

***NORTHROP GRUMMAN***



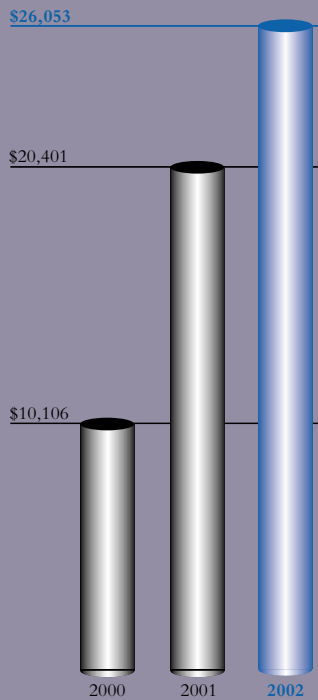
**D E F I N I N G T H E F U T U R E**

**2002  
SUMMARY ANNUAL REPORT**

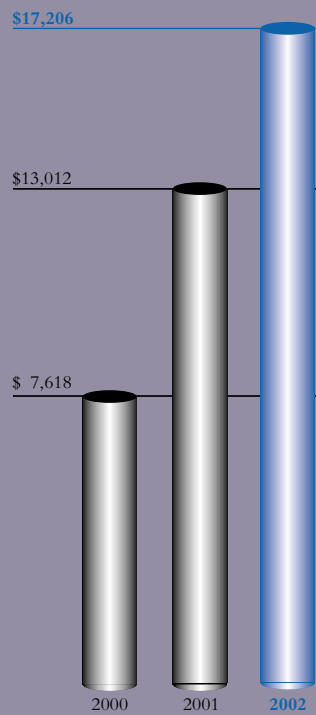


## SELECTED FINANCIAL HIGHLIGHTS

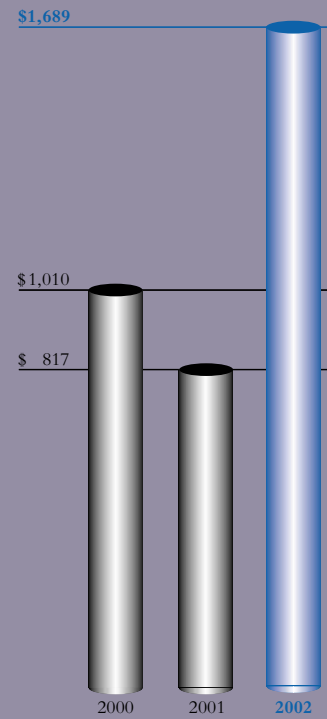
| \$ in millions, except per share  | 2002             | 2001      | 2000     |
|---|------------------|-----------|----------|
| Net Sales   | <b>\$ 17,206</b> | \$ 13,012 | \$ 7,618 |
| Operating Margin as a percent of sales  | <b>8.1%</b>      | 7.9%      | 14.4%    |
| Income from continuing operations before cumulative effect of accounting change                     | <b>697</b>       | 459       | 625      |
| Diluted Earnings per Share from continuing operations before cumulative effect of accounting change | <b>5.72</b>      | 5.17      | 8.82     |
| Cash Flow from Operations   | <b>1,689</b>     | 817       | 1,010    |
| Net Debt  | <b>8,211</b>     | 5,024     | 1,296    |



**FULLY FUNDED BACKLOG**  
(\$ in millions)



**REVENUE**  
(\$ in millions)



**CASH FROM OPERATIONS**  
(\$ in millions)

## DEAR FELLOW SHAREHOLDERS:

**M**ore than a decade ago Northrop Grumman recognized that future global conflicts were unlikely to take the shape of past battles between traditional nation states. Terrorism, regional conflicts and peacekeeping assignments were identified as the most likely scenarios where the American military would be engaged.

For the United States to retain its military edge, we foresaw an increasingly critical role for advanced sensors, communications networks and integrated systems. Just as important as the weapons platforms would be the information networks that connect and support them. Military leaders would need to immediately fuse data from disparate sources to make real-time decisions. And the ability to promptly engage the enemy with precision strike weapons would become essential. Technological advances were making all of these capabilities a reality.

In fact, this form of “network-centric warfare” has now been strongly embraced by military planners. It enables our forces to take full advantage of all available information and bring all assets to bear in a rapid and flexible manner. With this understanding of the changing military environment, Northrop Grumman began a transformation from primarily an aircraft manufacturer to a company with broad-based technologies and capabilities. Through 16 strategic acquisitions, Northrop Grumman assembled a company that is responding to our nation’s future security needs.

In 2002, Northrop Grumman completed the final significant step of this extraordinary transformation. Through the acquisition of TRW Inc. and its dynamic systems and space businesses, we secured the remaining capabilities to complete our strategic vision of assembling the best-positioned portfolio of technologies and platforms in the defense industry. In doing so, we have carefully aligned our expertise to meet 21st century defense needs across the

## EXECUTIVE LEADERSHIP CHANGE

The Board of Directors elected Dr. Ronald D. Sugar, Northrop Grumman chief executive officer and president effective April 1, 2003. Sugar, a 35-year defense industry veteran, was previously Northrop Grumman president and chief operating officer. This announcement culminated an orderly succession plan by the Board that accommodated the decision of Kent Kresa, Northrop Grumman’s chairman and CEO, to retire after reaching the board’s mandatory retirement age of 65 for senior executives. Kresa will continue as non-employee chairman through Oct. 1, 2003.

battlespace spectrum—undersea, sea, land, air, space and cyberspace—and extending into homeland security. As a result, Northrop Grumman's future as a top-tier global defense industry powerhouse is secure and has never been brighter.

We were gratified that Northrop Grumman and TRW shareholders saw the wisdom of the combination of our two companies and approved this transaction in December 2002. Northrop Grumman established the Space Technology sector for TRW's space and electronics business and named Wesley Bush its president. TRW's systems business was renamed Mission Systems sector and Donald Winter was appointed its president. We are delighted to have



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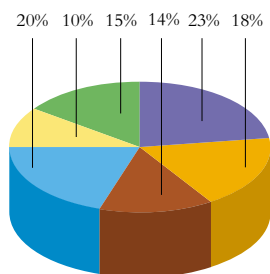
RONALD D. SUGAR

experienced industry veterans and excellent leaders such as Wes and Don join our management team. Although the addition of TRW to Northrop Grumman came too late in the year to be material to our 2002 earnings, several key contract wins by Mission Systems and Space Technology in 2002 promise excellent growth potential in the years ahead.

Shortly after we added Mission Systems and Space Technology, we announced the sale of TRW's auto business to The Blackstone Group. TRW Automotive is an excellent business, but not core to Northrop Grumman's strategy or future plans. This sale closed on February 28, 2003 and the proceeds have been used primarily to reduce debt and other corporate obligations. In March 2003, we completed the first phase of our debt reduction plan and successfully retired more than \$2.4 billion in debt.

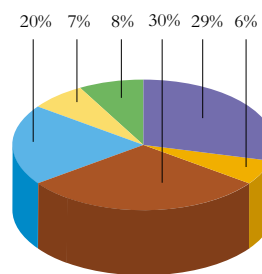
**BUSINESS PORTFOLIO**  
**2003 ESTIMATED REVENUES – \$25-26 BILLION**

By Sector



- Electronic Systems
- Information Technology
- Integrated Systems
- Ships/Newport News
- Space Technology
- Mission Systems

By Customer



- Navy
- Air Force
- Army
- International
- Other Department of Defense
- U.S. Commercial

Earlier in 2002 and after careful consideration, we concluded that the businesses of our Component Technologies sector did not fit with our long-term strategic plan, and we decided to divest those businesses. As a result, Component Technologies is now reported in discontinued operations. We expect to complete the divestiture process by the end of the third quarter of 2003.

Today, Northrop Grumman is the nation’s second largest defense company, the world’s largest shipbuilder, the number one provider of federal information technology services, the premier supplier of radar and electronic warfare systems, a leader in missile defense, one of three major contractors in military space and a leading systems integrator. This has all been accomplished without losing focus on our overriding mandate of creating superior shareholder value.

While we do not anticipate any major acquisitions in our immediate future, we will stay actively involved in portfolio shaping by continuing to pursue niche acquisitions that add critical capabilities to our arsenal while divesting those operations that no longer fit our strategic plan.

**2002 Highlights**

A look at our operating results shows that 2002 was a very successful year. Northrop Grumman reported record sales of \$17.2 billion in 2002. Income from continuing operations totaled \$697 million and the company’s net cash from operations doubled in 2002 to a record \$1.7 billion. The company’s total business backlog increased to a record \$26.1 billion, 28 percent higher than the \$20.4 billion reported for 2001. This was achieved while the company’s net debt to total capital ratio decreased from 38 percent at year-end 2001 to 35 percent at year-end 2002, and we expect

the net debt to total capital ratio to decrease to less than 30 percent by year-end 2003. Our strong financial performance points to the underlying strength of our businesses, the overall health of the companies we acquired and our successful track record in integrating companies.

Of course the greatest endorsement of our strategy and our expanded capabilities has come through our growing portfolio of programs and our steady stream of contract wins. These wins represent significant potential revenues on programs that will provide technological breakthroughs critical to our nation.

These programs include:

- F-35 fighter, the largest defense procurement in U.S. history;
- DD(X), the U.S. Navy's advanced, 21st century surface combatant;
- Deepwater, a far-reaching modernization program to recapitalize the U.S. Coast Guard;
- Multiple programs in support of the U.S. national missile defense;
- Multiple programs in support of the U.S. intelligence community;
- CVN 21, the U.S. Navy's next-generation aircraft carrier;
- The Joint National Integration Center, the nation's premier defense war gaming center;
- Information technology support services for the Centers for Disease Control and Prevention which will aid the center's public health, research, surveillance and intervention efforts;
- Technology Enterprise Automation Management Support program, which will provide information technology infrastructure and support services to the Immigration and Naturalization Service;
- Land Information Warfare Activity, a U.S. Army program designed to protect the Army's information technology systems from attack;
- Trailblazer, a multicompany effort led by Science Applications International Corporation to help modernize the National Security Agency's signals intelligence capabilities;
- Global Hawk, our unmanned reconnaissance system, which received additional contracts to continue engineering and manufacturing development and early production work;
- National Polar-orbiting Operational Environmental Satellite Systems, a joint effort by the Departments of Commerce, Defense and NASA to build the nation's next-generation meteorological satellite system; and
- James Webb Space Telescope, the successor to the Hubble Space Telescope, a NASA program which will contribute to astronomers' fundamental research of space.

Department of Defense budget plans indicate that spending on national security has begun a long run of sustainable growth. We expect favorable funding for our many ship, space, electronics, aircraft systems, mission systems and federal information technology programs.

### **Integration Track Record**

Going forward, our attention is firmly focused on two primary priorities: completing the successful integration of TRW and executing on our programs.



*By fully embracing a “BEST OF THE BEST” philosophy, our integration process has gained credibility among employees of the acquired companies.*

KENT KRESA  
Chairman of the Board

We’ve mentioned our acquisition strategy several times, but a strategy is not complete without implementation. At Northrop Grumman, the successful integration of new companies has become a core competency. We have a disciplined, organized process designed to achieve all cost savings, synergy and debt reduction targets. We have consistently applied this process to help us move quickly, while covering the full spectrum of integration issues.

By fully embracing a “best of the best” philosophy, our integration process has gained credibility among employees of the acquired companies. This credibility results in positive employee morale, strengthens our ability to retain key employees and deepens our management bench, all of which are essential to meeting future challenges. In 2002, we completed the integration of both Litton Industries and Newport News Shipbuilding, meeting cost and schedule targets. We have a proven track record for successfully integrating acquired companies and the integration of TRW, now in its final stages, will be completed ahead of schedule this year.

Significantly, our integration process has also fostered cross-sector cooperation. This enables us to uncover synergies among our various sectors and is essential to making Northrop Grumman a better, more competitive company, not just a bigger one. Our employees are another fundamental strength of Northrop Grumman and add to our competitive advantage. Our workforce has demonstrated technical, manufacturing and business expertise, and their many talents have been bolstered by our recent growth, which has infused the company with fresh thinking and broader experience.

#### OPERATION IRAQI FREEDOM

As this annual report was being finalized, the United States launched Operation Iraqi Freedom to liberate the people of Iraq from Saddam Hussein. We are extremely proud of our servicemen and women performing this mission with courage, skill and dedication. We are also proud to support coalition military forces with equipment and systems of unmatched accuracy and power. It is our hope that the final outcome of Operation Iraqi Freedom will be progress toward democracy and stability in this long-troubled region.

#### Looking to the Future

In 2003, we will continue to focus on superior program performance.

This commitment has led us to take exceptional pride in achievements such as the perfect scores we received for our work during the final phase of restoration of the Aegis guided missile destroyer *USS Cole*, and the success of Global Hawk in reaching 1,000 combat flight hours in service with the U.S. Air Force in support of Operation Enduring Freedom.

We recognize that effective execution on our current programs is essential for our long-term growth. We are also pursuing a number of programs with exciting prospects including multimission command and control aircraft, space-based radar, Littoral Combat Ship, advanced laser weapons, and key missile defense programs.

We have excellent, highly visible growth prospects, strong operational management, a solid balance sheet with demonstrated cash management excellence, a proven integration track record and strong relationships with all our customers. Our exceptional capabilities in system-of-systems integration will play an important role in the ongoing transformation of

America's military. The depth and breadth of our programs and related leading edge technologies—well attuned to future defense needs—give us the best-positioned portfolio in our industry. We have a great pipeline of business and double-digit top line growth is firmly in our plans.

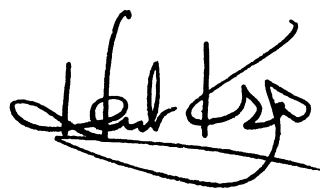
By positioning the company in the “sweet spot” of U.S. defense spending, Northrop Grumman expects segment operating margin for 2003 to be in the mid-7 percent range on estimated sales of \$25 to \$26 billion, with cash from operations between \$1.1 billion and \$1.3 billion before the B-2 tax payment. For 2004, sales are expected to range between \$28 to \$29 billion, with segment operating margin expected to continue in the mid-7 percent range; and cash from operations of \$1.5 billion.

