that could be incurred by the company, taking into account currently available facts on each site as well as the current state of technology and prior experience in remediating contaminated sites. These estimates are reviewed periodically and adjusted to reflect changes in facts and technical and legal circumstances. Management estimates that at December 31, 1996, the reasonable range of future costs for environmental remediation, including those sites acquired in the purchase of ESG, is \$63 million to \$107 million, of which \$64 million has been accrued. Although management cannot predict whether new information gained as projects progress will materially affect the estimated liability accrued, management does not anticipate that future remediation expenditures will have a material adverse effect on the company's results of operations or financial position.

Minimum rental commitments under long-term noncancellable operating leases total \$340 million which is payable as follows: 1997 - \$82 million, 1998 - \$59 million, 1999 - \$49 million, 2000 - \$38 million, and 2001 - \$29 million, and 2002 and thereafter - \$83 million.

STOCK RIGHTS

The company has a Common Stock Purchase Rights plan with one right issued in tandem with each share of common stock. The rights will become exercisable on the tenth business day after a person or group has acquired 15 percent or more of the general voting power of the company, or announces an intention to make a tender offer for 30 percent or more of such voting power, without the prior consent of the Board of Directors. If the rights become exercisable, a holder will be entitled to purchase one share of common stock from the company at an initial exercise price of \$105.

If a person acquires more than 15 percent of the then outstanding voting power of the company or if the company is combined with an acquiror, each right will entitle its holder to receive, upon exercise, shares of the company's or the acquiror's (depending upon which is the surviving company) common stock having a value equal to two times the exercise price of the right.

The company will be entitled to redeem the rights at \$.02 per right at any time prior to the earlier of the date that a person has acquired or obtained the right to acquire 15 percent of the general voting power of the company or the expiration of the rights in October 1998. The rights are not exercisable until after the date on which the company's prerogative to redeem the rights has expired. The rights do not have voting or dividend privilege and cannot be traded independently from the company's common stock until such time as they become exercisable. The rights do not and will not become exercisable because of the Lockheed Martin transaction.

STOCK COMPENSATION PLANS

At December 31, 1996, Northrop Grumman had two stock-based compensation plans -- the 1993 Long-Term Incentive Stock Plan (LTISP) applicable to employees and the 1995 Stock Option Plan for Non-Employee Directors (SOPND) and Logicon had two stock-based compensation plans -- the 1992 Employee Incentive Stock Option Plan (LEISOP) and the 1991 Stock Option Plan for Non-Employee Directors (LSOPND). Each unexercised option granted under the Logicon stock-based compensation plans was converted to .6161 options for the company's common stock and the option price was adjusted accordingly. Under terms of the merger agreement between the company and Logicon, substantially all of the approximately 300,000 unexercised options (in Northrop Grumman shares) granted under the Logicon plans, became vested and exercisable upon consummation of the merger.

The LTISP permits grants to key employees of three general types of stock incentive awards: stock options, stock appreciation rights (SARs) and stock awards. With shareholder approval of this plan and subsequent amendment, a total of 4.1 million additional shares were made available for future grants. Up to 1.8 million of these shares may be in the form of stock awards. At December 31, 1996, 227,062 shares remained available for future grants under the LTISP. Under the LTISP each grant of a stock option is made at the closing market price on the date of grant. Options generally vest in 25 percent increments, two, three, four and five years from the grant date and expire ten years after the grant date. No SARs have been granted under the LTISP. Stock awards, in the form of restricted performance stock rights, are granted to key employees without payment to the company. Recipients of the rights earn shares of stock based on a total-shareholder-return measure of performance over a five-year period with interim distributions three and four years after grant. If at the end of the five-year period the performance objectives have not been met, up to 70 percent of the original grant will be forfeited. Termination of employment can result in forfeiture of some or all of the benefits extended under the plan.

The shareholder approval of the SOPND in 1995 made available 300,000 shares for grants of stock options to nonemployee directors. Each grant of a stock option is made at the closing market price on the date of the grant, is immediately exercisable and expires ten years after the grant date. At December 31, 1996, 289,500 shares were available for future grants under the SOPND.

The LEISOP provided for grants of options to key employees to purchase shares of the company's common stock at prices not less than market value at date of grant. The exercise period is 10 years or less from the date of the grant of the option.

The LSOPND provided the ability to grant non-employee directors options to purchase common stock of the company. Options were granted according to a formula contained in the LSOPND at prices not less than the fair market value at date of grant and expire five years from the date of grant.

The company applies Accounting Principles Board Opinion 25 - Accounting for Stock Issued to Employees and related Interpretations in accounting for awards made under the plans. When stock options are exercised, the amount of the cash proceeds to the company is recorded as an increase to paid-in capital. No compensation expense is recognized in connection with stock options. Compensation expense for restricted performance stock rights is estimated and accrued over the vesting period. The fixed 30 percent minimum distribution portion is recorded at grant value and the variable portion is recorded at market value. Compensation expense recognized for stock awards was \$25 million in 1996, \$4 million in 1995 and \$4 million in 1994.

Stock option activity for the last three years is summarized below:

	Shares Under Option	Weighted- Average Exercise Prices	Shares Exercisable
Outstanding at January 1, 1994	2,776,278	\$ 22	1,019,731
Granted	820,830	40	
Cancelled	(198,581)	14	
Exercised	(269,989)	25	
Outstanding at December 31, 1994	3,128,538	27	1,114,703
Granted	899,757	53	
Cancelled	(418, 365)	15	
Exercised	(180,249)	22	
Outstanding at December 31, 1995	3,429,681	35	1,212,290
Granted	1,048,640	76	
Cancelled	(190,041)	31	
Exercised	(261,008)	28	
Outstanding at December 31, 1996	4,027,272	47	1,384,026

Had compensation expense been determined based on the fair value at the grant dates for stock option awards granted in 1996 and 1995, consistent with the method of Financial Accounting Standards Board Statement 123 - Accounting for Stock Based Compensation, net income and earnings per share in 1996 would have been lower by \$2 million and three cents, respectively. For 1995 net income would have been unchanged and earnings per share would have been lower by one cent. These amounts were determined using weighted-average per share fair values of options granted in 1996 and 1995 of \$24 and \$17, respectively. The fair value of each option grant was estimated on the date of grant using the Black-Scholes option-pricing model based on an expected life of six years and for 1996 and 1995, respectively, the following additional assumptions: dividend yield - 2.1% and 2.8%; expected volatility - 28% and 31%; and risk-free interest rate - 6.2% and 5.8%.

