UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from Commission file number

to

1-16411

NORTHROP GRUMMAN CORPORATION

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation or organization)

95-4840775 (I.R.S. Employer Identification

(I.R.S. Employer Identification Number)

1840 Century Park East, Los Angeles, California 90067

www.northropgrumman.com (Address of principal executive offices and internet site) (310) 553-6262

(Registrant's telephone number, including area code) Securities registered pursuant to section 12(b) of the Act:

<u>Title of each class</u>

Common Stock, \$1 par value

Name of each exchange on which registered

New York Stock Exchange Pacific Exchange

Series B Convertible Preferred Stock 7.25% Equity Security Units New York Stock Exchange New York Stock Exchange

Securities Registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes <u>x</u>

Nο

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.(X)

As of March 7, 2002, 112,316,775 shares of Common Stock were outstanding, and the aggregate market value of the Common Stock (based upon the closing price of the stock on the New York Stock Exchange) of the Registrant held by nonaffiliates was approximately \$11,977 million.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2002 Annual Meeting of Stockholders. Part III

PART I

Item 1. Business

Originally formed in California in 1939, Northrop Corporation was reincorporated in Delaware in 1985. In 1994 the company purchased the outstanding common stock of Grumman Corporation and, effective May 18, 1994, Northrop Corporation was renamed Northrop Grumman Corporation. On April 2, 2001, NNG, Inc., a newly formed Delaware holding company, exchanged its common shares for all of the outstanding Northrop Grumman Corporation common shares on a one-for-one basis, through a merger in which Northrop Grumman Corporation became a subsidiary of NNG, Inc. In connection with this merger, NNG, Inc. changed its name to Northrop Grumman Corporation and the former Northrop Grumman Corporation changed its name to Northrop Grumman Systems Corporation (Northrop Systems). See the footnote to the Consolidated Financial Statements in Part II, Item 8 entitled "Acquisitions" for additional information.

In April 2001, the company purchased approximately 97 percent of the common stock and approximately 59 percent of the preferred stock of Litton Industries, Inc. (Litton). The company issued 13,000,000 shares of its common stock and 3,500,000 shares of its preferred stock and paid cash for the balance of the Litton shares. In May and June 2001, the company acquired all of the remaining shares of Litton common and preferred stock for cash.

In November 2001 the company purchased, pursuant to a tender offer, approximately 80.7 percent of the outstanding shares of Newport News Shipbuilding Inc. (Newport News). For the year ended December 31, 2001, the company accounted for the 19.3 percent of Newport News common shares that it did not own as minority interest. On January 18, 2002, the company completed the acquisition of the shares of Newport News common stock not previously purchased in its tender offer that expired on November 29, 2001.

The company is aligned into six business sectors: Electronic Systems, Information Technology, Integrated Systems, Ship Systems, Newport News and Component Technologies. For financial reporting purposes each business sector is a reportable segment with the exception of Ship Systems and Newport News which are aggregated and reported as the Ships segment in accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 131-Disclosures about Segments of an Enterprise and Related Information.

Electronic Systems designs, develops and manufactures a wide variety of defense electronics and systems, airspace management systems, precision weapons, marine systems, logistic systems, space systems and automation and information systems. These include fire control radars for the F-16 fighter aircraft, the F-22 air dominance fighter and the Longbow Apache helicopter. Other key products include the AWACS airborne early warning radar, the Joint STARS air-to-ground surveillance radar sensor, the Longbow Hellfire missile and the BAT "brilliant" anti-armor submunition. This sector also provides tactical military radars and countrywide air defense systems, as well as airborne electronic countermeasures systems intended to jam enemy aircraft and weapons systems. Electronic Systems is an international leader in airspace management as a producer of civilian air traffic control systems. The sector also makes sophisticated undersea warfare systems and naval propulsion and power generation systems, as well as postal automation, image processing, material management, asset track and trace and data communication systems. In addition, this sector designs, develops and manufactures inertial navigation, guidance and control, IFF (identification friend or foe) and marine electronic systems. It also provides electronic warfare systems and integrates avionics systems and shipboard information and communication systems. This sector has been selected to produce the fire control radar and other key components of the new F-35 Joint Strike Fighter.

Information Technology is a leader in advanced information technologies, systems and services. Information Technology includes our information systems businesses, which design, develop, integrate and support computer-based information systems and provide information technology and services primarily for government customers. This sector is the prime contractor for the General Services Administration ANSWER and Millennia programs. Information Technology is also part of a team working with the Internal Revenue Service to modernize the U.S. federal tax system. Information Technology has extensive expertise in command, control, communications,

computers, intelligence, surveillance and reconnaissance (C⁴ISR). It is a key management support element for major weapons systems, such as the U.S. Navy's AEGIS class destroyer as well as mission planning for the U.S. Navy, Air Force and Special Operations Command. Information Technology provides base operations support for NASA's Kennedy Space Center, Cape Canaveral Air Station and Patrick Air Force Base, among others. In addition, this sector provides information technology services to commercial customers and to our other sectors.

Integrated Systems is a leader in design, development and production of airborne early warning, electronic warfare and surveillance and battlefield management systems. Integrated Systems is the prime contractor for the Joint STARS advanced airborne targeting and battle management system and the U.S. Air Force's B-2 Spirit stealth bomber. It has a principal role in producing the U.S. Navy's F/A-18 Hornet strike fighter. The sector also is upgrading the EA-6B Prowler electronic countermeasures aircraft and produces the E-2C Hawkeye early-warning aircraft. We have a principal role in the Global Hawk program, a development stage integrated unmanned aerial vehicle for reconnaissance and surveillance. As a member of the F-35 Joint Strike Fighter Team, Integrated Systems will be responsible for design and integration of the center fuselage and weapons bay, a large part of systems engineering and mission system software, and various support activities.

Ship Systems is engaged in the building of large multimission non-nuclear surface ships for the U.S. Navy as well as other government and commercial customers and is a provider of overhaul, repair modernization, ship design and engineering services. Key products include amphibious assault ships (WASP LHD 1 Class, San Antonio LPD 17 Class), destroyers (Arleigh Burke DDG 51 Class), sealift transport ships (T-AKR Ro/Ro) and double-hulled oil tankers. In addition, the new Full Service Center offers its customers a full range of ship-related services, which include a worldwide network of fleet support services.

Newport News is the largest non-government-owned shippyard in the U.S., as measured by each of revenues, size of facilities and number of employees. Its primary business is the design, construction, repair, maintenance, overhaul, life-cycle support and refueling of nuclear-powered aircraft carriers and the design, life-cycle support and construction of nuclear-powered submarines for the U.S. Navy.

Component Technologies is a premier international supplier of complex backplanes, connectors, laser crystals, solder materials, specialty products, oxygen generating systems and other electronic components used primarily in the aerospace, telecommunications, industrial and computer markets.

Item 2. Properties

The major locations, general status of the company's interest in the property, and identity of the industry segments that use the property described are indicated in the following table.

Location	Property Interest
Annapolis, Maryland (1) (a) (b) (d) (e)	Owned, Leased
Apopka, Kansas (1) (b)	Owned
Arlington, Virginia (1) (2) (3) (6) (a) (c)	Leased
Avondale, Louisiana (4) (a) (c) (e)	Owned, Leased
Azusa, California (1) (a) (b) (c) (d) (e)	Owned, Leased
Baltimore, Maryland (1) (2) (a) (c) (e)	Leased
Bellevue, Nebraska (2) (a) (c)	Leased
Bethpage, New York (1) (3) (a) (b) (c) (d) (e)	Owned
Blacksburg, Virginia (5) (b) (c)	Owned, Leased
Bourg-Les-Valence, France (1) (b)	Owned
Burlington, Canada (1) (2) (a) (b)	Owned, Leased
Chantilly, Virginia (2) (a) (c)	Leased
Charlottesville, Virginia (1) (2) (a) (b)	Owned, Leased
Cincinnati, Ohio (1) (b)	Leased
Cleveland, Ohio (1) (3) (a) (b) (e)	Owned, Leased
College Park, Maryland (1) (a) (b)	Owned, Leased
Colorado Springs, Colorado (1) (2) (a) (c)	Owned, Leased
Dallas, Texas (1) (2) (3) (a) (b) (d) (e)	Leased
Davenport, Iowa (5) (b)	Owned
Des Plaines, Illinois (5) (b)	Owned
El Segundo, California (2) (3) (a) (b) (c) (d) (e)	Owned, Leased
Elkridge, Maryland (1) (a) (c) (d)	Leased
Enfield, Canada (1) (5) (a) (b)	Owned, Leased
Fairfax, Virginia (2) (a)	Leased
Falls Church, Virginia (2) (a)	Leased
Freiburg, Germany (1) (b) (c) (e)	Owned, Leased
Gaithersburg, Maryland (1) (2).(a)	Leased
Garland, Texas (1) (b)	Owned
Goleta, California (1) (3) (a) (b)	Leased
Greenbelt, Maryland (1) (2) (a)	Leased
Gulfport, Mississippi (4) (b)	Owned
Hagerstown, Maryland (1) (e)	Leased
Harahan, Louisiana (4) (c)	Leased
Hawthorne, California (1) (2) (3) (6) (a) (b) (c) (d) (e)	Owned, Leased
Heidelberg, Germany (1) (b)	Owned
Herndon, Virginia (1) (2) (a) (c)	Leased
Hicksville, New York (3) (d) (e)	Owned
Hollywood, Maryland (3) (a)	Leased
Hunt Valley, Maryland (1) (a) (b) (e)	Owned, Leased
Huntsville, Alabama (1) (2) (a) (b) (c) (e)	Leased
Irving, Texas (3) (a)	Leased
Jacksonville, Florida (3) (4) (a) (c) (d) (e)	Leased
Lake Charles, Louisiana (3) (a) (b) (e)	Owned, Leased

Lexington, Kentucky (1) (2) (3) (a) (c)	Owned, Leased
Linthicum, Maryland (1) (3) (a) (b) (c) (e)	Owned, Leased
Los Angeles, California (1) (2) (6) (a) (c)	Leased
McLean, Virginia (2) (a) (e)	Leased
Melbourne, Florida (3) (5) (a) (b) (c) (e)	Owned, Leased
Milan, Italy (5) (b)	Owned
Morris Plains, New Jersey (5) (b) (e)	Owned
Murphy, North Carolina (5) (b) (c)	Owned, Leased
New Malden, United Kingdom (1) (b) (e)	Leased
Newport News, Virginia (3) (4) (a) (b) (c) (d) (e)	Owned, Leased
Northridge, California (1) (b)	Leased
Norwalk, Connecticut (1) (b)	Leased
Olathe, Kansas (6) (a)	Owned
Palmdale, California (3) (a) (b) (c) (d) (e)	Owned, Leased
Pascagoula, Mississippi (4) (a) (b) (c) (d) (e)	Owned, Leased
Point Magu, California (3) (a) (b) (c) (e)	Owned, Leased
Pomezia Rome, Italy (1) (b)	Owned
Reading, Massachusetts (2) (a) (c)	Leased
Reston, Virginia (2) (a)	Leased
Rolling Meadows, Illinois (1) (a) (b) (c) (e)	Owned, Leased
Salt Lake City, Utah (1) (b) (c)	Owned, Leased
San Carlos, California (1) (b) (c) (e)	Owned
San Diego, California (1) (2) (3) (4) (a) (b) (c) (d) (e)	Owned, Leased
San Jose, California (1) (2) (a)	Leased
San Pedro, California (2) (a) (c) (e)	Leased
Santa Isabel, Puerto Rico (1) (b) (e)	Leased
Singapore, Singapore (1) (5) (a) (b)	Owned, Leased
Springfield, Missouri (5) (a) (b)	Owned, Leased
St. Augustine, Florida (3) (a) (b) (c) (e)	Owned, Leased
Sunnyvale, California (2) (a) (b) (e)	Owned, Leased
Sykesville, Maryland (1) (b)	Owned
Tallulah, Louisiana (4) (b)	Leased
Tempe, Arizona (1) (3) (a) (b)	Owned, Leased
Toronto, Canada (1) (b) (e)	Owned, Leased
Virginia Beach, Virginia (2) (3) (a) (c)	Owned, Leased
Washington, District of Columbia (2) (3) (4) (a)	Leased
Watertown, Connecticut (5) (a)	Owned
Westwego, Louisiana (4) (a) (c)	Owned, Leased
Williamsport, Pennsylvania (2) (6) (a) (e)	Owned, Leased
Woodland Hills, California (1) (6) (a) (b) (c)	Owned, Leased
York, Pennsylvania (6) (e)	Owned

Following each described property are numbers indicating the reporting segments utilizing the property:

- (1) Electronic Systems
- (2) Information Technology
- (3) Integrated Systems
- (4) Ships
- (5) Component Technologies
- (6) General Corporate Asset

Following each described property are letters indicating the types of facilities located at each location:

- (a) office
- (b) manufacturing
- (c) warehouse
- (d) research and testing
- (e) other

Government-owned facilities used or administered by the company consist of approximately 3 million square feet at various locations across the United States.

The company believes its properties are well-maintained and in good operating condition and that the productive capacity of the company's properties is adequate to meet current contractual requirements for the foreseeable future.

Item 3. Legal Proceedings

U.S. ex rel Jordan v. Northrop Grumman Corporation

In October 1999, the company was served with a fifth amended complaint that was filed by the government in the United States District Court of the Central District of California in this action, which was commenced in May 1995. The complaint alleges that the company violated the False Claims Act by knowingly supplying BQM-74C aerial target drones that contained various defective components between 1988 and 1998. The government seeks to recover damages up to \$213 million plus pre-judgment interest and penalties under theories of fraud, payment by mistake, unjust enrichment, breach of warranty and breach of contract. Damages awarded pursuant to the False Claims Act may be trebled by the court. The company intends to vigorously defend this matter. Trial is set for October 2002.

Zabielski and related cases

In July and August 1998, three shareholder derivative lawsuits, respectively encaptioned Zabielski v. Kent Kresa, et al., Harbor Finance Partners v. Kent Kresa, et al., and Clarren v. Kent Kresa, et al., were filed in the Superior Court of California for the County of Los Angeles. These lawsuits each contain similar allegations that the directors of the company and certain of its officers breached their fiduciary duties in connection with the shareholder vote approving the proposed acquisition of the company by Lockheed Martin Corporation, and that certain defendants engaged in stock trades in violation of federal and state securities laws. The lawsuits are purportedly brought on the company's behalf and do not seek relief against the company. On January 31, 2001, the State Court dismissed these actions with prejudice and plaintiffs subsequently filed a timely appeal. The defendants deny the allegations made in these actions and intend to vigorously defend the actions.

Fanni and related cases

Five shareholder class action lawsuits, making similar allegations, were filed between July and September 1998 in the United States District Court for the Central District of California against the company, its directors and certain of its officers. Three of these lawsuits, respectively encaptioned Fanni v. Northrop Grumman Corp., et al., Schnee v. Northrop Grumman Corp., et al., and Florida State Board of Admin. v. Northrop Grumman Corp., et al., allege that defendants issued misleading proxy materials in connection with the proposed acquisition of the company by Lockheed Martin Corporation, in violation of the federal securities laws. These actions seek unspecified damages on behalf of a class of shareholders related to the accelerated vesting of stock incentive plans upon the shareholder vote to approve the merger. Two of these lawsuits, respectively encaptioned Burroughs v. Northrop Grumman Corp., et al., and Miller, et al. v. Northrop Grumman Corp., et al., allege that defendants disseminated misleading information in connection with the proposed acquisition, in violation of the federal securities laws, thereby artificially inflating the market price of the company's common stock. These actions seek unspecified damages for a class of shareholders who purchased Northrop Grumman Stock between July 3, 1997, and March 9, 1998. The District Court consolidated Fanni, Schnee and Florida State Board of Admin. into one action, and Burroughs and Miller into another action. The District Court dismissed the Fanni consolidated actions with prejudice in April 2000, and dismissed the Burroughs consolidated actions with prejudice in October 2000. Plaintiffs filed timely appeals and in December 2001 the Ninth Circuit Court of Appeals affirmed the District Court's Order dismissing Fanni. The Burroughs matter is pending in the Ninth Circuit. The company and the individual defendants deny the allegations made in these actions and intend to defend the actions vigorously.

Honeywell

Pursuant to a settlement reached in December 2001, Honeywell, Inc. (Honeywell) paid the company \$220 million on December 24, 2001, and will pay an additional \$220 million to the company on or before July 1, 2002, to settle all claims related to the patent and anti-trust litigation filed by Litton against Honeywell in 1990.

U.S. ex rel. Rex Robinson v. Northrop Grumman Corporation

In August 1992, the United States District Court for the Northern District of Illinois unsealed a complaint brought by four individuals in the name of the United States of America, filed on August 10, 1989, seeking damages under the <u>qui tam</u> provision of the False Claims Act. On July 28, 1992, the government declined to intervene in this action. Plaintiffs seek damages in excess of \$113 million, most of which relate to the manner in which the company accounted for "scrap" parts at its Rolling Meadows facility in the 1980s. In 2001, the Civil Division of the U.S. Attorney's Office filed a motion to intervene in the action, which motion was granted on October 12, 2001. The company denies the allegations and intends to vigorously defend the action.

Environmental Matters

In the second quarter of 2001, the Company acquired Litton Industries, Inc. The AirTron division of Litton was notified by the New Jersey Department of Environmental Protection (NJDEP) of alleged effluent limitation violations (treated process waste water) for the June 1999 through August 2000 period. Subsequent monitoring reports are under review. NJDEP have advised Litton that they are seeking penalties in excess of \$100,000 with respect to alleged violations. In a separate matter, on December 18, 2000, the Mississippi Department of Environmental Quality (MDEQ) delivered to the Ingalls subsidiary of Litton, a notice of violation alleging use of non-compliant coatings, opacity violations and VOC emissions violations. The MDEQ subsequently requested that Ingalls perform an air permit compliance review. In the course of negotiations with respect to the review and required corrective actions, the MDEQ has advised Litton that it will seek penalties in excess of \$100,000 in connection with these matters.

General

The company, as a government contractor, is from time to time subject to U.S. Government investigations relating to its operations. Government contractors that are found to have violated the False Claim Act, or are indicted or convicted for violations of other federal laws, or are considered not to be responsible contractors may be suspended or debarred from government contracting for some period of time. Such convictions could also result in fines. Given the company's dependence on government contracting, suspension or debarment could have a material adverse effect on the company.

The company is involved in certain other legal proceedings arising in the ordinary course of business, none of which the company's management believes will have a material adverse effect on the company's financial condition.

Executive Officers of the Registrant

The following individuals were the elected officers of the company as of March 7, 2002:

Name	Age	Office Held	Since	Business Experience Last Five Years
Kent Kresa	63	Chairman and Chief Executive Officer	2001	Chairman, President and Chief Executive Officer
Ronald D. Sugar	53	President and Chief Operating Officer	2001	President, Litton Industries, Inc.; Prior to May 2001 President and Chief Operating Officer of Litton Industries, Inc. (2000-2001); President and Chief Operating Officer of TRW Aerospace & Information Systems and Member of the Chief Executive Office of TRW, Inc. (1998-2000); Executive Vice President and General Manager of the TRW Automotive Electronics Group (1996-1998)
Herbert W. Anderson	62	Corporate Vice President and President, Information Technology Sector	2001	Corporate Vice President, President and Chief Executive Officer, Logicon, Inc.; Prior to January 1999, Corporate Vice President and General Manager, Data Systems & Services Division (1995-1998)
Frank G. Brandenberg	55	Corporate Vice President and President, Component Technologies Sector	2001	President, Component Technologies Sector; Prior to May 2001, Senior Vice President, Electronic Components and Materials Group, Litton Industries, Inc.; President and Chief Executive Officer of EA Industries Inc. (1997-1999); President of the Client/Server Systems Business Unit and Deputy President of the Computer Systems Group, UNISYS Corporation (1990-1997)
Philip A. Dur	57	Corporate Vice President and President, Ship Systems Sector	2001	Vice President, Electronic Systems Sector; Prior to December 1999, Vice President, Worldwide Business Development and Strategy, Tenneco, Inc.
J. Michael Hateley	55	Corporate Vice President and Chief Human Resources and Administrative Officer	2000	Vice President, Personnel; Prior to January 1999, Vice President Human Resources, Security and Administration, Military Aircraft Systems Division
Robert W. Helm	50	Corporate Vice President, Government Relations	1994	
Robert P. Iorizzo	61	Corporate Vice President and President, Electronic Systems Sector	2001	Vice President and General Manager of Command, Control, Communications, Intelligence and Naval Systems Division, Electronic Systems Sector

Name	Age	Office Held	Since	Business Experience Last Five Years
John H. Mullan	59	Corporate Vice President and Secretary	1999	Acting Secretary; Prior to May 1998 Senior Corporate Counsel
Albert F. Myers	56	Corporate Vice President and Treasurer	1994	
Rosanne P. O'Brien	58	Corporate Vice President, Communications	2000	Vice President, Corporate Communications; Prior to 1999, Vice President, Corporate Communications, Allegheny Teledyne
Thomas C. Schievelbein	48	Corporate Vice President and President, Newport News Sector	2001	Executive Vice President and Chief Operating Officer, Newport News Shipbuilding Inc.; Prior to March 1999, Executive Vice President, Newport News Shipbuilding Inc. (1995-1999)
Scott J. Seymour	51	Corporate Vice President and President, Integrated Systems Sector	2002	Vice President, Integrated Systems Sector
W. Burks Terry	51	Corporate Vice President and General Counsel	2000	Vice President, Deputy General Counsel and Sector Counsel; Prior to 1998 Vice President and Assistant General Counsel
Richard B. Waugh, Jr.	58	Corporate Vice President and Chief Financial Officer	1993	
Sandra J. Wright	46	Corporate Vice President and Controller	2001	Corporate Controller; Prior to May 2001, Vice President and Controller of Litton Industries, Inc. (2000-2001); Vice President and Controller of Aerojet, a Gen Corp company (1999-2000) and Director of Financial Planning of Aerojet previously

Item 4. Submission of Matters to a Vote of Security Holders

No information is required in response to this Item

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The information required by this Item is contained in Part II, Item 8 of this Annual Report on Form 10–K.

Item 6. Selected Financial Data

The data for the periods 1997 to 2000 presented in the following table, Selected Financial Data, have been adjusted to exclude the company's commercial Aerostructures business, which was sold in 2000, except for number of employees at year-end, floor area, and all balance sheet data, including net working capital, total assets, debt, long-term obligations and shareholders' equity.

Selected Financial Data

Years ended December 31, \$ in millions except per share	2001	2000	1999	1998	1997
Net sales to United States Government Other customers	\$ 10,575 2,983	\$ 6,662 956	\$ 6,716 900	\$ 6,426 941	\$ 6,921 877
Total net sales	\$ 13,558	\$ 7,618	\$ 7,616	\$ 7,367	\$ 7,798
Operating margin	\$ 1,004	\$ 1,098	\$ 954	\$ 752	\$ 741
Income from continuing operations, net of tax	427	625	474	193	318
Basic earnings per share, from continuing operations	4.84	8.86	6.84	2.82	4.76
Diluted earnings per share, from continuing operations	4.80	8.82	6.80	2.78	4.67
Cash dividends per common share	1.60	1.60	1.60	1.60	1.60
Net working capital	(543)	(162)	329	666	221
Current ratio	.89 to	.94 to	1.13 to	1.28 to	1.08 to
	1	1	1	1	1
Total assets	\$ 20,886	\$ 9,622	\$ 9,285	\$ 9,536	\$ 9,677
Long-term debt	5,033	1,605	2,000	2,562	2,500
Total long-term obligations and mandatorily redeemable preferred stock	8,363	3,015	3,564	4,319	4,339
Long-term debt as a percentage of shareholders' equity	68.1%	41.0%	61.4%	89.9%	95.3%
	00.170	41.070	01.470	03.570	33.370
Operating margin as a percentage of Net sales	7.4	14.4	12.5	10.2	9.5
	7.4 8.1	14.4	11.7	9.0	9.5 8.7
Average segment assets	0.1	14.1	11./	9.0	0.7
Income from continuing operations, net of tax, as a percentage of					
Net sales	3.1	8.2	6.2	2.6	4.1
Average assets	2.8	6.6	5.0	2.0	3.3
Average shareholders' equity	7.6	17.4	15.5	7.1	13.0
Research and development expenses					
Contract	\$ 932	\$ 900	\$ 1,147	\$ 1,478	\$ 1,651
Noncontract	342	318	195	189	231
Payroll and employee benefits	5,073	2,581	2,768	2,821	2,922
Number of employees at year-end	96,800	39,300	44,600	49,600	52,000
Number of shareholders at year-end	17,880	11,750	11,173	11,774	11,400
Depreciation	\$ 266	\$ 175	\$ 162	\$ 179	\$ 200
Amortization of	,				
Goodwill	240	114	99	90	90
Other purchased intangibles	139	92	92	90	90
Maintenance and repairs	171	96	79	74	92
Rent expense	219	122	101	92	95
Floor area (in millions of square feet)					
Owned	30.4	14.3	18.8	19.2	20.5
Commercially leased	16.2	9.8	10.6	10.6	10.0
Leased from United States Government	2.7	2.9	7.5	7.6	8.8
2	=.7	=			2.0

Item 7. Management's Discussion and Analysis of the Company's Financial Condition and Results of Operations

BUSINESS CONDITIONS

Northrop Grumman provides technologically advanced, innovative products, services and solutions in defense and commercial electronics, information technology, systems integration and nuclear and non-nuclear shipbuilding and systems. As a prime contractor, principal subcontractor, partner, or preferred supplier, Northrop Grumman participates in many high-priority defense and commercial technology programs in the United States and abroad. While Northrop Grumman is subject to the usual vagaries of the marketplace, it is also affected by the unique characteristics of the defense industry and by certain elements peculiar to its own business mix. It is common in this industry for work on major programs to be shared among a number of companies. A company competing to be a prime contractor may, upon ultimate award of the contract, turn out to be a subcontractor. It is not uncommon to compete with customers, and simultaneously on other contracts, to be either a supplier to or a customer of such competitor. The nature of major defense programs, conducted under binding contracts, allows companies that perform well to benefit from a level of program continuity unknown in many industries. Northrop Grumman conducts most of its business with the U.S. Government, principally the Department of Defense (DOD). The company also conducts business with foreign governments and makes domestic and international commercial sales.