Continuing Northrop Grumman’s track record of successful integration and program excellence requires an additional element—an unwavering commitment to our Northrop Grumman values and ethical business conduct in everything we do. All Northrop Grumman employees are expected to live our company values, and we are convinced that the right behavior creates long-term shareholder value. Since we live in an era where corporate activities receive unprecedented scrutiny, we believe this is a vitally important issue. We also benefit from a highly qualified and experienced board of directors, who are committed to the highest standards of corporate governance.

Along with the 120,000 men and women of Northrop Grumman, we are committed to continuing our success in 2003 and beyond. As enthusiastic as we were about the company’s prospects a year ago, we are even more so now. We have entered a period of exceptional opportunity, and we are determined to see that Northrop Grumman continues to deliver maximum value for its shareholders, customers and employees.



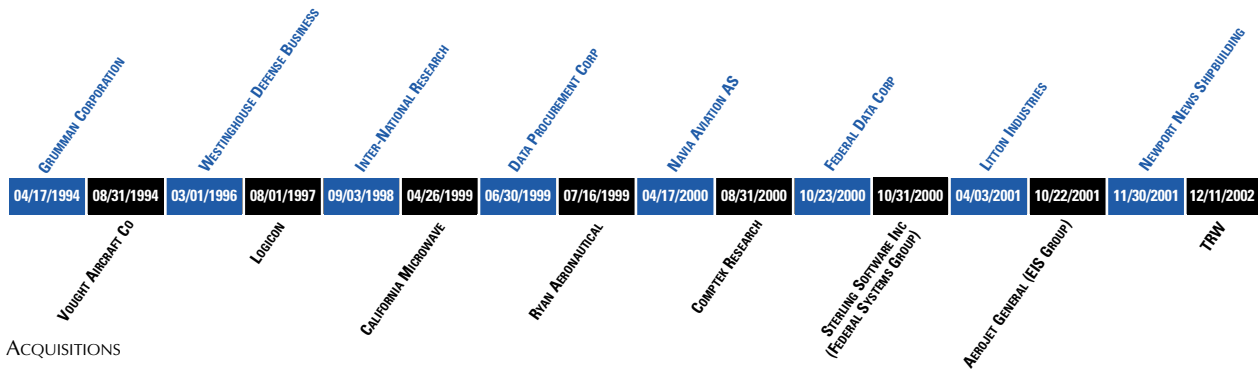
RONALD D. SUGAR  
*Chief Executive Officer and President*  
April 1, 2003



KENT KRESA  
*Chairman of the Board*

THE LEGACY OF KENT KRESA

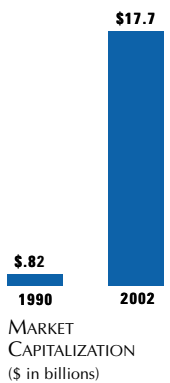
CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER 1990-2003



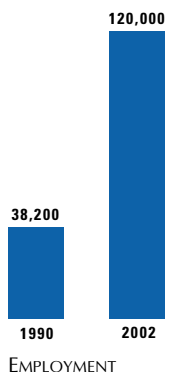
ACQUISITIONS



REVENUES (\$ in billions)



MARKET CAPITALIZATION (\$ in billions)



EMPLOYMENT

W

With his retirement as chief executive officer of Northrop Grumman on April 1, 2003, Kent Kresa leaves an extraordinary legacy to Northrop Grumman and the defense and aerospace industry.

It is Kent's rare combination of clear strategic vision, business acumen and technical expertise that enabled him to lift Northrop Grumman to its present position as one of the most respected defense companies in the world. During his tenure as chairman and chief executive officer, Kresa led Northrop Grumman's evolution to a global defense enterprise with one of the industry's broadest and most technologically advanced product portfolios. He achieved much of this transformation by acquiring and successfully integrating a number of prestigious companies strategically selected for their leadership in sophisticated technologies and products in defense electronics, information technology, systems integration, shipbuilding and space systems.

Kent joined the company in 1975 and held increasingly responsible positions before his election to its top job in 1990. At that time, the end of the Cold War had brought both a declining defense budget and changes in longstanding assumptions about what capabilities were needed to ensure the nation's defense. As a result, Northrop Grumman found itself much too dependent on aircraft manufacturing.

To lessen this dependence, Kent and his senior management team undertook a strategic analysis to determine what technologies would prove most important to future warfighters. Their conclusions of the early '90s have been the foundation of Northrop Grumman's acquisition program. Kent's vision has proven so prescient that today the company is one of the foremost providers of the advanced technologies at the heart of the DoD's operational transformation.

During the past 12 years, Kent received many of industry's most prestigious honors and awards. In 2001, *BusinessWeek* magazine selected Kresa as one of the nation's Top 25 managers. In 2002, *Forbes* magazine selected the Kresa-led Northrop Grumman as its "Company of the Year."

It is clear that Kent and Northrop Grumman have been a remarkable success story for company shareholders and employees. At this time of his retirement, we pay tribute to Kent Kresa's many accomplishments and thank him for his contributions to this company and the defense industry that will be remembered with admiration for many years to come.

OPERATING SECTORS



**N**orthrop Grumman Corporation, with estimated 2003 revenues of \$25 - \$26 billion, is the nation's second largest defense contractor. Headquartered in Los Angeles, California Northrop Grumman provides technologically advanced, innovative products, services and solutions in systems integration, defense electronics, information technology, advanced aircraft, shipbuilding and space technology. With approximately 120,000\* employees and operations in all 50 states and 25 countries, Northrop Grumman serves U.S. and international military, government and commercial customers. (For a detailed discussion of the company's operating sectors and financials, we encourage you to read our 10-K report, which begins on page 17 of this report.)

## ELECTRONIC SYSTEMS

Headquartered: Linthicum, Maryland • Employees: 22,000 • Estimated 2003 Total Revenue: \$5.9-\$6.1 Billion



ROBERT P. IORIZZO  
*President*

Northrop Grumman Electronic Systems is a world leader in the design, development and manufacture of defense electronics systems including radar systems, navigation systems, electronic warfare systems, precision weapons, airspace management systems, air defense systems, communications systems, space systems, marine systems, oceanic and naval systems, logistics systems, and automation and information systems.

## INFORMATION TECHNOLOGY

Headquartered: Herndon, Virginia • Employees: 23,000 • Estimated 2003 Total Revenue: \$4.7-\$4.9 Billion



HERBERT W. ANDERSON  
*President*

Northrop Grumman Information Technology is a premier provider of advanced IT solutions, engineering and business services for government and commercial clients. The sector's expertise spans such areas as information systems integration; command, control, communications, computers, intelligence, surveillance and reconnaissance (C<sup>2</sup>ISR); enterprise hardware and software solutions; training and simulation; base and range support; signals intelligence; space systems; health informatics; and specialized scientific, engineering and technical services.

## MISSION SYSTEMS

Headquartered: Reston, Virginia • Employees: 15,000 • Estimated 2003 Total Revenue: \$3.9 Billion



DONALD C. WINTER  
*President*

Northrop Grumman Mission Systems is a leading global integrator of complex, mission-enabling systems and services for federal agencies engaged in defense and intelligence activities, as well as federal civilian organizations, state and local governments and commercial clients. Leveraging 50-years of expertise, the sector's technology leadership spans five business areas: strategic systems; missile defense; intelligence, surveillance and reconnaissance; homeland security; command and control and technical services and training. Mission Systems has more than 300 locations around the world.

## INTEGRATED SYSTEMS

Headquartered: El Segundo, California • Employees: 12,000 • Estimated 2003 Total Revenue: \$3.6-\$3.8 Billion



SCOTT J. SEYMOUR  
*President*

Northrop Grumman Integrated Systems is a premier aerospace and defense systems integration enterprise with the capabilities to design, develop, produce and support fully missionized integrated systems and subsystems. Integrated Systems delivers best-value solutions, products, and services in support of chosen segments within the broad market arena of battlespace awareness, command and control systems and integrated combat systems.

## SHIP SYSTEMS

Headquartered: Pascagoula, Mississippi • Employees: 16,000 • Estimated 2003 Total Revenue: \$2.6 Billion



PHILIP A. DUR  
*President*

Northrop Grumman Ship Systems includes primary operations in Pascagoula and Gulfport, Miss.; New Orleans and Tallulah, La.; and in a network of fleet support offices in the U.S. and Japan. The sector is one of the nation's leading full service systems companies for the design, engineering, construction, and life cycle support of major surface ships for the U.S. Navy, U.S. Coast Guard and international navies, and for commercial vessels of all types.

## NEWPORT NEWS

Headquartered: Newport News, Virginia • Employees: 18,000 • Estimated 2003 Total Revenue: \$2.5 Billion



THOMAS C. SCHIVELBEIN  
*President*

Northrop Grumman Newport News is the nation's sole designer, builder and refueler of nuclear-powered aircraft carriers and one of only two companies capable of designing and building nuclear-powered submarines. Newport News also provides after-market services for a wide array of naval and commercial vessels, and has the capability to design, build and maintain every class of ship in the U.S. Navy's fleet.

## SPACE TECHNOLOGY

Headquartered: Redondo Beach, California • Employees: 9,000 • Estimated 2003 Total Revenue: \$2.5 Billion



WESLEY G. BUSH  
*President*

Northrop Grumman Space Technology develops a broad range of systems at the leading edge of space, defense, and electronics technology. The sector creates products for U.S. government, commercial and international customers that contribute significantly to the nation's security and leadership in science and technology. Space Technology's systems link far-flung military forces with space-based communications networks, keep a global eye on hostile threats with 24/7 early warning satellites, explore the universe with high-performance space telescopes and science spacecraft, and probe closer to home with earth science and remote sensing platforms.

## FINANCIAL HIGHLIGHTS BY SEGMENT

| ACQUISITIONS \$ in millions   |  | 2002        | 2001        | 2000        |
|-------------------------------|--|-------------|-------------|-------------|
| <b>ELECTRONIC SYSTEMS</b>     | Aerospace Electronic Systems                       | \$ 1,137    | \$ 1,325    | \$ 2,204    |
|                               | C <sup>4</sup> ISR&N                               | 2,002       | 1,222       | 981         |
|                               | Defensive Electronic Systems                       | 830         | 793         | 605         |
|                               | Navigation Systems                                 | 741         | 1,352       |             |
|                               | Space Systems                                      | 615         | 231         | 158         |
|                               | Other  | 613         | 602         | 422         |
| <b>SHIPS</b>                  | Aircraft Carriers                                  | 1,622       | 4,577       |             |
|                               | Surface Combatants                                 | 1,638       | 3,194       |             |
|                               | Amphibious & Auxiliary                             | 1,184       | 2,301       |             |
|                               | Submarines   | 828         | 609         |             |
|                               | Commercial & International                         | (16)        | 837         |             |
|                               | Services & Other                                   | 109         | 216         |             |
| <b>INFORMATION TECHNOLOGY</b> | Government Information Technology                  | 2,834       | 2,584       | 1,067       |
|                               | Enterprise Information Technology                  | 766         | 848         | 285         |
|                               | Technology Services                                | 673         | 687         | 518         |
|                               | Commercial Information Technology                  | 200         | 241         | 181         |
| <b>INTEGRATED SYSTEMS</b>     | Air Combat Systems                                 | 2,131       | 1,001       | 1,725       |
|                               | Airborne Early Warning/<br>Electronic Warfare      | 832         | 789         | 715         |
|                               | Airborne Ground Surveillance/<br>Battle Management | 526         | 445         | 576         |
| <b>MISSION SYSTEMS</b>        |  | 2,748       |             |             |
| <b>SPACE TECHNOLOGY</b>       |  | 1,308       |             |             |
| <b>SALES \$ in millions</b>   |  | <b>2002</b> | <b>2001</b> | <b>2000</b> |
| <b>ELECTRONIC SYSTEMS</b>     | Aerospace Electronic Systems                       | \$ 1,536    | \$ 1,353    | \$ 956      |
|                               | C <sup>4</sup> ISR&N                               | 1,405       | 1,166       | 968         |
|                               | Defensive Electronic Systems                       | 780         | 693         | 511         |
|                               | Navigation Systems                                 | 668         | 591         |             |
|                               | Space Systems                                      | 437         | 245         | 157         |
|                               | Other  | 513         | 539         | 323         |
| <b>SHIPS</b>                  | Aircraft Carriers                                  | 2,076       | 208         |             |
|                               | Surface Combatants                                 | 872         | 674         |             |
|                               | Amphibious & Auxiliary                             | 845         | 522         |             |
|                               | Submarines   | 581         | 54          |             |
|                               | Commercial & International                         | 212         | 396         |             |
|                               | Services & Other                                   | 209         | 89          |             |
| <b>INFORMATION TECHNOLOGY</b> | Government Information Technology                  | 2,697       | 2,237       | 815         |
|                               | Enterprise Information Technology                  | 750         | 829         | 229         |
|                               | Technology Services                                | 657         | 571         | 522         |
|                               | Commercial Information Technology                  | 216         | 230         | 151         |
| <b>INTEGRATED SYSTEMS</b>     | Air Combat Systems                                 | 1,915       | 1,600       | 1,722       |
|                               | Airborne Early Warning/<br>Electronic Warfare      | 759         | 740         | 780         |
|                               | Airborne Ground Surveillance/<br>Battle Management | 600         | 663         | 674         |