At December 31, 1996, the following stock options were outstanding:

Options Outstanding

Weighted-	Weighted-		Weighted-
•	-	Number	ŭ
Average	Average	Number	Average

Options Exercisable

Range of Exercise Prices	Number Outstanding at 12/31/96	Average Remaining Contractual Life	Average Exercise Prices	Number Exercisable at 12/31/96	Average Exercise Prices
\$12 to 25 26 to 40 41 to 55 56 to 70	834,119 785,794 749,002 796,557	2.7 years 6.0 years 7.4 years 8.8 years	44 58	741,558 442,142 192,819 7,507	\$ 18 30 44 57
71 to 81	861,800 4,027,272	10.0 years	81	1,384,026	

Restricted performance stock rights were granted with weighted-average grant-date fair values per share as follows: 1996 - 802,800 at \$81; 1995 - 22,660 at \$53; and 1994 - 141,540 at \$43.

UNAUDITED SELECTED QUARTERLY DATA

Quarterly financial results are set forth in the following tables together with dividend and common stock price data.

1996 Quarters, \$ in millions, except per share	4	3	2	1
Net sales	\$ 2,413	\$ 2,172	\$2,291	\$ 1,731
Operating margin	159	176	219	149
Net income	24	78	94	68
Earnings per share	. 38	1.18	1.58	1.17
Dividend per share	. 40	. 40	. 40	. 40
Stock price:				
High	84 1/4	80 1/4	69 1/4	67 3/8
Low	76 3/8	63 3/4	57 3/4	58 3/8

The fourth quarter of 1996 includes a \$90 million pretax charge related to the closure of four plants. The charge included \$30 million for costs related to the reduction of personnel and other closure activities and \$60 million for the write-down of facilities. The sale of shares owned by the company in ETEC Systems, Inc. generated pretax gains of \$10 million, \$6 million and \$12 million in the fourth, third and second quarters, respectively. The first quarter includes a \$25 million charge related to nacelles work the company performed for Fokker Aircraft N.V., which declared bankruptcy in March 1996.

The sum of quarterly earnings per share for 1996 does not equal earnings per share for the year because the average number of common shares outstanding for the second half of 1996 was disproportionately higher than the full year average due to the issuance in June of approximately 8 million shares of common stock in a public stock offering.

Operating margin 130 139 175 130 Net income 65 67 85 65 Earnings per share 1.12 1.16 1.47 1.0 Dividend per share .40 .40 .40 .40 Stock price: .41/4 62 5/8 54 49 3	1995 Quarters, \$ in millions, except per share	4	3	2	1
Low 56 51 7/8 47 39 3.	Operating margin Net income Earnings per share Dividend per share Stock price: High	130 65 1.12 .40	139 67 1.16 .40	175 85 1.47 .40	\$ 1,725 128 60 1.04 .40 49 3/4 39 3/4

The operating margin in the second quarter of 1995 benefited from a net \$34 million in cumulative operating margin adjustments. Positive adjustments on the B-2 stealth bomber and C-17 military transport programs were partially offset by a downward adjustment on the Boeing 747 jetliner program. The 747 adjustment reflected cost increases related to the stretch-out of the current production contract. The B-2 adjustment was made as a result of negotiated contract adjustments and a revised estimate of the overall operating margin expected to be earned on the B-2 production contract. The positive adjustment on the C-17 reflected improved operating performance on this program.

Management's Discussion and Analysis of the Company's Restated Financial Condition and Results of Operations

BUSINESS CONDITIONS

Northrop Grumman's three industry segments - aircraft, electronics, and information technology and services - are each a factor in the broadly defined aerospace industry. While Northrop Grumman is subject to the usual vagaries of the marketplace, it is also affected by the unique characteristics of the aerospace industry and by certain elements peculiar to its own business mix.

Northrop Grumman is one of the major companies that compete for the relatively small number of large, long-term programs that characterize both the defense and commercial segments of the aerospace business. It is common in the aerospace industry for work on major programs to be shared between a number of companies. A company competing to be a prime contractor can turn out to be a subcontractor. It is not uncommon to compete with customers, and simultaneously to be both a supplier to and customer of a given competitor. Over the past several years the aerospace industry has been going through a consolidation process and along with it, significant downsizing. These actions, in which Northrop Grumman has participated, have made competition even more intense than in the past. The nature of major aerospace programs, conducted under binding contracts, allows companies that perform well to benefit from a level of program continuity unknown in many industries. Lockheed Martin and The Boeing Company are the largest companies in the aerospace industry at this time. Northrop Grumman also competes against these and other companies for a number of large and smaller programs in the electronics and systems integration areas. Thus, long operating cycles are characteristic of the industry's - and Northrop Grumman's - business.

Effective August 1, 1997, the company consummated its merger with Logicon, Inc., (Logicon) a leading defense information technology company. The merger is accounted for as a pooling of interests. Accordingly, the accompanying restated financial statements have been retroactively restated for the merger with Logicon. The results of Logicon are included in the information technology and services industry segment along with similar Northrop Grumman business which previously had been classified in the aircraft and electronics industry segments.

In the first quarter of 1996 Northrop Grumman acquired the defense and electronics systems business (ESG) of Westinghouse Electric Corporation at a cost of \$2.9 billion. The business acquired is being operated as a component of the electronics industry segment. The company purchased the outstanding common stock of Grumman Corporation (Grumman) for \$2.1 billion in the second quarter of 1994. Northrop Corporation was renamed Northrop Grumman Corporation effective May 18, 1994. In August 1994 the company purchased the remaining 51 percent interest in Vought Aircraft Company (Vought) for \$130 million. The company had purchased a 49 percent interest in Vought in 1992. The company also acquired two defense Information Technology and Services and services companies: Geodynamics Corporation (Geodynamics) in March 1996 for \$32 million and Syscon Corporation (Syscon) in February 1995 for \$45 million.