The landscape of the global defense industry continues to evolve as new events such as those of September 11, 2001, demand alternative strategic defense initiatives. The defense requirements of the United States and NATO countries have shifted from defending against threats posed by the former Soviet Union to a focus upon the management of one or more regional conflicts, homeland security, and proactive threat identification. Such engagements may require unilateral or cooperative initiatives, ranging from passive surveillance to active engagement, deterrence, policing or peacekeeping. In addition, the DOD's strategy has been affected by the general public's concern for placing military or civilian personnel at risk. As a result of these trends, both the United States and NATO countries are increasingly relying on sophisticated weapon systems that provide long-range surveillance and intelligence, battle management and precision strike capabilities combined with the ability to rapidly deploy complete defensive platforms around the world. Accordingly, defense procurement spending is expected to be weighted towards the development and procurement of advanced electronics and software that enhance the capabilities of individual weapons systems and provide for the real-time integration of individual surveillance, information management, strike and battle management platforms.

United States defense contractors have also benefited from an upward trend in defense spending over recent years. Following a period of budget decreases in the post-Cold War era, the aggregate U.S. defense budget, as appropriated by Congress, has increased, principally in the area of equipment procurement. Defense spending by other NATO countries has stabilized, following decreases in the immediate post-Cold War era, while they continue to increase their focus upon the development and procurement of advanced electronics and information systems capabilities.

Although the ultimate size of future defense budgets remains uncertain, current indications are that the defense budget will increase over the next five years. 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. Budget decisions made in this environment will have long-term consequences for the size and structure of Northrop Grumman and the entire defense industry. While the ultimate distribution of the budget remains uncertain, the company expects that its technologies and programs will be viewed favorably in the upcoming strategic review and budget process.

Northrop Grumman has historically concentrated its efforts in high technology areas such as stealth, airborne surveillance, battle management, precision weapons, systems integration, defense electronics and information technology. Through its acquisitions of Litton Industries, Inc. (Litton) and Newport News Shipbuilding Inc. (Newport News), the company now has a significant presence in the ships arena including aircraft carriers, submarines and other products primarily for the U. S. Navy. The company believes that its programs are a high

priority for national defense, but there remains the possibility that one or more of them may be reduced, extended or terminated.

In the event of termination for the government's 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 Tri-Service Standoff Attack Missile (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 on the program. 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 of its claims, none of which are recorded on its balance sheet, from the U.S. Government on the TSSAM contract.

Prime contracts with various agencies of the U.S. Government and subcontracts with other prime contractors are subject to numerous procurement regulations, including the False Claims Act and The International Traffic in Arms Regulation promulgated under the Arms Export Control Act, with noncompliance found by any one agency possibly resulting in fines, penalties, debarment or suspension from receiving additional contracts with all U.S. Government agencies. Given the company's dependence on U.S. Government business, suspension or debarment could have a material adverse effect on the company's future.

The company pursues new business opportunities by balancing acceptable financial returns with technological risks. The company examines opportunities to acquire or invest in new businesses and technologies to strengthen and expand its core business areas. The company occasionally capitalizes on its technologies and skills by entering into joint ventures or partnerships with other companies, both domestically and internationally, for the on-going development of advanced technology products and for the performance of government and commercial contracts. The majority of the company's unconsolidated investments are accounted for using the equity method of accounting. Nominal investments are accounted for using the cost method. At December 31, 2001, cost and equity method investments totaled \$64 million, of which 72 percent represented investments by the Newport News sector in a foreign shipbuilding company and a worldwide fleet services partnership. Another 20 percent of this balance represented an investment by the Electronic Systems sector in a company that produces thermal imaging devices for military and commercial use. The company does not make use of business arrangements or other business activities that involve so-called special purpose entities. In the ordinary course of business, the company utilizes standby letters of credit and other arrangements with financial institutions principally to guarantee the future performance on certain company contracts. Such financial arrangements supporting contract performance totaled \$684 million at December 31, 2001, and \$511 million at December 31, 2000. The company also maintains a self-insured workers' compensation plan which is secured by surety bonds and a general agreement of indemnity for the surety. At December 31, 2001, there were \$287 million of such instruments outstanding. For all years presented the company had no material related party transactions.

An individual company's success in the competitive defense industry depends upon its ability to develop and market its products, as well as its 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 achieve these objectives. The company also believes that it maintains good relations with its employees, approximately 22 percent of whom are covered by collective bargaining agreements. The company expects to renegotiate 12 collective bargaining agreements in 2002, none of which either individually or collectively are expected to have a material adverse effect on the operations of the company.

An important factor in determining Northrop Grumman's ability to compete successfully for future contracts will be its cost structure vis-à-vis other bidders. Since the early 1990's the 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. Lockheed Martin Corporation, The Boeing Company and Raytheon Company are among the largest companies in the defense industry at this time.

Northrop Grumman, also among the largest defense contractors, competes against these and other companies for a number of programs, both large and small. Intense competition and long operating cycles are both key characteristics of Northrop Grumman's business and the defense industry.

Critical Accounting Policies

The company's established policies are outlined in the footnotes to the Consolidated Financial Statements (contained in Part II, Item 8 of this Form 10-K) entitled "Summary of Significant Accounting Policies". As part of its oversight responsibilities, management continually evaluates the propriety of its accounting methods as new events occur. Management believes that its policies are applied in a manner which is intended to provide the user of the company's financial statements a current, accurate and complete presentation of information in accordance with Generally Accepted Accounting Principles. Important accounting practices that require the use of assumptions and judgments are outlined below:

Revenue Recognition

As a defense contractor engaging in long-term contracts, the company extensively utilizes the cost-to-cost type and the units-of-delivery type of percentage-of-completion method of accounting. Application of this accounting method requires the use of estimates of costs to be incurred for the design, manufacture and delivery of aircraft carriers, aircraft and subassemblies, radars and other highly technical products. Such costs are typically incurred over a period of several years and estimation of these costs requires the use of judgment. The cost estimation process is based upon the professional knowledge and experience of the company's engineers, program managers and financial professionals. Contract cost estimates are updated at least annually and more frequently based upon the specific circumstances. Any adjustment to projected costs are recognized when determinable.

Purchase Accounting and Goodwill

The company applies the purchase method of accounting to its acquisitions. Under this method, the purchase price is allocated to the underlying tangible and intangible assets acquired and liabilities assumed based upon their respective fair market values, with the excess recorded as goodwill. Such fair market value assessments require judgments and estimates which can be affected by contract completion and other factors over time. Upon adoption on January 1, 2002, amounts recorded as goodwill will be subject to annual evaluation of impairment through the application of the regulations promulgated under Statement of Financial Accounting Standards (SFAS) No. 142–Goodwill and Other Intangible Assets, which can result in declines in the carrying value of assets recorded as goodwill.

Litigation, Commitments and Contingencies

The company is subject to a range of claims, lawsuits, environmental challenges and administrative proceedings that arise in the ordinary course of business. Estimating liabilities and costs associated with these matters requires judgment and assessment based upon professional knowledge and experience of management and its legal counsel. When estimates of the company's exposure from claims or pending or threatened litigation matters meet the criteria of SFAS No. 5–*Accounting for Contingencies*, amounts are recorded as charges to earnings. The ultimate resolution of any exposure to the company may change as further facts and circumstances become known.

Retirement Benefits

Assumptions used in determining projected benefit obligations and the fair values of plan assets for the company's pension plans and post-retirement benefits other than pension plans are regularly evaluated by management in consultation with outside actuaries who are relied upon as experts. In the event that the company determines that changes are warranted in the assumptions used, such as the discount rate, expected long term rate of return, or health care cost, future pension and post-retirement benefit expenses could increase or decrease.

With respect to the previously described critical accounting policies, management believes that the application of judgments and assessments is consistently applied and produces financial information which fairly depicts the results of operations for all years presented.

Acquisitions and Divestures

The current composition of Northrop Grumman resulted from a series of strategic acquisitions, mergers and divestures by the former Northrop Corporation beginning in 1992, when the company acquired a 49 percent interest in the Vought Aircraft Company, a designer and builder of commercial and military aerostructures. The remaining 51 percent interest in Vought Aircraft was purchased in 1994. Also in 1994 the company purchased the outstanding common stock of Grumman Corporation and the company was renamed Northrop Grumman Corporation. In 1996 Northrop Grumman acquired the defense electronic systems group of Westinghouse Electric Corporation. Effective August 1, 1997, the company merged with Logicon, Inc., a leading defense information technology company.

In 1998 and 1999, the company acquired several businesses that strategically fit within its operating sectors. Inter-National Research Institute Inc. (INRI) was acquired in 1998 and was integrated into the Information Technology sector. In 1999, Ryan Aeronautical, an operating unit of Alleghany Teledyne Incorporated, the Information Systems Division of California Microwave, Inc., and Data Procurement Corporation (DPC), were acquired and integrated into Integrated Systems, Electronic Systems and Information Technology, respectively.

Navia Aviation AS, Comptek Research, Inc., Federal Data Corporation, and Sterling Software, Inc., (known as Sterling's Federal Systems Group) were all acquired in 2000. Navia was integrated into Electronic Systems. The Comptek units were integrated within the Integrated Systems, Electronic Systems and Information Technology sectors. Federal Data and Sterling were both integrated into Information Technology.

On July 24, 2000, the company completed the sale of its commercial aerostructures (Aerostructures) business to The Carlyle Group. Aerostructures was principally a major producer of commercial aircraft subassemblies, the majority of which were sold to The Boeing Company.

In April 2001, the company purchased approximately 97 percent of the common stock and approximately 59 percent of the preferred stock of Litton. The company issued 13 million shares of its common stock and 3.5 million shares of its preferred stock and paid cash for the balance of the shares. In May and June 2001, the company acquired all of the remaining shares of Litton common and preferred stock for cash. The Litton business units operating results are included from the acquisition date in the company's segment data as follows: Litton's advanced electronics business is included in Electronic Systems; Litton's information systems business is included in Information Technology; Litton's ship business is included in Ships; and Litton's electronic components and materials business comprises Component Technologies.

The acquisition of Litton, which is valued at approximately \$5.2 billion, including the assumption of Litton's net debt of \$1.3 billion, is accounted for using the purchase method of accounting. Under the purchase method of accounting, the purchase price is allocated to the underlying tangible and intangible assets acquired and liabilities assumed based on their respective fair market values, with the excess recorded as goodwill. Goodwill and other purchased intangibles related to the Litton acquisition were amortized on a straight-line basis over weighted average periods of 24 years and 7 years, respectively. In future periods, purchased intangibles will continue to be amortized over a weighted average period of 7 years. The consolidated financial statements reflect preliminary estimates of the fair market value of the assets acquired and liabilities assumed and the related allocations of purchase price, and preliminary estimates of adjustments necessary to conform Litton data to the company's accounting policies. The company is currently reviewing the preliminary estimates of the fair market value of assets acquired and liabilities assumed, including valuations associated with certain contracts and restructuring activities and preliminary valuation study results for workers' compensation accruals and retiree benefits assets and liabilities. The final determination of the fair market value of assets acquired and liabilities assumed and final allocation of the purchase price may differ from the amounts included in the consolidated financial statements. Adjustments to the purchase price allocations will be finalized by March 31, 2002, and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

In connection with the acquisition of Litton the company accrued \$114 million in restructuring costs, including \$29 million to exit a business, \$29 million to close down redundant facilities and \$56 million to terminate and relocate employees. All restructuring costs accrued as of December 31, 2001, were accounted for as purchase accounting adjustments to the opening balance sheet of Litton. For the period from April 2, 2001, to December 31, 2001, the company charged \$25 million against the balance sheet accruals. At December 31, 2001, \$3 million and \$86 million of the purchase accounting accruals remained in accrued employees' compensation and other current liabilities, respectively. The company expects to complete its restructuring activities no later than the fourth quarter of 2002

In October 2001, the company completed its acquisition of the Electronics and Information Systems (EIS) Group of Aerojet-General Corporation for \$315 million in cash after securing necessary regulatory approvals. EIS' operating results are included from the acquisition date in the Electronic Systems sector's newly formed Space Systems area.

In November 2001, the company purchased pursuant to an exchange offer approximately 80.7 percent of the outstanding shares of Newport News common stock, issuing 13.4 million shares of the company's common stock and paying cash for the remaining balance of shares tendered. For the year ended December 31, 2001, the company has accounted for the 19.3 percent of Newport News common shares that it did not own as minority interest. In January 2002, the company completed the acquisition of the shares of Newport News common stock not previously purchased, issuing 3.2 million shares of common stock and paying cash for the remaining balance of the shares. The acquisition of Newport News is valued at \$2.6 billion including the assumption of Newport News net debt of \$400 million. Newport News is operated as a new sector. The company expects to combine Ship Systems and Newport News into a single sector, but for the next 12 to 24 months they will function as stand-alone sectors.

The Newport News and EIS acquisitions are accounted for using the purchase method of accounting. The company is in the early stages of the fair market value and accounting conformance evaluation process with respect to the Newport News and EIS acquisitions. The consolidated financial statements reflect preliminary estimates of the fair market value of the assets acquired and liabilities assumed and the related allocations of purchase price and preliminary estimates of adjustments necessary to conform Newport News and EIS to the company's accounting policies. Adjustments to the purchase price allocations are expected to be finalized by June 30, 2002, and will be reflected in future filings. There can be no assurance that such adjustments will not be material. See the footnotes to the Consolidated Financial Statements in Part II, Item 8 entitled "Acquisitions", and "Discontinued Operations" for additional information.

On February 22, 2002, the company forwarded a proposal to TRW's board of directors to enter into negotiations to combine the two companies. The terms of the exchange offer are as set forth in the prospectus filed as part of the Form S-4 on March 4, 2002, as amended by the company from time to time. There can be no assurance that such a transaction will be completed or, if completed, on what terms. Promptly following the close of the transaction, the company expects to separate TRW's automotive business either by selling the business to one or more third parties or by spinning it off to Northrop Grumman shareholders. There currently is no agreement for the sale of the automotive business and there can be no assurance that a sale will be consummated or with respect to the terms of such sale.

BUSINESS SEGMENTS

The company is aligned into six business sectors: Electronic Systems, Information Technology, Integrated Systems, Ship Systems, Newport News and Component Technologies. For financial reporting purposes each business sector is a reportable segment with the exception of Ship Systems and Newport News which are aggregated and reported as the Ships segment in accordance with the provisions of SFAS No. 131–Disclosures about Segments of an Enterprise and Related Information.

Electronic Systems

The Electronic Systems segment comprises five product lines: Aerospace Electronic Systems; Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance, and Naval (C⁴ISR&N) Systems; Defensive Electronic Systems; Navigation Systems and Space Systems; plus three smaller lines referred to collectively as "Other". The segment's expertise is the ability to conceive, design, produce, integrate, and support high performance sensors, intelligence and processing systems that operate in all environments, from underseas to outerspace.

Aerospace Electronic Systems products provide ground-based and airborne Radio Frequency (RF) and Electro-Optical/Infrared sensors (EO/IR) and integrated sensor suites to meet military surveillance, precision strike and threat warning needs. These products are categorized into three types of systems: combat avionics systems, land combat systems, and airborne surveillance systems. Combat avionics systems include radar and electro-optic based avionics systems that meet the needs of targeting and strike missions for armed forces worldwide, such as: the AN/APG-66/68 airborne fire control radar series installed onboard F-16 fighters; the next-generation air-superiority radar for the U.S. Air Force's F-22 aircraft; and the fire control radar and other key avionics systems for the new F-35 Joint Strike Fighter which is in the early development stage. Land combat systems include the Longbow APG-78 fire control radar and the Longbow Hellfire missile for the U.S. Army's AH-64D Apache attack helicopter and the British WAH-64 Westland Apache. Land combat systems also include the Brilliant Anti-Tank (BAT) anti-armor submunition, an autonomous submunition that uses passive acoustic and infrared sensors to find, attack and destroy moving tanks and other armored vehicles. BAT is currently in Low-Rate Initial Production (LRIP). Airborne surveillance systems include Airborne Warning and Control System (AWACS) radar which is integrated on Boeing 707 and 767 aircraft; the Multirole Electronically Scanned Array (MESA), a new airborne surveillance systems product being developed for installation on Boeing 737 aircraft for the Royal Australian Air Force; and the Multi-Platform Radar Technology Insertion Program (MP-RTIP), which, with its advanced active aperture, is intended to significantly improve the performance of Joint STARS, while also creating new air-to-ground surveillance missions and opportunities.

C⁴ISR&N Systems encompass airspace management systems; command, control, communications, computers, intelligence, surveillance, reconnaissance and targeting (C⁴ISRT) systems; oceanic and naval systems; marine systems; and communications. Airspace management systems are air defense and air traffic control radar systems and associated systems used by domestic and international customers and currently operate in more than 30 countries. C⁴ISRT systems are ground-based intelligence, surveillance and reconnaissance processing systems used by the DOD. These systems include the U.S. Army's Tactical Exploitation System, the next-generation Naval Fires Network, and the U.S. Air Force Intelligence, Surveillance, and Reconnaissance Manager. Oceanic and naval systems products include the Advanced SEAL Delivery System mini-submarine, the SPQ-9B shipboard radar, advanced mine hunting sensors and processors, and submarine subsystems. Marine systems include marine power generation machinery; advanced propulsion systems and missile launchers used for naval applications; integration of the inter-cooled recuperated gas turbine engine, which is a candidate propulsion system for future surface ships; and integrated bridge systems, navigation systems, and radars. Communications products provide reliable solutions for commercial and defense applications including co-site and spread spectrum communications systems communication, navigation and surveillance systems, specialized satellite communications ground terminals, an array of communications gateways and message processing systems, and fully integrated voice communications systems for air traffic control and command, control and communications applications.

Defensive Electronic Systems includes electronic warfare and targeting products in several product lines: RF countermeasures, EO/IR countermeasures, targeting systems, automatic test equipment, simulation products, laser systems and electron devices. RF countermeasures products include radar warning receivers and electronic warfare suite controllers, self-protection jammers, electronic support measures and special receivers, and integrated electronic warfare systems. These products protect fixed wing and rotary wing aircraft, as well as surface ships, submarines and satellites, from RF threats. EO/IR countermeasures products include the NEMESIS Directional Infrared Countermeasures (DIRCM) system, which protects rotary wing and fixed wing aircraft from the shoulder-launched, infrared-guided threat. Targeting systems products include the Litening II targeting pod, which provides 24-hour adverse-weather strike capabilities; automatic test equipment to evaluate and assess the health of defense electronics and electro-optic systems quickly and efficiently; simulation and evaluation equipment required to assess correctly and efficiently the performance of defense electronic systems; and laser systems including laser rangefinders, laser target locators and laser target designators.

Navigation Systems include three types of systems: military aircraft electronic systems; military land and sea electronic systems; and commercial systems. Military aircraft electronic systems are sold to military customers in the rotary wing and fixed wing aircraft markets. Products and services include navigation systems, flight certified computers and cockpit displays, identification friend or foe systems, and complete systems integration for rotary wing and fixed wing aircraft. The three key programs in the category are U.S. Marine Corps attack and utility helicopter upgrades, Blackhawk helicopter modernization, and Euro Fighter aircraft upgrades. Military land and sea electronic systems are provided to military customers in four categories: missiles, vehicles, ships, and sub-surface (submarines and acoustical devices). Products include battlefield situational awareness systems, interrogators/ transponders, secondary surveillance radars, and all-optical fiber-optic acoustics systems for surveillance. Commercial systems are sold to non-military customers for civil aviation, space products and civil computing applications. Products include inertial navigation and reference systems, altitude and heading/reference systems, global positioning products, and mobile command center systems.

Space Systems products span the information chain in space systems from sensor payloads and algorithms to mission data processing and displays, including surveillance and remote sensing, systems processing and applications, and Space-Based Infrared System (SBIRS) high payload and systems engineering. Surveillance and remote sensing products serve three markets: military space; EO and RF space surveillance systems; and civil space. Military and surveillance contracts include the Defense Meteorological Support Program, the Defense Support Program, and a mix of classified space programs. The civil space programs include the Advance Technology Microwave Sounder, and a variety of other NASA and commercial satellite systems. Systems processing and applications, provide mission systems processing for fixed and mobile installations. Programs in this business include the SBIRS High Ground Mission Control Station, the Mobile Multi-Mission Processor, and mission data processing for the SBIRS Low program. SBIRS high payload and systems engineering, designs, develops, produces and integrates mission payloads for SBIRS High, a space-based U.S. Air Force sensor that provides warning of ballistic missile launches.

Included in Other are systems development and technology, automation and information systems, and logistics systems. Respectively, these three areas provide the technology for current and future products; design and produce material handling and sorting systems for postal services, commercial parcel carriers and airport baggage facilities; and develop a wide range of logistics services for a variety of customers.

Information Technology

The Information Technology segment consists of four lines of business: Government Information Technology, Enterprise Information Technology, Services, and Commercial Information Technology.

Government Information Technology covers a wide range of services and support programs. This work is performed for government customers at the DOD, federal, state and local levels, and covers command, control, communications, computers, intelligence, surveillance and reconnaissance (C⁴ISR); training and simulation; science and technology; and information systems markets. Government Information Technology grew in size and

scope in 2001 following the integration of Litton's information systems business. In the C⁴ISR market, Information Technology supports the development, testing and fielding of command and control systems for its primary customers, principally the DOD. Specialty areas include mission critical software, systems engineering, tactical data links, information security, independent validation and verification, geographic information systems, orbital analysis, homeland security activities and national intelligence systems and services. In the training and simulation market, the segment is a prime developer and operator of modeling, simulation and analysis systems, computer-driven war-gaming and training, flight simulations, knowledge management systems and mission readiness exercises. These services are provided to the U.S. Navy, Air Force, Army, Special Operations Command, NASA, and the Missile Defense Agency. In the science and technology market, work includes analysis of weapons of mass destruction effects, high-energy laser technology development and neural network applications. This technical and scientific support is provided to the U.S. Air Force Research Labs and the Defense Threat Reduction Agency. The information systems market is large and diverse. As a full service provider, the sector offers a complete range of services such as high performance computing, electronic commerce, large-scale database design, systems modernization and integration, disaster recovery and planning, enterprise resource planning, data center management, seat management, health solutions, air traffic controls, and cyber warfare/information security systems. Customers include state governments, federal agencies such as the General Services Administration, Department of Health and Human Services, the Department of Justice, the Internal Revenue Service, and all branches of the DOD.