## FINANCIAL HIGHLIGHTS BY SEGMENT

| <b>BACKLOG</b> \$ in millions          |  | 2002     | 2001     | 2000     |
|--|--|----------|----------|----------|
| <b>ELECTRONIC SYSTEMS</b>              | Aerospace Electronic Systems                       | \$ 2,480 | \$ 2,879 | \$ 2,907 |
|  | C <sup>4</sup> ISR&N                               | 1,423    | 826      | 770      |
|  | Defensive Electronic Systems                       | 1,009    | 959      | 859      |
|  | Navigation Systems                                 | 834      | 761      |          |
|  | Space Systems                                      | 288      | 110      | 124      |
|  | Other  | 461      | 361      | 298      |
| <b>SHIPS</b>                           | Aircraft Carriers                                  | 3,915    | 4,369    |          |
|  | Surface Combatants                                 | 3,286    | 2,520    |          |
|  | Amphibious & Auxiliary                             | 2,118    | 1,779    |          |
|  | Submarines   | 802      | 555      |          |
|  | Commercial & International                         | 213      | 441      |          |
|  | Services & Other                                   | 27       | 127      |          |
| <b>INFORMATION TECHNOLOGY</b>          | Government Information Technology                  | 1,036    | 899      | 552      |
|  | Enterprise Information Technology                  | 131      | 115      | 96       |
|  | Technology Services                                | 349      | 333      | 217      |
|  | Commercial Information Technology                  | 73       | 89       | 78       |
| <b>INTEGRATED SYSTEMS</b>              | Air Combat Systems                                 | 1,980    | 1,764    | 2,363    |
|  | Airborne Early Warning/<br>Electronic Warfare      | 1,266    | 1,193    | 1,144    |
|  | Airborne Ground Surveillance/<br>Battle Management | 492      | 566      | 784      |
| <b>MISSION SYSTEMS</b>                 |  | 2,748    |          |          |
| <b>SPACE TECHNOLOGY</b>                |  | 1,308    |          |          |
| <b>OPERATING MARGIN</b> \$ in millions |  | 2002     | 2001     | 2000     |
| <b>ELECTRONIC SYSTEMS</b>              |  | \$ 435   | \$ 350   | \$ 157   |
| <b>SHIPS</b>                           |  | 306      | 19       |          |
| <b>INFORMATION TECHNOLOGY</b>          |  | 249      | 173      | 103      |
| <b>INTEGRATED SYSTEMS</b>              |  | 331      | 265      | 306      |

## GENERAL INFORMATION



### Northrop Grumman on the Internet

Information on Northrop Grumman and its sectors, including press releases and this annual report, can be found on our home page at [www.northropgrumman.com](http://www.northropgrumman.com). Shareholders can also receive copies of this report or quarterly earnings statements by mail from The Wall Street Journal Annual Report Service. To request information by mail, call 1-800-654-2582 or fax your request to 1-800-965-5679.

### Annual Shareholders' Meeting

Wednesday, May 21, 2003  
 10:00 a.m. PDT  
 Beverly Hilton Hotel  
 9876 Wilshire Boulevard  
 Beverly Hills, California 90210  
 (310) 274-7777

### Independent Auditors

Deloitte & Touche LLP, Los Angeles

### Stock Listing

Northrop Grumman Corporation common stock is listed on the New York and Pacific Stock Exchanges (trading symbol NOC).

### Dividend Reinvestment Program

Registered owners of Northrop Grumman Corporation common stock are eligible to participate in the company's Automatic Dividend Reinvestment Plan. Under this plan, shares are purchased with reinvested cash dividends and voluntary cash payments of up to a specified amount per calendar year.

For information on the company's Dividend Reinvestment Service or for assistance with other stock ownership inquiries, contact our Transfer Agent and Registrar, EquiServe Trust Company, N.A., 1-800-756-8200 or send a message via the Internet. EquiServe's address is [www.equiserve.com](http://www.equiserve.com). Questions regarding stock ownership may also be directed to Northrop Grumman's Shareholder Services at (310) 201-3286.

### Duplicate Mailings

Stockholders with more than one account or who share the same address with another stockholder may receive more than one annual report. To eliminate duplicate mailings or to consolidate accounts, contact EquiServe. Separate dividend checks and proxy materials will continue to be sent for each account on our records.

### Investor Relations

Securities analysts, institutional investors, and portfolio managers should contact Northrop Grumman Investor Relations at (310) 201-3423 or send an e-mail to [investor\\_relations@northropgrumman.com](mailto:investor_relations@northropgrumman.com).

### Media Relations

Inquiries from the media should be directed to Northrop Grumman Corporate Communications at (310) 201-3335 or send an e-mail to [corporate\\_news@northropgrumman.com](mailto:corporate_news@northropgrumman.com).

## BOARD OF DIRECTORS AND ELECTED OFFICERS

**Board of Directors**

KENT KRESA  
Chairman of the Board,  
Northrop Grumman Corporation

RONALD D. SUGAR  
Chief Executive Officer  
and President,  
Northrop Grumman Corporation

JOHN T. CHAIN, JR.  
General, U.S. Air Force (Ret.),  
Chairman of the Board,  
Thomas Group, Inc.  
(management consulting company)

LEWIS W. COLEMAN  
President, Gordon E. and  
Betty I. Moore Foundation  
(education and scientific research  
institution)

VIC FAZIO  
Senior Partner, Clark  
& Weinstock Inc.  
(consulting firm)

PHILLIP FROST  
Chairman of the Board and  
Chief Executive Officer,  
IVAX Corporation  
(pharmaceutical company)

CHARLES R. LARSON  
Admiral, U.S. Navy (Ret.)

CHARLES H. NOSKI  
Retired Vice Chairman,  
AT&T

JAY H. NUSSBAUM  
Executive Vice President,  
BearingPoint, Inc.  
(consulting company)

PHILIP A. ODEEN  
Retired Chairman,  
TRW Inc.

AULANA L. PETERS  
Partner (retired),  
Gibson, Dunn and Crutcher  
(law firm)

JOHN BROOKS SLAUGHTER  
President and  
Chief Executive Officer,  
The National Action Council for  
Minorities in Engineering, Inc.

**Committees of the Board**

**Compliance,  
Public Issues and Policy**  
AULANA L. PETERS, *Chairman*  
VIC FAZIO  
CHARLES R. LARSON  
JOHN BROOKS SLAUGHTER

**Finance**  
LEWIS W. COLEMAN, *Chairman*  
JOHN T. CHAIN, JR.  
PHILLIP FROST  
CHARLES H. NOSKI  
JAY H. NUSSBAUM  
PHILIP A. ODEEN

**Nominating and  
Corporate Governance**  
PHILLIP FROST, *Chairman*  
JOHN T. CHAIN, JR.  
VIC FAZIO  
CHARLES R. LARSON  
AULANA L. PETERS

**Audit**  
JOHN BROOKS SLAUGHTER, *Chairman*  
LEWIS W. COLEMAN  
VIC FAZIO  
CHARLES R. LARSON  
CHARLES H. NOSKI  
AULANA L. PETERS

**Compensation and  
Management Development**  
JOHN T. CHAIN, JR., *Chairman*  
LEWIS W. COLEMAN  
PHILLIP FROST  
JAY H. NUSSBAUM

**Elected Officers**

RONALD D. SUGAR  
Chief Executive Officer  
and President

HERBERT W. ANDERSON  
Corporate Vice President  
and President,  
Information Technology sector

FRANK G. BRANDENBERG  
Corporate Vice President  
and President,  
Component Technologies sector

WESLEY G. BUSH  
Corporate Vice President  
and President,  
Space Technology sector

PHILIP A. DUR  
Corporate Vice President  
and President,  
Ship Systems sector

J. MICHAEL HATELEY  
Corporate Vice President  
and Chief Human Resources  
and Administrative Officer

ROBERT W. HELM  
Corporate Vice President,  
Government Relations

ROBERT P. IORIZZO  
Corporate Vice President  
and President,  
Electronic Systems sector

JOHN H. MULLAN  
Corporate Vice President  
and Secretary

ALBERT F. MYERS  
Corporate Vice President,  
Strategy and Technology

ROSANNE P. O'BRIEN  
Corporate Vice President,  
Communications

JAMES L. SANFORD  
Corporate Vice President  
and Treasurer

THOMAS C. SCHIEVELBEIN  
Corporate Vice President  
and President,  
Newport News sector

SCOTT J. SEYMOUR  
Corporate Vice President  
and President,  
Integrated Systems sector

W. BURKS TERRY  
Corporate Vice President  
and General Counsel

RICHARD B. WAUGH, JR.  
Corporate Vice President  
and Chief Financial Officer

DONALD C. WINTER  
Corporate Vice President  
and President,  
Mission Systems sector

SANDRA J. WRIGHT  
Corporate Vice President  
and Controller

## CORPORATE DIRECTORY

**Northrop Grumman Corporation**

1840 Century Park East  
Los Angeles, California 90067-2199  
Phone: (310) 553-6262  
Fax: (310) 201-3023  
www.northropgrumman.com

**Northrop Grumman Electronic Systems**

P.O. Box 17319, MS A170  
Baltimore, Maryland 21203-7319  
Phone: (410) 765-1000  
Fax: (410) 993-6698  
www.es.northropgrumman.com

**Northrop Grumman Information Technology**

2411 Dulles Corner Park, Suite 800  
Herndon, Virginia 20171-3430  
Phone: (703) 713-4000  
Fax: (703) 713-4127  
www.it.northropgrumman.com

**Northrop Grumman Integrated Systems**

1 Hornet Way  
El Segundo, California 90450  
Phone: (310) 332-7309  
Fax: (310) 331-1200  
www.is.northropgrumman.com

**Northrop Grumman Mission Systems**

12011 Sunset Hills Road  
Reston, Virginia 20190-3285  
Phone: (703) 968-1000  
www.ms.northropgrumman.com

**Northrop Grumman Newport News**

4101 Washington Avenue  
Newport News, Virginia 23607  
Phone: (757) 380-2000  
Fax: (757) 380-3867  
www.nns.com

**Northrop Grumman Ship Systems**

P.O. Box 149  
1000 Access Road  
Pascagoula, Mississippi 39568-0149  
Phone: (228) 935-1122  
Fax: (228) 935-1126  
www.ss.northropgrumman.com

**Northrop Grumman Space Technology**

One Space Park  
Redondo Beach, California 90278  
Phone: (310) 812-4321  
Fax: (310) 813-3331  
www.st.northropgrumman.com

**Northrop Grumman Electronic Systems International**

P.O. Box 451, MS A275  
Baltimore, Maryland 21203  
Phone: (410) 765-2700  
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james.coleman@northropgrumman.com

**Northrop Grumman Corporate Government Relations**

1000 Wilson Boulevard, Suite 2300  
Arlington, Virginia 22209-2278  
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Fax: (703) 276-0711  
helmbo@northropgrumman.com

**Northrop Grumman International, Inc.**

1000 Wilson Boulevard, Suite 2200  
Arlington, Virginia 22209-2278  
Phone: (703) 875-8482  
Fax: (703) 875-8391  
pearcha@northropgrumman.com

**Private Securities Litigation Reform Act of 1995**

Certain statements and assumptions herein contain or are based on “forward-looking” information within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risk and uncertainties, including statements and assumptions with respect to future revenues, program performance and cash flows, the outcome of contingencies including litigation and environmental remediation, and anticipated costs of capital investments and planned dispositions. The company’s operations are necessarily subject to various risks and uncertainties; actual outcomes are dependent upon many factors, including without limitation the company’s successful performance of internal plans; government customers’ budgetary restraints; customer changes in short-range and long-range plans; domestic and international competition in both the defense and commercial areas; product performance; continued development and acceptance of new products; performance issues with key suppliers and subcontractors; government import and export policies; termination of government contracts; the outcome of political and legal processes; legal, financial, and governmental risks related to international transactions and global needs for the company’s products and services, including without limitation, military and commercial electronic systems and support; as well as other economic, political, and technological risks and uncertainties. Further discussion of these and other risks can be found in the Company’s filings with the SEC, including, without limitation, Form 10-K.

***NORTHROP GRUMMAN***

A white curved line that starts under the 'M' in 'GRUMMAN' and extends to the left, ending under the 'P' in 'NORTHROP'.

**FORM 10-K**

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

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**FORM 10-K**

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

For the fiscal year ended December 31, 2002

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

For the transition period from  
to

Commission file number  
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  
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>           | <u>Name of each exchange on which registered</u> |
|--------------------------------------|--|
| Common Stock, \$1 par value          | New York Stock Exchange<br>Pacific Exchange      |
| Series B Convertible Preferred Stock | New York Stock Exchange                          |
| 7.25% Equity Security Units          | 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

No

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2).

Yes

No

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.

As of March 7, 2003, 182,889,368 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 \$15,085 million.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2003 Annual Meeting of Stockholders. Part III

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**NORTHROP GRUMMAN CORPORATION**

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# NORTHROP GRUMMAN CORPORATION

## 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 (the company). 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).

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, pursuant to a tender offer that expired on November 29, 2001, the company purchased 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 remaining 19.3 percent of Newport News common shares as minority interest. On January 18, 2002, the company acquired the remaining 19.3 percent of Newport News shares not purchased in the tender offer.

On December 11, 2002, the company issued 69.4 million shares in exchange for all outstanding shares of TRW Inc. The company completed the sale of TRW's Automotive business (Auto) to The Blackstone Group on February 28, 2003. The company received approximately \$4.7 billion, comprised of \$3.9 billion in cash and debt retained by Auto, a \$600 million payment-in-kind note and a 19.6 percent investment in the new enterprise. Cash proceeds from the sale, along with cash received from completion of the TRW acquisition will be used primarily to pay down debt. In connection with the acquisition of TRW, the company entered into a formal stipulation and consent decree (Final Judgment) with the United States Department of Justice that was filed in the U. S. District Court for the District of Columbia on December 11, 2002. Key provisions of the consent decree are intended to assure that the merger will not impede fair and open competition related to certain electronic satellite payloads. The consent decree does not require the divestiture of any businesses and will permit the company to operate its businesses and those of TRW as planned. The retained portions of TRW represent the new Mission Systems and Space Technology sectors discussed more fully herein. Additional information describing the aforementioned mergers and acquisitions is contained in the "Acquisitions" footnote to the Consolidated Financial Statements in Part II, Item 8.