The B-2 bomber, for which the company is the prime contractor, is Northrop Grumman's largest program. The aircraft segment is responsible for final assembly of the B-2's airframe and systems integration at its Palmdale, California facility. The company also manufactures the fuselage and elements of the B-2's navigation and electronic warfare/situation awareness system. Major subcontractors include Boeing, which produces the aft center section, outboard wing sections, landing gear and fuel system, and Hughes Electronics Corporation, which produces the radar systems. The U. S. Air Force currently plans to operate two B-2 bomber squadrons of eight aircraft each with an additional five aircraft available to fill in for those in depot for periodic maintenance.

The company also is the principal subcontractor to The Boeing Company (formerly McDonnell Douglas) on the F/A-18 program. The F/A-18 is a fighter/ground-attack aircraft with configurations equipped for either one or two crew members. Principally deployed by the U.S. Navy on aircraft carriers, it has also been purchased by several other nations as a land-based combat aircraft. The company builds approximately 40 percent of the aircraft including the center and aft fuselage, vertical tails, and associated subsystems. Of the versions of the F/A-18 currently in production, the C is a single-seat combat aircraft that was first delivered to the U.S. Navy in 1987 and the D is a two-seat version principally used for training. The F/A-18 single-seat E and two-seat F are enhanced versions currently in the test phase of development and will serve as the U.S. Navy's next-generation multimission aircraft.

The company manufactures portions of the Boeing 747, 757, 767 and 777 jetliners, the Gulfstream IV and V business jets, and the Boeing (formerly McDonnell Douglas) C-17 military transport. Northrop Grumman has been a principal airframe subcontractor for the Boeing 747 jetliner since the program began in 1966, producing the fuselage and aft body section for the 747 as well as cargo and passenger doors, the vertical and horizontal body stabilizers, floor beams and smaller structural components. The majority of the Boeing jetliner work is performed at the aircraft segment's production sites in Hawthorne, California; Grand Prairie, Texas; and Stuart, Florida. Northrop Grumman manufactures engine nacelles for the Gulfstream IV and other business jets and has begun production of the wings for Gulfstream's newest business jet, the Gulfstream V. The company also produces the empennage, engine nacelles and control surfaces for the C-17, the U.S. Air Force's most advanced airlifter. The work performed on the C-17, Gulfstream IV and V, 757, 767, 777 and some of the components of the 747 were added as a result of the Grumman and Vought acquisitions.

Northrop Grumman also is a major producer of early warning and surveillance/battle management aircraft. The company designed and built all-weather E-2C Hawkeye airborne early warning command-and-control aircraft that has been in active service with the U.S. Navy since 1973, also is employed by the air forces of five other nations. The E-2C is produced by the company's electronics segment.

The company also serves as prime contractor for the E-8 Joint Surveillance Target Attack Radar System (Joint STARS). Joint STARS detects, locates, classifies, tracks and targets potentially hostile ground movement in all weather conditions. It is designed to operate around the clock, in constant communication through secure data links with air force command posts, army mobile ground stations or centers of military analysis far from the point of conflict. The Joint STARS platform is a remanufactured Boeing 707-300 airframe. The 707 is remanufactured at Northrop Grumman's Lake Charles, Louisiana site. Final installation of electronics and testing are performed at the electronics segment integration and test facility in Melbourne, Florida.

ECM denotes electronic countermeasures equipment manufactured by the company's electronics segment. The company's Rolling Meadows, Illinois site produces the AN/ALQ-135, currently the largest program in this business area. The AN/ALQ-135 is an internally mounted radar jammer deployed on F-15 fighter aircraft as part of that aircraft's Tactical Electronic Warfare System. The AN/ALQ-162 Shadowbox, a jammer built specifically to counter continuous wave radars, has been installed on the AV-8B and certain foreign F/A-18 aircraft. It is also being deployed on U.S. Army helicopters and special mission aircraft and has been sold to the air forces of three other nations. The company is also under contract to develop and produce a directional infrared countermeasures (DIRCM) system for the United Kingdom and the U.S. Special Operations Command slated for use on British helicopters, transports, and U.S. Special Operations Command C-130 transports to reduce vulnerability to heatseeking missiles. DIRCM is designed to provide high-powered jamming required to counter more advanced seekers expected in the twenty-first century. The company's Baltimore, Maryland site produces the Airborne Self-Protection Jammer (ASPJ) in a joint venture with ITT-Avionics. The ASPJ is an internally mounted system that protects tactical aircraft against numerous radar guided threats. It is currently installed on selected F/A-18 and F-14 aircraft.

Northrop Grumman as the prime contractor to the U.S. Army is developing a "brilliant" anti-armor submunition, designated as BAT, with production scheduled to commence in 1998. BAT is a three-footlong, 44 pound, wide-area-attack submunition that will be used to disable and destroy armored vehicles and trucks. BATs are meant to be carried and dispensed by a larger missile and designed to be ejected over an armored vehicle column or attacking formation. Each BAT has an acoustic sensor that can home in on the noise created by the tank's or truck's engine and an infrared sensor that can home in on the heat generated by a vehicle's engine.

The company's electronics segment is a major producer of airborne radar systems. Included in this business area are the AN/APG-66 and AN/APG-68 fire control radars for the F-16 aircraft of which more than 6,000 have been produced since 1976. The AN/APG-66 is presently on 16 airborne platforms and is deployed in 20 countries. Northrop Grumman is currently leading a joint venture with Raytheon (formerly Texas Instruments) to develop the AN/APG-77 radar for the F-22 aircraft. The AN/APG-77 is designed for air-superiority and strike operations and features a low observable, active aperture, electronically-scanned array with multi-target all-weather capability. The company's electronics segment also produces the AN/APY-1/2 surveillance radar system which provides air-to-air surveillance capability for the E-3 Airborne Warning And Control System (AWACS). AWACS is designed to detect and track both enemy and friendly aircraft throughout a large volume of airspace.