Enterprise Information Technology services are focused on the delivery and integration of commercially available computers, networks, hardware, software, and peripherals. Customers include the Veterans Administration, Department of State, Department of Justice, Department of Treasury, U.S. Air Force, U.S. Navy, NASA, and state and local government agencies.

Technology Services include base and range support, training and simulation, and information systems. Contracts include support of systems, logistics support, facilities management services, flight systems and simulation services, mission integration and planning support, operation and support of simulation enhanced training programs, systems integration, data center management, and systems engineering and networking. Primary customers include the U.S. Army, U.S. Air Force, NASA, and state and local government agencies.

Commercial Information Technology services are directed to the commercial market. This work includes hardware and software maintenance, help desk support, systems administration, network design, systems modernization and integration, and facility management services. Customers include information technology outsourcing providers, original equipment manufacturers, integrators and resellers.

Integrated Systems

Air Combat Systems (ACS), Airborne Early Warning and Electronics Warfare (AEW/EW) systems and Airborne Ground Surveillance and Battle Management (AGS/BM) systems are the three product lines within the Integrated Systems segment.

Included in ACS are: F/A-18E/F subcontract work, F-35 Joint Strike Fighter (JSF) work, unmanned systems, the B-2 bomber, and Multi-Platform Radar Technology Insertion Program (MP-RTIP). The company is the principal subcontractor to The Boeing Company on the F/A-18 (Hornet/Super Hornet) 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 also has been purchased by several other nations as a land-based combat aircraft. Northrop Grumman builds approximately 40 percent of the aircraft including the center and aft fuselage, vertical tails and associated subsystems. The F/A-18 single-seat E and two-seat F, enhanced (Super Hornet) versions of the F/A-18C and D (Hornet) models, are currently in production and will serve as the U.S. Navy's next-generation multi-mission aircraft.

On the F-35 JSF Program, ACS is teamed with Lockheed Martin Corporation and BAE Systems. The F-35 JSF is a multi-mission, multi-service weapon system, which is being developed as an affordable fighter/attack platform. In October 2001, the Lockheed Martin team was awarded the contract to move the program into the next phase, System Development and Demonstration (SDD). Plans call for more than 3,000 aircraft over the life of

the program, with an initial 22 aircraft to be produced in the \$19 billion SDD phase, although no assurances can be given regarding the ultimate number of aircraft to be produced. The Integrated Systems sector is responsible for the detailed design and integration of the center fuselage and weapon bay, a large part of systems engineering, mission system software, ground and flight test support, signature/low observables development, and support of modeling and simulation activities. The total program is valued at approximately \$200 billion and is intended to be a cornerstone of future defense capability for the United States, the United Kingdom and their allied partners. The F-35 JSF is designed to replace the A-10, the AV-8 Harrier, F-16 and the F/A-18.

The company is a leader in the unmanned systems market. Major projects under development include Global Hawk, the high altitude Long-Endurance Unmanned Aerial Vehicle (LUAV), the unmanned aerial vehicle (UAV) and the Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV). Global Hawk is being developed for the U.S. Air Force to provide battlefield commanders with intelligence imagery from high altitudes for long periods of time.

ACS is the prime contractor for the B-2 bomber. Production deliveries of the B-2 bomber have been completed and the company continues to perform work on the EMD contract as well as upgrade and support activity. The U.S. Air Force currently operates 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.

Integrated Systems was selected by the U.S. Air Force as the prime systems integration contractor for the MP-RTIP. The objective of the program is to upgrade current aircraft and unmanned vehicles with an advanced technology radar subsystem, which includes higher resolution and greater accuracy. The segment is also developing technologies and performing systems engineering studies as part of NASA's Space Launch Initiative Second Generation Reusable Launch vehicle to replace the Space Shuttle. As a key member of Orbital Sciences Corporation's RLV Team, Integrated Systems will help define a safe, low-cost space transportation system that will enable the commercial development and civil exploration of space.

AEW/EW products include the E-2C (Hawkeye) Airborne Early Warning and the EA-6B (Prowler) Electronic Warfare aircraft. The E-2C has been in active service with the U.S. Navy since 1973 and is employed by the air forces of five other nations. AEW/EW is currently performing a multi-year contract to produce 22 aircraft for the U.S. Navy, one aircraft for France, and two aircraft for Taiwan. The E-2C is kept current through technological upgrades of its mission systems, the latest of which is the Hawkeye 2000 configuration. The EA-6B is the armed services' only offensive tactical radar jamming aircraft. The company is currently developing the next generation mission system for this aircraft under the ICAP (Increased Capability) III contract.

The major product included in AGS/BM is Joint STARS. AGS/BM is the prime contractor on Joint STARS which uses a remanufactured Boeing 707-300 airframe as a platform. 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 for military analysis far from the point of conflict.

Ships

The Ships segment combines two operating sectors, Ship Systems and Newport News and includes the following products and services: Surface Combatants, Amphibious and Auxiliary, Commercial and International, Aircraft Carriers, Submarines, and Services and Other.

Surface Combatants includes the design and construction of the Arleigh Burke DDG 51 Class Aegis guided missile destroyers. Ship Systems is one of two prime contractors designing and building these destroyers, which provide primary antiaircraft protection for the U.S. Navy fleet. Seven Arleigh Burke Class Destroyers are currently under construction with an additional three ships in backlog.

Amphibious and Auxiliary includes the design and construction of amphibious assault ships for the U.S. Navy, including the WASP LHD 1 Class and the San Antonio LPD 17 Class ships. Ship Systems is the sole source for the LHD class of large-deck, 40,500-ton multipurpose vessels, which serve as the centerpiece of an Amphibious Ready Group. Currently in the design and advance procurement phase is LHD 8, a significantly upgraded version of the preceding seven sister ships. The LPD Class ships function as amphibious transport and

cargo vessels. Four LPD Class ships are currently under contract with a value of \$2.4 billion. Ship Systems also builds Sealift ships for the Military Sealift Command. These very large ships are used for prepositioning U.S. military vehicles and equipment overseas. Two Sealift ships were delivered in 2001, bringing the total to date to five on this seven-ship contract.

Ship Systems is under contract to produce five Polar Tankers, included in Commercial and International, the first of which was delivered in April 2001. These million barrel tankers will transport crude from Alaska to West Coast refineries and are fully compliant with the Oil Pollution Act of 1990. Negotiations continued at the end of the year with the Israeli Government for a feasibility contract to upgrade the SA'AR 5 Corvette design. Three ships of this class were built in the early 1990's.

Newport News is currently constructing the U.S.S. Ronald Reagan, the ninth Nimitz-class aircraft carrier, with delivery scheduled for 2003. The company is also under contract to construct CVN 77, a transition ship to the next class of carriers, which is scheduled for delivery in 2008. Under this \$4.1 billion contract, the company will assume an expanded construction role on CVN 77 by serving as the systems integrator for the warfare system, a task previously performed by the U.S. Navy.

Newport News also provides ongoing maintenance for the U.S. Navy's vessels through overhaul, refueling and repair work. The company possesses unique expertise in servicing nuclear naval systems, and believes it has the only private shipyard presently capable of refueling nuclear-powered aircraft carriers. Aircraft carrier work is generally assigned by the U.S. Navy based on the type of work, location and cost. The company began refueling work on the carrier Dwight D. Eisenhower in 2001. Each Nimitz-class aircraft carrier will be refueled once in its 50-year life. The company estimates that up to ten Nimitz-class aircraft carriers could be refueled over the next 30 to 40 years, although no assurances can be given as to the number of Nimitz-class carriers that will be refueled and that the company will receive any award.

Newport News is one of two U.S. manufacturers of U.S. Navy nuclear-powered submarines. Newport News has constructed 53 nuclear-powered submarines, including 39 fast attack submarines and 14 of the larger, fleet ballistic missile submarines. Newport News delivered its final Los Angeles-class ballistic-missile submarine in August 1996. In February 1997, the company and Electric Boat Corporation (Electric Boat), a wholly-owned subsidiary of General Dynamics Corporation, reached an agreement to cooperatively build the first four new nuclear attack submarines of the Virginia-class (NSSNs). With Electric Boat serving as the prime contractor and lead designer, each company will construct certain portions of each submarine, with final assembly, testing, outfitting, and delivery alternating between the two yards. In September 1998, under the teaming arrangement, the company participated in the negotiation of a \$4.2 billion contract for co-production of the first four NSSNs. Design, development, and planning work took place over the course of 1998, with the company initiating significant NSSN construction in 1999 and 2000. Management estimates that the NSSN program could total up to 30 submarines, although no assurances can be given as to the number of NSSNs that ultimately will be procured and built by the company, either alone or in cooperation with Electric Boat.

Included in Services and Other are short-duration government and commercial ship repair work and engineering, planning, and design services performed for the U.S. Navy.

Component Technologies

The Component Technologies sector is an international designer, manufacturer and producer of a broad range of high-tech materials and products integral to the telecommunications and computer markets. Component Technologies operates in two principal business markets, interconnectivity products and motion technology. The motion technologies markets include complex many-layered backplanes and assemblies, specialty brushless motors, slip rings, precision wires and pastes, laser crystals, and microwave components for primarily commercial markets worldwide. Interconnectivity products include high density electronic and fiber optic connectors, cylindrical connectors and microelectronic attachment materials including solder spheres.

SEGMENT FINANCIAL DATA

In the following table of segment and major customer data, revenue from the United States Government includes revenue from contracts on which Northrop Grumman is the prime contractor as well as those on which the company is a subcontractor and the ultimate customer is the U.S. Government. All of the 2000 and 1999 data except for assets by segment exclude the company's commercial Aerostructures business, which was sold in 2000.

Foreign sales amounted to approximately \$1.3 billion, \$600 million and \$600 million for the years ended December 31, 2001, 2000 and 1999, respectively. All of the company's segments engage in international business, for which the company maintains a large number of sales representatives and consultants who are not employees of the company. Foreign sales by their very nature are subject to greater variability in risk than the company's domestic sales, particularly to the U.S. government. International sales and services subject the company to numerous stringent U.S. and foreign laws and regulations, including, without limitation, regulations relating to import-export control, repatriation of earnings, exchange controls, the Foreign Corrupt Practices Act and the anti-boycott provisions of the U.S. Export Administration Act. Failure by the company or its sales representatives or consultants to comply with these laws and regulations could result in administrative, civil or criminal liabilities and could in the extreme case result in suspension of the company's export privileges, which could have a material adverse consequence.

RESULTS OF OPERATIONS BY SEGMENT AND MAJOR CUSTOMER

Years ended December 31, \$ in millions	2001	2000	1999
teurs ended December 31, \$ in millions	2001	2000	1999
Net Sales			
Electronic Systems			
United States Government	\$ 2,931	\$ 2,102	\$ 1,894
Other customers	1,614	692	673
Intersegment sales	174	121	146
	4,719	2,915	2,713
Information Technology			
United States Government	3,231	1,457	1,248
Other customers	491	228	189
Intersegment sales	61	32	22
	3,783	1,717	1,459
Integrated Systems			
United States Government	2,869	3,103	3,574
Other customers	121	36	38
Intersegment sales	11	11	ϵ
	3,001	3,150	3,618
hips			
United States Government	1,487		
Other customers	392		
Intersegment sales	1		
	1,880		
Component Technologies			
United States Government	57		
Other customers	365		
Intersegment sales	5		
	427		
Intersegment eliminations	(252)	(164)	(174
Total net sales	\$ 13,558	\$ 7,618	\$ 7,616
Operating Margin(Loss)			
Electronic Systems	\$ 359	\$ 181	\$ 199
Information Technology	170	104	80
Integrated Systems	258	316	387
Ships	19		
Component Technologies	(38)		
	768	601	666
Adjustments to reconcile to total operating margin:			
Unallocated corporate expenses	(74)	(17)	(26
Deferred state tax provision	(27)	(24)	(29
Pension income	337	538	343
Total operating margin	\$ 1,004	\$ 1,098	\$ 954

Years ended December 31, \$ in millions	2001		2000		1999
Contract Acquisitions					
Electronic Systems	\$ 5,498	\$	4,228	\$	3,055
Information Technology	4,216		2,018		1,481
Integrated Systems	2,222		2,979		3,164
Ships	11,608				
Component Technologies	639				
Total acquisitions	\$ 24,183	\$	9,225	\$	7,700
Funded Order Backlog					
Electronic Systems	\$ 5,826	\$	4,873	\$	3,439
Information Technology	1,436		942		609
Integrated Systems	3,523		4,291		4,451
Ships	9,729				
Component Technologies	217				
Total backlog	\$ 20,731	\$	10,106	\$	8,499
Assets					
Electronic Systems	\$ 5,883	\$	4,069	\$	3,883
Information Technology	2,099		1,247		618
Integrated Systems	2,088		2,238		3,497
Ships	6,040				
Component Technologies	1,117				
Segment assets	17,227		7,554		7,998
General corporate	3,659		2,068		1,287
Total assets	\$ 20,886	\$	9,622	\$	9,285
Capital Expenditures					
Electronic Systems	\$ 195	\$	118	\$	97
Information Technology	46		22		19
Integrated Systems	79		124		56
Ships	44				
Component Technologies	26				
General corporate	3		1		
Total expenditures	\$ 393	\$	265	\$	172
Depreciation and Amortization		Φ.	226	φ	222
Depreciation and Amortization Electronic Systems	\$ 302	\$	236	\$	222
	\$ 302 90	\$	32	Э	32
Electronic Systems Information Technology	\$	\$	32	Ф	32
Electronic Systems Information Technology Integrated Systems	\$ 90	\$		\$	
Electronic Systems Information Technology Integrated Systems Ships	\$ 90 102 82	\$	32	\$	32
Information Technology Integrated Systems	\$ 90 102	\$	32	Þ	32

MEASURES OF VOLUME

Contract Acquisitions

Contract acquisitions tend to fluctuate from year to year and are determined by the size and timing of new and add-on orders. The existing funded order backlog as of the purchase date of businesses acquired is reported as contract acquisitions. The variability resulting from multiyear orders and funding, as well as acquiring businesses, are reflected in the following table.

Contract Acquisitions \$ in millions	2	2001	2000	1999
Electronic Systems				
Aerospace Electronic Systems		,339	\$ 2,204	\$ 1,179
C ⁴ ISR&N	1	,117	899	727
Defensive Electronic Systems		928	605	708
Navigation Systems	1	,454		
Space Systems		332	240	196
Other		601	422	308
	5	,771	4,370	3,118
Information Technology				
Government Information Technology	2	,454	1,081	729
Enterprise Information Technology		886	285	169
Technology Services		655	473	453
Commercial Information Technology		281	212	151
	4	,276	2,051	1,502
Integrated Systems				
Air Combat Systems		990	1,720	1,421
Airborne Early Warning/Electronic Warfare		799	715	1,106
Airborne Ground Surveillance/Battle Management		446	576	686
Intrasegment eliminations		(2)	(21)	(43)
	2	,233	2,990	3,170
Ships				
Surface Combatants	3	,042		
Amphibious and Auxiliary	2	,284		
Commercial and International		751		
Aircraft Carriers	4	,555		
Submarines		619		
Services and Other		476		
Intrasegment eliminations		(75)		
	11	,652		
Component Technologies		645		
Intersegment eliminations		(394)	(186)	(90)
Total acquisitions	\$ 24	,183	\$ 9,225	\$ 7,700

Electronic Systems acquisitions in 2001 were 32 percent higher than in 2000 which exceeded 1999 by 40 percent. These results reflect the inclusion in 2001 of opening backlog acquired in the purchases of Litton and EIS of \$1.3 billion and \$43 million, respectively. Aerospace Electronic Systems (AES) includes funding in 2001 of \$255 million for the Wedgetail program and \$148 million for the BAT program. In 2000, AES reflects a \$1.1 billion award for the radar, electronic warfare systems, integrated Forward Looking Infra-Red (FLIR) targeting systems and common testers for United Arab Emirates (UAE) F-16 Aircraft. AES includes funding for the Longbow missile multiyear contract of \$124 million in 2001, \$245 million in 2000, and \$309 million in 1999. In C4ISR&N, delays of international awards for air defense systems resulted in lower acquisitions in 2001 than in 2000. Navigation Systems reflects \$820 million in Litton opening backlog acquired.

Information Technology acquisitions increased by 108 percent in 2001 over 2000 reflecting Litton opening backlog acquired of \$585 million. Government Information Technology acquisitions in 2001 include the effect of acquired backlog of \$513 million and the current year awards for the acquired businesses. The increase in Government Information Technology acquisitions in 2000 over 1999 reflects the impact of the three businesses acquired in 2000. Technology Services acquisitions of \$322 million were reported in 2001 for the Joint Base Operations Support Contract (J-BOSC). Under this contract, which was won in 1998 and has a five-year basic performance period with a five-year option, the segment provides base operations support for NASA's Kennedy Space Center and the U.S. Air Force's 45th Space Wing, which includes Cape Canaveral Air Station and Patrick Air Force Base.

Integrated Systems acquisitions in 2001 were 25 percent lower compared to 2000 which was 6 percent lower than the 1999 fiscal year. ACS recorded incremental B-2 bomber funding for ongoing development work, spares and other customer support for the operational aircraft program in each of the last three years. ACS still expects to receive future post production business, such as airframe depot maintenance, repair of components, operational software changes, and product improvement modifications. Acquisitions in 2000 included funding of \$1.1 billion for the multiyear buy for 72 F/A-18E/F shipsets. Integrated Systems received orders for 30 F/A-18E/F shipsets in 1999. AEW/EW includes funding for the multiyear buy for 25 E-2C aircraft of \$231 million in 2001, \$247 million in 2000 and \$679 million in 1999. AGS/BM includes orders for one, one, and two Joint STARS aircraft in 2001, 2000 and 1999, respectively. Integrated Systems expects to receive initial funding for its portion of the F-35 JSF SDD contract in 2002.

Ships segment acquisitions include backlog acquired in the Litton and Newport News acquisitions of \$10.5 billion. Included in Surface Combatants is a \$370 million contract award for an Aegis class large destroyer. Commercial and International reported a de-acquisition on the Project America cruise ship program. The company presently has no plans to continue work on that program. Amphibious and Auxiliary includes a contract for \$113 million for the advanced procurement of material for Landing Platform Dock (LPD) 21, the fifth ship of the class.

Component Technologies operates in two principal business markets, interconnectivity products and motion technology. The interconnectivity product market has been affected by the decline in the telecommunications market place. The motion technology market posted \$231 million in acquisitions principally on its poly-scientific projects. Acquired backlog in this sector was \$282 million at the acquisition date.

Sales

Total sales

Year-to-year sales vary less than contract acquisitions and reflect performance under new and ongoing contracts.

Net Sales \$ in millions	2001	2000		1999
Electronic Systems				
Aerospace Electronic Systems	\$ 1,354	\$ 956	\$	878
C ⁴ ISR&N	1,068	902		843
Defensive Electronic Systems	767	511		536
Navigation Systems	641			
Space Systems	348	223		227
Other	541	323		229
	4,719	2,915		2,713
Information Technology				
Government Information Technology	2,178	829		726
Enterprise Information Technology	829	229		147
Technology Services	515	475		434
Commercial Information Technology	261	184		152
	3,783	1,717		1,459
Integrated Systems				
Air Combat Systems	1,594	1,717		2,059
Airborne Early Warning/Electronic Warfare	745	780		888
Airborne Ground Surveillance/Battle Management	664	674		714
Intrasegment Eliminations	(2)	(21)		(43)
	3,001	3,150		3,618
Ships				
Surface Combatants	672			
Amphibious and Auxiliary	514			
Commercial and International	336			
Aircraft Carriers	185			
Submarines	63			
Services and Other	172			
Intrasegment Eliminations	(62)			
	1,880			
Component Technologies	427			
Intersegment eliminations	(252)	(164)		(174)
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Electronics Systems segment sales increased by \$1.8 billion or 62 percent in 2001 as compared to 2000. The addition of the Litton and EIS businesses accounted for approximately \$1.2 billion of this increase, contributing \$101 million to AES, \$194 million to C⁴ISR&N, \$641 million to Navigation Systems, \$159 million to Defensive Electronic Systems and \$66 million to Space Systems. AES increased sales also reflect higher F-16 block 60 combat avionics systems, Longbow and BAT sales. Defensive Electronic Systems reflects higher EO/IR and targeting systems sales. Higher sales in "Other" are due to increased automation and information systems sales.

\$ 13,558

\$ 7,618

\$ 7,616

Electronic Systems segment sales increased by 7 percent in 2000 as compared to 1999, reflecting increases in three areas. AES increased sales are primarily due to higher Longbow revenues and higher F-16 block 60 combat avionics systems sales. The increase in C⁴ISR&N reflects higher airspace management sales. Increased automation and information systems sales are the main reason for higher sales in "Other". For 2002, the company expects Electronic Systems segment sales to be between \$5.5 billion and \$5.7 billion.

Information Technology sales increased by \$2.1 billion or 120 percent in 2001 as compared to 2000. The Litton business acquired in 2001 and the three businesses acquired in 2000 accounted for approximately \$2 billion of the increase, contributing \$1.3 billion to Government Information Technology and \$457 million to the Enterprise Information Technology.

Information Technology sales in 2000 were 18 percent higher as compared to 1999, with all four business areas increasing. Government Information Technology and Enterprise Information Technology increases are primarily due to revenue generated by the three businesses acquired in 2000. The Technology Services increase in 2000 reflects higher J-BOSC sales. For 2002, the company expects Information Technology sales to be between \$4 billion and \$4.4 billion.

Integrated Systems segment sales decreased 5 percent in 2001 as compared to 2000 following a 13 percent decrease in 2000 as compared to 1999. The decreasing trend in the ACS business area revenues is primarily due to the B-2 program, which decreased by \$273 million in 2001 as compared to 2000 and decreased by \$536 million in 2000 as compared to 1999. The production phase of the B-2 program was substantially completed in 2000. Ongoing development work, spares and other customer support for the operational aircraft program will continue into 2002 and beyond. Current planning data indicate that the level of overall B-2 revenue for 2002 will decline by approximately 10 percent from the 2001 level.

Sales on the F/A-18 program increased by \$30 million in 2001 over 2000 which was \$147 million higher than 1999 sales. In 2001, 37 shipsets were delivered under F/A-18E/F production contracts compared to deliveries of 28 shipsets in 2000. In 1999 the last five shipsets were delivered under the F/A-18E/F LRIP contract and the first 12 shipsets were delivered under production contracts. The LRIP contract, which began in 1996 and was completed in 1999, was accounted for under the cost-to-cost type of percentage-of-completion method, resulting in revenue being recorded as costs are incurred. The production contracts are accounted for under the units-of-delivery method, which results in revenue being recorded as deliveries are made. In 1999 the last 17 shipsets of the C/D version of the F/A-18 were delivered. In 2002 the company plans to deliver 39 F/A-18E/F shipsets.

Sales for unmanned systems were flat in 2001 compared to 2000 and increased by \$113 million in 2000 as compared to 1999, primarily due to the purchase of Ryan Aeronautical, which occurred in July 1999.

AEW/EW sales decreased \$35 million in 2001 versus 2000 and decreased \$108 million in 2000 as compared to 1999. The sales decrease in 2000 was primarily due to lower revenue on the E-2C and EA-6B programs. AGS/BM sales in 2001 were essentially even with sales reported in 2000, which were 6 percent lower than the level reported in 1999. The 2000 decrease reflects lower Joint STARS revenue. Integrated Systems revenue for 2002 is expected to be approximately \$3 billion.

The Ships segment includes the results of the two ship businesses acquired in 2001: Litton business for nine months and Newport News business for one month. In 2002 the company expects ships sales to be between \$4.2 billion and \$4.4 billion.

Component Technologies, which was acquired as part of the Litton purchase in 2001, includes sales of \$203 million in the interconnectivity market and \$224 million in the motion technology market. The interconnectivity sales were affected by the industry-wide decline in the telecommunications market in 2001. For 2002, assuming a third quarter upturn in the telecommunications market, the company expects sales of approximately \$700 million.

Funded Order Backlog

The year-end funded order backlog is the sum of the previous year-end funded order 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 54 percent of the 2001 year-end backlog will be converted into sales in 2002.