The company operates in seven business sectors: Electronic Systems, Newport News, Ship Systems, Information Technology, Integrated Systems, Mission Systems and Space Technology. For financial reporting purposes the Electronic Systems, Information Technology, Integrated Systems, Mission Systems and Space Technology sectors are each reportable segments. In accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 131 – *Disclosures about Segments of an Enterprise and Related Information*, Newport News and Ship Systems results are aggregated and reported as the Ships segment.

In 2002, the company decided to sell the majority of the businesses comprising its Component Technologies operating sector, and also sold two of the businesses in its Electronic Systems sector, Ruggedized Displays and Electron Devices. These businesses, Auto and the aerostructures business sold in 2000 are reported as discontinued operations. Additional information is contained in the "Dispositions and Discontinued Operations" footnote to the Consolidated Financial Statements in Part II, Item 8.

Electronic Systems is a leading designer, developer and manufacturer of a wide variety of advanced defense electronics and systems. Electronic Systems provides airborne radar systems, secondary surveillance systems, inertial navigation systems and sensors, electronic warfare systems, precision weapons, air traffic control systems, air

## **NORTHROP GRUMMAN CORPORATION**

defense systems communications systems, space systems, marine systems, oceanic and naval systems, integrated avionics systems and automation and information systems. Headquartered in Baltimore, Maryland the sector includes the Aerospace Electronic Systems, C4ISR&N, Defensive Electronic Systems, Navigation Systems, and Space Systems divisions. Operations not included in these divisions are reported as "Other". Key products include fire control radars for the F-16 fighter aircraft, the F-22 air dominance fighter, the F-35 joint strike fighter, and the Longbow Apache helicopter; the AWACS airborne early warning radar; Joint STARS air-to-ground surveillance radar sensor; Longbow Hellfire missile; tactical military radars, countrywide air defense systems, airborne electronic countermeasures systems, sophisticated undersea warfare systems and naval propulsion and power generation systems. Electronic Systems has 51 locations worldwide, 19 international offices and approximately 22,000 employees.

Newport News' 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. Newport News is the nation's sole designer, builder and refueler of nuclear-powered aircraft carriers and only one of two companies capable of designing and building nuclear-powered submarines. Major programs are the Nimitz-class nuclear powered aircraft carriers and the Virginia-class submarine program. The sector also provides after-market services for a wide array of naval and commercial vessels. Headquartered in Newport News, Virginia, the sector has approximately 18,000 employees.

Ship Systems is one of the nation's leading full service systems providers for the design, engineering, construction, and life cycle support of major surface ships for the U.S. Navy, U.S. Coast Guard and international navies, and for commercial vessels of all types. Major programs for the U.S. Navy include the WASP LHD 1 Class and San Antonio LPD 17 Class amphibious assault ships, the Arleigh Burke DDG 51 and next generation DD(X) destroyers. The company is also a partner in the Coast Guard's Deepwater modernization program and produces double-hulled crude oil tankers. Headquartered in Pascagoula, Mississippi, with primary operations in Pascagoula, Mississippi; New Orleans, Louisiana; Gulfport, Mississippi; and Tallulah, Louisiana, as well as in fleet support offices in the U.S. and Japan. Ship Systems has more than 16,000 employees.

The Information Technology segment consists of four lines of business: Government Information Technology, Enterprise Information Technology, Technology Services, and Commercial Information Technology. Government Information Technology covers a wide range of large-scale systems integration, solutions and services 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. Enterprise Information Technology provides enterprise-wide infrastructure, training and simulation, mission support, and science and technology solutions and services to the defense and civil marketplace, including the delivery and integration of commercially available computers, networks, hardware, software, and peripherals. Technology Services include base and range support, training and simulation, information systems, and state and local information technology services. Commercial Information Technology provides complete IT outsourcing services directed at the commercial market. In addition, this sector provides information technology services to commercial customers and to all Northrop Grumman's sectors. Headquartered in Herndon, Virginia, the sector employs more than 23,000 professionals located in 500 sites worldwide.

Integrated Systems is a leader in the design, development and production of airborne early warning, electronic warfare and surveillance and battlefield management systems. Integrated Systems includes the Air Combat, Airborne Early Warning & Electronic Warfare Systems, and Airborne Ground Surveillance & Battle Management Systems divisions. Integrated Systems is the prime contractor for the Joint STARS advanced airborne targeting and battle management system, Global Hawk and the B-2 Spirit stealth bomber. The sector has principal roles in the F/A-18 Hornet strike fighter and F-35 joint strike fighter programs. Integrated Systems is upgrading the EA-6B Prowler electronic countermeasures aircraft and produces the E-2C Hawkeye early warning aircraft. Headquartered in El Segundo, California, the sector has approximately 12,000 employees.

Mission Systems, headquartered in Reston, Virginia, is a leading global system integrator of complex, mission-enabling systems for government, military and business clients. The organization's technology leadership spans four business areas: Command, Control and Intelligence Systems, Federal and Civil Information Systems,

## **NORTHROP GRUMMAN CORPORATION**

Missile Systems, and Technical Services. Products and services are focused on the fields of command and control; strategic missiles; missile and air defense; airborne reconnaissance; unmanned aerial vehicles; intelligence management and processing; electro-magnetic and infrared analysis and decision support systems. Mission Systems has 15,000 employees in more than 300 locations around the world.

Space Technology develops a broad range of systems at the leading edge of space, defense and electronics technology. The sector creates products for U.S. government and commercial customers that contribute significantly to the nation's security and leadership in science and technology. Its business areas focus on the design and manufacture of spacecraft systems and subsystems; electronic systems, including communication systems for space and defense; commercial telecommunications products; digital broadband space payloads; space science instruments; advanced avionics systems; high energy laser systems; and spacecraft products, including solar arrays and reflectors. Headquartered in Redondo Beach, California, Space Technology has approximately 9,000 employees in more than 25 locations around the world.

The company's principal executive offices are located at 1840 Century Park East, Los Angeles, California 90067. The company's telephone number is (310) 553-6262. The company's home page on the Internet is [www.northropgrumman.com](http://www.northropgrumman.com). The company makes web site content available for information purposes only. It should not be relied upon for investment purposes, nor is it incorporated by reference into this Form 10-K.

Throughout this Form 10-K, the company incorporates by reference information from parts of other documents filed with the Securities and Exchange Commission (SEC). The SEC allows the company to disclose important information by referring to it in this manner, and you should review this information.

The company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statement for the company annual shareholders' meeting, as well as any amendments to those reports, are available free of charge through the company web site as soon as reasonably practicable after electronic filing of such material with the SEC. You can learn more about the company by reviewing the company SEC filings on the company web site. The company SEC reports can be accessed through the investor relations page of the company web site. The SEC also maintains a web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy statements and other information regarding SEC registrants, including Northrop Grumman.

## NORTHROP GRUMMAN CORPORATION

### 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.

| <u>Location</u>  | <u>Property Interest</u> |
|--|--------------------------|
| Albuquerque, New Mexico (3) (5) (a) (c)                | Leased                   |
| Annapolis, Maryland (1) (a) (b) (d) (e)                | Owned, Leased            |
| Apopka, Kansas (1) (b)                                 | Owned                    |
| Arlington, Virginia (1) (3) (4) (5) (7) (a) (e)        | Leased                   |
| Aurora, Colorado (3) (5) (a) (e)                       | Owned, Leased            |
| Avondale, Louisiana (2) (a) (c) (e)                    | Owned, Leased            |
| Azusa, California (1) (a) (b) (c) (d) (e)              | Owned, Leased            |
| Baltimore, Maryland (1) (3) (5) (a) (c) (e)            | Leased                   |
| Bellevue, Nebraska (3) (5) (a) (c)                     | Leased                   |
| Bethpage, New York (1) (4) (a) (b) (c) (d) (e)         | Owned                    |
| Bourg-Les-Valence, France (1) (b)                      | Owned                    |
| Brea, California (7) (b)                               | Leased                   |
| Burlington, Canada (3) (5) (7) (a) (b)                 | Owned, Leased            |
| Carson, California (5) (a)                             | Leased                   |
| Chantilly, Virginia (3) (5) (6) (a) (c)                | Leased                   |
| Charlottesville, Virginia (1) (3) (a) (b) (e)          | Owned, Leased            |
| Cincinnati, Ohio (1) (b)                               | Leased                   |
| Clearfield, Utah (5) (a)                               | Leased                   |
| Colehill, United Kingdom (7) (b)                       | Leased                   |
| Colorado Springs, Colorado (1) (3) (5) (a) (c)         | Owned, Leased            |
| Dallas, Texas (1) (3) (4) (5) (a) (b) (d) (e)          | Leased                   |
| El Segundo, California (3) (4) (6) (a) (b) (c) (d) (e) | Owned, Leased            |
| Elkridge, Maryland (1) (a) (c) (d)                     | Leased                   |
| Enfield, Canada (1) (b)                                | Owned                    |
| Fairfax, Virginia (3) (5) (a) (e)                      | Owned, Leased            |
| Falls Church, Virginia (3) (5) (a)                     | Leased                   |
| Freiburg, Germany (1) (b) (c) (e)                      | Owned, Leased            |
| Gaithersburg, Maryland (1) (3) (a)                     | Leased                   |
| Garland, Texas (1) (b)                                 | Owned                    |
| Gulfport, Mississippi (2) (a) (b)                      | Owned, Leased            |
| Hagerstown, Maryland (1) (e)                           | Leased                   |
| Harahan, Louisiana (2) (c)                             | Leased                   |
| Hawthorne, California (3) (4) (a) (b) (c) (d) (e)      | Owned, Leased            |
| Heidelberg, Germany (1) (b)                            | Owned                    |
| Herndon, Virginia (1) (3) (a) (c)                      | Leased                   |
| Hicksville, New York (4) (d) (e)                       | Owned                    |
| Hollywood, Maryland (4) (a)                            | Leased                   |
| Hunt Valley, Maryland (1) (a) (b) (e)                  | Owned, Leased            |
| Huntsville, Alabama (1) (3) (5) (a) (b) (c) (e)        | Owned, Leased            |
| Irving, Texas (4) (a)                                  | Leased                   |
| Jacksonville, Florida (2) (4) (a) (c) (d) (e)          | Leased                   |
| Lake Charles, Louisiana (4) (a) (b) (e)                | Owned, Leased            |
| Lanham, Maryland (1) (3) (5) (a)                       | Leased                   |

## NORTHROP GRUMMAN CORPORATION

|   |               |
|---|---------------|
| Lexington, Kentucky (3) (4) (a) (c) .....                               | Owned, Leased |
| Linthicum, Maryland (1) (a) (b) (c) (e) .....                           | Owned, Leased |
| Los Angeles, California (1) (5) (6) (7) (a) (c) .....                   | Leased        |
| Manhattan Beach, California (6) (a) (d) .....                           | Leased        |
| McLean, Virginia (3) (5) (a) (e) .....                                  | Leased        |
| Melbourne, Florida (4) (a) (b) (c) (e) .....                            | Owned, Leased |
| New Malden, United Kingdom (1) (b) (e) .....                            | Leased        |
| Newport News, Virginia (2) (3) (5) (a) (b) (c) (d) (e) .....            | Owned, Leased |
| Northridge, California (1) (b) .....                                    | Leased        |
| Norwalk, Connecticut (1) (b) .....                                      | Leased        |
| Oakland, California (3) (5) (a) .....                                   | Leased        |
| Olathe, Kansas (7) (a) .....  | Owned         |
| Palmdale, California (4) (a) (b) (c) (d) (e) .....                      | Owned, Leased |
| Pascagoula, Mississippi (2) (a) (b) (c) (d) (e) .....                   | Owned, Leased |
| Point Mugu, California (4) (a) (b) (c) (e) .....                        | Owned, Leased |
| Pomezia Rome, Italy (1) (b) .....                                       | Owned         |
| Rancho Carmel, California (6) (a) (d) (e) .....                         | Owned         |
| Reading, Massachusetts (3) (a) (c) .....                                | Leased        |
| Redondo Beach, California (6) (a) (b) (c) (d) (e) .....                 | Owned, Leased |
| Reston, Virginia (3) (5) (a) .....                                      | Leased        |
| Rolling Meadows, Illinois (1) (3) (a) (b) (c) (e) .....                 | Owned, Leased |
| Sacramento, California (5) (e) .....                                    | Leased        |
| Salt Lake City, Utah (1) (b) (c) .....                                  | Owned, Leased |
| San Bernadino, California (5) (a) .....                                 | Leased        |
| San Clemente, California (6) (a) (b) (c) (d) (e) .....                  | Owned, Leased |
| San Diego, California (1) (2) (3) (4) (5) (6) (a) (b) (c) (d) (e) ..... | Owned, Leased |
| San Jose, California (1) (3) (5) (a) .....                              | Leased        |
| San Pedro, California (3) (a) (c) (e) .....                             | Leased        |
| Santa Isabel, Puerto Rico (1) (b) (e) .....                             | Leased        |
| Sierra Vista, Arizona (1) (3) (5) (a) (c) .....                         | Leased        |
| St. Augustine, Florida (4) (a) (b) (c) (e) .....                        | Owned, Leased |
| Sunnyvale, California (1) (3) (5) (a) (b) .....                         | Owned, Leased |
| Sykesville, Maryland (1) (b) .....                                      | Owned         |
| Tallulah, Louisiana (2) (b) .....                                       | Leased        |
| Tempe, Arizona (1) (4) (5) (a) (b) .....                                | Owned, Leased |
| Toronto, Canada (1) (b) (e) .....                                       | Owned, Leased |
| Utica, New York (4) (7) (a) (b) .....                                   | Owned, Leased |
| Virginia Beach, Virginia (3) (4) (a) (c) .....                          | Owned, Leased |
| Warner Robins, Georgia (1) (3) (4) (6) (a) (c) .....                    | Owned, Leased |
| Washington, District of Columbia (2) (3) (4) (5) (a) .....              | Leased        |
| Westwego, Louisiana (2) (a) (c) .....                                   | Owned, Leased |
| Williamsville, New York (1) (a) (b) .....                               | Leased        |
| Woodland Hills, California (1) (a) (b) (c) .....                        | Owned, Leased |
| York, Pennsylvania (7) (e) .....  | Owned         |

## **NORTHROP GRUMMAN CORPORATION**

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

- (1) Electronic Systems
- (2) Ships
- (3) Information Technology
- (4) Integrated Systems
- (5) Mission Systems
- (6) Space Technology
- (7) 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 2 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.