The company is a leader in producing marine machinery and advanced propulsion systems, missile launchers, shipboard instrumentation and control systems, mine countermeasures and undersea vehicles. Every Nimitz-class aircraft carrier is fitted with eight turbine generator sets that are produced at the electronics segment Sunnyvale, California site. Each shipset of these powerful generators develops enough power to supply a city of 75,000 people. The company also produces the main propulsion system for the Navy's Seawolf-class attack submarines.

In addition, the company produces air defense and air traffic control radar systems for airspace management for both domestic and foreign customers. The three-dimensional AN/TPS-70/75 radars and predecessor AN/TPS-43 are among the products in this business area. They have been the U.S. Air Force air defense system standard since 1968. They are currently in operation in more than 30 countries, supporting air defense, air sovereignty, air traffic control and counternarcotics needs. The ASR-9 Terminal Radar detects and displays aircraft and weather simultaneously, helping air traffic controllers guide aircraft through the crowded skies surrounding airports.

Northrop Grumman designs, develops, operates and supports computer systems for scientific and management information. This business is included in the information technology and services segment. Services provided include systems integration, systems service, information conversion and training for federal, state and local governments and private industry. The company also provides military base support functions and aircraft maintenance at a number of U.S. Government facilities. Logicon, included in the information technology and services segment, provides advanced technology systems and services to support national security, civil and industrial needs in the following areas: communications and intelligence; weapon systems; information systems; training and simulation; science and technology. Contracts with the U.S. government account for substantially all of Logicon's revenues.

Tables of contract acquisitions, net sales and funded order backlog follow and complement industry segment data. The reporting of industry segment data has been realigned based upon the company's current mix of products. Operating results for aircraft services programs previously included in the aircraft segment are now included in the information technology and services segment. Information services business formerly included in the electronics segment has been included in the information technology and services segment as has all of the Logicon business. All of the operations of ESG are included in the electronics industry segment. Data for prior years has been restated. B-2, F/A-18, Boeing Jetliners (the 747, 757, 767 and 777) and C-17 are currently the major programs of the aircraft industry segment. Surveillance Aircraft (the E-2C Hawkeye and E-8 Joint STARS), ECM, Airborne Radar, Marine, Space and Airspace Management are included in the electronics industry segment.

Individual companies prosper in the competitive aerospace/defense environment according to their ability to develop and market their products. They also must have the ability to provide the people, facilities, equipment and financial capacity needed to deliver those products with maximum efficiency. It is necessary to maintain, as the company has, sources for raw materials, fabricated parts, electronic components and major subassemblies. In this manufacturing and systems integration environment, effective oversight of subcontractors and suppliers is as vital to success as managing internal operations. Northrop Grumman's operating policies are designed to enhance these capabilities. The company also believes that it maintains good relations with its employees, approximately 12 percent of whom are covered by collective bargaining agreements.

U.S. Government programs in which Northrop Grumman either participates, or strives to participate, must compete with other programs for consideration during our nation's budget formulation and appropriation processes. As a consequence of the continued pressure to reduce the federal budget deficit, the U.S. defense budget is not expected to increase substantially in the near term. Budget decisions made in this environment will have long-term consequences for the size and structure of Northrop Grumman and the entire defense industry. An important factor in determining Northrop Grumman's ability to compete successfully for future contracts will be its cost structure vis-a-vis other bidders.

Although the ultimate size of future defense budgets remains uncertain, the defense needs of the nation are expected to provide substantial research and development (R&D) funding and other business for the company to pursue well into the future.

Northrop Grumman has historically concentrated its efforts in such high technology areas as stealth, airborne surveillance, battle management, precision weapons and systems integration. Even though a high priority has been assigned by the Department of Defense to the company's major programs, there remains the possibility that one or more of them may be reduced, stretched or terminated.

Business conditions in the commercial aircraft industry appear to be on the upswing. The major producers of jetliners recorded more than twice the number of new aircraft orders in 1995 than in 1994. This positive trend continued in 1996, potentially signifying a new commercial airplane buying cycle. Northrop Grumman, with its involvement on various Boeing jetliners, remains optimistic about the long-term prospects for its commercial structures business.

Northrop Grumman pursues new business opportunities when justified by acceptable financial returns and technological risks. The company examines opportunities to acquire or invest in new businesses and technologies to strengthen its traditional business areas. Northrop Grumman continues to capitalize on its technologies and skills by entering into joint ventures, partnerships or associations with other companies.

Results Of Operations By Industry Segment And Major Customer

Year ended December 31, \$ in millions Revenue Aircraft	1996	1995	1994
United States Government Other customers Intersegment sales	\$ 3,060 798 254	\$ 3,556 835 187	\$ 4,227 704 52
	4,112	4,578	4,983
Electronics United States Government Other customers Intersegment sales	3,336 508 39 3,883	1,831 228 103 2,162	1,047 307 106 1,460
Information Technology and Services	3,003	2,102	1,400
United States Government Other customers Intersegment sales	828 77 5	761 61 1	706 34 22
Intersegment eliminations	910 (298)	823 (291)	762 (180)
Total revenue	\$ 8,607	\$ 7,272	\$ 7,025
Operating Profit			
Aircraft Electronics Information Technology and Services Total operating profit Adjustments to reconcile operating	\$ 499 360 49 908	\$ 465 197 58 720	\$ 481 132 42 655
profit to operating margin: Other income included above State and local income taxes General corporate expenses Mark-to-market restricted stock rights	(17) (52) (123) (13)	(39) (109)	(6) (30) (113)
Special termination benefits Operating margin	\$ 703	\$ 572	\$ (282) 224