Funded Order Backlog

\$ in millions		2001	2000	1999
Electronic Systems				
Aerospace Electronic Systems	\$	2,885	\$ 2,900	\$ 1,652
C 4ISR&N		821	772	775
Defensive Electronic Systems		1,044	883	789
Navigation Systems		813		
Space Systems		110	126	109
Other		358	298	199
		6,031	4,979	3,524
Information Technology				
Government Information Technology		834	558	306
Enterprise Information Technology		153	96	40
Technology Services		345	205	207
Commercial Information Technology		104	84	56
		1,436	943	609
Integrated Systems				
Air Combat Systems		1,759	2,363	2,360
Airborne Early Warning/Electronic Warfare		1,198	1,144	1,209
Airborne Ground Surveillance/Battle Management		566	784	882
		3,523	4,291	4,451
Ships				
Surface Combatants		2,370		
Amphibious and Auxiliary		1,770		
Commercial and International		415		
Aircraft Carriers		4,370		
Submarines		556		
Services and Other		304		
Intrasegment eliminations		(13)		
		9,772		
Component Technologies		218		
Intersegment eliminations		(249)	(107)	(85)
Total backlog	\$ 2	20,731	\$ 10,106	\$ 8,499

Total U.S. Government orders, including those made on behalf of foreign governments (FMS), comprised 82 percent of the backlog at the end of 2001 compared with 75 percent at the end of 2000 and 86 percent at the end of 1999. Total foreign customer orders, including FMS, accounted for 13 percent of the backlog in 2001 compared with 22 percent of the backlog at the end of 2000 and 16 percent at the end of 1999. Domestic commercial business in backlog was 7 percent at the end of 2001 compared to 5 percent at the end of 2000 and 3 percent at the end of 1999.

MEASURES OF PERFORMANCE

The company's operating margin for 2001 was \$1,004 million compared to \$1,098 million in 2000 and \$954 million for 1999. During 2001, the company's operations substantially changed as a result of the Litton, EIS and Newport News acquisitions. These events effectively doubled the size of the company and produced the third largest defense contractor in the nation. The company is continuing the integration of the various businesses acquired to optimize operating performance.

Electronic Systems segment operating margin in 2001 was \$359 million as compared to \$181 million in 2000 and \$199 million in 1999. Approximately half of the increase in 2001 over 2000 is due to the addition of the Litton and EIS businesses. The remainder of the increase is primarily due to improved performance in land combat systems and automation and information. The company is currently recording no operating margin on the F-16 Block 60 or Wedgetail contracts, which are in the development stage and are accounted for using the cost-to-cost type of percentage-of-completion method. Development work inherently has more uncertainty as to future events than production work and therefore more variability in estimates of costs to complete the work. As work on these contracts progresses through the development stage into production, the risks associated with estimating the costs of development are reduced. While management has used its best judgment to estimate costs, future events could result in either upward or downward adjustments to those estimates. The decrease in 2000 operating margin as compared to 1999 is primarily due to a reduction in pension-related margin. As described in more detail below, in July 1999 the company merged three of its pension plans into one, resulting in reduced pension-related margin beginning in July 1999. The 2000 decrease also reflects lower margins in Defensive Electronic Systems, due in part to additional costs incurred in transitioning a development program to production. These reductions were partially offset by an upward cumulative margin adjustment following the wind down of an AWACS RSIP contract in 1999.

Information Technology segment operating margin in 2001 was \$170 million compared to \$104 million in 2000 and \$80 million in 1999. The increase in operating margin in 2001 over 2000 reflects the addition of the Litton business and the three businesses acquired in late 2000 as well as higher Enterprise Information Technology operating margin. The increase in operating margin in 2000 over 1999 reflects higher sales volume in all product areas and improved performance in both Technology Services and Commercial Information Technology. The Information Technology segment also benefited in 2000 by approximately \$6 million from the merger of a defined benefit plan into the company's main pension plan, which is described in more detail below.

Integrated Systems segment operating margin in 2001 was \$258 million as compared to \$316 million in 2000 and \$387 million in 1999. In 2001, Integrated Systems reported a \$20 million positive adjustment for Joint STARS contract closeouts, improved Joint STARS operating margin, and downward cumulative margin rate adjustments on unmanned vehicle contracts totaling \$10 million. In 2000, ACS reported upward cumulative margin rate adjustments totaling \$16 million on the F/A-18E/F program.

Integrated Systems results for 2001 and 2000 also reflect lower B-2 volume. The effect of nonrecurring relocation and realignment costs associated with the sale of the commercial aerostructures business and the relocation of the sector's headquarters, partially offset by improved Joint STARS operating margin, are included in 2000 results. In 1999 ACS benefited from upward cumulative margin rate adjustments totaling \$70 million on the B-2 program and \$11 million on the F/A-18E/F program. In 2000, the last three B-2's were delivered under the production contract as compared to five in 1999. 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 were delivered and accepted by the customer. At the time each unit was delivered, an assessment was made of the status of the production contract 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 was then recorded. The company believes that this method allowed margin improvements to be recognized on a more demonstrable basis. All 15 production units have been delivered.

Since the beginning of the Joint STARS program, Integrated Systems (and prior to 1994, the Grumman Corporation) as of December 31, 1998 had incurred over \$100 million of costs in excess of revenues in the performance of the development and production phases of the program. The company and the U.S. Air Force

executed an Alternate Dispute Resolution Agreement to attempt to resolve these REAs, and in April 1999 the company filed these REAs as certified claims. In December 1999, the company reached a settlement of these contract claims with the U.S. Air Force, enabling the company to recognize the underlying improved performance on the production phase of this program. As a result, cumulative margin rate adjustments totaling \$37 million were recorded in 1999. Revenue on the Joint STARS program is recognized using the cost-to-cost type of percentage-of-completion method of accounting.

Ships segment operating margin was \$19 million in 2001 reflecting ownership of Litton from April 2, 2001 to December 31, 2001 and Newport News for the month of December 2001. Following American Classic Voyages Co.'s (AMCV) bankruptcy filing on October 19, 2001, Ships stopped work on Project America, an AMCV cruise ship program to build two 1,900-passenger cruise ships. This decision followed negotiations with the U.S. Maritime Administration, which had decided not to continue the guaranteed funding necessary to complete the construction of the ships. As a result, Ships recorded a pretax charge to operating margin totaling \$60 million in the third quarter of 2001. The liabilities recorded are expected to be sufficient to cover commitments to suppliers and the additional future costs to be incurred to move the partially completed ship out of the shipyard in 2002. Actual costs to perform this work may differ from the estimates used, resulting in a future adjustment to the charge recorded. Ships also reported a downward operating margin adjustment of \$13 million on the polar tanker program in the fourth quarter of 2001.

Component Technologies segment reported an operating loss of \$38 million for 2001 reflecting the weak market for telecommunications hardware. On an industry-wide basis, telecommunications hardware production has significantly declined since 2000. The motion technology market portion of the segment reported operating margin of \$24 million for the year.

Operating margin in 2001 included \$337 million of pension income compared with \$538 million in 2000 and \$343 million in 1999. The increase in 2000 over 1999 was driven by the high market returns on investments in 1999. In 2000, while Northrop Grumman's pension fund returns exceeded benchmark indices, they posted a negative return at slightly less than breakeven. As a result, pension income for 2001 decreased from the 2000 level reported. In 2001, the company's pension fund returns again exceeded benchmark indices, but posted a negative return of 4.9 percent for the year. Consequently, pension expense/income for 2002 is estimated to be between \$50 million pension expense and \$50 million pension income.

In the first quarter of 2000, the company replaced several defined-contribution employee benefit plans, covering some of the Information Technology employees, with a defined-benefit type plan. In December 2000 this plan was merged into the company's main pension plan, resulting in a pretax improvement to Information Technology's operating margin of approximately \$6 million and a reduction in cash contributions to benefit plans of approximately \$20 million.

In July 1999, in order to reduce future cash contributions, the company merged three of its retirement plans into one, to include the former Northrop Grumman Pension Plan, the Electronic Systems Sector Employees Pension Plan (non-represented) and the Commercial Aircraft Employees Pension Plan (salaried). The pension plan merger does not result in any changes to any participant's existing pension benefits, nor does it alter individual plan designs. The retirement plan merger resulted in a reduction to 1999 net income of approximately \$16 million.

Interest income in 2001 was \$33 million as compared to \$29 million in 2000 and \$18 million in 1999. Interest income in 2001 and 2000 included interest earned on the note received in partial payment for the sale of Aerostructures. The note was collected in 2001. Interest income in 2001 and 2000 also reflects interest earned on the temporary investment of excess cash.

Interest expense for 2001 was \$373 million as compared to \$175 million in 2000 and \$224 million in 1999. The increase in 2001 as compared to prior periods results from the company's financing activities related to the acquisitions of Litton, EIS and Newport News. The 1999 interest expense included \$11 million related to settlement of various legal and tax issues. Total debt was \$5.5 billion at the end of 2001 compared to \$1.6 billion at the end of 2000 and \$2.2 billion at the end of 1999.

The company's effective federal income tax rate was 38.9 percent in 2001, 35.9 percent in 2000 and 36.5 percent in 1999. The increased rate in 2001 is primarily due to an increase in nondeductible goodwill

amortization. In 2002, the company's effective federal income tax rate is expected to decrease to 30 percent, reflecting the elimination of goodwill amortization, most of which is non-deductible, upon adoption of SFAS No. 142–Goodwill and Other Intangible Assets.

Aerostructures income from discontinued operations, net of tax, was \$39 million in 2000 and \$9 million in 1999. Included in these amounts are related pretax pension income of \$22 million and \$10 million in 2000 and 1999, respectively.

The \$56 million total after tax loss on the sale of Aerostructures recorded in 2000 includes the settlement and curtailment of various pension and other post-retirement benefit plans, the write-off of goodwill, and final assessment of the value of the promissory note received in partial payment. The promissory note was collected in full in 2001.

Effective January 1, 1999, the company adopted the new accounting standard, SOP 98-5–*Reporting on the Costs of Start-Up Activities*, which requires that certain costs that previously had been deferred be expensed and reported as a cumulative effect of a change in accounting principle. The company reported a \$16 million after-tax charge, or \$.24 per share, to write off the previously deferred start-up costs.

On March 13, 2002, a jury in Indianapolis, Indiana returned a verdict of approximately \$31 million in favor of Allison Gas Turbine for cost overruns on the engine exhaust liner and trailing edge of a discontinued prototype aircraft from a competitive award process which occurred in the 1980's. The company expects to obtain substantial relief from the current adverse judgment in the case by an appeal, based upon substantive and procedural legal grounds. The company believes that the jury's award in the trial was not warranted by the law applicable to the case and should be overturned. It is not possible at this time to predict the result of the appeals.

MEASURES OF LIQUIDITY AND CAPITAL RESOURCES

The following table is a condensed summary of the detailed cash flow information contained in the Consolidated Statements of Cash Flows. Amounts listed below are reported in the Consolidated Statements of Cash Flows as follows: cash from customers and cash to employees and suppliers of services and materials are included in cash from operating activities; cash from buyers of assets and cash to sellers of assets and suppliers of facilities are included in cash from investing activities; and cash from and to lenders and cash to shareholders are included in cash from financing activities.

Years ended December 31,	2001	2000	1999
Cash came from			
Customers	75%	92%	98%
Lenders	18		
Shareholders	4		
Buyers of assets/other	3	8	2
Cash went to	100%	100%	100%
Employees and suppliers of services and materials	70%	80%	84%
Sellers of assets	18	9	5
Lenders	10	9	9
Suppliers of facilities/other	1	1	1
Shareholders	1	1	1
	100%	100%	100%

In 2001 cash provided by operating activities was \$817 million as compared to the \$1,010 million generated in 2000 and the \$1,207 million generated in 1999. The decreased level of cash provided by operating activities in 2001 primarily reflects nonrecurring cash payments of approximately \$700 million related to the Litton, Newport News and EIS acquisitions, including change in control payments to employees and funding of pension plans. Also in 2001, the company reached a settlement agreement for antitrust and patent infringement lawsuits filed by Litton against Honeywell, Inc. Under the agreement, Honeywell agreed to pay the company \$440 million in cash, \$220 million of which was paid in 2001, with the balance due on or before July 1, 2002. The entire \$440 million balance due was recorded as a fair value purchase accounting adjustment to accounts receivable on the Litton opening balance sheet. Interest expense payments increased by \$168 million in 2001 over 2000 as a result of the increase in debt to fund the business acquisitions. The higher level of cash generated by operations in 2000 and 1999 is attributable to many factors, the more significant of which are: increased operating margin, and lower pension plan contributions as a result of the pension plan mergers. In 2000 lower interest payments, reflecting the lower level of debt, and an increase in cash advances from customers also benefited cash from operations. Accelerated cash collections, in part due to customers' year 2000 concerns, contributed to 1999 cash from operations.

Net working capital (current assets less current liabilities) at December 31, 2001 was a negative \$543 million mainly due to valuation reserves established in purchase accounting and an increase in the current portion of long-term debt arising from the company's financing activities. Net working capital at December 31, 2000, was a negative \$162 million, mainly due to current deferred tax liabilities. The largest component of current deferred tax liabilities is deferred tax expense related to long-term contracts. With the completion of the B-2 EMD contract, federal and state income taxes that have been deferred since the inception of the contract in 1981, will become payable. The contract is expected to be completed in the fourth quarter of 2002 with federal taxes of approximately \$1 billion due, to become payable in March 2003. The company plans to use cash generated from operations, supplemented by additional borrowings under the credit agreement and/or additional borrowings from public or private capital markets, to pay these taxes.

In 2001, cash generated from operating activities, combined with cash from financing activities, was sufficient to finance capital expenditures, pay dividends to shareholders and acquire new businesses for \$3,061 million. In 2000, cash generated by operating activities and the sale of Aerostructures provided sufficient cash flows to finance capital expenditures, pay dividends to shareholders, acquire new businesses for \$510 million, and reduce net debt (total debt less cash balances) by \$787 million. Cash generated from operating activities in 1999 was sufficient to finance capital expenditures, pay dividends to shareholders, acquire new businesses for \$232 million in cash, and reduce net debt (total debt less cash balances) by \$704 million. For 2002, the company expects cash from operating activities to be approximately the same as the level generated in 2001, reflecting non-recurring costs associated with the termination of the cruise ship work, restructuring costs to integrate the Litton businesses, and costs to complete the Newport News acquisition.

Cash used in investing activities was \$3,204 million in 2001 compared to \$78 million in 2000 and \$392 million in 1999. In 2001, three businesses were acquired, two for cash and stock and one for cash, for a total cash expenditure of \$3,061 million. Four businesses were acquired in 2000, three for cash and one for stock, for a total cash expenditure of \$510 million. In 1999, three businesses were acquired for cash of \$232 million. In 2002, the company spent approximately \$120 million in cash to complete the Newport News acquisition. In 2001, capital expenditures were \$393 million, including \$47 million for capitalized software costs, up from \$274 million in 2000, including \$9 million for Aerostructures and \$32 million for capitalized software costs. Capital expenditures in 1999 were \$201 million, including \$29 million for Aerostructures and \$22 million for capitalized software costs. The increased level of capital expenditures in 2001 is due to the three acquired businesses. Capital expenditure commitments at December 31, 2001, were approximately \$214 million, including \$1 million for environmental control and compliance purposes. For 2002 capital expenditures are expected to be approximately \$540 million, including approximately \$40 million for capitalized software costs. In 2001, the company received \$148 million, collecting in full the note received in the sale of Aerostructures. The sale of this operation generated \$668 million in cash in 2000. The company has agreed to invest \$30 million in Kistler Aerospace Corporation

preferred stock. This investment will only be made when Kistler Aerospace Corporation has obtained additional funding from other sources and will represent the last increment of funding required to complete and test the first K-1 vehicle, and is subject to the company's then determination that the K-1 is a viable launch system. No investments were made by the company in 2001 or 2000.

Cash of \$2,532 million was provided by financing activities in 2001 as compared to \$755 million used in 2000 and \$717 million used in 1999. In February 2001, Northrop Systems issued \$1.5 billion of indebtedness pursuant to its senior debt indenture consisting of \$750 million of 7.125 percent notes due 2011 and \$750 million of 7.75 percent debentures due 2031. In connection with the closing of the Litton acquisition, the company entered into unsecured senior credit facilities with lenders which initially provided for borrowings of up to \$5 billion (the "Credit Facilities") and which replaced the company's previous credit agreement. The Credit Facilities consisted of a \$2.5 billion 364-day revolving credit facility and a \$2.5 billion five-year revolving credit facility. The 364-day facility was terminated in December 2001. At December 31, 2001, \$2.5 billion was available under the five-year revolving credit facility. Borrowings under the Credit Facilities, together with the proceeds of the February 2001 issuance of notes and debentures, were used to finance the Litton acquisition and to pay related expenses, to retire and refinance a portion of the Litton debt, and to finance continuing operations. Borrowings under the Credit Facilities bear interest at various rates, including adjusted LIBOR, or an alternate base rate plus, in each case, an incremental margin based on the combined company's credit rating. The Credit Facilities also provide for a facility fee on the daily aggregate amount of commitments under the revolving facilities (whether or not utilized). The facility fee is also based on the company's credit rating level. The company, Northrop Systems and Litton are co-borrowers on the Credit Facilities. The company and Litton have guaranteed the Northrop Systems outstanding indenture debt.

In connection with the Litton acquisition the company issued 3.5 million shares of mandatorily redeemable Series B Convertible Preferred Stock in April 2001. Each share of Series B preferred stock has a liquidation value of \$100 per share. The liquidation value, plus accrued but unpaid dividends, is payable on April 4, 2021, the mandatory redemption date. The company has the option to redeem all but not less than all of the shares of Series B preferred stock at any time after seven years from the date of issuance for a number of shares of the company's common stock equal to the liquidation value plus accrued and unpaid dividends divided by the current market price of common stock determined in relation to the date of redemption. Each share of preferred stock is convertible, at any time, at the option of the holder into the right to receive shares of the company's common stock. Initially, each share is convertible into .911 shares of common stock, subject to adjustment. Holders of preferred stock are entitled to cumulative annual cash dividends of \$7 per share, payable quarterly. In any liquidation of the company, each share of preferred stock will be entitled to a liquidation preference before any distribution may be made on the company's common stock or any series of capital stock that is junior to the Series B preferred stock. In the event of a fundamental change in control of the company, holders of Series B preferred stock also have specified exchange rights into common stock of the company or into specified securities or property of another entity participating in the change in control transaction.

In November 2001, the company issued 9.2 million shares of common stock and 6.9 million equity security units, generating cash proceeds of \$1.45 billion. The proceeds were used to reduce existing debt and for general corporate purposes. Each equity security unit, issued at \$100 per unit, initially consists of a contract to purchase shares of Northrop Grumman common stock on November 16, 2004, and a \$100 senior note due 2006. The senior notes due 2006 are reported as long-term debt. The senior notes initially bear interest at 5.25 percent per annum, and each equity security unit also pays a contract adjustment payment of 2.0 percent per annum, for a combined yield on the equity security unit of 7.25 percent per annum. Each purchase contract which is part of the equity security units will obligate the holder thereof to purchase, for \$100, the following number of shares of the company's common stock based on the average closing price of the company's common stock over the 20 day trading period ending on the third trading day immediately preceding November 16, 2004: (i) 0.9262 shares if the average closing price equals or exceeds \$107.97, (ii) a number of shares having a value equal to \$100.00 if the average closing price is less than \$107.97 but greater than \$88.50 and (iii) 1.1299 shares if the average closing price

is less than or equal to \$88.50. Prior to November 16, 2004, holders of equity security units have the opportunity to participate in a remarketing of the senior note component.

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. Cash on hand at the beginning of the year plus cash generated from operations are expected to be sufficient in 2002 to service debt, finance capital expansion projects, and continue paying dividends to the shareholders.

The company will continue to provide the productive capacity to perform its existing contracts, 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.

OTHER MATTERS

Environmental Issues

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 the company has determined that 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 14 hazardous waste sites and under state Superfund laws at 10 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. The company does not anticipate and record insurance recoveries before collection is probable. Management estimates that at December 31, 2001, the range of reasonably possible future costs for environmental remediation, including Superfund sites, is \$89 million to \$153 million, of which \$107 million has been accrued. Should other PRP's 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 makes the investments it believes will be necessary in order to comply with environmental laws; the amounts, while not insignificant, are not considered material to the company's financial position, results of operations, or cash flows.

The Nuclear Regulatory Commission, the Department of Energy and the Department of Defense regulate and control various matters relating to nuclear materials handled by the company. Subject to certain requirements and limitations, the company's government contracts generally provide for indemnity by the U.S. Government for any loss arising out of or resulting from certain nuclear risks.

New Accounting Pronouncements

In October 2001 the Financial Accounting Standards Board issued SFAS No. 144 – *Accounting for the Impairment or Disposal of Long-Lived Assets*, which replaces SFAS No. 121 – *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of.* SFAS No. 144 resolves implementation issues previously experienced under SFAS No. 121 and broadens the reporting of discontinued operations. This statement becomes effective for financial statements issued for fiscal years beginning after December 15, 2001. Management does not expect that adoption of this standard will have a material effect on the company's results of operations and financial position.

In August 2001 the Financial Accounting Standards Board issued SFAS No. 143 – *Accounting for Asset Retirement Obligations*. SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This statement becomes effective for financial statements issued for fiscal years beginning after June 15, 2002. Management is currently evaluating the effect that adoption of this standard will have on the company's results of operations and financial position.

In June 2001 the Financial Accounting Standards Board issued SFAS No. 141–Business Combinations, and SFAS No. 142–Goodwill and Other Intangible Assets. SFAS No. 141 requires the purchase method of accounting for business combinations initiated after June 30, 2001 and eliminates the pooling-of-interests method. Adoption of SFAS No. 141 did not have a significant effect on the company's financial position, results of operations, or cash flows. SFAS No. 142 changes the accounting for goodwill from an amortization method to an impairment-only approach. Upon adoption of this statement, amortization of goodwill, including goodwill recorded in past business combinations, will cease and an initial impairment assessment of goodwill will be performed. Annual impairment tests are required thereafter. The company was required to adopt SFAS No. 142 on January 1, 2002. Management presently expects to complete its initial evaluation and impairment testing by June 30, 2002 in accordance with the provisions of the statement.

In December 1999 the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) No. 101– Revenue Recognition in Financial Statements. Since substantially all of the company's revenue is recognized in compliance with Statement of Position (SOP) No. 81-1–Accounting for Performance of Construction-Type and Certain Production-Type Contracts and SOP No. 97-2–Software Revenue Recognition, implementation of SAB No. 101 had no material effect on the company's results of operations or financial position.

In January 1999 the company adopted SOP 98-5—*Reporting on the Costs of Start-Up Activities*, which requires that certain costs that previously had been deferred, be expensed and reported as a cumulative effect of a change in accounting principle, and all such future costs be expensed as incurred. In the first quarter of 1999, the company recorded a \$16 million after-tax charge, or \$.24 per share, as the cumulative effect of a change in accounting principle.

In June 1998 the Financial Accounting Standards Board issued SFAS No. 133—Accounting for Derivative Instruments and Hedging Activities, subsequently amended by SFAS No. 138—Accounting for Certain Derivative Instruments and Certain Hedging Activities. These standards provide authoritative guidance on accounting and financial reporting for derivative instruments. The company adopted these standards on January 1, 2001. Adoption of these standards did not have a significant effect on the company's financial position, results of operations, or cash flows.

FORWARD LOOKING STATEMENTS AND IMPORTANT FACTORS

Some of the information included in this Form 10-K and in other statements made by the company are forward-looking statements within the meaning of the securities laws. These statements concern the company's plans, expectations and objectives for future operations. These include statements and assumptions with respect to expected future revenues, margins, program performance, earnings and cash flows, acquisitions of new contracts, the outcome of competitions for new programs, the outcome of contingencies including litigation and environmental remediation, the effect of completed and planned acquisitions and divestitures of businesses or business assets, the anticipated costs of capital investments, and anticipated industry trends. The company's actual results and trends may differ materially from the information, statements and assumptions, as described, and actual results could be materially less than our planned results.

Important factors that could cause actual results to differ materially from those suggested by the company's forward-looking statements include:

§ The company depends on a limited number of customers. The company is heavily dependent on government contracts many of which are only partially funded; the termination or failure to fund one or more significant contracts could have a negative impact on our operations. The company is a supplier,

either directly or as a subcontractor or team member, to the U.S. Government and its agencies as well as foreign governments and agencies. These contracts are subject to each customers' political and budgetary constraints, changes in short-range and long-range plans, the timing of contract awards, the congressional budget authorization and appropriation processes, the government's ability to terminate contracts for convenience or for default, as well as other risks such as contractor suspension or debarment in the event of certain violations of legal and regulatory requirements.