## NORTHROP GRUMMAN CORPORATION

### Item 3. Legal Proceedings

Various claims and legal proceedings arise in the ordinary course of business and are pending against the company and its properties. Based upon the information available, the company does not believe that the resolution of any of these proceedings will have a material adverse effect upon its operations or financial condition.

Departments and agencies of the U.S. Government have the authority to investigate various transactions and operations of the company and the results of such investigations may lead to administrative, civil or criminal proceedings, the ultimate outcome of which could be fines, penalties, repayments, compensatory or treble damages. U.S. Government regulations provide that certain findings against a contractor may lead to suspension or debarment from future U.S. Government contracts or the loss of export privileges for a company or an operating division or subdivision. Suspension or debarment could have a material adverse effect on the company because of its reliance on government contracts. Based on available information, the company does not believe, but can give no assurance, that any matter resulting from a U.S. Government investigation would have a material adverse effect on its results of operations or financial condition. Matters described below include cases in which the U.S. Government is a party. The company is unable to predict whether or not adverse decisions in these matters would have a material adverse effect on the company's financial condition.

As previously reported, in October 1999 in U.S. ex rel. Jordan v. Northrop Grumman Corporation, the company was served with a fifth amended complaint. The action was filed by the government in the United States District Court of the Central District of California in May 1995. The complaint alleges that the company violated the civil 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 approximately \$210 million plus 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 denies the allegations and intends to vigorously defend this matter. Trial is set for April 1, 2003.

As previously reported, in August 1992 in U.S. ex rel. Rex Robinson v. Northrop Grumman Corporation, in 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. The action was filed on August 10, 1989, seeking damages under the *qui tam* provision of the civil False Claims Act. On July 28, 1992, the government declined to intervene in this action. Plaintiffs seek damages of approximately \$113 million, plus penalties. Damages under the False Claims Act can be trebled. 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.

During 1996, in U.S. ex rel. Bagley v. TRW Inc., the U.S. Department of Justice (DOJ) advised TRW Inc. (TRW) that it had been named as a defendant in lawsuits brought by a former employee originally filed under seal in 1994 and 1995 in the United States District Court for the Central District of California under the *qui tam* provisions of the civil False Claims Act. The DOJ subsequently advised that it would intervene in the litigation. In a consolidated complaint filed jointly by the former employee and the DOJ, it is alleged that TRW misclassified various costs and improperly charged those costs to certain of its federal contracts, that the United States has incurred substantial damages, and that TRW is liable for approximately \$56 million in single damages, subject to trebling, plus penalties, post-judgment interest, costs (including attorneys' fees) and "all other proper relief." All substantive allegations against TRW have been denied in its answer to the consolidated complaint. The company denies the allegations and intends to vigorously defend this matter. Trial is scheduled for November 2003.

On February 3, 2003, the Department of Justice filed a civil False Claims Act case against Newport News Shipbuilding, Inc. in the United States District Court for the Eastern District of Virginia in U.S. v. Newport News Shipbuilding, Inc. The government seeks single damages in an amount in excess of \$72 million, plus penalties, costs and interest. Damages may be trebled under the False Claims Act. The complaint alleges that the company improperly charged certain independent research and development costs to its government contracts with respect to the years 1994 through 1999. The company denies the allegations and intends to vigorously defend the matter.

The putative class action lawsuits filed against TRW relating to the company's then-proposed offer to acquire TRW, reported in TRW's Form 10-Q for the quarter ended March 31, 2002, have been dismissed with

## **NORTHROP GRUMMAN CORPORATION**

prejudice. The putative class action lawsuit filed against TRW on behalf of a proposed class of TRW shareholders in the United States District Court for the Northern District of Ohio was dismissed on October 3, 2002. The two putative class action lawsuits filed against TRW on behalf of a proposed class of TRW shareholders in Common Pleas Court, Cuyahoga County, Ohio, were dismissed on December 2, 2002.

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. Oral argument took place on February 18, 2003, and the matter stands submitted. The defendants deny the allegations made in these actions and intend to vigorously defend the actions.

### **Environmental Matters**

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, now named Northrop Grumman Ship Systems, Inc., perform an air permit compliance review. In the course of negotiations with respect to the review and required corrective actions the MDEQ has advised the company that it will seek penalties in excess of \$100,000 in connection with these matters.

On March 13, 2002, Lucas Western Inc. received written notice from the New York State Department of Environmental Conservation (DEC) that certain alleged violations of the Environmental Conservation Law of New York State by the Utica facility operated by Lucas Western had been referred for enforcement action. The alleged violations include discharge of pollutants to waters of the State without a permit and the discharge of material to the waters of the State in contravention of established water quality standards. The DEC is seeking payment of a penalty as well as a compliance plan for the elimination of such alleged discharges, including confirmatory sampling and sampling of any sediments and soil excavated during removal of the discharge. Lucas Western Inc. became an indirect wholly-owned subsidiary of the company upon the acquisition of TRW Inc. in the fourth quarter of 2002. The company believes the ultimate resolution of this matter will not have a material effect on the company's financial condition or results of operations.

### **Other Matters**

The Company continues to cooperate with the previously disclosed SEC investigation pertaining to alleged failures to update disclosures in the joint proxy statement and prospectus issued by Northrop Grumman and Lockheed Martin Corporation on January 22, 1998 in connection with a meeting of Northrop Grumman's shareholders to approve the then-proposed (but subsequently abandoned) merger of the two companies.

Like many other industrial companies in recent years, and as a result of acquisition activities, the company is a defendant in lawsuits alleging personal injury as a result of exposure to asbestos integrated into its premises and certain historical products. The company no longer incorporates asbestos in any currently manufactured products. Many of these claims have been dismissed with no payment and the remaining resolved claims have involved amounts that were not material either singly or in the aggregate. Based on the information available to the company as of the date of filing of this report, the company does not believe that disposition of any or all of these matters would have a material adverse effect upon it.

## NORTHROP GRUMMAN CORPORATION

### Executive Officers of the Registrant

The following individuals were the elected officers of the company as of March 7, 2003:

| <u>Name</u>          | <u>Age</u> | <u>Office Held</u>  | <u>Since</u> | <u>Business Experience Last Five Years</u>   |
|----------------------|------------|---|--------------|--|
| Kent Kresa           | 64         | Chairman and Chief Executive Officer                                  | 2001         | Chairman, President and Chief Executive Officer  |
| Ronald D. Sugar      | 54         | 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  | 63         | 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. Brandenburg | 56         | 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);   |
| Wesley G. Bush       | 41         | Corporate Vice President and President, Space Technology Sector       | 2003         | Corporate Vice President of Northrop Grumman Corporation; Prior to December 2002, Executive Vice President of TRW Inc. and President and Chief Executive Officer of TRW Aeronautical Systems (2001-2002); Vice President and General Manager, TRW Ventures, TRW Space & Electronics Group (2000-2001); Vice President and General Manager, Telecommunications Division, TRW Space & Electronics Group (1999); Vice President, Planning and Business Development, TRW Space and Electronics Group (1998). |
| Philip A. Dur        | 58         | 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.  |

## NORTHROP GRUMMAN CORPORATION

| <u>Name</u>            | <u>Age</u> | <u>Office Held</u>  | <u>Since</u> | <u>Business Experience Last Five Years</u>  |
|------------------------|------------|---|--------------|---|
| J. Michael Hateley     | 56         | 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         | 51         | Corporate Vice President, Government Relations                                | 1994         |   |
| Robert P. Iorizzo      | 62         | 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  |
| John H. Mullan         | 60         | Corporate Vice President and Secretary  | 1999         | Acting Secretary; Prior to May 1998 Senior Corporate Counsel  |
| Albert F. Myers        | 57         | Corporate Vice President and Treasurer  | 1994         |   |
| Rosanne P. O'Brien     | 59         | Corporate Vice President, Communications                                      | 2000         | Vice President, Corporate Communications; Prior to 1999, Vice President, Corporate Communications, Allegheny Teledyne   |
| Thomas C. Schievelbein | 49         | 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       | 52         | Corporate Vice President and President, Integrated Systems Sector             | 2002         | Vice President, Integrated Systems Sector   |
| W. Burks Terry         | 52         | 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.  | 59         | Corporate Vice President and Chief Financial Officer                          | 1993         |   |
| Donald C. Winter       | 55         | Corporate Vice President and President, Mission Systems Sector                | 2002         | Executive Vice President of TRW Inc. and President and Chief Executive Officer, TRW Systems; Prior to 2002, Executive Vice President of TRW Inc. and General Manager, TRW Systems (2000-2001); Vice President and Deputy General Manager for Group Development, TRW Space & Electronics (1998-1999) |
| Sandra J. Wright       | 47         | 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  |

## NORTHROP GRUMMAN CORPORATION

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

a) Special Meeting –

A special meeting of stockholders of Northrop Grumman Corporation was held December 11, 2002.

b) The matter voted upon at the meeting and the results of the vote are as follows:

|   | <u>Votes<br/>For</u> | <u>Votes<br/>Against</u> | <u>Votes<br/>Abstaining</u> | <u>Broker<br/>Non-Votes</u> |
|---|----------------------|--------------------------|-----------------------------|-----------------------------|
| Issuance of shares of Northrop Grumman common stock pursuant to the agreement and plan of merger providing for Northrop Grumman's acquisition of TRW Inc. through a merger of a wholly-owned subsidiary of Northrop Grumman into TRW Inc. | 89,042,870           | 7,364,979                | 780,367                     | 0                           |

## 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 1998 to 2000 presented in the following table, Selected Financial Data, have been adjusted to exclude the company's discontinued operations of aerostructures 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. All data presented for 2001 and 2002 has been adjusted to exclude discontinued operations of the Component Technologies sector, the automotive business of TRW and the Ruggedized Displays and Electron Devices businesses, except for floor area, net working capital, current ratio and total assets.

## NORTHROP GRUMMAN CORPORATION

### Selected Financial Data

| <i>Years ended December 31, \$ in millions, except per share</i>                                     | <b>2002</b>      | 2001      | 2000     | 1999      | 1998      |
|--|------------------|-----------|----------|-----------|-----------|
| Net sales to   |                  |           |          |           |           |
| United States Government   | <b>\$ 14,207</b> | \$ 10,417 | \$ 6,662 | \$ 6,716  | \$ 6,426  |
| Other customers  | <b>2,999</b>     | 2,595     | 956      | 900       | 941       |
| <b>Total net sales</b>   | <b>\$ 17,206</b> | \$ 13,012 | \$ 7,618 | \$ 7,616  | \$ 7,367  |
| Operating margin   | <b>\$ 1,391</b>  | \$ 1,033  | \$ 1,098 | \$ 954    | \$ 752    |
| Income from continuing operations before cumulative effect of accounting change                      | <b>697</b>       | 459       | 625      | 474       | 193       |
| Basic earnings per share, from continuing operations before cumulative effect of accounting change   | <b>5.82</b>      | 5.22      | 8.86     | 6.84      | 2.82      |
| Diluted earnings per share, from continuing operations before cumulative effect of accounting change | <b>5.72</b>      | 5.17      | 8.82     | 6.80      | 2.78      |
| Cash dividends per common share  | <b>1.60</b>      | 1.60      | 1.60     | 1.60      | 1.60      |
| Net working capital  | <b>4,462</b>     | 473       | (162)    | 329       | 666       |
| Current ratio  | <b>1.39 to 1</b> | 1.09 to 1 | .94 to 1 | 1.13 to 1 | 1.28 to 1 |
| Total assets   | <b>\$ 42,266</b> | \$ 20,818 | \$ 9,622 | \$ 9,285  | \$ 9,536  |
| Long-term debt   | <b>9,398</b>     | 5,038     | 1,605    | 2,000     | 2,562     |
| Total long-term obligations and preferred stock  | <b>16,571</b>    | 8,327     | 3,015    | 3,564     | 4,319     |
| Long-term debt as a percentage of shareholders' equity   | <b>65.6%</b>     | 68.2%     | 41.0%    | 61.4%     | 89.9%     |
| Operating margin as a percentage of  |                  |           |          |           |           |
| Net sales  | <b>8.1</b>       | 7.9       | 14.4     | 12.5      | 10.2      |
| Average segment assets   | <b>6.6</b>       | 8.8       | 14.1     | 11.7      | 9.0       |
| Income from continuing operations, net of tax, as a percentage of                                    |                  |           |          |           |           |
| Net sales  | <b>4.1</b>       | 3.5       | 8.2      | 6.2       | 2.6       |
| Average assets   | <b>2.2</b>       | 3.0       | 6.6      | 5.0       | 2.0       |
| Average shareholders' equity   | <b>6.4</b>       | 8.1       | 17.4     | 15.5      | 7.1       |
| Research and development expenses  |                  |           |          |           |           |
| Contract   | <b>\$ 922</b>    | \$ 847    | \$ 900   | \$ 1,147  | \$ 1,478  |
| Noncontract  | <b>406</b>       | 330       | 318      | 195       | 189       |
| Payroll and employee benefits  | <b>6,926</b>     | 4,896     | 2,581    | 2,768     | 2,821     |
| Number of employees at year-end  | <b>117,300</b>   | 93,300    | 39,300   | 44,600    | 49,600    |
| Number of shareholders at year-end   | <b>28,212</b>    | 17,880    | 11,750   | 11,173    | 11,774    |
| Depreciation   | <b>\$ 332</b>    | \$ 246    | \$ 175   | \$ 162    | \$ 179    |
| Amortization of purchased intangibles  | <b>164</b>       | 129       | 92       | 92        | 90        |
| Amortization of goodwill   |                  | 201       | 114      | 99        | 90        |
| Maintenance and repairs  | <b>150</b>       | 163       | 96       | 79        | 74        |
| Rent expense   | <b>233</b>       | 219       | 122      | 101       | 92        |
| Floor area ( <i>in millions of square feet</i> )   |                  |           |          |           |           |
| Owned  | <b>30.8</b>      | 30.4      | 14.3     | 18.8      | 19.2      |
| Commercially leased  | <b>20.9</b>      | 16.2      | 9.8      | 10.6      | 10.6      |
| Leased from United States Government   | <b>2.1</b>       | 2.7       | 2.9      | 7.5       | 7.6       |

## **NORTHROP GRUMMAN CORPORATION**

### **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, space technology, mission systems, 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. Lockheed Martin Corporation, The Boeing Company and Raytheon Company are among the largest companies in the defense industry at this time. Northrop Grumman, the second largest defense contractor, 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. 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 defense requirements of the United States and NATO countries have shifted to being able to respond to one or more regional conflicts, terrorist acts, 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 continues to be 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 benefited from the upward trend in overall defense spending over recent years. Defense spending in NATO countries has stabilized, 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 believes 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), Newport News Shipbuilding Inc. (Newport News) and TRW Inc. (TRW) the company now has a significant presence in space technology; command, control & intelligence; federal and civil information systems; missile systems; and the manufacture of a broad range of ships including aircraft carriers and submarines. 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.