Year ended December 31, \$ in millions Contract Acquisitions	1996	1995	1994
Aircraft	\$ 3,890	\$ 1,808	\$ 8,468
Electronics	6,228	2,408	3,121
Information Technology and Services	977	836	736
Total acquisitions	\$11,095	\$ 5,052	\$12,325
TOTAL ACQUISITIONS	Φ11,095	\$ 3,032	Φ12, 323
Funded Order Backlog Aircraft Electronics Information Technology and Services Total backlog	\$ 7,044	\$ 7,012	\$ 9,595
	5,112	2,728	2,379
	511	439	425
	\$12,667	\$10,179	\$12,399
Identifiable Assets Aircraft Electronics Information Technology and Services Operating assets General corporate Total assets	\$ 2,357	\$ 2,481	\$ 3,196
	5,583	1,948	1,797
	640	662	555
	8,580	5,091	5,548
	1,065	551	644
	\$ 9,645	\$ 5,642	\$ 6,192
Capital Expenditures Aircraft Electronics Information Technology and Services General corporate Total expenditures	\$ 84	\$ 85	\$ 89
	91	36	33
	22	16	14
	1	3	1
	\$ 198	\$ 140	\$ 137
Depreciation and Amortization Aircraft Electronics Information Technology and Services General corporate	\$ 117 230 26 2	\$ 172 84 33 1	\$ 167 76 31
Total depreciation and amortization	\$ 375	\$ 290	\$ 274

Northrop Grumman, as well as many other companies in the defense industry, suffered the effects of the Department of Defense's practice in the 1980s of structuring high-risk research and development contracts, such as the Tri-Service Standoff Attack Missile (TSSAM), as fixed-price or capped cost-reimbursement type contracts. Although Northrop Grumman has stopped accepting these types of contracts, it has experienced financial losses on TSSAM and other similar programs acquired under them in the past. In the event of termination for convenience, contractors are normally protected by provisions covering reimbursement for costs incurred subsequent to termination. The company received a termination for convenience notice on the TSSAM program in February 1995. In December 1996, the company filed a lawsuit against the U.S. Government in the U.S. Court of Federal Claims seeking the recovery of approximately \$750 million for uncompensated performance costs, investments, and a reasonable profit. In prior years, the company had charged to operations in excess of \$600 million related to this program. Northrop Grumman is unable to predict whether it will realize some or all its claims against the U.S. Government from the TSSAM contract. The company does not expect that these actions will have a material adverse effect on the company's financial position.

Prime contracts with various agencies of the U.S. Government and subcontracts with other prime contractors are subject to a profusion of procurement regulations, with noncompliance found by any one agency possibly resulting in fines, penalties, debarment or suspension from receiving additional contracts with all agencies. Given the company's dependence on U.S. Government business, suspension or debarment could have a material adverse affect on the company's future. Moreover, these contracts may be terminated at the U.S. Government's convenience as was done with the TSSAM program. While Northrop Grumman conducts most of its business with the U.S. Government, principally the Department of Defense, commercial sales still represent a significant portion of total revenue.

Federal, state and local laws relating to the protection of the environment affect the company's manufacturing operations. The company has provided for the estimated cost to complete remediation where it is probable that the company will incur such costs in the future, including those for which it has been named a Potentially Responsible Party (PRP) by the Environmental Protection Agency or similarly designated by other environmental agencies. The company has been designated a PRP under federal Superfund laws at 16 hazardous waste sites and under state Superfund laws at six sites. It is difficult to estimate the timing and ultimate amount of environmental cleanup costs to be incurred in the future due to the uncertainties regarding the extent of the required cleanup and the status of the law, regulations and their interpretations. Nonetheless, to assess the potential impact on the company's financial statements, management estimates the total reasonably possible remediation costs that could be incurred by the company. Such estimates take into consideration the professional judgment of the company's environmental engineers and, when necessary, consultation with outside environmental specialists. In most instances, only a range of reasonably possible costs can be estimated. However, in the determination of accruals the most probable amount is used when determinable and the minimum is used when no single amount is more probable. The company records accruals for environmental cleanup costs in the accounting period in which the company's responsibility is established and the costs can be reasonably estimated. Management estimates that at December 31, 1996, the reasonable range of future costs for environmental remediation, including Superfund sites, is \$63 million to \$107 million, of which \$64 million has been accrued. The amount accrued has not been offset by potential recoveries from insurance carriers or other PRPs. Should other PRPs not pay their allocable share of remediation costs, the company may have to incur costs in addition to those already estimated and accrued. The company is making the necessary investments to comply with environmental laws; the amounts, while not insignificant, are not considered material to the company's financial position or results of its operations.

MEASURES OF VOLUME

Contract acquisitions tend to fluctuate and are determined by the size and timing of new and add-on orders. The effects of multiyear orders and/or funding can be seen in the highs and lows shown in the following table. The funded order backlog of ESG, Grumman and Vought on the date the businesses were acquired are reflected as acquisitions in the years they were acquired. The Airborne Radar, Marine and Airspace Management business areas were added as part of the ESG acquisition. The 757, 767, 777 (included in Boeing Jetliners category), Surveillance Aircraft (E-2 and E-8 Joint STARS) and C-17 programs were acquired as part of Grumman and Vought.

B-2 acquisitions in 1996 included \$453 million for the upgrade of test vehicle AV-1 to operational status increasing the program to 21 operational aircraft. The balance of B-2 acquisitions in 1996 and acquisitions for 1995 include incremental funding for ongoing development work, spares and other customer support for the operational aircraft program. In 1994, \$2.4 billion of funding to complete five B-2 production aircraft was received as well as incremental funding for ongoing development work, spares and other customer support. The company still stands to gain future new post production business, such as airframe depot maintenance, repair of components, operational software changes and product improvement modifications. The debate over the future of the B-2, which is built in the nation's only active bomber producing facility, is now taking place. Without future production orders the nation's multibillion-dollar investment in this capability will be disassembled and become retrievable only at a large additional cost.

Contract Acquisitions

\$ in millions B-2	1996 \$ 1,682	1995 \$ 475	1994 \$ 3,646
Surveillance Aircraft	1,330	1,084	2,287
F/A-18	759	888	462
Boeing Jetliners	737	464	1,177
Airborne Radar	1,639	404	1,111
Marine	901		
ECM	335	592	323
Space	414		0_0
C-17	383	208	434
Airspace Management	629		
Information Technology and Services	977	836	736
All other	1,309	505	3,260
	\$11,095	\$ 5,052	\$12,325

Acquisitions in 1996 included orders for 62 F/A-18C/D shipsets. In 1996 the company also received long-lead funding for the first phase of the Low Rate Initial Production (LRIP) of the F/A-18E/F along with continued funding of the engineering and manufacturing development (EMD) phase of the program. Orders for 128 F/A-18C/D shipsets were finalized in 1995. In 1994 the company received long-lead funding from The Boeing Company (formerly McDonnell Douglas Corporation) for new F/A-18C/D shipsets.