- § Many of the company's contracts are fixed-price contracts. While firm, fixed-price contracts allow the company to benefit from cost savings, they also expose the company to the risk of cost overruns. If the company's initial estimates used for calculating the contract price are incorrect, the company can incur losses on those contracts. In addition, some of the company's contracts have provisions relating to cost controls and audit rights and if the company fails to meet the terms specified in those contracts then the company may not realize their full benefits. The company's ability to manage costs on these contracts may affect its financial condition. Lower earnings caused by cost overruns would have an adverse effect on the company's financial results.
- § The company is subject to significant competition. The company's markets include defense and commercial areas where it competes with companies of substantial size and resources. The company's success or failure in winning new contracts or follow on orders for its existing or future products may cause material fluctuations in the company's future revenues and operating results.
- § The company's operations may be subject to events that cause adverse effects on our ability to meet contract obligations within anticipated cost and time parameters. The company may encounter internal problems and delays in delivery as a result of issues with respect to design, technology, licensing and patent rights, labor or materials and components that prevent the company from achieving contract requirements. The company may be affected by delivery or performance issues with key suppliers and subcontractors, as well as other factors inherent in the company's businesses that may cause operating results to be adversely affected. Changes in inventory requirements or other production cost increases may also have a negative impact on the company's operating results.
- § The company must integrate its acquisitions successfully. Acquiring businesses is a significant challenge. If the company does not execute its acquisition and integration plans for these businesses in accordance with the company's strategic timetable, the company's operating results may be adversely affected. The company acquired several businesses in 2001 including Litton and Newport News. The company believes its integration processes are well-suited to achieve the anticipated strategic and operating benefits of these acquisitions, but if the company does not perform its plans as intended, or if the company encounters unforeseen problems in the acquired businesses, or problems in those businesses develop subsequent to acquisition, the company's operating results may be adversely affected. Among the factors that may be involved would be unforeseen costs and expenses, previously undisclosed liabilities, diversion of management focus, and any effects of complying with government-imposed organizational conflicts of interest rules as a result of the acquisitions.
- § The company relies on continuous innovation. The company is dependent upon its ability to anticipate changing needs for defense products, military and civilian electronic systems and support, and information technology. The company's success is dependent on designing new products that will respond to such requirements within customers' price limitations.
- § The company faces significant challenges in the international marketplace. The company's international business is subject to changes in import and export policies, technology transfer restrictions, limitations imposed by United States law that are not applicable to foreign competitors, and other legal, financial and governmental risks.

- § The company assumes that any divestiture of non-core businesses and assets will be completed successfully. The company's performance may be affected by its inability to successfully dispose of assets and businesses that do not fit with or are no longer appropriate to the company's strategic plan. If any sales of such businesses or assets can be made only at a loss, the company's earnings will be negatively impacted.
- § The company is subject to environmental litigation and other liabilities. Its performance may be affected by known environmental risks, pending litigation and other loss contingencies, if not resolved within the parameters of the company's internal plans, and by unanticipated environmental or other liabilities.
- § The company's pension income may fluctuate significantly. Pension income, a non-cash item that is included in the company's earnings, is based on assumptions of market performance and actual performance may differ. If an event causes the company to revalue its pension income during the calendar year, the portion of its earnings attributed to pension income could vary significantly.
- § The indebtedness of the company has increased as a result of the acquisitions of Litton, EIS and Newport News. The increase in debt has increased demands on the cash resources of the company.
- § The company intends that all forward-looking statements it makes will be subject to safe harbor protection of the federal securities laws as found in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934.

Accordingly, you should not rely on the accuracy of predictions contained in forward-looking statements. These statements speak only as of the date when they are made. The Company cannot undertake any obligation to update its forward-looking statements to reflect events, circumstances, and changes in expectations or the occurrence of unanticipated events occurring after the date of those statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The company is exposed to market risk, primarily related to interest rates and foreign currency exchange rates. Financial instruments subject to interest rate risk include fixed-rate long-term debt obligations, variable-rate short-term debt outstanding under the credit agreement, short-term investments, and long-term notes receivable. At December 31, 2001, the company had an immaterial amount of variable rate debt outstanding. Substantially all borrowings were fixed-rate long-term debt obligations of which a significant portion are not callable until maturity. The company's sensitivity to a 1 percent charge in interest rates is tied to its \$2.5 billion credit agreement, which has no balance outstanding at December 31, 2001. The estimated expense would be 1 percent of any outstanding balance. The company may enter into interest rate swap agreements to manage its exposure to interest rate fluctuations. At December 31, 2001, no interest rate swap agreements were in effect. The company enters into foreign currency forward contracts to manage foreign currency exchange rate risk related to receipts from customers and payments to suppliers denominated in foreign currencies. Foreign currencies are traditionally converted to U.S. dollars upon receipt to limit currency fluctuation exposures. At December 31, 2001, the amount of foreign currency forward contracts outstanding was not material. The company does not consider the market risk exposure relating to foreign currency exchange to be material. The company does not hold or issue derivative financial instruments for trading purposes. Standby letters of credit are used by the company to guarantee future performance on its contracts. All letters of credit are short-term and denominated in U.S. dollars to avoid market risk exposures.

Item 8: Financial Statements and Supplementary Data

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

ecember 31, \$ in millions	2001	200
ssets:		
Current assets		
Cash and cash equivalents	\$ 464	\$ 3
Accounts receivable	2,735	1,5
Inventoried costs	1,226	5
Deferred income taxes	36	
Prepaid expenses and other current assets	128	
Total current assets	4,589	2,5
roperty, plant and equipment at cost		
Land and land improvements	338	1
Buildings	1,232	7
Machinery and other equipment	2,273	1,4
Leasehold improvements	97	
	3,940	2,3
Accumulated depreciation	(1,173)	(1,3
Net property, plant and equipment	2,767	1,0
Other assets		
Goodwill, net of accumulated amortization of \$774 in 2001		
and \$534 in 2000	8,668	3,8
Other purchased intangibles, net of accumulated		
amortization of \$606 in 2001 and \$467 in 2000	1,139	6
Prepaid retiree benefits cost and intangible pension asset	3,075	1,3
Benefit trust funds	433	
Miscellaneous other assets, including deferred income taxes of \$2 in 2001	215	2
Total other assets	13,530	6,0
otal Assets	\$ 20,886	\$ 9,6

December 31, \$ in millions	2001		2000
Liabilities and Shareholders' Equity:			
Current liabilities			
Notes payable to banks	\$ 38	\$	
Current portion of long-term debt	420	Ψ	10
Trade accounts payable	1,019		564
Accrued employees' compensation	847		365
Advances on contracts	656		496
Contract loss provisions	843		180
Income taxes payable	137		86
Deferred income taxes	344		681
Other current liabilities	828		306
Total current liabilities	5,132		2,688
Long-term debt	5,033		1,605
Accrued retiree benefits	1,931		1,095
Deferred income taxes	669		276
Other long-term liabilities	258		36
Minority interest	122		3
Mandatorily redeemable preferred stock	350		
Shareholders' equity			
Paid-in capital			
Preferred stock, 10,000,000 shares authorized;			
3,500,000 shares issued and outstanding, reported above			
Common stock, 400,000,000 shares authorized;			
issued and outstanding:			
2001—108,556,081; 2000—72,058,436	4,451		1,200
Retained earnings	3,011		2,742
Unearned compensation	(18)		
Accumulated other comprehensive loss	(53)		(23)
Total shareholders' equity	7,391		3,919
Total Liabilities and Shareholders' Equity	\$ 20,886	\$	9,622

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF INCOME

Years ended December 31, \$ in millions, except per share	2001	2000		1999
Sales and service revenues				
Product sales	\$ 10,664	\$ 6,133	\$	6,304
Service revenues	2,894	1,485		1,312
Total revenue	13,558	7,618		7,616
Cost of sales				
Cost of product sales	8,658	4,160		4,491
Cost of service revenues	2,561	1,286		1,143
Administrative and general expenses	1,335	1,074		1,028
Operating margin	1,004	1,098		954
Other income(deductions)				
Interest income	33	29		18
Interest expense	(373)	(175)		(224)
Other, net	35	23		(1)
Income from continuing operations before income taxes,				
and cumulative effect of accounting change	699	975		747
Federal and foreign income taxes	272	350		273
Income from continuing operations before				
cumulative effect of accounting change	427	625		474
Income from discontinued operations, net of federal income				
tax expense of \$22 in 2000 and \$6 in 1999		39		9
Loss on disposal of discontinued operations,				_
including federal income tax expense of \$40		(56)		
Income before cumulative effect of accounting change	427	608		483
Cumulative effect of accounting change, net of income tax benefit of \$11				(16)
Net income	\$ 427	\$ 608	\$	467
Weighted average common shares outstanding, in millions	84.5	70.6		69.3
Basic earnings per share				
Continuing operations	\$ 4.84	\$ 8.86	\$	6.84
Discontinued operations		.55		.13
Disposal of discontinued operations		(.80)		
Before cumulative effect of accounting change	4.84	8.61		6.97
Accounting change				(.24)
Basic earnings per share	\$ 4.84	\$ 8.61	\$	6.73
Diluted earnings per share				
Continuing operations	\$ 4.80	\$ 8.82	\$	6.80
Discontinued operations		.55		.13
Disposal of discontinued operations		(.79)		
Before cumulative effect of accounting change	4.80	8.58		6.93
Accounting change				(.24)
Diluted earnings per share	\$ 4.80	\$ 8.58	\$	6.69
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The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Years ended December 31, \$ in millions	2001	2000	1999
Net income	\$ 427	\$ 608	\$ 467
Other comprehensive income			
Change in cumulative translation adjustment	(3)	(3)	
Minimum pension liability adjustments, before tax	(41)	(2)	19
Income tax benefit (expense)	14	1	(7)
Other comprehensive (loss)income, net of tax	(30)	(4)	12
Comprehensive income	\$ 397	\$ 604	\$ 479

 $\label{thm:companying} \textit{The accompanying notes are an integral part of these consolidated financial statements}.$

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended December 31, \$ in millions	2001	2000	1999
Operating Activities			
Sources of Cash			
Cash received from customers			
Progress payments	\$ 3,102	\$ 1,438	\$ 1,691
Other collections	11,148	7,003	7,450
Proceeds from litigation settlement	220		
Interest received	17	17	18
Income tax refunds received	23	15	75
Other cash receipts	24	10	7
Cash provided by operating activities	14,534	8,483	9,241
Uses of Cash			
Cash paid to suppliers and employees	13,251	7,250	7,715
Interest paid	333	165	216
Income taxes paid	126	57	85
Other cash payments	7	1	18
Cash used in operating activities	13,717	7,473	8,034
Net cash provided by operating activities	817	1,010	1,207
vesting Activities			
Payment for businesses purchased, net of cash acquired	(3,061)	(510)	(232
Additions to property, plant and equipment	(393)	(274)	(201
Collection of note receivable	148	()	
Proceeds from sale of property, plant and equipment	86	44	40
Proceeds from sale of businesses	18	668	
Other investing activities	(2)	(6)	1
Net cash used in investing activities	(3,204)	(78)	(392
nancing Activities			
Proceeds from issuance of long-term debt	1,491		
Proceeds from equity security units	690		
Borrowings under lines of credit	1,173		22
Repayment of borrowings under lines of credit	(1,306)	(175)	(434
Principal payments of long-term debt/capital leases	(119)	(485)	(200
Proceeds from issuance of stock	825	19	` (
Dividends paid	(158)	(114)	(111
Other financing activities	(64)	,	
Net cash provided by(used in) financing activities	2,532	(755)	(717
crease in cash and cash equivalents	145	177	98
ash and cash equivalents balance at beginning of year	319	142	44
ash and cash equivalents balance at end of year	\$ 464	\$ 319	\$ 142

Years ended December 31, \$ in millions	2001		2000		1999
Reconciliation of Net Income to Net Cash					
Provided by Operating Activities:					
Net income	\$ 427	\$	608	\$	467
Adjustments to reconcile net income to net cash provided					
Depreciation	266		175		193
Amortization of intangible assets	379		206		196
Common stock issued to employees	46		8		2
Loss on disposal of discontinued operations			56		
Loss(gain) on disposals of property, plant and equipment	(7)		13		21
Retiree benefits income	(269)		(492)		(249)
Decrease(increase) in					
Accounts receivable	1,273		(679)		170
Inventoried costs	(28)		77		172
Prepaid expenses and other current assets	17		(28)		45
Increase(decrease) in					
Progress payments	(648)		666		21
Accounts payable and accruals	(696)		87		(2)
Provisions for contract losses	(65)		20		(8)
Deferred income taxes	174		345		230
Income taxes payable	(13)		28		58
Retiree benefits	(75)		(92)		(129)
Other noncash transactions	36		12		20
Net cash provided by operating activities	\$ 817	\$	1,010	\$	1,207
Noncash Investing and Financing Activities: Sale of business Note received, net of discount		\$	125		
Purchase of businesses	* 44.0==	A	0.1.0	A	200
Fair value of assets acquired	\$ 11,957	\$	910	\$	328
Cash paid	(3,061)		(510)		(232)
Common stock issued	(2,405)		(140)		(30)
Mandatorily redeemable preferred stock issued	(350)				
		_		_	
Liabilities assumed	\$ 6,141	\$	260	\$	66

 $\label{thm:companying} \textit{The accompanying notes are an integral part of these consolidated financial statements.}$

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

Years ended December 31, \$ in millions, except per share	2001	2000	1999
Paid-in Capital			
At beginning of year	\$ 1,200	\$ 1,028	\$ 989
Stock issued in purchase of businesses	2,405	140	30
Stock issued in public offering	784		
Equity security units issuance fees and forward contract fees	(56)		
Employee stock awards and options			
exercised, net of forfeitures	118	32	9
At end of year	4,451	1,200	1,028
Retained Earnings			
At beginning of year	2,742	2,248	1,892
Net income	427	608	467
Cash dividends	(158)	(114)	(111)
At end of year	3,011	2,742	2,248
Unearned Compensation			
At beginning of year			
Issuance of unvested stock options	(24)		
Amortization of unearned compensation	6		
At end of year	(18)		
Accumulated Other Comprehensive Loss			
At beginning of year	(23)	(19)	(31)
Change in cumulative translation adjustment	(3)	(3)	· /
Change in excess of additional minimum pension			
liability over unrecognized prior service costs, net of tax	(27)	(1)	12
At end of year	(53)	(23)	(19)
Total shareholders' equity	\$ 7,391	\$ 3,919	\$ 3,257
Book value per share	\$ 68.08	\$ 54.38	\$ 46.72
Cash dividends per share	\$ 1.60	\$ 1.60	\$ 1.60

 $\label{thm:companying} \textit{The accompanying notes are an integral part of these consolidated financial statements.}$

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Significant Accounting Estimates

The consolidated financial statements include the accounts of the company 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 materially from those estimates.

Nature of Operations

Northrop Grumman provides technologically advanced, innovative products, services and solutions in defense and commercial electronics, information technology, systems integration, and nuclear and non-nuclear shipbuilding and systems. As prime contractor, principal subcontractor, partner, or preferred supplier, Northrop Grumman participates in many high-priority defense and commercial technology programs in the United States and abroad. 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

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 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, changes in operating margin were recognized on a units-of-delivery basis and recorded as each equivalent production unit was 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 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 not allocable to U.S. Government contracts and therefore 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 more probable 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 which may be outstanding from time to time under the company's Credit Facilities. Interest on these interest rate swap agreements is recognized as an adjustment to interest expense in the period incurred. Unrealized gains(losses) on interest rate swap agreements are included in income in the period incurred. No interest rate swap agreements were in effect during the year ended December 31, 2001.

Foreign Currency Forward Contracts

The company enters into foreign currency forward contracts to manage foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies. Gains and losses from such transactions are included as contract costs. At December 31, 2001, the amount of foreign currency forward contracts outstanding was not material.

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 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

Basic earnings per share are calculated by dividing net income available to common shareholders by the weighted average number of shares of common stock outstanding during each period, after giving recognition to stock splits and stock dividends. Net income available to common shareholders is calculated by reducing net income by the amount of dividends accrued on mandatorily redeemable preferred stock. Diluted earnings per share reflect the dilutive effect of stock options and other stock awards granted to employees under stock-based compensation plans. Shares issuable pursuant to equity security units and mandatorily redeemable preferred stock have not been included in the diluted earnings per share calculation because their effect is currently anti-dilutive.

Basic and diluted earnings per share are calculated as follows:

(in millions, except per share)	2001	2000	1999
Basic Earnings per Share Income from continuing operations Less preferred dividends	\$ 427 18	\$ 625	\$ 474
Income available to common shareholders	\$ 409	\$ 625	\$ 474
Weighted-average common shares outstanding	84.46	70.58	69.25
Basic earnings per share from continuing operations	\$ 4.84	\$ 8.86	\$ 6.84
Diluted Earnings per Share			
Income from continuing operations Less preferred dividends	\$ 427 18	\$ 625	\$ 474
Income available to common shareholders	\$ 409	\$ 625	\$ 474
Weighted-average common shares outstanding Dilutive effect of stock options and awards	84.46 .80	70.58	69.25 .45
Weighted-average diluted shares outstanding	85.26	70.88	69.70
Diluted earnings per share from continuing operations	\$ 4.80	\$ 8.82	\$ 6.80

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 that are probable of recovery, 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.

Product inventory primarily consists of raw materials and is stated at the lower of cost or market, generally using the average cost method.

Depreciable Properties

Property, plant and equipment owned by the company are depreciated over the estimated useful lives of individual assets. Capital leases are amortized over the estimated useful lives of individual assets. Costs incurred for computer software developed or obtained for internal use are capitalized and classified in machinery and other equipment. Capitalized software costs are amortized over no more than three years. Most of these assets are depreciated using declining-balance methods, with the remainder using the straight-line method, with the following lives:

YearsLand improvements2–40Buildings2–45Machinery and other equipment2–40Leasehold improvementsLength of lease

Goodwill and Other Purchased Intangible Assets

In 2001 goodwill and other purchased intangible assets were amortized on a straight-line basis over weighted average periods of 35 years and 14 years, respectively, with the exception of approximately \$1.9 billion of goodwill resulting from the 2001 acquisitions of Newport News Shipbuilding Inc. (Newport News) and the Electronics and Information Systems (EIS) Group of Aerojet-General Corporation, which is not being amortized, in accordance with the guidance of Statement of Financial Accounting Standards (SFAS) No. 142–*Goodwill and Other Intangible Assets*. 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 margin. The recoverability of goodwill and other purchased intangibles is evaluated at least annually considering the projected future profitability and cash flow of the operations to which they relate. When it is determined that an impairment has occurred, an appropriate charge to operations is recorded. Charges of \$1 million and \$7 million were recorded in 2000 and 1999, respectively, for purchased intangible assets no longer considered recoverable from future revenues. Effective January 1, 2002, the company will adopt SFAS No. 142 and cease amortization of all goodwill.

Financial Statement Reclassification

Certain prior year amounts have been reclassified to conform to the 2001 presentation.

Foreign Currency Translation

For operations outside the U.S. that prepare financial statements in currencies other than the U.S. dollar, results of operations and cash flows are translated at average exchange rates during the period, and assets and liabilities are translated at end-of-period exchange rates. Translation adjustments are included as a separate component of accumulated other comprehensive income (loss) in shareholders' equity.

SEGMENT INFORMATION

The company is aligned into six business sectors: Electronic Systems, Information Technology, Integrated Systems, Ship Systems, Newport News and Component Technologies. For financial reporting purposes each business sector is a reportable segment with the exception of Ship Systems and Newport News which are aggregated and reported as the Ships segment in accordance with the provisions of SFAS No. 131–Disclosures about Segments of an Enterprise and Related Information.

Electronic Systems designs, develops and manufactures a wide variety of defense electronics and systems, airspace management systems, precision weapons, marine systems, logistic systems, space systems and automation and information systems. These include fire control radars for the F-16 fighter aircraft, the F-22 air dominance fighter and the Longbow Apache helicopter. Other key products include the AWACS airborne early warning radar, the Joint STARS air-to-ground surveillance radar sensor, the Longbow Hellfire missile and the BAT "brilliant" anti-armor submunition. This sector also provides tactical military radars and countrywide air defense systems, as well as airborne electronic countermeasures systems intended to jam enemy aircraft and weapons systems. Electronic Systems is an international leader in airspace management as a producer of civilian air traffic control systems. The sector also makes sophisticated undersea warfare systems and naval propulsion and power generation systems, as well as postal automation, image processing, material management, asset track and trace and data communication systems. In addition, this sector designs, develops and manufactures inertial navigation, guidance and control, IFF (identification friend or foe) and marine electronic systems. It also provides electronic warfare systems and integrates avionics systems and shipboard information and communication systems. This sector has been selected to produce the fire control radar and other key components of the new F-35 Joint Strike Fighter.

Information Technology is a leader in advanced information technologies, systems and services. Information Technology includes information systems businesses, which design, develop, integrate and support computer-based information systems and provide information technology and services primarily for government customers. This sector is the prime contractor for the General Services Administration ANSWER and Millennia programs. Information Technology is also part of a team working with the Internal Revenue Service to modernize the U.S. federal tax system. Information Technology has extensive expertise in command, control, communications, computers, intelligence, surveillance and reconnaissance (C⁴ISR). It is a key management support element for major weapons systems, such as the U.S. Navy's AEGIS class destroyer as well as mission planning for the U.S. Navy, Air Force and Special Operations Command. Information Technology provides base operations support for NASA's Kennedy Space Center, Cape Canaveral Air Station and Patrick Air Force Base, among others. In addition, this sector provides information technology services to commercial customers and to our other sectors.

Integrated Systems is a leader in design, development and production of airborne early warning, electronic warfare and surveillance and battlefield management systems. Integrated Systems is the prime contractor for the Joint STARS advanced airborne targeting and battle management system and the U.S. Air Force's B-2 Spirit stealth bomber. It has a principal role in producing the U.S. Navy's F/A-18 Hornet strike fighter. The sector also is upgrading the EA-6B Prowler electronic countermeasures aircraft and produces the E-2C Hawkeye early-warning aircraft. It has a principal role in the Global Hawk program, a development stage integrated unmanned aerial vehicle for reconnaissance and surveillance. As a member of the F-35 Joint Strike Fighter Team, Integrated Systems will be responsible for design and integration of the center fuselage and weapons bay, a large part of systems engineering and mission system software, and various support activities.

Ship Systems is engaged in the building of large multimission non-nuclear surface ships for the U.S. Navy as well as other government and commercial customers and is a provider of overhaul, repair modernization, ship design and engineering services. Key products include amphibious assault ships (WASP LHD 1 Class, San Antonio LPD 17 Class), destroyers (Arleigh Burke DDG 51 Class), sealift transport ships (T-AKR Ro/Ro) and double-hulled oil tankers. In addition, the new Full Service Center offers its customers a full range of ship-related services, which include a worldwide network of fleet support services.

Newport News is the largest non-government-owned shipyard in the U.S., as measured by each of revenues, size of facilities and number of employees. Its primary business is the design, construction, repair, maintenance, overhaul, life-cycle support and refueling of nuclear-powered aircraft carriers and the design, life-cycle support and construction of nuclear-powered submarines for the U.S. Navy.

Component Technologies is a premier international supplier of complex backplanes, connectors, laser crystals, solder materials, specialty products, oxygen generating systems and other electronic components used primarily in the aerospace, telecommunications, industrial and computer markets.

Sales to the U.S. Government (including foreign military sales) are reported within each segment and in total in the Selected Financial Data. Foreign sales amounted to approximately \$1.3 billion, \$600 million and \$600 million for the years ended December 31, 2001, 2000 and 1999, respectively. Foreign sales by their vary nature are subject to greater risk than the company's domestic sales, particularly to the U.S. government. All of the company's segments engage in international business, for which the company maintains a large number of sales representatives and consultants who are not employees of the company. International sales and services subject the company to numerous stringent U.S. and foreign laws and regulations, including, without limitation, regulations relating to import-export control, repatriation of earnings, exchange controls, the Foreign Corrupt Practices Act and the anti-boycott provisions of the U.S. Export Administration Act. Failure by the company or its sales representatives or consultants to comply with these laws and regulations could result in administrative, civil or criminal liabilities and could in the extreme case result in suspension of the company's export privileges, which could have a material adverse consequence. Intersegment sales generally are transacted at cost incurred with no profit added. Management principally uses operating margin as the measure to evaluate segment profitability. The company does not allocate federal income tax expense, pension income, the deferred portion of state income tax expense, interest income, or interest expense to segments. General corporate assets include cash and cash equivalents, corporate office furnishings and equipment, other unallocable property, investments in affiliates, prepaid retiree benefits costs, intangible pension assets, benefit trust fund assets, deferred tax assets and certain assets available for sale.