## **NORTHROP GRUMMAN CORPORATION**

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 does not make use of business arrangements or other business activities that involve so-called off-balance sheet, variable interest or special purpose entities.

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 19 percent of whom are covered by 37 collective bargaining agreements. The company currently expects to complete negotiation of 11 collective bargaining agreements in 2003. Two of these agreements covering over 6,000 employees in the Ships segment are in current negotiations which are expected to be completed during the first quarter of 2003. It is not expected that these negotiations will either individually or collectively cause a material adverse effect on the operations of the company.

The company provides certain product warranties that require repair or replacement of non-conforming items for a specified period of time. Most of the company's product warranties are provided under government contracts and are generally recoverable from the customer.

### **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 evaluates the propriety of its accounting methods as new events occur. Management believes that its policies are applied in a manner which provides the reader of the company's financial statements a current, accurate and complete presentation of information in accordance with U.S. Generally Accepted Accounting Principles. Principal 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, submarines, aircraft and subassemblies, radars, intricate components and systems for space communications as well as the engineering, development and integration of software systems 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. Factors that are considered in estimating the work to be

## **NORTHROP GRUMMAN CORPORATION**

completed and ultimate contract recovery include the availability and productivity of labor, the nature and complexity of the work to be performed, the effect of change orders, the availability of materials, the effect of any delays in performance, availability and timing of funding from the customer, and the recoverability of any claims included in the estimates to complete. A significant change in an estimate on one or more programs could have a material effect on the company's results of operations. Contract cost estimates are updated at least annually and more frequently in certain circumstances. Sales under cost-reimbursement contracts are recorded as costs are incurred. Certain contracts contain profit incentives based upon performance relative to predetermined targets that may occur during or subsequent to delivery of the product. Incentives which can be reasonably estimated are recorded over the performance period of the contract. Incentives which cannot be reasonably estimated are recorded when awarded. Certain contracts contain provisions for the redetermination of price based upon future economic conditions. Contract change orders and claims are included in sales when they can be reasonably estimated and realization is probable.

### ***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 performance and other factors over time that may cause final amounts to differ from original estimates. The company evaluates the recovery of recorded goodwill amounts annually, or when evidence of potential impairment exists. The evaluation requires judgment associated with factors used to test recoverability.

### ***Litigation, Commitments and Contingencies***

The company is subject to a range of claims, lawsuits, environmental matters 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. In accordance with SFAS No. 5 – *Accounting for Contingencies*, amounts are recorded as charges to earnings when management has determined that it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The ultimate resolution of any such exposure to the company may vary from earlier estimates 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 other post-retirement benefits 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 has been consistently applied and has produced financial information which fairly depicts the results of operations for the years presented.

### ***Acquisitions and Divestures***

The current composition of Northrop Grumman Corporation is the result of a series of strategic acquisitions, mergers and divestures. 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.

## NORTHROP GRUMMAN CORPORATION

In 2000, the company acquired Navia Aviation AS, Comptek Research, Inc., Federal Data Corporation, and Sterling Software, Inc., (known as Sterling's Federal Systems Group). 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 2001, the company purchased Litton Industries, Inc. (Litton), Electronics and Information Systems Group of Aerojet-General Corporation (EIS) and 80.7 percent of Newport News. On January 18, 2002, the company completed the acquisition of the remaining shares of Newport News and now owns 100 percent of Newport News. Newport News is the nation's sole designer, builder and refueler of nuclear-powered aircraft carriers and one of only two domestic companies capable of designing and building nuclear-powered submarines. To complete the acquisition, the company issued an additional 3.2 million shares of its common stock and paid cash for the balance of the Newport News shares. In total, the company issued 16.6 million shares of its common stock for the acquisition of Newport News. These shares were valued at \$95.22 per share for purchase accounting purposes. In accordance with generally accepted accounting principles, this value was determined based on the average closing stock price of the company's common stock from December 3, 2001, through December 7, 2001. Following the completion of the acquisition, the company eliminated the 19.3 percent minority interest from its financial statements.

The Litton, Newport News and EIS acquisitions were 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. As of December 31, 2002, the company has completed the fair market value and accounting conformance evaluation process for these acquisitions and all related adjustments have been reflected in these financial statements. 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. Litton's electronic components and materials business, Component Technologies, is classified as discontinued operations. EIS was integrated into Electronic Systems and Newport News is included in the Ships segment.

In 2001, the company accrued \$119 million in restructuring costs related to the acquisition of Litton. These costs included \$29 million to exit a business, \$31 million to close down redundant facilities and \$59 million to terminate and relocate employees. Of the total amount accrued, \$5 million was expensed directly to the income statement and \$114 million was 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 utilized \$25 million of the balance sheet accrual. In 2002, the company accrued an additional \$13 million of costs to close down redundant facilities in relation to this acquisition. During 2002, the company utilized \$57 million of the balance sheet accrual. In addition, \$1 million was reversed to the income statement as it is no longer required. At December 31, 2002, \$49 million of accrued restructure costs remained, including \$25 million in other current liabilities, \$20 million in other long-term liabilities and \$4 million in liabilities of businesses held for sale.

In December 2002, the company purchased 100 percent of the common stock of TRW Inc. (TRW). The company issued approximately 69.4 million shares of its common stock at an exchange ratio of .5357 for each TRW share, with cash paid in lieu of any fractional share of the company's stock which otherwise would be issued to the TRW shareholders. These shares were valued at \$107.31 per share for purchase accounting purposes. In accordance with generally accepted accounting principles, this value was determined based on the average closing stock price of the company's common stock from October 15, 2002, through October 21, 2002. In connection with the acquisition of TRW, the company entered into a formal stipulation and consent decree (Final Judgment) with the United States Department of Justice that was filed in the U.S. District Court for the District of Columbia on December 11, 2002. Key provisions of the consent decree are intended to assure that the merger will not impede fair and open competition related to certain electronic satellite payloads. The consent decree does not

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require the divestiture of any businesses and will permit the company to operate its business and those of TRW as planned. TRW's defense business units will be operated as two separate sectors, Mission Systems and Space Technology. TRW's automotive business (Auto) was sold in February, 2003.

The acquisition of TRW, which is valued at approximately \$12.5 billion, including the assumption of TRW's debt of \$4.8 billion, is accounted for using the purchase method of accounting. The company is in the early stages of determining the fair market value of assets acquired and liabilities assumed. These financial statements reflect preliminary estimates of the fair market value for only purchased intangibles, retiree benefits assets and liabilities and debt as well as preliminary estimates of adjustments necessary to conform TRW to the company's accounting policies. Auto is included in the total TRW valuation and is valued and recorded at its estimated sale price, which represents its fair market value. The final determination of the fair market value of assets acquired and liabilities assumed and final allocation of the purchase price may differ significantly from the amounts included in these financial statements. Adjustments to the purchase price allocations are expected to be finalized by the fourth quarter of 2003, and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

### **Discontinued Operations**

The company completed the sale of Auto to The Blackstone Group on February 28, 2003. The company received approximately \$4.7 billion, comprised of \$3.9 billion in cash and debt retained by Auto, a \$600 million payment-in-kind note and a 19.6 percent investment in the new enterprise. Cash proceeds from the sale will be used primarily to reduce debt.

In October 2002, Northrop Grumman completed the sale of two Electronic Systems sector businesses, Electron Devices and Ruggedized Displays for \$135 million. During the third quarter of 2002, the company concluded that the Component Technologies businesses did not fit with the company's long-term plan and decided to sell the businesses. The company completed the sale of the Component Technologies VEAM business units in the first quarter of 2003 and expects to complete the sale of the remaining businesses by September 30, 2003. Therefore, in accordance with SFAS No. 144 – *Accounting for the Impairment or Disposal of Long-Lived Assets*, the results of operations of these businesses are reported as discontinued operations, net of applicable income taxes, for all periods presented. In addition, the assets and liabilities of these businesses and of Auto have been classified as held for sale.

### **BUSINESS SEGMENTS**

The company is aligned into seven business sectors: Electronic Systems, Newport News, Ship Systems, Information Technology, Integrated Systems, Mission Systems and Space Technology. For financial reporting purposes each business sector is a reportable segment with the exception of Newport News and Ship Systems 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*. Segment reporting for Mission Systems and Space Technology, acquired from TRW on December 11, 2002, will commence in the first quarter of 2003 as 2002 results for these new segments were not material to the company. The preliminary valuations of TRW assets and liabilities are included in the Consolidated Statement of Financial Position as of December 31, 2002.

### **Electronic Systems**

The Electronic Systems segment comprises five product lines: Aerospace Electronic Systems; Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance, and Naval (C<sup>4</sup>ISR&N) Systems; Defensive Electronic Systems; Navigation Systems; and Space Systems; plus three smaller lines referred to collectively as "Other". The segment's expertise is in the ability to conceive, design, produce, integrate, and support high performance sensors, intelligence and processing systems that operate in diverse and challenging environments, from undersea to outerspace.

Aerospace Electronic Systems products include ground-based and airborne Radio Frequency (RF) and Electro-Optical/Infrared (EO/IR) sensors, and integrated sensor suites which meet military surveillance, precision-strike and threat-warning needs. These products are categorized into three types of systems: combat avionics

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systems, land combat systems, and airborne surveillance systems. Combat avionics systems include radar and electro-optic 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. 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 that uses passive acoustic, infrared and millimeter wave sensors to find, attack and destroy moving tanks and other armored vehicles. Airborne surveillance systems include: the Airborne Warning and Control System (AWACS) radar, which is integrated on Boeing 707 and 767 aircraft; the Multirole Electronically Scanned Array (MESA), and airborne surveillance systems being developed for installation on Boeing 737 aircraft for the Royal Australian Air Force; the Multi-Platform Radar Technology Insertion Program (MP-RTIP), which will significantly improve the performance of Joint Surveillance Target Attack Radar System (Joint STARS), while creating new air-to-ground surveillance missions and opportunities; and the E-2C Radar Modernization Program.

C<sup>4</sup>ISR&N Systems encompass products in the areas of: airspace management systems; command, control, communications, computers, intelligence, surveillance, reconnaissance and targeting (C<sup>4</sup>ISRT) networked systems; advanced naval platforms; oceanic and naval systems; and marine systems. Airspace management systems include air defense and air traffic control radar systems, and associated systems used by domestic and international customers. C<sup>4</sup>ISRT networked systems include ground-based intelligence, surveillance and reconnaissance processing systems used by the DOD such as the U.S. Army's Tactical Exploitation System, the U.S. Navy's next-generation Naval Fires Network, and the U.S. Air Force's Intelligence, Surveillance, and Reconnaissance Manager. Advanced naval platforms include shipboard mission systems integration and management for domestic and international navies and mission systems for the U.S. Navy LHD-8. Oceanic and naval systems products include the Advanced Sea and Land (SEAL) Delivery System mini-submarine, the SPQ-9B shipboard radar, advanced mine hunting sensors and processors, and submarine subsystems. Marine systems include: power generation machinery, advanced propulsion systems, and missile launchers used for naval applications; and integrated bridge systems, navigation systems, and radars for both commercial and naval ships. Communications products provide reliable solutions for commercial and defense applications including co-site and spread spectrum 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 provides electronic warfare and targeting products in several product lines: RF countermeasures, EO/IR countermeasures, targeting systems, automatic test equipment, simulation products, and laser systems. RF countermeasures products include radar warning receivers, electronic warfare suite controllers, self-protection jammers, electronic support measures, special receivers, and integrated electronic warfare systems. These products protect fixed-wing and rotary-wing aircraft, as well as surface ships, submarines and satellites RF threats. EO/IR countermeasures products include the NEMESIS Directional Infrared Countermeasures (DIRCM) system, which protects fixed-wing and rotary-wing aircraft from shoulder-launched, infrared-guided threats. Targeting systems products include the Litening II targeting pod, which provides 24-hour adverse-weather strike capabilities. Defensive Electronic Systems also provides: automatic test equipment to evaluate and assess the health of defense electronics and electro-optic systems quickly and efficiently; simulation and evaluation equipment to assess the performance of defense electronic systems; and laser systems for military applications, including laser rangefinders, laser target locators and laser target designators.