The company received final authorization to produce 50 additional 747 jetliner shipsets in 1996. Advance funding was received from The Boeing Company in 1995 for the current phase of the 747 jetliner program.

The company recorded orders for 18, 16, and 5 wing shipsets for the Gulfstream V business jet in 1996, 1995 and 1994 respectively. The company is producing the Gulfstream V wings under a revenue-sharing agreement with Gulfstream Aerospace (Gulfstream). The company will recognize revenue for its proportionate share of the revenue of each business jet when they are delivered to the ultimate customer by Gulfstream. Gulfstream has received 70 orders for the Gulfstream V through December 1996. The Gulfstream V received provisional certification in December 1996 and aircraft certification in April 1997. The company is using program accounting for the Gulfstream \boldsymbol{V} with an estimated program of 250 shipsets to be delivered over a ten-year period. Inventoried costs at December 31, 1996 include \$56 million of learning-curve costs for this program. The learning-curve costs represent the excess of production cost of delivered and in process items over the estimated average unit cost. This concept assumes that production cost per unit decreases over time due to efficiencies from continuous improvements in the performance of repetitive tasks. All nonrecurring costs for the development of the wings have been expensed as incurred.

ECM acquisitions for 1995 included an award of \$279 million from the United Kingdom Ministry of Defence to develop and produce the DIRCM systems.

The balance of ESG, Grumman and Vought funded order backlog at the dates of acquisition, for those programs not listed in the table, is included in the "all other" category. ESG accounts for the major increase in the "all other" category in 1996 over 1995 and Grumman and Vought account for the majority of "all other" in 1994.

Year-to-year sales vary less than contract acquisitions and reflect performance under new and ongoing contracts. The 1996 results of operations include ESG since the acquisition in March 1996. Comparative results for 1995 and prior do not include ESG data. The 1994 results of operations include Grumman and Vought since the acquisitions in April and August 1994, respectively.

Sales for 1996 were the highest in the company's history and were 18 percent higher than the previous record registered in 1995. Without the ESG acquisition, sales for 1996 would have declined 8 percent from the 1995 level. Sales for 1995 were 4 percent higher than in 1994.

Net Sales

\$ in millions B-2	1996 \$ 1,725	1995 \$ 1,914	1994 \$ 2,392
Surveillance Aircraft	1,104	1,179	754
F/A-18	715	822	817
Boeing Jetliners	569	569	483
Airborne Radar	560		
Marine	496		
ECM	398	351	357
Space	315		
C-17	249	244	121
Airspace Management	223		
Information Technology and Services	905	822	740
All other	1,348	1,371	1,361
	\$ 8,607	\$ 7,272	\$ 7,025

The decreasing trend in the B-2 revenues from both EMD and production work continued in 1996. The level of EMD effort, included in amounts reported as contract R&D, constituted 33 percent of the total B-2 revenue, up from 30 percent in 1995 and 26 percent in 1994. Current planning data indicate that the level of overall B-2 revenue will decline roughly 20 percent per year for the remainder of the decade.

Sales increased in 1996 for the C/D version of the F/A-18 program with an increase of deliveries to 68, as compared to 56 shipsets delivered in 1995 and 42 delivered in 1994. The company currently plans to deliver 35 F/A-18C/D shipsets in 1997. F/A-18E/F revenue was lower in 1996 with the delivery of the final three shipsets for the EMD phase of the program. A total of seven shipsets were delivered under the F/A-18E/F EMD contract in 1995. The LRIP phase of the F/A-18E/F program began in late 1996.

Deliveries of 747 shipsets were 28 in 1996, 24 in 1995 and 31 in 1994. The change in the mix of Boeing jetliners delivered in 1996 resulted in the same level of sales as in 1995. Forty-eight 747 shipsets are expected to be delivered in 1997. Increased deliveries of all Boeing jetliners planned for 1997 is expected to result in more than a 50 percent increase in revenue from these programs.

The electronics industry segment revenues increased 80 percent in 1996 as a result of the inclusion of the ESG operations, which more than offset the reduction in revenue on the company's other electronics programs. Higher revenues on the E-2 Hawkeye and E-8 Joint STARS programs were the primary reason for the 40 percent increase in 1995 electronics revenues.

The year-end funded order backlog is the sum of the previous year-end backlog plus the year's contract acquisitions minus the year's sales. Backlog is converted into the following years' sales as costs are incurred or deliveries are made. It is expected that approximately 57 percent of the 1996 year-end backlog will be converted into sales in 1997.

Funded Order Backlog

<pre>\$ in millions</pre>	1996	1995	1994
B-2	\$ 3,693	\$ 3,736	\$ 5,175
Surveillance Aircraft	1,664	1,438	1,533
F/A-18	675	631	565
Boeing Jetliners	1,480	1,312	1,417
Airborne Radar	1,079		
Marine	405		
ECM	684	747	506
Space	99		
C-17	411	277	313
Airspace Management	406		
Information Technology and Services	511	439	425
All other	1,560	1,599	2,465
	\$12,667	\$10 [,] 179	\$12,399

Total U.S. Government orders, including those made on behalf of foreign governments (FMS), comprised 76 percent of the backlog at the end of 1996 compared with 77 percent at the end of 1995 and 80 percent at the end of 1994. Total foreign customer orders, including FMS, accounted for 17 percent of the backlog at the end of 1996 compared with 13 percent in 1995 and 8 percent in 1994. Domestic commercial business in backlog at the end of both 1996 and 1995 was 16 percent and 14 percent at the end of 1994.