In the following table of segment and major customer data, revenue from the United States Government includes revenue from contracts on which Northrop Grumman is the prime contractor as well as those on which the company is a subcontractor and the ultimate customer is the U.S. Government. All of the 2000 and 1999 data except for assets by segment exclude the company's commercial Aerostructures business, which was sold in 2000.

RESULTS OF OPERATIONS BY SEGMENT AND MAJOR CUSTOMER

Years ended December 31, \$ in millions	2001	2000		1999
Net Sales				
Electronic Systems				
United States Government		\$ 2,102	\$	1,894
Other customers	1,614	692		673
Intersegment sales	174	121		146
	4,719	2,915		2,713
Information Technology				
United States Government	3,231	1,457		1,248
Other customers	491	228		189
Intersegment sales	61	32		22
	3,783	1,717		1,459
Integrated Systems				
United States Government	2,869	3,103		3,574
Other customers	121	36		38
Intersegment sales	11	11		6
	3,001	3,150		3,618
Ships				
United States Government	1,487			
Other customers	392			
Intersegment sales	1			
	1,880			
Component Technologies				
United States Government	57			
Other customers	365			
Intersegment sales	5			
	427			
Intersegment eliminations	(252)	(164)		(174)
Total and sales	¢ 12.550	¢ 7.610	ď	7.010
Total net sales	\$ 13,558	\$ 7,618	\$	7,616
Operating Margin(Loss)	ф 350	¢ 101	ď	100
Electronic Systems Information Technology		\$ 181 104	\$	199
Information Technology Integrated Systems	170 258	316		80 387
Ships	19	210		<i>3</i> 0/
Component Technologies	(38)			
component recimologico				
Adjustments to reconcile to total operating margin:	768	601		666
Unallocated corporate expenses	(74)	(17)		(26)
Deferred state tax provision	(27)	(24)		(29)
Pension income	337	538		343
		,,,,		
Total operating margin	\$ 1,004	\$ 1,098	\$	954

Years ended December 31, \$ in millions		2001	2000	1999
Assets				
Electronic Systems	\$!	5,883	\$ 4,069	\$ 3,883
Information Technology	:	2,099	1,247	618
Integrated Systems	:	2,088	2,238	3,497
Ships		6,040		
Component Technologies		1,117		
Segment assets	1'	7,227	7,554	7,998
General corporate	:	3,659	2,068	1,287
Total assets	\$ 20	0,886	\$ 9,622	\$ 9,285
Capital Expenditures				
Electronic Systems	\$	195	\$ 118	\$ 97
Information Technology		46	22	19
Integrated Systems		79	124	56
Ships		44		
Component Technologies		26		
General corporate		3	1	
Total expenditures	\$	393	\$ 265	\$ 172
Depreciation and Amortization				
Electronic Systems	\$	302	\$ 236	\$ 222
Information Technology		90	32	32
Integrated Systems		102	112	97
Ships		82		
Component Technologies		68		
General corporate		1	1	2
Total depreciation and amortization	\$	645	\$ 381	\$ 353

SUPPLEMENTAL CONSOLIDATING INFORMATION

The acquisition of Litton Industries, Inc. (Litton) was funded in part by Northrop Systems' issuance of \$1.5 billion of indebtedness pursuant to its senior debt indenture consisting of \$750 million of 7.125 percent notes due 2011 and \$750 million of 7.75 percent debentures due 2031. Northrop Systems' payment obligations under the notes and debentures are fully and unconditionally guaranteed on a joint and several basis by Northrop Grumman Corporation (the "Guarantor Parent"), and by Litton (the "Guarantor Subsidiary"). The Guarantor Parent owns 100 percent of Northrop Systems, the Guarantor Subsidiary and Newport News.

The following unaudited condensed consolidating financial data provide information regarding Northrop Systems, the Guarantor Parent, the Guarantor Subsidiary and Newport News.

CONDENSED CONSOLIDATING STATEMENT OF FINANCIAL POSITION December 31, 2001

(Unaudited)

\$ in millions	G (G	forthrop rumman Guarantor Parent)	S	orthrop ystems ssuer)	(G	Litton Juarantor bsidiary)	(N	ewport News on-Guarantor Subsidiary)	solidating ustments	5	Γotal
Assets:											
Cash and cash equivalents	\$		\$	403	\$	59	\$	2	\$	\$	464
Accounts receivable,net of progress payments				1,476		1,024		235			2,735
Inventoried costs, net of progress payments				655		511		60			1,226
Deferred income taxes				(71)				107			36
Prepaid expenses and other current assets				44		75		9			128
Total current assets				2,507		1,669		413			4,589
Property, plant and equipment				2,206		1,065		669			3,940
Accumulated depreciation				(1,093)		(78)		(2)		(1,173)
Net property, plant and equipment				1,113		987		667			2,767
Goodwill, net				3,951		3,071		1,646			8,668
Other purchased intangibles, net				606		397		136			1,139
Prepaid retiree benefit cost and											
intangible pension asset				1,739		1,174		162			3,075
Investment in consolidated subsidiaries		7,793		1,806					(9,599)		
Intercompany loan receivable		820		22					(842)		
Miscellaneous other assets		2		40		192		414			648
Total other assets		8,615		8,164		4,834		2,358	(10,441)	1	3,530
Total Assets	\$	8,615	\$	11,784	\$	7,490	\$	3,438	\$ (10,441)	\$2	0,886

CONDENSED CONSOLIDATING STATEMENT OF FINANCIAL POSITION December 31, 2001 (Unaudited)

\$ in millions	Gr (Gr	orthrop umman uarantor 'arent)	Northrop Systems (Issuer)		Litton (Guarantor Subsidiary)		(N	ewport News fon-Guarantor Subsidiary)	Consolidatin Adjustments		Т	`otal
Liabilities and Shareholders' Equity:												
Current portion of long-term debt and												
notes payable to banks	\$		\$		\$	42	\$	416	\$		\$	458
Trade accounts payable				573		384		62			1	1,019
Accrued employees' compensation				409		215		223				847
Advances on contracts				488		168						656
Income taxes payable				126		7		4				137
Deferred income taxes				316		27		1				344
Other current liabilities		62		755		813		41			1	1,671
Total current liabilities		62		2,667		1,656		747				5,132
Long-term debt		690		3,103		1,235		5			Ĺ	5,033
Accrued retiree benefits				1,196		266		469			1	1,931
Deferred income taxes				473		(41)		237				669
Other long-term liabilities and minority						· /						
interest		26		66		180		108				380
Intercompany loan payable				61		633		148		(842)		
Intercompany accounts payable		96		370		(384)		(82)				
Mandatorily redeemable preferred stock		350										350
Shareholders' equity		7,391		3,848		3,945		1,806	((9,599)	7	7,391
Total Liabilities and Shareholders' Equity	\$	8,615	\$ 1	11,784	\$	7,490	\$	3,438	\$ (1	0,441)	\$20	0,886

CONDENSED CONSOLIDATING STATEMENT OF INCOME

Year ended December 31, 2001

(Unaudited)

\$ in millions	Northr Grumn (Guarar Paren	nan ntor	Sys	rthrop stems suer)	(Gı	Litton uarantor osidiary)	(Non-	ort News Guarantor sidiary)	olidating estments	T	otal
Product sales and service revenues	\$		\$ 9	9,068	\$	4,280	\$	261	\$ (51)	\$13	3,558
Cost of product sales and service revenues											
Operating costs			7	7,338		3,703		229	(51)	11	1,219
Administrative and general expenses		6		888		430		11		1	1,335
Operating margin		(6)		842		147		21		1	1,004
Interest expense		(4)		(291)		(74)		(4)			(373)
Other, net		437		66		(2)		(1)	(432)		68
Income before income taxes		427		617		71		16	(432)		699
Federal and foreign income taxes				220		52					272
Net income	\$	427	\$	397	\$	19	\$	16	\$ (432)	\$	427

CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS

Year ended December 31, 2001

(Unaudited)

\$ in millions	Northrop Grumman (Guarantor Parent)	Northrop Systems (Issuer)	Litton (Guarantor Subsidiary)	Newport News (Non-Guarantor Subsidiary)	Consolidating Adjustments	Total
Net cash provided by (used in) operating						
activities	\$	\$ 764	\$ 98	\$ (45)	\$	\$ 817
Investing Activities						
Payment for businesses purchased,	(0.064)					(2.064)
net of cash acquired	(3,061)	(272)	(100)	(11)		(3,061)
Additions to property plant and equipment		(273)	(109)	(11)		(393)
Collection of note receivable		148				148
Proceeds from sale of property, plant			20			0.0
and equipment		57	29			86
Other investing activities		(6)	22			16
Net cash used in investing activities	(3,061)	(74)	(58)	(11)		(3,204)
Financing Activities						
Intercompany activity	2,369	(2,462)	126	(33)		
Proceeds from issuance of long-term debt		1,491				1,491
Proceeds from equity security units		690				690
Borrowings under lines of credit		1,285	(112)			1,173
Repayment of borrowings under lines of credit		(1,284)	(22)			(1,306)
Principal payments of long-term debt/capital leases		(81)	(38)			(119)
Proceeds from issuance of stock	821	4				825
Dividends paid	(129)	(29)				(158)
Other financing activities		(64)				(64)
Net cash provided by (used in) financing activities	3,061	(450)	(46)	(33)		2,532
Increase (decrease) in cash and cash equivalents		240	(6)	(89)		145
Cash and cash equivalents balance at						
beginning of period		163	65	91		319
Cash and cash equivalents balance at end of period	\$	\$ 403	\$ 59	\$ 2	\$	\$ 464

DISCONTINUED OPERATIONS

Effective July 24, 2000, the company completed the sale of its commercial aerostructures (Aerostructures) business to The Carlyle Group, pursuant to an Asset Purchase Agreement dated as of June 9, 2000, between Northrop Grumman and Vought Aircraft Industries, Inc., an entity owned by The Carlyle Group. Aerostructures was principally a major producer of commercial aircraft subassemblies, the majority of which were sold to The Boeing Company. The sale price was composed of \$668 million in cash and a promissory note for \$175 million, which was paid in full in 2001. A \$56 million after-tax loss on the sale, which includes the settlement and curtailment of various pension and other post-retirement benefit plans, the write-off of goodwill, and final assessment of the value of the promissory note, was recorded in 2000.

The company's Consolidated Statements of Income and related footnote disclosures have been restated to reflect Aerostructures as discontinued operations for the 2000 and 1999 periods presented. The Consolidated Statements of Cash Flows for 2000 and 1999 have not been restated. Operating results of the discontinued Aerostructures business are as follows:

Years ended December 31, \$ in millions	2000	1999
Net Sales	\$ 669	\$ 1,379
Income before income taxes Federal and foreign income taxes	\$ 61 22	\$ 15 6
Income from discontinued operations	\$ 39	\$ 9

ACQUISITIONS

In April 2001, the company purchased approximately 97 percent of the common stock and approximately 59 percent of the preferred stock of Litton. The company issued 13 million shares of its common stock and 3.5 million shares of its preferred stock and paid cash for the balance of the shares. In May and June 2001, the company acquired all of the remaining shares of Litton common and preferred stock for cash. Litton business units operating results are included from the acquisition date in the company's segment data as follows: Litton's advanced electronics business is included in Electronic Systems, Litton's information systems business is included in Information Technology, Litton's ship systems business is included in Ships, and Litton's electronic components and materials business comprises Component Technologies.

The acquisition of Litton, which is valued at approximately \$5.2 billion, including the assumption of Litton's net debt of \$1.3 billion, is accounted for using the purchase method of accounting. Under the purchase method of accounting, the purchase price is allocated to the underlying tangible and intangible assets acquired and liabilities assumed based on their respective fair market values, with the excess recorded as goodwill. Goodwill and other purchased intangibles related to the Litton acquisition were amortized on a straight-line basis over weighted average periods of 24 years and 7 years, respectively. In future periods, purchased intangibles will continue to be amortized over a weighted average period of 7 years. The consolidated financial statements reflect preliminary estimates of the fair market value of the assets acquired and liabilities assumed and the related allocations of purchase price, and preliminary estimates of adjustments necessary to conform Litton data to the company's accounting policies. The company is currently reviewing the preliminary estimates of the fair market value of assets acquired and liabilities assumed, including valuations associated with certain contracts and restructuring activities and preliminary valuation study results for workers' compensation accruals and retiree benefits assets and liabilities. The final determination of the fair market value of assets acquired and liabilities assumed and final allocation of the purchase price may differ from the amounts included in the consolidated financial statements. Adjustments to the purchase price allocations will be finalized by March 31, 2002, and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

In connection with the acquisition of Litton the company accrued \$114 million in restructuring costs, including \$29 million to exit a business, \$29 million to close down redundant facilities and \$56 million to terminate and relocate employees. All restructuring costs accrued as of December 31, 2001, were accounted for as purchase accounting adjustments to the opening balance sheet of Litton. For the period from April 2, 2001, to

December 31, 2001, the company charged \$25 million against the balance sheet accruals. At December 31, 2001, \$3 million and \$86 million of the purchase accounting accruals remained in accrued employees' compensation and other current liabilities, respectively. The company expects to complete its restructuring activities no later than the fourth quarter of 2002.

In October 2001, the company completed its acquisition of EIS for \$315 million in cash after securing necessary regulatory approvals. EIS' operating results are included from the acquisition date in the Electronic Systems sector's newly formed Space Systems Division.

In November 2001, the company purchased pursuant to an exchange offer approximately 80.7 percent of the outstanding shares of Newport News common stock, issuing 13.4 million shares of the company's common stock and paying cash for the remaining balance of shares tendered. For the year ended December 31, 2001, the company has accounted for the 19.3 percent of Newport News common shares that it did not own as minority interest. In January 2002, the company completed the acquisition of the shares of Newport News common stock not previously purchased, issuing 3.2 million shares of common stock and paying cash for the remaining balance of the shares. The acquisition of Newport News is valued at approximately \$2.6 billion, including the assumption of Newport News net debt of \$400 million. Newport News is operated as a new sector. The company expects to combine Ship Systems and Newport News into a single sector, but for the next 12 to 24 months they will function as stand-alone sectors.

The Newport News and EIS acquisitions are accounted for using the purchase method of accounting. The company is in the early stages of the fair market value and accounting conformance evaluation process with respect to the Newport News and EIS acquisitions. The consolidated financial statements reflect preliminary estimates of the fair market value of the assets acquired and liabilities assumed and the related allocations of purchase price and preliminary estimates of adjustments necessary to conform Newport News and EIS to the company's accounting policies. Adjustments to the purchase price allocations are expected to be finalized by June 30, 2002, and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

The following unaudited pro forma financial information reflects the combined results of the company's operations as if the acquisitions of Litton and Newport News had taken place on January 1, 2001 and 2000 and are not necessarily indicative of future operating results of the company. In addition, the audited financial statements contained in Litton's Annual Report on Form 10-K for the fiscal year ended July 31, 2000, and the unaudited financial statements of Litton contained in Litton's Quarterly Reports on Form 10-Q for the periods ended January 31, 2001, and October 31, 2000, have been used to conform the financial reporting periods of Litton to those of the company. EIS is not included in the following unaudited pro forma financial information as its inclusion would not have had a material effect on the reported amounts.

Years ended December 31, \$ in millions, except per share (unaudited)	2001	2000
Net sales	\$ 17,142	\$ 15,958
Net income	505	647
Basic earnings per share	4.81	6.49
Diluted earnings per share	4.77	6.46

In 2000 Northrop Systems acquired four businesses, Federal Data Corporation, Sterling Software (U.S.) Inc., known as the Federal Systems Group, Comptek Research, Inc., and Navia Aviation AS, an operating unit of Navia ASA in Norway, for a total of \$643 million in cash and stock. The purchase method of accounting was used to record all four acquisitions.

In 1999 the company acquired three businesses, the Information Systems Division of California Microwave, Inc., Data Procurement Corporation, and Ryan Aeronautical, an operating unit of Alleghany Teledyne Incorporated, for a total of \$271 million in cash and stock. The purchase method of accounting was used to record all three acquisitions.

NEW ACCOUNTING STANDARDS

In October 2001 the Financial Accounting Standards Board issued SFAS No. 144—Accounting for the Impairment or Disposal of Long-Lived Assets, which replaces SFAS No. 121—Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of. SFAS No. 144 resolves implementation issues previously experienced under SFAS No. 121 and broadens the reporting of discontinued operations. This statement becomes effective for financial statements issued for fiscal years beginning after December 15, 2001. Management does not expect that adoption of this standard will have a material effect on the company's results of operations and financial position.

In August 2001 the Financial Accounting Standards Board issued SFAS No. 143—*Accounting for Asset Retirement Obligations*. SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This statement becomes effective for financial statements issued for fiscal years beginning after June 15, 2002. Management is currently evaluating the effect that adoption of this standard will have on the company's results of operations and financial position.

In June 2001 the Financial Accounting Standards Board issued SFAS No. 141–*Business Combinations*, and SFAS No. 142–*Goodwill and Other Intangible Assets*. SFAS No. 141 requires the purchase method of accounting for business combinations initiated after June 30, 2001 and eliminates the pooling-of-interests method. Adoption of SFAS No. 141 did not have a significant effect on the company's financial position, results of operations, or cash flows. SFAS No. 142 changes the accounting for goodwill from an amortization method to an impairment-only approach. Upon adoption of this statement, amortization of goodwill, including goodwill recorded in past business combinations, will cease and an initial impairment assessment of goodwill will be performed. Annual impairment tests are required thereafter. The company was required to adopt SFAS No. 142 on January 1, 2002. Management presently expects to complete its initial evaluation and impairment testing by June 30, 2002, in accordance with the provisions of the statement.

In December 1999 the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) No. 101–Revenue Recognition in Financial Statements. Since substantially all of the company's revenue is recognized in compliance with Statement of Position (SOP) No. 81-1–Accounting for Performance of Construction-Type and Certain Production-Type Contracts and SOP No. 97-2–Software Revenue Recognition, implementation of SAB No. 101 had no material effect on the company's results of operations or financial position.

In January 1999 the company adopted SOP 98-5—*Reporting on the Costs of Start-Up Activities*, which requires that certain costs that previously had been deferred, be expensed and reported as a cumulative effect of a change in accounting principle, and all such future costs be expensed as incurred. In the first quarter of 1999, the company recorded a \$16 million after-tax charge, or \$.24 per share, as the cumulative effect of a change in accounting principle.

In June 1998 the Financial Accounting Standards Board issued SFAS No. 133—Accounting for Derivative Instruments and Hedging Activities, subsequently amended by SFAS No. 138—Accounting for Certain Derivative Instruments and Certain Hedging Activities. These standards provide authoritative guidance on accounting and financial reporting for derivative instruments. The company adopted these standards on January 1, 2001. Adoption of these standards did not have a significant effect on the company's financial position, results of operations, or cash flows.

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.

Accounts receivable at December 31, 2001, are expected to be collected in 2002 except for approximately \$19 million due in 2003 and \$24 million due in 2004 and later.

Allowances for doubtful amounts mainly represent estimates of overhead type costs which may not be successfully negotiated and collected. Accounts receivable were composed of the following:

\$ in millions	2001	2000
Due from U.S. Government, long-term contracts		
Current accounts		
Billed	\$ 678	\$ 434
Unbilled	13,015	2,012
Progress payments received	(12,201)	(1,521)
	1,492	925
Due from other customers, long-term contracts		
Current accounts		
Billed	175	61
Unbilled	229	299
	404	360
Total due, long-term contracts	1,896	1,285
Trade and other accounts receivable		
Due from U.S. Government	376	227
Due from other customers	509	98
Total due, trade and other	885	325
	2,781	1,610
Allowances for doubtful amounts	(46)	(53)
	\$ 2,735	\$ 1,557

INVENTORIED COSTS

Inventoried costs were composed of the following:

\$ in millions	2001	2000
Production costs of contracts in process Administrative and general expenses	\$ 1,635 221	\$ 937 146
Progress payments received	1,856 (900)	1,083 (535)
Product inventory	956 270	548 37
	\$ 1,226	\$ 585

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 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 asserts title to, or a security interest in, substantially all inventories related to such contracts.

Product inventory primarily consists of raw materials and is stated at the lower of cost or market, generally using the average cost method.

NOTE RECEIVABLE

Included in the miscellaneous other assets balance at December 31, 2000, was a promissory note received as partial payment in the 2000 sale of the Aerostructures business. This note was collected in full in 2001. The note was recorded with an initial fair value of \$125 million, with the discount being amortized as interest income over the original life of the loan.

FAIR VALUE OF FINANCIAL INSTRUMENTS

The following methods and assumptions were used to estimate the fair value of financial instruments:

For Cash and Cash Equivalents and amounts borrowed under the company's short-term credit lines, the carrying amounts approximate fair value, due to the short-term nature of these items.

The fair value of notes receivable is estimated by discounting the future cash flows using the implied market discount rate.

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

The company makes limited use of derivative financial instruments and does not hold or issue them for trading purposes. To mitigate the variable rate characteristic of its term loans, the company has from time to time entered into interest rate swap agreements. No interest rate swap agreements were in effect during the years ended December 31, 2001, or December 31, 2000. If any interest rate swap agreements had existed, unrealized gains(losses) would be calculated based upon the amounts at which they could have been settled at then current interest rates.

The company enters into foreign currency forward contracts to manage foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies. Gains and losses from such transactions are included as contract costs. At December 31, 2001, the amount of foreign currency forward contracts outstanding was not material.

\$ in millions

Other, net

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

2001

(19)

\$272

(4)

\$350

2

\$273

2000

Note receivable			
Carrying amount			\$ 13
Fair value			13
Long-term debt			
Carrying amount	\$	5,453	\$ 1,61
Fair value		5,819	1,67
INCOME TAXES			
Income tax expense, both federal and foreign, consisted of the following:			
Years ended December 31, \$ in millions	2001	2000	0 1999
Income taxes on continuing operations:			
Currently payable			
Federal income taxes	\$ 46	\$ 90	
Foreign income taxes	13		5
	59	10	_
Change in deferred federal and foreign income taxes	213	249	9 19
Total income taxes on continuing operations	\$272	\$350	0 \$27
Income tax expense differs from the amount computed by multiplying the statutory federal income tax rafollowing:	ite times the income before inco	me taxes du	
Years ended December 31, \$ in millions	2001	2000	1999
Income tax expense on continuing operations at statutory rate	\$245	\$341	\$261
Goodwill amortization	61	20	15
Extraterritorial income exclusion/foreign sales corporation	(15)	(7)	(5

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	2001	200
ferred tax assets		
Deductible temporary differences		
Provision for estimated expenses	\$ 38	\$ 2
	\$ 38	\$ 2
ferred tax liabilities		
Taxable temporary differences		
Income on contracts	\$ 729	\$ 90
Retiree benefit plan income	437	1
Goodwill amortization	171	1
Purchased intangibles	163	
Excess tax over book depreciation	328	!
Other	5	
	1,833	1,2
Deductible temporary differences		
Provision for estimated expenses	(429)	(1
Retiree benefit plan expense	(169)	
Administrative and general expenses period costed for tax purposes	(30)	
Other	(90)	(
	(718)	(2
Tax carryforwards		
Tax credits	(49)	(
Alternative minimum tax credit	(53)	(
	(102)	(
	\$ 1,013	\$ 9
t deferred tax liability		
Total deferred tax liabilities (taxable temporary differences above)	\$ 1,833	\$ 1,2
Less total deferred tax assets (deductible temporary differences and tax		
carryforwards above)	858	3
		Φ -
	\$ 975	\$ 9

Deferred U.S. income taxes were provided (net of foreign income tax credits), with respect to undistributed earnings from Northrop Grumman and Litton non-U.S. subsidiaries' pre-acquisition years, to the extent that it was anticipated that dividend payments from such earnings were expected to result in an additional liability. There has been no provision for U.S. income taxes for the remaining undistributed earnings of approximately \$35 million at December 31, 2001, because the company intends to reinvest these earnings indefinitely in operations outside the U.S. Should these earnings be distributed in the form of dividends or otherwise, the distributions would be subject to U.S. federal income tax at the statutory rate of 35 percent, less foreign tax credits applicable to the distributions, if any. In addition, such distributions would be subject to withholding taxes in the various jurisdictions.