Navigation Systems products cover military aircraft electronic systems, military land and sea electronic systems, and commercial systems. Military aircraft electronic systems are sold globally to customers in fixed-wing and rotary-wing aircraft markets. Products and services include navigation systems, flight certified computers and cockpit displays, identification friend or foe systems, and complete systems integration. Three key programs in this 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 customers in four categories: missiles, vehicles, ships, and sub-surface (submarines and acoustical devices). Products include battlefield

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situational awareness systems, interrogators/transponders, secondary surveillance radars, and all-optical fiber-optic acoustics systems for surveillance. Commercial systems are sold in the commercial air transport and space products markets. Products include inertial navigation and reference systems, altitude and heading/reference systems, and global positioning systems.

Space Systems products include visible, infrared, and RF payloads and the associated ground processing for spaceborne remote sensing applications, which cover environmental monitoring, missile warning, and surveillance. Space Systems provides payloads for the Defense Meteorological Satellite Program (DMSP), the National Polar-Orbital Operational and Environmental Satellite Systems (NPOESS), the Defense Support Program (DSP), Space-Based Infrared Surveillance (SBIRS) High, as well as other classified programs. For SBIRS High, mission level systems engineering and integration are also provided. In addition, Space Systems provides ground systems in support of national and tactical missile warning and defense systems, including DSP, SBIRS High, and the Space Tracking Surveillance System (STSS), formerly SBIRS Low.

Other product lines include government systems, logistics services, and systems development and technology. Government systems provides products in two areas: homeland security and automation and information (such as material handling and sorting for postal services). Logistics services provides a wide range of logistics support for a variety of customers. Systems development and technology provides the technology base for current and future Electronic Systems products.

### **Ships**

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

Newport News is currently constructing the *Ronald Reagan*, the ninth *Nimitz*-class aircraft carrier, with delivery scheduled for 2003, and the *George H.W. Bush*, the tenth *Nimitz*-class carrier, which is scheduled for delivery in 2008. CVN (21), the next generation of nuclear aircraft carrier is currently in the design phase with a construction contract anticipated in 2007. CVN (21) will provide significant new technologies that will result in manning reductions, improved war fighting capability, and a new nuclear propulsion plant design. The sector 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 is the only private shipyard presently capable of refueling nuclear-powered aircraft carriers. Such aircraft carrier maintenance work is generally assigned by the U.S. Navy based on the type of work, location and cost. The company is currently overhauling and refueling carrier *Dwight D. Eisenhower* which began in 2001. Each *Nimitz*-class aircraft carrier will be refueled once in its 50-year life. The sector estimates that the remaining *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 or that the sector will receive these awards.

Ship Systems builds Surface Combatants, which includes the design and construction of the Arleigh Burke DDG 51 Class Aegis guided missile destroyers, design of DD(X), the Navy's future transformational surface combatant class, and the Coast Guard's Deepwater Modernization Program. The latter two programs were awarded in 2002. Ship Systems is one of two prime contractors designing and building DDG 51 Class destroyers, which provide primary anti-aircraft and anti-ship missile protection for the U.S. Navy fleet. Seven Arleigh Burke Class Destroyers are currently under construction with an additional four ships in backlog. The DD(X) program is a \$2.9 billion development contract to develop and test eleven Engineering Development Models (EDMs) including an Integrated Electric Propulsion System (IPS), an all composite low signature deckhouse with embedded radar and communication apertures, a new stealthy hull form, and a new Peripheral Vertical missile Launching System (PVLS). The contract further provides for incorporating these advanced technologies into the design of the next generation destroyer, DD(X). These technologies are also to be incorporated into the next generation Cruiser, CG(X), the Littoral Combat Ship (LCS) and many ships already in the fleet as well as other future new ship classes. Construction of the first DD(X) is currently scheduled to begin in 2006. Ship Systems and Lockheed Martin are joint venture partners for the Coast Guard's Deepwater Modernization Program. Ship

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Systems has design and production responsibility for all surface ship assets including three new classes of cutters. The program is currently a 20-year program with the surface ship content representing \$8.1 billion.

Ship Systems is also responsible for Amphibious and Auxiliary programs, which include the design and construction of amphibious assault ships for the U.S. Navy, including the WASP LHD 1 Class, the San Antonio LPD 17 Class ships and the Bob Hope Fast Sealift Auxiliary. Ship Systems is the sole provider for the LHD class of large-deck, 40,500-ton multipurpose amphibious assault ships, which serve as the centerpiece of an Amphibious Ready Group. Currently the LHD 8 is in the final stages of design and is a significant upgrade from the preceding seven sister ships. The design and production of the LHD 8 is a \$1.4 billion program with delivery scheduled for 2007. Ship Systems is also the sole provider of the LPD17 class of ships, which function as amphibious transports. Four LPD Class ships are currently under contract with a value of \$3 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. One Sealift ship was delivered in 2002, bringing the total to date to six on this seven-ship contract. The seventh ship will be delivered in 2003.

Newport News is one of two builders of U.S. Navy nuclear-powered submarines. In February 1997, the sector 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. 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. The contract for the first flight of *Virginia*-class submarines was awarded to the Newport News/Electric Boat team in 1998. The period of performance on this contract spans 10 years as submarines in this class typically have a 6 to 7 year build cycle. The current schedule calls for the delivery of the *Virginia* by Electric Boat in 2004 followed over the balance of the contract by the *Texas* (Newport News), the *Hawaii* (Electric Boat), and the *North Carolina* (Newport News). Electric Boat and Newport News are currently in negotiation with the U.S. Navy for the second flight of 5 *Virginia*-class submarines with options for an additional two. The second flight of *Virginia*-class submarines will also be co-produced with Electric Boat. Management estimates that the *Virginia*-class program could total up to 30 submarines, although no assurances can be given as to the number of submarines that ultimately will be built by the sector.

Ship Systems is under contract to produce five Polar Tankers, included in Commercial and International; two ships have been delivered. These tankers will transport one million barrels of crude oil from Alaska to west coast refineries and are fully compliant with the Oil Pollution Act of 1990. The remaining three ships are expected to be delivered in 2003, 2004, and 2005. In 2002, Ship Systems delivered two overhauled frigates to Venezuela with warranty the only remaining contractual obligation. Ship Systems is under contract with the Israeli Government to perform feasibility studies to increase the size and capabilities of the SA'AR 5 Class corvettes. Ship Systems designed and built three ships of this class in the early 1990's.

Included in Services and Other are short-duration government and commercial ship repair contracts. The company has ship repair facilities in the U.S. Navy's largest homeports of Norfolk, VA and San Diego, CA.

### **Information Technology**

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

Government Information Technology covers a wide range of large-scale systems integration, solutions and services 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 (C<sup>4</sup>ISR); training and simulation; science and technology; and information systems markets. Government Information Technology has the lead for the company's Homeland Security efforts. Homeland Security solutions include information security systems, such as detection and vulnerability assessments; communications systems such as C<sup>4</sup>ISR, mobile/wireless networks, cyber-warfare, local area networks, and air traffic control systems; intelligence and analysis systems, protecting our customers' networks from cyber attacks; training systems, such as modeling and simulation; and response and recovery systems, such as computer aided dispatch/911 emergency response systems. In the C<sup>4</sup>ISR market, Information Technology supports the development, testing and fielding of

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command and control systems for its primary customers, principally the DOD. Specialty areas include systems integration, mission critical software and support, systems engineering, tactical data links, information security, independent validation and verification, geographic information systems, orbital analysis, 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 large-scale systems integrations, enterprise-wide infrastructure solutions, 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, cyber warfare/information security systems, financial systems, logistics systems, and complete network-centric warfare operations. Customers include state and local governments, federal agencies such as the General Services Administration, Federal Aviation Administration, Department of Health and Human Services, the Department of Justice, the Department of State, and all branches of the DOD. The Software Engineering Institute's Capability Maturity Model-Integration (CMMI) system engineering/software engineering level 5 rating, the highest engineering rating, has been achieved within this line of business.

Enterprise Information Technology provides enterprise-wide infrastructure and internet solutions and services to the defense and civil marketplace, including 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, all branches of the DOD, NASA, and state and local government agencies.

Technology Services include base and range support, training and simulation, information systems, and state and local information technology services. 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, information security, data center management, and systems engineering and networking. In 2002, the company's state and local group also entered the worldwide electronic election services market, to license and manufacture electronic voting systems. Primary customers of Technology Services include the U.S. Army, U.S. Air Force, NASA, and state and local government agencies.

Commercial Information Technology provides complete IT outsourcing services directed to the commercial market. This work includes desktop and server management, 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-18 and F-35 subcontract work, the Global Hawk and Fire Scout Unmanned Aerial Vehicles (UAVs), the Navy Unmanned Combat Aerial Vehicle (UCAV-N), the Multi-Platform Radar Technology Insertion Program (MP-RTIP), B-2 bomber post-production contracts, a family of aerial targets, support of out-of-production F-5/T-38 aircraft, and advanced systems and technology solutions. Integrated Systems is the principal subcontractor to The Boeing Company on the F/A-18 program. The F/A-18 is designed to execute a variety of air-to-air and air-to-surface missions. 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 is

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responsible for approximately 40 percent of the aircraft, including the full integration of the center and aft fuselage and vertical tail sections and associated subsystems. Current business includes production of the F/A-18E/F Super Hornet model and support of prior models of the aircraft still in service.

On the F-35, Integrated Systems is teamed with Lockheed Martin Corporation and BAE Systems. The F-35 is a multi-mission, multi-service weapon system, which is being developed as an affordable fighter/attack platform with variants to be optimized for the U.S. Air Force, U.S. Marine Corps, U.S. Navy, U.K. Royal Navy and U.K. Royal Air Force, while maintaining a very high percentage of platform commonality. The F-35 is currently in the System Development and Demonstration (SDD) phase of the program. 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 is designed to replace the A-10, the AV-8 Harrier, the F-16 and the F/A-18.

The company is a leader in the unmanned systems market. Global Hawk is a high altitude endurance UAV being developed for the U.S. Air Force to perform various intelligence, surveillance and reconnaissance (ISR) missions from high altitudes for long periods of time. The program is completing a successful advanced concept technology demonstration phase and has now entered the SDD phase, which is being conducted concurrently with a Low Rate Initial Production (LRIP) program. Fire Scout is a UAV being developed for the U.S. Navy to perform tactical ISR missions in a naval environment, taking off and landing vertically. The program is currently in LRIP, with production plans still to be determined. UCAV-N is being developed for the U.S. Navy to be a highly survivable UAV capable of both ISR and combat missions. This program is in the early stages of development.

Integrated Systems is 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 product of the MP-RTIP development program is a Ground Moving Target Indicator (GMTI) capability, in the form of an Active Electronically Scanned Array (AESA) radar, that can be integrated onto multiple U.S. platforms and is suitable for use by NATO. ACS is the prime contractor for the B-2 bomber. While production deliveries of the B-2 bomber have been completed, the company continues to perform upgrades and support activity. Advanced systems include future strike aircraft concepts and performing systems engineering studies as part of NASA's Space Launch Initiative.

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 E-2C 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 company is developing the next generation capability which includes mission computer and sensor enhancements called the Advanced Hawkeye under a Pre-System Development and Demonstration contract with the U.S. Navy. 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 the E-8 Joint STARS. AGS/BM is the prime contractor on Joint STARS, which 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. Current business includes production, Total Systems Support Responsibility (TSSR), and upgrades to the weapons systems in service. Internationally, AGS/BM is actively involved in the development of a NATO Alliance Ground Surveillance system to provide a Joint STARS-like capability to that organization.

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### Mission Systems

The Mission Systems segment is a leading global system integrator of complex, mission-enabling systems. The segment consists of four lines of business: Command, Control and Intelligence Systems; Federal and Civil Information Systems; Missile Systems; and Technical and Management Services.

Command, Control and Intelligence Systems provides command, control, communications, computers, and intelligence support to the U.S. Department of Defense, principally the intelligence community and the U.S. Air Force, Army, Navy and Marine Corps. Offerings in the intelligence market include signals intelligence and exploitation systems; system engineering and integration; operations, maintenance and engineering; and enterprise engineering. The space control, information operations and Air Force command and control (C<sup>2</sup>) markets include enterprise and system engineering; ground segment C<sup>2</sup>; information analysis, planning and decision aids; Computer Network Operations (CNO); systems with embedded information assurance; data collection; modeling and product generation; system simulation and integration and test; spacecraft C<sup>2</sup> systems; payload control and terminal software; and C<sup>2</sup> infrastructure products. In the integrated command, control, communications and computers (C<sup>4</sup>) market, the focus is on legacy C<sup>4</sup> systems, object force C<sup>4</sup>, air defense artillery C<sup>2</sup>, and network operations. In the logistics automation market, work includes Army and tactical global combat service support; legacy standard Army management information systems; Army knowledge on-line; and linkage to fielded C<sup>4</sup> systems. In the platform integration and UAV market, the segment supports the Hunter corps and division tactical UAV system; light and heavy joint service nuclear, biological and chemical reconnaissance systems; and tactical operation centers.

Federal and Civil Information Systems provides information technology services to domestic and foreign government customers at the federal, state and/or local levels. In the federal network integration market, the focus is on converged enterprise networks and network design, planning, engineering, integration and support. In the federal security market, segment offerings include an integrated product to link legacy, commercial off-the-shelf, and emerging technologies into a network-centric standards-based platform; a tactical physical security solution supporting deployed forces; comprehensive assessment of security threats, vulnerabilities, risks, and business impacts for physical and cyber assets; a technology-oriented suite of integrated security solutions for physical and cyber security; and a complete set of business continuity and disaster recovery solutions. For the federal enterprise information technology market, the segment provides enterprise-wide architecture; systems integration; storage area network consolidation; financial asset tracking; secure document technology; knowledge management; and collaborative systems including advanced video teleconferencing. In the state and local information technology market, the segment focuses on public health data systems; labor unemployment insurance systems; child welfare and support enforcement systems; and operations and maintenance. Work in the public safety market includes prime integration for civilian command centers for public safety, transportation and airport security; statewide wireless communications systems; automated and criminal identification systems; integrated justice information systems; and C<sup>2</sup> and mobile data integration.