MEASURES OF PERFORMANCE

The company's operating profit for 1996 was a record high and has improved in its electronics segment for the last two years. The improvement in 1996 is due to the addition of ESG. The improvement in 1995 stems from both increased revenue and improved operating margin rates in the electronics segment. Company-wide efforts to reduce costs, install tighter business controls, improve cash management, dispose of excess assets and more effectively utilize productive assets are all goals aimed at contributing to the future success of Northrop Grumman. This financial report demonstrates the degree to which the accomplishment of these goals is being achieved.

Operating profit in the aircraft segment increased to its highest level ever in 1996 principally as a result of increased operating margin on the C-17 military transport and Boeing jetliners. These items offset the reduced operating margin on the B-2 program due to lower sales volume. The amount and rate of operating margin recognized on the 747 increased in 1996 due to increased deliveries and higher operating margin on the deliveries of the last phase of a 300-shipset production contract.

Aircraft segment operating profit decreased in 1995 primarily as a result of lower overall sales volume and \$31 million in expenditures for company-sponsored research and development for commercial aerostructures. The rate and amount of operating margin recorded on the B-2 production contract increased in 1995 as a result of negotiated contract adjustments and a revised estimate of the overall operating margin expected to be earned. This increase was offset by lower operating margin recorded on decreased revenue on the other phases of the B-2 program. The rate and amount of operating margin on the F/A-18E/F increased in 1995 due to an increase in the rate of operating margin being recorded on the EMD contract. This resulted from the continuing evaluation of the overall operating margin to be earned on this phase of the program. The increase on the F/A-18E/F more than offset reduced operating margin earned, on higher sales volume, for the F/A-18C/D. Fewer deliveries and cost increases related to a stretch-out of the 300-shipset production contract for the Boeing 747 jetliner resulted in a lower rate and amount of operating margin in 1995.

Following the award of the last increment of production funding for the B-2, the company began recording future operating margin increases on all production aircraft as these units are delivered and accepted by the customer. At the time each unit is delivered an assessment is made of the status of the production contract so as to estimate the amount of any probable additional margin available beyond that previously recognized. That unit's proportionate share of any such unrecognized remaining balance will then be recorded. In this fashion it is believed that margin improvements will be recognized on a more demonstrable basis. The current 15 production units are scheduled for their initial delivery over a five-year period, which began in December 1993. All but two units (four equivalent units for this purpose) will be returned for scheduled retrofitting with final deliveries beginning in 1997 and ending in 2000.

Operating profit in the electronics segment reached a record level in 1996. The improvement in 1996 is due to the addition of ESG which more than offset the reductions in the company's other electronics programs. The reductions were primarily due to reduced volume and a \$29 million charge recorded as a result of the write-down of a claim related to avionics work performed by Grumman Corporation prior to its acquisition by Northrop.

The increase in 1995 operating profit in the electronics segment was a result of an increased rate of operating margin and higher sales volume on the E-2 Hawkeye and increased sales volume on the E-8 Joint STARS program. The electronics segment operating profit in 1994 includes \$8 million in provisions recorded by the electronics segment Norwood operation for unrecoverable costs incurred.

Operating profit in the information technology and services segment decreased in 1996 due to increased costs in the information systems area. Partially offsetting this is an increase in operating margin due to the acquisition of Geodynamics. The increase in 1995 operating profit is primarily the result of the acquisition of Syscon Corporation.

Operating margin in 1996 included \$39 million of pension income compared with \$23 million in 1995 and \$36 million in 1994. Also impacting operating margin is the cost of providing retiree health care and life insurance benefits - \$91 million in 1996 versus \$87 million in 1995 and \$69 million in 1994. A major contributor to the increase in retiree health care and life insurance benefits cost was the addition of the Grumman and Vought retiree plans in 1994. Operating margin in 1994 was reduced by \$282 million to record the effect of an early retirement incentive program.

In 1996 the company recorded a \$90 million pretax charge related to the closure of four plants. The charge included \$30 million for costs related to the reduction of personnel and other closure activities, which lowered operating profit in the aircraft and electronics industry segments by \$22 million and \$8 million, respectively, and \$60 million for the write-down of facilities included in Other Deductions in the Consolidated Statements of Income. The company recorded a \$42-million pretax charge in 1994 for the planned disposal of excess real estate and other assets. This charge is reported in Other Deductions in the Consolidated Statements of Income. These charges were a result of the company's continuing efforts to reduce operating costs and dispose of assets that have become excess due to changes in the company's business strategy.

Interest expense increased \$133 million in 1996, following an increase of \$28 million in 1995. The increase in 1996 came primarily from the issuance of debt to finance the ESG acquisition. The increase in 1995 came primarily from the issuance of debt related to the financing of the acquisition of Grumman. Total debt at December 31, 1996 stood at \$3.4 billion compared to \$1.4 billion at the end of 1995 and \$1.9 billion at the end of 1994.

The company's effective federal income tax rate was 38.9 percent in 1996, 38.2 percent in 1995 and 43.0 percent in 1994. The decrease in the 1995 rate was due to a reduction in the ratio of expenses not deductible for income taxes to the tax provision at the statutory rate of 35 percent. The higher rate in 1996 was due to the amount of expenses not deductible for income taxes, primarily the amortization of goodwill.

MEASURES OF LIQUIDITY AND CAPITAL RESOURCES

The trend and relationship of sales volume with net accounts receivable and inventoried costs is a useful measure in assessing the company's liquidity. In 1994, the company's net investment in these balances represented 33 percent of sales. It decreased to 28 percent at the end of 1995 before increasing to 29 percent at year-end 1996 with the acquisition of ESG.

Cash flows from operations over the last three years have averaged over \$600 million annually. The \$743 million of cash flow from operations in 1996 was a decrease of \$34 million from 1995 which was an increase of \$309 million over 1994. These cash flows have been sufficient to service debt, finance capital expansion projects and continue paying dividends to shareholders.

The following table is a condensed summary of the detailed cash flow information contained in the Consolidated Statements of Cash Flows.