The company has foreign income tax credit carryforward items of \$22 million at December 31, 2001, to offset future federal income tax liabilities. These credits will expire in the years 2003 and 2004. In addition, the company has \$27 million of carryforward credits attributable to increasing research activities which will expire in the years 2002 through 2021. The alternative minimum tax credit carryforward amount of \$53 million can be carried forward indefinitely.

NOTES PAYABLE TO BANKS AND LONG-TERM DEBT

In February 2001, Northrop Systems issued \$1.5 billion of indebtedness pursuant to its senior debt indenture consisting of \$750 million of 7.125 percent notes due 2011 and \$750 million of 7.75 percent debentures due 2031. In connection with the closing of the Litton acquisition, the company entered into unsecured senior credit facilities with lenders which initially provided for borrowings of up to \$5 billion (the "Credit Facilities") and which replaced the company's previous credit agreement. The Credit Facilities consisted of a \$2.5 billion 364-day revolving credit facility and a \$2.5 billion five-year revolving credit facility. The 364-day revolving credit facility was terminated in December 2001. At December 31, 2001, \$2.5 billion was available under the five-year revolving credit facility. Borrowings under the Credit Facilities, together with the proceeds of the February 2001 issuance of notes and debentures, were used to finance the Litton acquisition and to pay related expenses, to retire and refinance a portion of the Litton debt, and to finance continuing operations. Borrowings under the Credit Facilities bear interest at various rates, including adjusted LIBOR, or an alternate base rate plus, in each case, an incremental margin based on the combined company's credit rating. The Credit Facilities also provide for a facility fee on the daily aggregate amount of commitments under the revolving facilities (whether or not utilized). The facility fee is also based on the company's credit rating level. The company, Northrop Systems and Litton are co-borrowers on the Credit Facilities. The company and Litton have guaranteed the Northrop Systems outstanding indenture debt and the company and Northrop Systems have guaranteed the Litton outstanding indenture debt. The company's credit agreements contain various restrictive covenants relating to the payment of dividends, acquisition of the company's stock, minimum fixed charges, aggregate indebtedness for borrowed money, interest coverage, as well as customary co

In November 2001, the company issued \$690 million of equity security units. Each equity security unit, issued at \$100 per unit, initially consists of a contract to purchase shares of Northrop Grumman common stock on November 16, 2004, and a \$100 senior note due 2006. The senior notes due 2006 are reported as long-term debt. The senior notes initially bear interest at 5.25 percent per annum, and each equity security unit also pays a contract adjustment payment of 2.0 percent per annum, for a combined yield on the equity security unit of 7.25 percent per annum. Each purchase contract which is part of the equity security units will obligate the holder thereof to purchase on November 16, 2004, for \$100, the following number of shares of the company's common stock based on the average closing price of the company's common stock over the 20 day trading period ending on the third trading day immediately preceding November 16, 2004: (i) 0.9262 shares if the average closing price equals or exceeds \$107.97, (ii) a number of shares having a value equal to \$100 if the average closing price is less than \$107.97 but greater than \$88.50 and (iii) 1.1299 shares if the average closing price is less than or equal to \$88.50. Prior to November 16, 2004, holders of equity security units have the opportunity to participate in a remarketing of the senior note component.

Long-term debt at December 31, consisted of the following:

\$ in millions	2001	2000
Notes due 2003 to 2009, rates from 6.05% to 9.25%	\$ 2,414	\$ 750
Equity security unit notes due 2006, 5.25%	690	
Debentures due 2016 to 2036, rates from 6.75% to 7.75%	2,200	850
Other indebtedness due 2004 to 2014, rates from 7.0% to 8.5%	149	15
	5,453	1,615
Less current portion	420	10
	\$ 5,033	\$ 1,605

Indentures underlying long-term debt issued by the company or its subsidiaries contain various restrictions with respect to the issuer, including one or more restrictions relating to limitations on liens, sale and leaseback arrangements and funded debt of subsidiaries.

Long-term debt outstanding at December 31, 2001 matures as follows:

\$ in millions

Year Ended December 31	
2003	\$ 105
2004	358
2005	10
2006	1,094
Thereafter	3,466
	\$ 5,033

MANDATORILY REDEEMABLE SERIES B CONVERTIBLE PREFERRED STOCK

The company issued 3.5 million shares of mandatorily redeemable Series B Convertible Preferred Stock in April 2001. Each share of Series B preferred stock has a liquidation value of \$100 per share. The liquidation value, plus accrued but unpaid dividends, is payable on April 4, 2021, the mandatory redemption date. The company has the option to redeem all but not less than all the shares of Series B preferred stock at any time after seven years from the date of issuance for a number of shares of the company's common stock equal to the liquidation value plus accrued and unpaid dividends divided by the current market price of common stock determined in relation to the date of redemption. Each share of preferred stock is convertible, at any time, at the option of the holder into the right to receive shares of the company's common stock. Initially, each share is convertible into .911 shares of common stock, subject to adjustment. Holders of preferred stock are entitled to cumulative annual cash dividends of \$7 per share, payable quarterly. In any liquidation of the company, each share of preferred stock will be entitled to a liquidation preference before any distribution may be made on the company's common stock or any series of capital stock that is junior to the Series B preferred stock. In the event of a fundamental change in control of the company, holders of Series B preferred stock also have specified exchange rights into common stock of the company or into specified securities or property of another entity participating in the change in control transaction.

RETIREMENT BENEFITS

The company sponsors several defined-benefit pension plans covering approximately 80 percent of its 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 benefit trusts separate from the company. Eleven of the company's 20 qualified plans, which cover 68 percent of all employees, were in a legally defined full-funding limitation status at December 31, 2001.

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

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. Over 70 percent of the company's current retirees participate in the medical plans. 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.

		ī	Pensio	n Benefi	ts					ical and Benefits		
\$ in millions		2001	2000			1999		2001		2000		1999
Components of net periodic benefit cost(income)												
Service cost	\$	205	\$	175	\$	200	\$	25	\$	26	\$	34
Interest cost		770		694		659		99		98		102
Expected return on plan assets		(1,273)		(1,236)		(1,136)		(35)		(43)		(30)
Amortization of												
Prior service costs		52		41		35				1		
Transition assets, net		(39)		(40)		(42)						
Net gain from previous years		(52)		(194)		(69)		(11)		(29)		(2)
Curtailment income				(31)						1		
Settlement cost(income)				131						(370)		
Net periodic benefit cost(income)		(337)		(460)		(353)		78		(316)		104
Less net periodic benefit cost(income) included in												
Income from discontinued operations				(22)		(10)				7		12
Loss on disposal of discontinued operations				100						(369)		
Net periodic benefit cost(income) from continuing operations	\$	(337)	\$	(538)	\$	(343)	\$	78	\$	46	\$	92
Defined contribution plans cost	\$	120	\$	80	\$	92						

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.

	2001	2000	1999
Discount rate for obligations	7.00%	7.50%	7.50%
Rate of increase for compensation	4.50	5.00	5.00
Expected long-term rate of return on plan assets	9.50	9.50	9.50

These assumptions also were 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 9.5 percent expected rate of return on plan assets was reduced accordingly to an after tax rate of 6 percent. A significant factor used in estimating future per capita cost of covered health care benefits for the company and its retirees is the health care cost trend rate assumption. The rate used was 11 percent for 2002 and is assumed to decrease gradually to 5 percent for 2008 and thereafter. A one-percentage-point change in that rate would have the following effects:

\$ in millions	1-Percentage- Point Increase		1-Percentage- Point Decrease
Effect on total of service and interest cost components Effect on postretirement benefit obligation	\$	12 131	\$ (10) (111)

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. Pension benefits data includes the qualified plans as well as 22 unfunded non-qualified plans for benefits provided to directors, officers and employees either beyond those provided by, or payable under, the company's main plans.

	Pension Benefits			Medical and Life Benefits	
\$ in millions	2001	2000	2001	2000	
Change in benefit obligation			•		
Benefit obligation at beginning of year	\$ 9,121	\$ 9,651	\$ 1,173	\$ 1,534	
Service cost	205	175	25	26	
Interest cost	770	694	99	98	
Plan participants' contributions	10	4	41	33	
Plan amendments	12	274	5	1	
Actuarial loss(gain)	705	(54)	120	6	
Divestiture	(18)	(917)			
Acquisitions	2,391		484		
Curtailments		(83)		(406)	
Settlements		(2)			
Benefits paid	(792)	(621)	(134)	(119)	
Benefit obligation at end of year	12,404	9,121	1,813	1,173	
Change in plan assets					
Fair value of plan assets at beginning of year	11,763	13,792	580	693	
Actual loss on plan assets	(537)	(128)	(44)	(78)	
Employer contributions	152	39	42	51	
Plan participants' contributions	10	4	41	33	
Divestiture	(18)	(1,321)			
Acquisitions	3,311		3		
Settlements		(2)			
Benefits paid	(792)	(621)	(134)	(119)	
Fair value of plan assets at end of year	13,889	11,763	488	580	
Funded status	1,485	2,642	(1,325)	(593)	
Unrecognized prior service cost	310	350	(1,323)	(333)	
Unrecognized net transition asset	(34)	(73)	,	_	
Unrecognized net loss(gain)	765	(1,802)	8	(200)	
Net asset(liability) recognized	\$ 2,526	\$ 1,117	\$(1,310)	\$ (791)	
Amounts recognized in the statements of financial position					
Prepaid benefit cost	\$ 3,026	\$ 1,350	\$ 40	\$ 37	
Accrued benefit liability	(500)	(233)	(1,350)	(828)	
Additional minimum liability	(81)	(34)			
Intangible asset	9	3			
Accumulated other comprehensive loss	72	31			
Net asset(liability) recognized	\$ 2,526	\$ 1,117	\$(1,310)	\$ (791)	

For pension plans with benefit obligations in excess of assets as of December 31, 2001, the projected benefit obligation was \$1,402 million, the accumulated benefit obligation was \$1,080 million, and the fair value of assets was \$680 million. As of December 31, 2000, the projected benefit obligation was \$469 million, the accumulated benefit obligation was \$405 million, and the fair value of assets was \$185 million.

Pension plan assets at December 31, 2001, comprised 42 percent domestic equity investments in listed companies (including 5.9 percent in Northrop Grumman common stock); 16 percent equity investments listed on international exchanges; 27 percent in fixed income investments; 7 percent in venture capital and real estate investments; and 8 percent in cash and cash equivalents. The investment in Northrop Grumman represents 8,128,931 shares, or 7.5 percent of the company's total shares outstanding.

Retiree health care and life insurance plan assets at December 31, 2001, comprised 69 percent domestic equity investments in listed companies; 21 percent equity investments on international exchanges; 6 percent in fixed income investments and 4 percent in cash and equivalents.

COMMITMENTS AND 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.

The company, as a government contractor, is from time to time subject to U.S. Government investigations relating to its operations. Government contractors that are found to have violated the False Claim Act, or are indicted or convicted for violations of other federal laws, or are considered not to be responsible contractors may be suspended or debarred from government contracting for some period of time. Such convictions could also result in fines. Given the company's dependence on government contracting, suspension or debarment could have a material adverse effect on the company.

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, 2001, the range of reasonably possible future costs for environmental remediation is \$89 million to \$153 million, of which \$107 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, financial position, or cash flows.

The company pursues new business opportunities by balancing acceptable financial returns with technological risks. The company examines opportunities to acquire or invest in new businesses and technologies to strengthen and expand its core business areas. The company occasionally capitalizes on its technologies and skills by entering into joint ventures or partnerships with other companies, both domestically and internationally, for the on-going development of advanced technology products and for the performance of government and commercial contracts. The majority of the company's unconsolidated investments are accounted for using of the equity method of accounting. Nominal investments are accounted for using the cost method. At December 31, 2001, cost and equity investments totaled \$64 million, of which 72 percent represented investments by the Newport News sector in a foreign shipbuilding company and a worldwide fleet services partnership. Another 20 percent of this balance represented an investment by the Electronic Systems sector in a company that produces thermal imaging devices for military and commercial use. The company does not make use of business arrangements or other business activities that involve so-called special purpose entities. In the ordinary course of business, the company utilizes standby letters of credit and other arrangements with financial institutions principally to guarantee the future performance on certain company contracts. Such financial arrangements supporting contract performance totaled

\$684 million at December 31, 2001, and \$511 million at December 31, 2000. The company also maintains a self-insured workers' compensation plan which is secured by surety bonds and a general agreement of indemnity for the surety. At December 31, 2001, there were \$287 million of such instruments outstanding.

The company has agreed to invest \$30 million in Kistler Aerospace Corporation preferred stock. This investment will only be made when Kistler Aerospace Corporation has obtained additional funding from other sources and will represent the last increment of funding required to complete and test the first K-1 vehicle, and is subject to the company's then determination that the K-1 is a viable launch system. No investments were made by the company in 2001 or 2000.

Minimum rental commitments under long-term noncancellable operating leases total \$1.3 billion which is payable as follows: 2002 - \$268 million, 2003 - \$223 million, 2004 - \$182 million, 2005 - \$144 million, 2006 - \$113 million, and 2007 and thereafter - \$340 million.

PREFERRED SHARE PURCHASE RIGHTS

The company has a rights plan pursuant to which a preferred share purchase right is attached to each share of its common stock that is or becomes outstanding prior to October 31, 2008. The rights become exercisable 10 days after the public announcement that any person or group has (i) acquired 15 percent more of the outstanding shares of the company's common stock, which, if consummated, would result in any person or group acquiring 15 percent or more of the outstanding shares of the company's common stock. Once exercisable, each right will entitle the holder to purchase one one-thousandth of a share of the company's Series A junior participating preferred stock, par value \$1.00 per share, at a price of \$250.00 per one one-thousandth of a share, subject to adjustment. Alternatively, under certain circumstances involving an acquisition of 15 percent or more of the company's common stock outstanding, each right will entitle its holder to purchase, at a fifty percent discount, a number of shares of the company's common stock having a market value of two times the exercise price of the right. The company may (i) exchange the rights at an exchange ratio of one share of its common stock per right, or (ii) redeem the rights, at a price of \$0.01 per right, at any time prior to an acquisition of 15 percent or more of the outstanding shares of the company's common stock by any person or group.

STOCK COMPENSATION PLANS

At December 31, 2001, Northrop Grumman had three stock-based compensation plans—the 2001 Long-Term Incentive Stock Plan (2001 LTISP) and the 1993 Long—Term Incentive Stock Plan (1993 LTISP), both applicable to employees, and the 1995 Stock Option Plan for Non-Employee Directors (SOPND). The 1993 LTISP contained change in control provisions which were activated in February 1998 upon approval by the shareholders of the proposed merger of the company with Lockheed Martin Corporation, causing all then unvested stock awards to become immediately vested.

The 2001 and 1993 LTISP's permit grants to key employees of three general types of stock incentive awards: stock options, stock appreciation rights (SARs) and stock awards. Each stock option grant is made with an exercise price either at the closing price of the stock on the date of grant (market options) or at a premium over the closing price of the stock on the date of grant (premium options). Options generally vest in 25 percent increments one, two, three and four years from the grant date under the 2001 LTISP and two, three, four and five years from the grant date under the 1993 LTISP. Under both plans options expire ten years after the grant date. No SARs have been granted under either the LTISP's. Stock awards, in the form of restricted performance stock rights, are granted to key employees without payment to the company. Under the 2001 LTISP, recipients of the rights earn shares of stock based on an economic value added (EVA) metric over a three-year performance period with distributions made entirely at the end of the third year. Under the 1993 LTISP, recipients of the rights earn shares of stock based on a total-shareholder-return measure of performance over a five-year performance period with interim distributions three and four years after grant. If at the end of the applicable performance period objectives have not been met, unearned rights up to 100 percent of the original grant for five elected officers, and up to

70 percent of the original grant for all other recipients, will be forfeited. Termination of employment can result in forfeiture of some or all of the benefits extended under the plan. Each year, through 2001, 1.5 percent of the company's total issued and outstanding common stock at the end of the preceding fiscal year became available for issuance pursuant to incentive awards. During 2001, 2000 and 1999, a number of awards granted under the LTISP's contained terms, including limitations and conditions on exercisability and vesting, that took into account and were predicated upon future annual share availability.

The SOPND permits 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, 2001, 216,000 shares were available for future grants under the SOPND.

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 the company's original issue stock options. In connection with the acquisition of Litton, the company converted Litton stock options to company stock options. For these options only, a reduction of equity was recorded which is being amortized as compensation expense. 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 \$21 million in 2001, \$14 million in 2000, and \$15 million in 1999.

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

	Shares Under Option	Weighted- Average Exercise Prices	Shares Exercisable
Outstanding at December 31, 1998	5,577,726	70	2,624,276
Granted, market options	69,200	62	
Granted, premium options	106,800	93	
Cancelled	(221,015)	88	
Exercised	(702,628)	22	
Outstanding at December 31, 1999	4,830,083	76	1,926,899
Granted, market options	686,791	73	
Options acquired upon acquisition of Comptek	114,771	34	
Cancelled	(385,322)	82	
Exercised	(572,050)	46	
Outstanding at December 31, 2000	4,674,273	78	2,277,341
Granted, market options	2,128,810	81	
Options acquired upon acquisition of Litton	1,110,485	57	
Cancelled	(215,531)	85	
Exercised	(985,424)	61	
Outstanding at December 31, 2001	6,712,613	78	2,173,779

Had compensation expense been determined based on the fair value at the grant dates for stock option awards granted in 2001, 2000, and 1999, consistent with the method of SFAS No. 123–*Accounting for Stock Based Compensation*, net income, basic earnings per share, and diluted earnings per share in 2001 would have been lower by \$13 million, fifteen cents and fifteen cents, respectively. For 2000 net income, basic earnings per share and diluted earnings per share would have been lower by \$12 million, seventeen cents and seventeen cents, respectively. For 1999 net income, basic earnings per share and diluted earnings per share would have been lower by \$11 million, seventeen cents, and sixteen cents, respectively. These amounts were determined using weighted-average per share fair values for premium options granted in 1999 of \$15 and for market options granted in 2001, 2000, and 1999 of \$26, \$25 and \$18 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 2001, 2000, and 1999, respectively, and the following additional assumptions: dividend yield; 2.0 percent, 2.2 percent and 2.1 percent; expected volatility; 33 percent, 32 percent and 29 percent; and risk-free interest rate; 4.7 percent, 6.6 percent and 5.8 percent.

At December 31, 2001, the following stock options were outstanding:

	Options Outstanding		Options Exer	rcisable	
Range of Exercise Prices	Number Outstanding at 12/31/01	Weighted- Average Remaining Contractual Life	Weighted- Average Exercise Prices	Number Exercisable at 12/31/01	Weighted- Average Exercise Prices
\$16 to 35	36,206	4.7 years	\$ 28	36,206	\$ 28
36 to 55	757,492	7.6 years	46	177,515	43
56 to 75	1,342,307	6.7 years	71	623,416	68
76 to 95	3,620,116	8.1 years	81	875,667	84
96 to 118	956,492	7.0 years	101	460,975	101
	6,712,613	•		2,173,779	

Restricted performance stock rights were granted with weighted-average grant-date fair values per share as follows: 2001 - 736,400 at \$79; 2000 - 36,890 at \$64; and 1999 - 75,300 at \$64.

SUBSEQUENT EVENTS

On January 18, 2002, Northrop Grumman completed the acquisition of the remaining shares of Newport News and now owns 100 percent of Newport News. Newport News shareholders who surrendered their shares in the merger received either 0.7193 shares of Northrop Grumman common stock or \$67.50 in cash, subject to proration procedures and other limitations described in documents previously provided to Newport News shareholders and filed with the Securities and Exchange Commission. During in the first quarter of 2002, the company eliminated the minority interest when it became the sole shareholder of Newport News stock.

On February 22, 2002, the company called its 8.625 percent notes due 2006 and its 9.25 percent notes due 2006 at redemption prices of 104.3125 percent and 104.625 percent, respectively. These bonds, which had a carrying value of \$414 million at December 31, 2001, are included in the current portion of long-term debt and represent subsidiary debt assumed in the Newport News acquisition.

On February 22, 2002, the company forwarded a proposal to TRW's board of directors to enter into negotiations to combine the two companies. The terms of the exchange offer are as set forth in the prospectus filed as part of the Form S-4 on March 4, 2002, as amended by the company from time to time. There can be no assurance that such a transaction will be completed or, if competed, on what terms. Promptly following the close of the transaction, the company expects to separate TRW's automotive business either by selling the business to one or more third parties or by spinning it off to Northrop Grumman shareholders. There currently is no agreement with respect to the sale of the automotive business and there can be no assurance that a sale will be consummated or with respect to the terms of such sale.

On March 13, 2002, a jury in Indianapolis, Indiana returned a verdict of approximately \$31 million in favor of Allison Gas Turbine for cost overruns on the engine exhaust liner and trailing edge of a discontinued prototype aircraft from a competitive award process which occurred in the 1980's. The company expects to obtain substantial relief from the current adverse judgment in the case by an appeal, based upon substantive and procedural legal grounds. The company believes that the jury's award in the trial was not warranted by the law applicable to the case and should be overturned. It is not possible at this time to predict the result of the appeals.

UNAUDITED SELECTED QUARTERLY DATA

Quarterly financial results are set forth in the following tables together with dividend and common stock price data. The company's common stock is traded on the New York Stock Exchange and Pacific Exchanges (trading symbol NOC). The approximate number of holders of record of the company's common stock at March 7, 2002, was 20,678.

2001 Quarters

\$ in millions, except per share	4	3	2	1
Net sales	\$4,304	\$3,605	\$3,663 \$1	1,986
Operating margin	314	225	275	190
Net income	131	79	114	103
Basic earnings per share	1.29	.85	1.29	1.43
Diluted earnings per share	1.28	.84	1.28	1.42
Dividends per common share	.40	.40	.40	.40
Dividends per mandatorily redeemable preferred share	1.75	1.75	1.69	
Stock price per share:				
High	110.56	104.50	97.06 9	99.10
Low	88.50	76.40	76.40 7	79.13

In the fourth quarter of 2001, the company acquired in excess of 80 percent of Newport News and completed its acquisition of EIS. The company also recorded a \$13 million downward operating margin adjustment on the Polar Tanker program in the fourth quarter. In the third quarter, the company recorded a \$60 million pre-tax charge to operating margin on the Project America cruise ship program following the bankruptcy of the customer, AMCV. Third quarter operating margin also reflects a \$20 million positive adjustment for Joint STARS contract closeouts and downward cumulative margin rate adjustments on unmanned vehicle contracts totaling \$10 million. In the second quarter, the company acquired Litton, which produced increased sales and operating margin.

2000 Quarters

\$ in millions, except per share	4	3	2	1
Net sales	\$ 2,229	\$ 1,731	\$ 1,856	\$ 1,802
Operating margin	252	242	317	287
Income from continuing operations	144	150	175	156
Net income	125	132	178	173
Basic earnings per share from continuing operations	2.00	2.12	2.50	2.23
Basic earnings per share	1.73	1.87	2.55	2.47
Diluted earnings per share from continuing operations	1.99	2.11	2.50	2.23
Diluted earnings per share	1.73	1.86	2.55	2.47
Dividends per common share	.40	.40	.40	.40
Stock price per share:				
High	92.50	91.81	80.25	55.19
Low	74.13	65.63	52.44	43.56

In the fourth quarter of 2000 the company merged the Information Technologies (formerly Logicon) defined-benefit type pension plan into the company's main pension plan, which resulted in a fourth quarter reduction in operating margin of approximately \$9 million. In the third quarter the company completed its sale of its commercial aerostructures business. The company recorded after-tax losses of \$15 million, \$22 million and \$19 million for the second, third and fourth quarters respectively on the sale. The first and second quarters each include cumulative margin rate adjustments of \$8 million on the F/A-18E/F program.

MANAGEMENT'S STATEMENT OF FINANCIAL RESPONSIBILITY

The management of Northrop Grumman prepared and is responsible for the consolidated financial statements and all related financial information contained in this Annual Report. The consolidated financial statements, which include amounts based on estimates and judgments, have been prepared in accordance with accounting principles generally accepted in the United States.

In recognition of its responsibility for the integrity and objectivity of data in the financial statements, Northrop Grumman maintains a system of internal accounting controls designed to provide reasonable assurance that assets are safeguarded and transactions are properly executed and recorded. The system includes policies and procedures, examinations by an internal audit staff and officer review.

Northrop Grumman is dedicated to the highest standards of business conduct. This dedication is reflected in written policy statements covering, among other subjects, environmental protection, potentially conflicting outside interests of employees, compliance with regulations and laws, ethical business practices, and adherence to the highest standards of conduct and practices in transactions and relationships with customers, including the U.S. government. Ongoing education and communication programs and review activities are designed to create a strong compliance culture—one that encourages employees to raise their policy questions and concerns and that forbids retribution for doing so.

Northrop Grumman's financial statements have been audited by Deloitte & Touche LLP. Their audit was conducted in accordance with auditing standards generally accepted in the United States of America. Their report for 2001 appears herein.

The Audit Committee of the Board of Directors periodically meets with and reviews the activities of the independent auditors, internal auditors and management. Both the independent auditors and the internal auditors have unrestricted access to members of the Audit Committee, with or without management representatives present.

Kent Kresa Chairman of the Board and Chief Executive Officer

Ronald D. Sugar President and Chief Operating Officer

Richard B. Waugh, Jr. Corporate Vice President and Chief Financial Officer March 18, 2002

INDEPENDENT AUDITORS' REPORT

Board of Directors and Shareholders of 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, 2001 and 2000, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2001. Our audit also included the financial statement schedule listed in the Index at Item 14. These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and the financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. 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.

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, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in the footnotes to the consolidated financial statements, in 1999 the Company changed its method of accounting for start-up activities by adopting Statement of Position 98-5—*Reporting on the Costs of Start-Up Activities*.

/s/ DELOITTE & TOUCHE LLP

Deloitte & Touche LLP Los Angeles, California February 18, 2002, except for the Subsequent Events footnote, as to which the date is March 18, 2002

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

No information is required in response to this Item.

PART III

Item 10. Directors and Executive Officers of the Registrant

The information as to Directors will be incorporated herein by reference to the Proxy Statement for the 2002 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year. Information with respect to Executive Officers is included in Part I under the caption "Executive Officers of the Registrant".

Item 11. Executive Compensation

The information as to Executive Compensation will be incorporated herein by reference to the Proxy Statement for the 2002 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

Item 12. Security Ownership of Certain Beneficial Owners and Management

The information as to Security Ownership of Certain Beneficial Owners and Management will be incorporated herein by reference to the Proxy Statement for the 2002 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

Item 13. Certain Relationships and Related Transactions

The information as to Certain Relationships and Related Transactions will be incorporated herein by reference to the Proxy Statement for the 2002 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

Item 14. Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a) 1. Financial Statements

Consolidated Statements of Financial Position

Consolidated Statements of Income

Consolidated Statements of Comprehensive Income

Consolidated Statements of Cash Flows

Consolidated Statements of Changes in Shareholders' Equity

Notes to Consolidated Financial Statements

Independent Auditors' Report

2. Financial Statement Schedule

Schedule II - Valuation and Qualifying Accounts

All other schedules are omitted either because they are not applicable or not required or because the required information is included in the financial statements or notes thereto.

Separate financial statements of the parent company are included in the supplemental Consolidating/Information footnote and therefore are not repeated as a schedule.

(b) Reports on Form 8-K.

A report on Form 8-K was dated and filed November 14, 2001, by Northrop Grumman Corporation reporting pursuant to Item 5 the filing of certain items for incorporation by reference into its Registration Statement No. 333-71290 relating to offerings of shares of common stock and equity security units.

A report on Form 8-K was dated November 15, 2001, and filed November 16, 2001, by Northrop Grumman Corporation reporting pursuant to Item 5 the filing of certain items for incorporation by reference into its Registration Statement No. 333-71290 relating to offerings of shares of common stock and equity security units, and filing such items pursuant to Item 7(c) as exhibits.

A report on Form 8-K was dated and filed November 21, 2001, by Northrop Grumman Corporation reporting pursuant to Item 5 the filing of certain items for incorporation by reference into its Registration Statement No. 333-71290 relating to offerings of shares of common stock and equity security units, and filing such items pursuant to Item 7(c) as exhibits.

A report on Form 8-K was dated and filed December 14, 2001, by Northrop Grumman Corporation reporting pursuant to Item 2 on the acquisition of Newport News Shipbuilding Inc. The Form 8-K also (i) filed pursuant to Item 7 (a) certain financial statements of Newport News Shipbuilding Inc., (ii) reported pursuant to Item 7(b) that certain required pro forma financial information would be filed 60 days after the date of the Form 8-K, and (iii) filing pursuant to Item 7(c) certain items as exhibits relating to the acquisition of Newport News Shipbuilding Inc.

A report on Form 8-K/A was dated and filed January 14, 2002, by Northrop Grumman Corporation reporting pursuant to Item 7 certain required pro forma financial information.

A report on Form 8-K/A, amendment No. 2, was dated and filed February 1, 2002 by Northrop Grumman Corporation reporting pursuant to Item 2 on the acquisition of Newport News Shipbuilding Inc. and filing as an exhibit, by incorporation by reference to Northrop Grumman Corporation's Registration Statement No. 333-61506, the merger agreement relating to the acquisition of Newport News Shipbuilding Inc.

Exhibits

- 2(a) Agreement and Plan of Merger among Northrop Grumman Corporation, Purchaser Corp. I and Newport News Shipbuilding Inc. dated as of November 7, 2001 (incorporated by reference to Annex C to Amendment No. 5 to Form S-4 Registration Statement No. 333-61506 filed November 13, 2001)
- 2(b) Amended and Restated Agreement and Plan of Merger dated as of January 23, 2001 among Northrop Grumman Systems Corporation, Litton Industries, Inc., Northrop Grumman Corporation and LII Acquisition Corp. (incorporated by reference to Exhibit 2.2 to Form S-4 Registration Statement No. 333-54800 filed February 1, 2001)
- 3(a) Amended and Restated Certificate of Incorporation of Northrop Grumman Corporation (incorporated by reference to Exhibit D to the Definitive Proxy Statement on Schedule 14A filed April 13, 2001)
- 3(b) Restated Bylaws of Northrop Grumman Corporation (incorporated by reference to Exhibit 3.2 to Form S-4 Registration Statement No. 333-54800 filed February 1, 2001)
- 4(a) Registration Rights Agreement dated as of January 23, 2001 by and among Northrop Grumman Systems Corporation, Northrop Grumman Corporation and Unitrin, Inc. (incorporated by reference to Exhibit (d)(6) to Amendment No. 4 to Schedule TO filed January 31, 2001)
- 4(b) Certificate of Designations, Preferences and Rights of Series B Preferred Stock of Northrop Grumman Corporation (incorporated by reference to Exhibit C to the Definitive Proxy Statement on Schedule 14A filed April 13, 2001)
- 4(c) Rights Agreement dated as of January 31, 2001 between Northrop Grumman Corporation and EquiServe Trust Company, N.A. (incorporated by reference to Exhibit 4.3 to Amendment No. 2 to Form S-4 Registration Statement No. 333-54800 filed March 27, 2001)

- 4(d) Indenture dated as of October 15, 1994 between Northrop Grumman Systems Corporation and JPMorgan Chase Bank (formerly The Chase Manhattan Bank), as trustee (incorporated by reference to Exhibit 4.1 to Form 8-K filed October 25, 1994)
- 4(e) Form of Officer's Certificate (without exhibits) establishing the terms of Northrop Grumman Systems Corporation's 7% Notes due 2006, 7 3/4% Debentures due 2016 and 7 7/8% Debentures due 2026 (incorporated by reference to Exhibit 4-3 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)
- 4(f) Form of Northrop Grumman Systems Corporation's 7% Notes due 2006 (incorporated by reference to Exhibit 4-4 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)
- 4(g) Form of Northrop Grumman Systems Corporation's 7 3/4% Debentures due 2016 (incorporated by reference to Exhibit 4-5 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)
- 4(h) Form of Northrop Grumman Systems Corporation's 7 7/8% Debentures due 2026 (incorporated by reference to Exhibit 4-6 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)
- 4(i) Purchase Contract Agreement dated as of November 21, 2001 between Northrop Grumman Corporation and JPMorgan Chase Bank, as Purchase Contract Agent (incorporated by reference to Exhibit 4.3 to Form 8-K dated and filed November 21, 2001)
- 4(j) Pledge Agreement dated as of November 21, 2001 among Northrop Grumman Systems Corporation, The Bank of New York, as Collateral Agent, Custodial Agent and Securities Intermediary, and JPMorgan Chase Bank, as Purchase Contract Agent (incorporated by reference to Exhibit 4.4 to Form 8-K dated and filed November 21, 2001)
- 4(k) Form of Remarketing Agreement (incorporated by reference to Exhibit 4.5 to Form 8-K dated and filed November 21, 2001)
- 4(1) Form of Officers' Certificate establishing the terms of Northrop Grumman Systems Corporation's 7 ½% Notes due 2011 and 7 ¾% Debentures due 2031 (incorporated by reference to Exhibit 10.9 to Form 8-K dated and filed April 17, 2001)
- 4(m) Indenture dated as of November 21, 2001 between Northrop Grumman Corporation and JPMorgan Chase Bank, as trustee (incorporated by reference to Exhibit 4.1 to Form 8-K dated and filed November 21, 2001)
- 4(n) Officers' Certificate dated as of November 21, 2001 describing the terms of the Senior Notes that are a component of Northrop Grumman Corporation's Equity Security Units (incorporated by reference to Exhibit 4.2 to Form 8-K dated and filed November 21, 2001)
- 4(o) Indenture dated as of April 13, 1998 between Litton Industries, Inc. and The Bank of New York, as trustee, under which Litton's 6.05% Senior Notes due 2003 and 6.75% Senior Debentures due 2018 were issued (incorporated by reference to Exhibit 4.1 to Litton Industries, Inc.'s Form 10-Q for the quarter ended April 30, 1998, and filed June 15, 1998)
- 4(p) Supplemental Indenture with respect to Indenture dated April 13, 1998, dated as of April 3, 2001 amo ng Litton Industries, Inc., Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.5 to Form 10-Q for the quarter ended March 31, 2001, filed May 10, 2001)
- 4(q) Senior Indenture dated as of December 15, 1991 between
 Litton Industries, Inc. and The Bank of New York, as trustee, under which Litton's 7.75% and 6.98% debentures due 2026 and 2036 were issued and specimens of such debentures (incorporated by reference to Exhibit 4.1 to Litton Industries, Inc.'s Form 10-Q for the quarter ended April 30, 1996, filed June 11, 1996)

- 4(r) Supplemental Indenture with respect to Indenture dated December 15, 1991, dated as of April 3, 2001, among Litton Industries, Inc., Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.7 to Form 10-Q for the quarter ended March 31, 2001, filed May 10, 2001)
- 4(s) Form of Exchange Security for Litton's \$400,000,000 8% senior notes due 2009 (incorporated by reference to Exhibit 4.3 to Litton Industries Inc.'s Form 10-Q for the quarter ended April 30, 2000, filed August 19, 2000)
- 10(a) Northrop Grumman 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit B to the Definitive Proxy Statement on Schedule 14A filed April 13, 2001)
- 10(b) Amendment Agreement between Kent Kresa and Northrop Grumman Corporation dated August 3, 2001 (incorporated by reference to Exhibit 10.2 to Form 10-Q for the quarter ended June 30, 2001, filed August 9, 2001)
- 10(c) Employment Agreement between Dr. Ronald D. Sugar and Northrop Grumman Corporation dated September 19, 2001 (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended September 30, 2001, filed November 5, 2001)
- 10(d) Form of Notice of Grant of Restricted Performance Stock Rights and Rights Agreement under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.4 to Form 10-Q for the quarter ended September 30, 2001, filed November 5, 2001)
- 10(e) Form of Notice of Grant of Stock Options and Option Agreement under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock (incorporated by reference to Exhibit 10.5 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
- 10(f) Notice of Grant of Restricted Performance Stock Rights and Rights Agreement of Kent Kresa, dated August 15, 2001, under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.6 to Form 10-Q for the quarter ended September 30, 2001, filed November 5, 2001)
- Notice of Grant of Stock Options and Option Agreement of Kent Kresa, dated August 15, 2001 under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.7 to Form 10-Q for the quarter ended September 30, 2001 filed November 5, 2001)
- 10(h) Form of \$2,500,000,000 Five-Year Revolving Credit Agreement dated as of March 30, 2001 among Northrop Grumman Corporation, Northrop Grumman Systems Corporation and Litton Industries, Inc., the Lenders party thereto, The Chase Manhattan Bank and Credit Suisse First Boston, as Co-Administrative Agents, Salomon Smith Barney Inc., as Syndication Agent, and The Bank of Nova Scotia and Deutsche Banc Alex. Brown, Inc. as Co-Documentation Agents (incorporated by reference to Exhibit 10.7 to Amendment No. 2 to Form S-4 Registration Statement No. 333-54800 filed March 27, 2001)
- 10(i) Retention Bonus Agreement between Northrop Grumman Corporation and Thomas C. Schievelbein dated November 7, 2001 (incorporated by reference to Exhibit 10.32 to Amendment No. 5 to Form S-4 Registration Statement No. 333-61506 filed November 13, 2001)
- 10(j) Form of Guarantee dated as of April 3, 2001, by Northrop Grumman Corporation of Litton Industries, Inc. indenture indebtedness (incorporated by reference to Exhibit 10.10 to Form 8-K filed and dated April 17, 2001)
- 10(k) Form of Guarantee dated as of April 3, 2001, by Northrop Grumman Corporation of Northrop Grumman Systems Corporation indenture indebtedness (incorporated by reference to Exhibit 10.11 to Form 8-K dated and filed April 17, 2001)

- Form of Guarantee dated as of April 3, 2001, by Northrop Grumman Systems Corporation of Litton Industries, Inc. indenture indebtedness 10(1)(incorporated by reference to Exhibit 10.12 to Form 8-K dated and filed April 17, 2001) Form of Guarantee dated as of April 3, 2001, by Litton Industries, Inc. of Northrop Grumman Systems Corporation indenture indebtedness 10(m) (incorporated by reference to Exhibit 10.13 to Form 8-K dated and filed April 17, 2001) 10(n) 1973 Incentive Compensation Plan as amended December 16, 1998 (incorporated by reference to Exhibit 10(c) to Form 10-K filed March 23, 10(o) 1973 Performance Achievement Plan (incorporated by reference to Form 8-B filed June 21, 1985) 10(p)Northrop Grumman Corporation Supplemental Plan 2 (incorporated by reference to Exhibit 10(e) to Form 10-K filed February 22, 1996) and amended as of June 19, 1996 (incorporated by reference to Exhibit 10(e) to Form 10-K filed February 27, 1997) Northrop Grumman Corporation ERISA Supplemental Plan I (incorporated by reference to Exhibit 10(d) to Form 10-K filed February 28, 1994) 10(q)Retirement Plan for Independent Outside Directors as amended April 24, 1998 (incorporated by reference to Exhibit 10(g) to Form 10-K filed 10(r)March 23, 1999) 10(s) 1987 Long-Term Incentive Plan, as amended (incorporated by reference to Form SE filed March 30, 1989) 10(t) Executive Life Insurance Policy (incorporated by reference to Exhibit 10(i) to Form 10-K filed February 22, 1996) 10(u) Executive Accidental Death, Dismemberment and Plegia Insurance Policy (incorporated by reference to Exhibit 10(j) to Form 10-K filed February 22, 1996) Executive Long-Term Disability Insurance Policy (incorporated by reference to Exhibit 10(k) to Form 10-K filed February 22, 1996) 10(v) 10(w)Key Executive Medical Plan Benefit Matrix (incorporated by reference to Exhibit 10(1) to Form10-K filed February 22, 1996) Executive Dental Insurance Policy Group Numbers 5134 and 5135 (incorporated by reference to Exhibit 10(m) to Form 10-K filed February 22, 10(x)10(y)Group Excess Liability Policy (incorporated by reference to Exhibit 10(n) to Form 10-K filed February 22, 1996) 10(z)Northrop Grumman 1993 Long-Term Incentive Stock Plan, as amended and restated (incorporated by reference to Exhibit 4.1 to Form S-8 Registration Statement No. 333-68003 filed November 25, 1998)
- 10(aa) Northrop Corporation 1993 Stock Plan for Non-Employee Directors (incorporated by reference to Exhibit B to the Northrop Corporation 1993 Proxy Statement filed March 30, 1993), amended as of September 21, 1994 (incorporated by reference to Exhibit 10(q) to Form 10-K filed March 21, 1995)
- 10(bb) Northrop Grumman Corporation 1995 Stock Option Plan for Non-Employee Directors (incorporated by reference to Exhibit A to the Definitive Proxy Statement on Schedule 14A filed March 30, 1995)
- 10(cc) Northrop Grumman Corporation March 2000 Change-in-Control Severance Plan (incorporated by reference to Exhibit 10(b) to Form 10-Q filed November 4, 1999)
- 10(dd) Form of Northrop Grumman Corporation March 2000 Special Agreement (effective March 1, 2000) (incorporated by reference to Exhibit 10(a) to Form 10-Q filed November 4, 1999)

10(ee)	Northrop Grumman Executive Deferred Compensation Plan (effective December 29, 1994) (as amended and restated effective November 2, 2000) and amended March 1, 2001 (incorporated by reference to Exhibit 10.31 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
10(ff)	Northrop Grumman Corporation Non-Employee Directors Equity Participation Plan, as amended March 15, 2000 (incorporated by reference to Exhibit 10(a) to Form 10-Q filed May 9, 2000)
10(gg)	CPC Supplemental Executive Retirement Program (incorporated by reference to Exhibit 10(u) to Form 10-K filed March 30, 1998)
10(hh)	Northrop Grumman Estate Enhancement Program, effective November 1, 2000 (incorporated by reference to Exhibit 10(v) to Form 10-K/A filed March 8, 2001)
10(ii)	Special Officer Retiree Medical Plan as amended December 19, 2000 (incorporated by reference to Exhibit 10(w) to Form 10-K/A filed March 8, 2001)
10(jj)	Northrop Grumman Deferred Compensation Plan (effective December 1, 2000) and amended March 1, 2001, March 30, 2001, and September 14, 2001 (incorporated by reference to Exhibit 10.36 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
10(kk)	Consultant Agreement dated January 7, 2002, between Northrop Grumman Corporation and Ralph D. Crosby, Jr. (incorporated by reference to Exhibit 10.37 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
10(ll)	Agreement dated December 22, 2001, between Northrop Grumman Corporation and Ralph D. Crosby, Jr. (incorporated by reference to Exhibit 10.38 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
10(mm)	Form of Indemnification Agreement between Northrop Grumman Corporation and its directors and executive officers (incorporated by reference to Exhibit 10.39 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
*21	Subsidiaries
*23	IndependentAuditors' Consent
*24	Power of Attorney

* Filed with this Report

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 22nd day of March 2002.

By:

Sandra J. Wright

Corporate Vice President and Controller
(Principal Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed on behalf of the registrant this the 22nd day of March 2002, by the following persons and in the capacities indicated.

	Signature	Title
Kent Kresa*		Chairman and Chief Executive Officer, Director (Principal Executive Officer)
Richard B. Waugh, Jr	*	Corporate Vice President and Chief Financial Officer (Principal Financial Officer)
Ronald D. Sugar*		President and Chief Operating Officer, Director
John T. Chain, Jr.*		Director
Vic Fazio*		Director
Phillip Frost*		Director
Lewis W. Coleman*		Director
Charles R. Larson*		Director
Jay H. Nussbaum*		Director
Aulana L. Peters*		Director
John Brooks Slaughte	r*	Director
*D	/S/ John H. Mullan	
*By:	John H. Mullan Attorney-in-Fact pursuant to a power of attorney	

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS

(Dollars in Thousands)

	COL. A	COL. B	COL. C	COL. D	COL. E
	Classification	Balance at Beginning of Period	Additions At Cost	Changes - Add (Deduct) ⁽¹⁾	Balance at End of Period
Description:					
Year ended December 31, 1999 Reserves and allowances deducted from asset accounts: Allowances for doubtful amounts		\$ 47,041	\$ 21,088	\$ (30,455)	\$ 37,674
Year ended December 31, 2000 Reserves and allowances deducted					
from asset accounts: Allowances for doubtful amounts		\$ 37,674	\$ 26,548	\$ (10,766)	\$ 53,456
Year ended December 31, 2001 Reserves and allowances deducted					
from asset accounts: Allowances for doubtful amounts		\$ 53,456	\$ 11,586	\$ (18,940)	\$ 46,102

⁽¹⁾ Uncollectible amounts written off, net of recoveries.

NORTHROP GRUMMAN CORPORATION SUBSIDIARIES

Address for all subsidiaries is:

c/o NORTHROP GRUMMAN CORPORATION Office of the Corporate Secretary 1840 Century Park East

1840 Century Park East Los Angeles, California 90067

Name of Subsidiary	Jurisdiction of Incorporation	Ownership Percentage
Northrop Grumman Systems Corporation (formerly Northrop Grumman Corporation)	Delaware	100%
Litton Industries, Inc.	Delaware	100%
Newport News Shipbuilding Inc.	Delaware	100%

The company has additional operating subsidiaries, which considered in the aggregate or as a single subsidiary, do not constitute a significant subsidiary.

All above listed subsidiaries have been consolidated in the company's consolidated financial statements.

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement Nos. 33-59815, 33-59853, 333-68003, 333-61936, and 333-67266 on Form S-8; Registration Statement Nos. 333-78251, 333-85633, 333-71290, and 333-77056 on Form S-3; and Registration Statement Nos. 333-40862, 333-54800, and 333-83762 on Form S-4 of our report dated February 18, 2002, except for the Subsequent Events footnote, as to which the date is March 18, 2002, appearing in this Annual Report on Form 10-K of Northrop Grumman Corporation for the year ended December 31, 2001.

/s/ Deloitte & Touche LLP

DELOITTE & TOUCHE LLP Los Angeles, California March 22, 2002

POWER OF ATTORNEY IN CONNECTION WITH THE 2001 ANNUAL REPORT ON FORM 10-K

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned directors and officers of NORTHROP GRUMMAN CORPORATION, a Delaware corporation, does hereby appoint W. BURKS TERRY and JOHN H. MULLAN, and each of them as his agents and attorneys-in-fact (the "Agents"), in his or her respective name and in the capacity or capacities indicated below to execute and/or file the Annual Report on Form 10-K for the fiscal year ended December 31, 2001 (the "Report") under the Securities Exchange Act of 1934, as amended (the "Act"), and any one or more amendments to any part of the Report that may be required to be filed under the Act (including the financial statements, schedules and all exhibits and other documents filed therewith or constituting a part thereof) and to any part or all of any amendment(s) to the Report, whether executed and filed by the undersigned or by any of the Agents. Further, each of the undersigned does hereby authorize and direct the Agents to take any and all actions and execute and file any and all documents with the Securities and Exchange Commission (the "Commission"), which they deem necessary or advisable to comply with the Act and the rules and regulations or orders of the Commission adopted or issued pursuant thereto, to the end that the Report shall be properly filed under the Act. Finally, each of the undersigned does hereby ratify each and every act and documents which the Agents may take, execute or file pursuant thereto with the same force and effect as though such action had been taken or such document had been executed or filed by the undersigned, respectively.

This Power of Attorney shall remain in full force and effect until revoked or superseded by written notice filed with the Commission.

IN WITNESS THEREOF, each of the undersigned has subscribed these presents this 20th day of March 2002.

/S/ KENT KRESA	Chairman of the Board, Chief Executive Officer and Director (Principal
Kent Kresa	Executive Officer)
/s/ Ronald D. Sugar	President, Chief Operating Officer and Director
Ronald D. Sugar	
/s/ John T. Chain, Jr.	Director
John T. Chain, Jr.	
/s/ Lewis W. Coleman	Director
Lewis W. Coleman	
/S/ VIC FAZIO	Director
Vic Fazio	
/S/ PHILLIP FROST	Director
Phillip Frost	
/s/ Charles R. Larson	Director
Charles R. Larson	
/s/ Jay H. Nussbaum	Director
Jay H. Nussbaum	
/S/ AULANA L. PETERS	Director
Aulana L. Peters	
/S/ JOHN BROOKS SLAUGHTER	Director
John Brooks Slaughter	
/S/ RICHARD B. WAUGH, JR.	Corporate Vice President and Chief Financial Officer (Principal Financial Officer)
Richard B. Waugh, Jr.	- Officer)
/s/ Sandra J. Wright	Corporate Vice President and Controller (Principal Accounting Officer)
Sandra J. Wright	•