Year ended December 31, Cash came from	1996	1995	1994
Customers	66%	96%	71%
Lenders	29	2	28
Shareholders	4		
Buyers of assets/other	1	2	1
•	100%	100%	100%
Cash went to			
Employees and suppliers of			
services and materials	58%	84%	65%
Sellers of assets	24	2	19
Lenders	13	10	13
Suppliers of facilities/other	4	3	2
Shareholders	1	1	1
	100%	100%	100%

The cash received from lenders in 1996 and 1994 resulted from borrowing for the acquisitions of ESG and Grumman, respectively. The cash received from shareholders in 1996 was from a public stock offering in which the company issued approximately 8 million shares of common stock at \$63.25 per share. The net proceeds of \$493 million were used to pay down outstanding debt under the company's Credit Agreement.

In connection with the financing of the Grumman acquisition, the company in April 1994, replaced its \$400 million Credit Agreement with a new \$2.8 billion Credit Agreement. The new facility provided for \$600 million available on a revolving credit basis through March 1999 and a \$2.2 billion term loan payable through March 1999. The Credit Agreement was amended in May 1994 to increase the revolving credit line to \$800 million and reduce the term loan to \$2 billion. In October 1994, the company issued \$350 million of notes due in 2004 and \$250 million of debentures due in 2024 pursuant to a public offering. The net proceeds from the offering, along with other available funds, were used to prepay \$900 million under the term loan facility in addition to paying the \$100 million September quarterly installment due under that facility. In December 1994, the company amended the Credit Agreement to provide for the repayment of the remaining \$1 billion balance of the term loan in 14 quarterly installments of \$62.5 million plus interest beginning in September 1995, with a final installment of \$125 million due in March 1999. Cash flow from operations during 1994 enabled the company to prepay the \$160 million of notes payable to institutional investors due in 1995 and acquire, in the open market, \$58 million of notes due in 1999, while paying a net premium of \$5 million for the early payments of these notes. The charge for the premium is included in Other Deductions in the Consolidated Statements of Income. Cash flow from operations in 1995 was sufficient to allow the company to make the \$125 million required term loan payment as well as \$312 million in voluntary payments for amounts that were due through March 1997.

During the first quarter of 1996 the company sold to institutional investors \$400 million of 7 percent notes due 2006, \$300 million of 7 3/4 percent debentures due 2016 and \$300 million of 7 7/8 percent debentures due 2026. The proceeds from this issuance were used to finance a portion of the purchase price of ESG. The debt indentures contain restrictions relating to limitations on liens, sale and leaseback arrangements and funded debt of subsidiaries.

To finance the balance of the purchase price of ESG the company amended its Credit Agreement with a group of domestic and foreign banks to provide for three credit facilities: \$1.8 billion available on a revolving credit basis through March 2002; a variable interest \$500 million two-year term loan due March 1, 1998, which was repaid in July 1996; and a variable interest rate \$1.5 billion six-year term loan due in 24 quarterly installments of \$62.5 million plus interest beginning June 1996. Effective November 1, 1996, the Credit Agreement was further amended to reduce the \$1.5 billion term loan to \$1.05 billion payable in 21 quarterly installments of \$50 million plus interest beginning March 1, 1997.

During 1995 the company entered into an agreement with a financial institution to sell designated pools of its commercial accounts receivable, in amounts up to \$75 million. At December 31, 1995, \$34 million of accounts receivable had been sold. Northrop Grumman terminated this agreement in 1996.

To provide for long-term liquidity the company believes it can obtain additional capital from such sources as: the public or private capital markets, the further sale of assets, sale and leaseback of operating assets, and leasing rather than purchasing new assets.

The cost reduction and cash improvement programs underway throughout the company have produced favorable results, with the expectation that further efforts will result in minimizing the need to incur additional borrowings during 1997. Cash generated from operations is expected to be sufficient in 1997 to service debt, finance capital expansion projects and continue paying dividends to the shareholders.

Capital expenditure commitments at December 31, 1996, were approximately \$127 million including \$4 million for environmental control and compliance purposes.

The company will continue to provide the productive capacity to perform its existing contracts, dispose of assets no longer needed to fulfill operating requirements, prepare for future contracts and conduct R&D in the pursuit of developing opportunities. While these expenditures tend to limit short-term liquidity, they are made with the intention of improving the long-term growth and profitability of the company.

FORWARD-LOOKING INFORMATION

Certain statements and assumptions in Management's Discussion and Analysis contain or are based on "forward-looking" information (as defined in the Private Securities Litigation and Reform Act of 1995) that involves risk and uncertainties, including statements and assumptions with respect to future revenues, program performance and cash flows, the outcome of contingencies including litigation and environmental remediation, and anticipated costs of capital investments and planned dispositions. The company's operations are necessarily subject to various risks and uncertainties; actual outcomes are dependent upon many factors, including, without limitation, the company's successful performance of internal plans; government customers' budgetary restraints; customer changes in short-range and long-range plans; domestic and international competition in both the defense and commercial areas; product performance; continued development and acceptance of new products; performance issues with key suppliers and subcontractors; government import and export policies; termination of government contracts; the outcome of political and legal processes; legal, financial, and governmental risks related to international transactions and global needs for military and commercial aircraft and electronic systems and support; as well as other economic, political and technological risks and uncertainties.

INDEPENDENT AUDITORS' REPORT

Board of Directors and Shareholders Northrop Grumman Corporation Los Angeles, California

We have audited the accompanying consolidated statements of financial position of Northrop Grumman Corporation and Subsidiaries as of December 31, 1996 and 1995, and the related consolidated statements of income, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 1996. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The consolidated financial statements give retroactive effect to the merger of Northrop Grumman Corporation and Subsidiaries and Logicon, Inc. on August 1, 1997, which has been accounted for as a pooling-of-interests as described in the note captioned "Merger with Logicon, Inc."

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Northrop Grumman Corporation and Subsidiaries at December 31, 1996 and 1995, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1996 in conformity with generally accepted accounting principles.

Deloitte & Touche LLP Los Angeles, California February 5, 1997 (except for the combination described in the note captioned "Merger with Logicon, Inc." as to which the date is November 13, 1997.)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Northrop Grumman Corporation

Date: November 13, 1997 By:\s\Nelson F. Gibbs

Nelson F. Gibbs

Corporate Vice President and Controller

Date: November 13, 1997 By:\s\James C. Johnson

James C. Johnson

Corporate Vice President and Secretary

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