Missile Systems supports the Integrated Missile Defense system and the Intercontinental Ballistic Missile (ICBM) Program. The Integrated Missile Defense system market includes shooters, sensors, battle management C<sup>2</sup>, communications, modeling and simulation, and test and evaluation. For this market, the segment provides wargames, modeling and simulation; system test and integration; targets and countermeasures, missile system engineering, and trainers to the Missile Defense Agency, Boeing and Lockheed Martin. As prime contractor for the ICBM Program Office, the segment offers ICBM domain knowledge; program management; systems engineering and integration; and sustainment and modernization services.

Technical and Management Services primarily supports the U.S. Departments of Defense, Labor and Justice. In the information technology market, the segment offers full life cycle design and information systems integration and operations. In the systems engineering and analytic services market, the focus is on electromagnetic and infrared analysis; decision support with modeling tools; systems effectiveness evaluation; engineering prototypes and integration; and simulation modeling for training resource allocation. For the training and combat support market, the segment provides full-scale exercise design, execution and analysis; multi-media training design and delivery; and operational support of warfighting and peacekeeping (e.g., linguists and subject matter experts). In the operations and maintenance market, offerings include base operating services; equipment maintenance; logistics

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and administrative support and freight forwarding services; biometrics; and biological agent detection. Work in the military training market includes maneuver and logistics training; force-on-force exercise development and control; force modernization and integration; and new equipment training and fielding. In the job corps market, the segment provides educational and vocational training; residential living; placement and transition services; logistics services; and web-based general education development training.

### **Space Technology**

The Space Technology sector develops a broad range of systems at the leading edge of space, defense and electronics technology. The sector creates products primarily for the U.S. government that contribute significantly to the nation's security and leadership in science and technology. This business primarily consists of the following major business areas: Civil Space; Missile Defense; Satellite Communications (SatCom); Intelligence, Surveillance & Reconnaissance (ISR); and Radio Systems.

The Civil Space business area produces spacecraft, instruments and services for some of our nation's most challenging space science missions, earth observation systems and weather satellite systems. A variety of products and services are provided, including mission and systems engineering services, spacecraft and instrument systems, mission operations and propulsion systems. Customers include NASA, National Oceanic and Atmospheric Administration (NOAA), and the DOD. Major programs include the recently awarded James Webb Space Telescope (JWST), National Polar-orbiting Operational Environmental Satellite System (NPOESS), Earth Observation System (EOS) and the legacy space telescope program Chandra, currently in operation.

Missile Defense produces space-based systems that detect, track and destroy missiles and help to counter today's widely proliferating ballistic threats. Key capabilities and products include system integration, spacecraft, directed energy and kinetic energy weapons, and tactical lasers. The newly formed Missile Defense Agency (MDA) is the primary customer. Major programs include the Space Tracking Surveillance System (STSS formerly SBIRS-Low), Airborne Laser (ABL), and Mobile Tactical High Energy Laser (MTHL).

The SatCom business area demonstrates the sector's leadership in complex satellite communication systems and broadband payloads. Key customers are satellite prime contractors in support of the DOD and other government agencies. Major programs include Advanced Extremely High Frequency (AEHF) payload, and communication payload for the legacy Milstar program, currently in operation.

In the ISR business area the sector's capabilities give the nation's monitoring systems a global reach and enhance national security. Addressing requirements in space-based intelligence, surveillance and reconnaissance systems, the sector provides mission and systems engineering, satellite systems and mission operations. Customers are predominantly restricted, as are the major programs. Also part of this business area, Defense Support Program (DSP) has been monitoring ballistic missile launches for the Air Force for decades.

In the Radio Systems business area the sector has been pioneering software-defined radio technology and applying the results to advanced integrated Communications, Navigation and Identification (CNI) systems, radios, and avionics integration software. The sector's avionics system represents the "eyes and ears" of the F-35 Joint Strike Fighter, F/A-22 Raptor jet fighter and Comanche attack/reconnaissance helicopter. Customers for these programs include Air Force, Army, Navy and prime government contractors.

In addition, the sector maintains a Technology business area that consists primarily of government funded Research and Development (R&D) contracts in support of the five business areas described above. Technology also includes several small technology-based product areas that sell advanced electronics, mechanical devices, and laser products to both government and commercial customers.

### **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. The company's discontinued operations are excluded from all of the data elements in this table, except for assets by segment. Northrop Grumman's income statements do not include TRW's post-acquisition results because they were not material. Only the TRW backlog acquired and assets at December 31, 2002, are included in the following table.

## **NORTHROP GRUMMAN CORPORATION**

The company, effective December 31, 2002, revised the way it measures the profitability of its operating segments to better reflect its operating results. Pension and other retiree benefit expenses are now included in the sectors' cost of sales to the extent that these costs are currently recognized under government Cost Accounting Standards (CAS). In order to reconcile from segment operating margin to total company operating margin, these amounts are reported under the caption "Reversal of CAS pension expense included above." Total GAAP pension income or expense continues to be reported separately as a reconciling item under the caption "Pension income or expense." The reconciling item captioned "Unallocated expenses" includes unallocated corporate expenses, state tax provisions, and other retiree benefit expenses. Segment results for all periods presented have been conformed to the new method of measuring profitability.

Foreign sales amounted to approximately \$1.3 billion, \$1.3 billion and \$600 million for the years ended December 31, 2002, 2001 and 2000, 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 material adverse consequences.

**NORTHROP GRUMMAN CORPORATION**

**RESULTS OF OPERATIONS BY SEGMENT AND MAJOR CUSTOMER**

| <i>Years ended December 31, \$ in millions</i>      | <b>2002</b>     | <b>2001</b>     | <b>2000</b>    |
|---|-----------------|-----------------|----------------|
| <b>Net Sales</b>                                    |                 |                 |                |
| <b>Electronic Systems</b>                           |                 |                 |                |
| United States Government                            | \$ 2,966        | \$ 2,830        | \$2,102        |
| Other customers                                     | 2,120           | 1,591           | 692            |
| Intersegment sales                                  | 253             | 166             | 121            |
|   | <b>5,339</b>    | <b>4,587</b>    | <b>2,915</b>   |
| <b>Ships</b>  |                 |                 |                |
| United States Government                            | 4,445           | 1,487           |                |
| Other customers                                     | 251             | 392             |                |
| Intersegment sales                                  | 16              | 1               |                |
|   | <b>4,712</b>    | <b>1,880</b>    |                |
| <b>Information Technology</b>                       |                 |                 |                |
| United States Government                            | 3,700           | 3,231           | 1,457          |
| Other customers                                     | 467             | 491             | 228            |
| Intersegment sales                                  | 70              | 61              | 32             |
|   | <b>4,237</b>    | <b>3,783</b>    | <b>1,717</b>   |
| <b>Integrated Systems</b>                           |                 |                 |                |
| United States Government                            | 3,096           | 2,869           | 3,103          |
| Other customers                                     | 161             | 121             | 36             |
| Intersegment sales                                  | 16              | 11              | 11             |
|   | <b>3,273</b>    | <b>3,001</b>    | <b>3,150</b>   |
| Intersegment eliminations                           | (355)           | (239)           | (164)          |
| Total net sales                                     | <b>\$17,206</b> | <b>\$13,012</b> | <b>\$7,618</b> |
| <b>Operating Margin</b>                             |                 |                 |                |
| Electronic Systems                                  | \$ 435          | \$ 350          | \$ 157         |
| Ships   | 306             | 19              |                |
| Information Technology                              | 249             | 173             | 103            |
| Integrated Systems                                  | 331             | 265             | 306            |
|   | <b>1,321</b>    | <b>807</b>      | <b>566</b>     |
| Adjustments to reconcile to total operating margin: |                 |                 |                |
| Unallocated expenses                                | (105)           | (134)           | (42)           |
| Pension income                                      | 90              | 335             | 538            |
| Reversal of CAS pension expense included above      | 100             | 43              | 42             |
| Reversal of royalty income included above           | (15)            | (18)            | (6)            |
| Total operating margin                              | <b>\$ 1,391</b> | <b>\$ 1,033</b> | <b>\$1,098</b> |

## NORTHROP GRUMMAN CORPORATION

| <i>Years ended December 31, \$ in millions</i> | 2002            | 2001            | 2000            |
|--|-----------------|-----------------|-----------------|
| <b>Contract Acquisitions</b>                   |                 |                 |                 |
| Electronic Systems                             | \$ 5,676        | \$ 5,261        | \$ 4,228        |
| Ships  | 5,334           | 11,608          |                 |
| Information Technology                         | 4,320           | 4,216           | 2,018           |
| Integrated Systems                             | 3,472           | 2,222           | 2,979           |
| Mission Systems                                | 2,748           |                 |                 |
| Space Technology                               | 1,308           |                 |                 |
| Total acquisitions                             | <b>\$22,858</b> | <b>\$23,307</b> | <b>\$ 9,225</b> |
| <b>Funded Order Backlog</b>                    |                 |                 |                 |
| Electronic Systems                             | \$ 6,303        | \$ 5,713        | \$ 4,873        |
| Ships  | 10,367          | 9,729           |                 |
| Information Technology                         | 1,589           | 1,436           | 942             |
| Integrated Systems                             | 3,738           | 3,523           | 4,291           |
| Mission Systems                                | 2,748           |                 |                 |
| Space Technology                               | 1,308           |                 |                 |
| Total backlog                                  | <b>\$26,053</b> | <b>\$20,401</b> | <b>\$10,106</b> |
| <b>Assets</b>                                  |                 |                 |                 |
| Electronic Systems                             | \$ 5,446        | \$ 5,764        | \$ 4,069        |
| Ships  | 6,532           | 6,040           |                 |
| Information Technology                         | 2,178           | 2,099           | 1,247           |
| Integrated Systems                             | 2,173           | 2,088           | 2,238           |
| Mission Systems                                | 4,759           |                 |                 |
| Space Technology                               | 4,829           |                 |                 |
| Segment assets                                 | 25,917          | 15,991          | 7,554           |
| General corporate                              | 6,728           | 3,620           | 2,068           |
| Assets of businesses held for sale             | 9,621           | 1,207           |                 |
| Total assets                                   | <b>\$42,266</b> | <b>\$20,818</b> | <b>\$ 9,622</b> |
| <b>Capital Expenditures</b>                    |                 |                 |                 |
| Electronic Systems                             | \$ 263          | \$ 195          | \$ 118          |
| Ships  | 76              | 44              |                 |
| Information Technology                         | 45              | 46              | 22              |
| Integrated Systems                             | 134             | 79              | 124             |
| General corporate                              | 3               | 3               | 1               |
| Total expenditures                             | <b>\$ 521</b>   | <b>\$ 367</b>   | <b>\$ 265</b>   |
| <b>Depreciation and Amortization</b>           |                 |                 |                 |
| Electronic Systems                             | \$ 226          | \$ 301          | \$ 236          |
| Ships  | 147             | 82              |                 |
| Information Technology                         | 44              | 90              | 32              |
| Integrated Systems                             | 78              | 102             | 112             |
| General corporate                              | 1               | 1               | 1               |
| Total depreciation and amortization            | <b>\$ 496</b>   | <b>\$ 576</b>   | <b>\$ 381</b>   |

## NORTHROP GRUMMAN CORPORATION

### MEASURES OF VOLUME

Certain prior year amounts in the tables titled "Contract Acquisitions", "Net Sales" and "Backlog" have been reclassified to conform to current year reporting.

#### 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

| <i>\$ in millions</i>                          | 2002            | 2001            | 2000           |
|--|-----------------|-----------------|----------------|
| <b>Electronic Systems</b>                      |                 |                 |                |
| Aerospace Electronic Systems                   | \$ 1,137        | \$ 1,325        | \$2,204        |
| C <sup>4</sup> ISR&N                           | 2,002           | 1,222           | 981            |
| Defensive Electronic Systems                   | 830             | 793             | 605            |
| Navigation Systems                             | 741             | 1,352           |                |
| Space Systems                                  | 615             | 231             | 158            |
| Other  | 613             | 602             | 422            |
|  | <b>5,938</b>    | <b>5,525</b>    | <b>4,370</b>   |
| <b>Ships</b>                                   |                 |                 |                |
| Aircraft Carriers                              | 1,622           | 4,577           |                |
| Surface Combatants                             | 1,638           | 3,194           |                |
| Amphibious and Auxiliary                       | 1,184           | 2,301           |                |
| Submarines                                     | 828             | 609             |                |
| Commercial and International                   | (16)            | 837             |                |
| Services and Other                             | 109             | 216             |                |
| Intrasegment eliminations                      | (64)            | (82)            |                |
|  | <b>5,301</b>    | <b>11,652</b>   |                |
| <b>Information Technology</b>                  |                 |                 |                |
| Government Information Technology              | 2,834           | 2,584           | 1,067          |
| Enterprise Information Technology              | 766             | 848             | 285            |
| Technology Services                            | 673             | 687             | 518            |
| Commercial Information Technology              | 200             | 241             | 181            |
| Intrasegment eliminations                      | (83)            | (84)            |                |
|  | <b>4,390</b>    | <b>4,276</b>    | <b>2,051</b>   |
| <b>Integrated Systems</b>                      |                 |                 |                |
| Air Combat Systems                             | 2,131           | 1,001           | 1,725          |
| Airborne Early Warning/Electronic Warfare      | 832             | 789             | 715            |
| Airborne Ground Surveillance/Battle Management | 526             | 445             | 576            |
| Intrasegment eliminations                      | (1)             | (2)             | (26)           |
|  | <b>3,488</b>    | <b>2,233</b>    | <b>2,990</b>   |
| <b>Mission Systems</b>                         | <b>2,748</b>    |                 |                |
| <b>Space Technology</b>                        | <b>1,308</b>    |                 |                |
| Intersegment eliminations                      | (315)           | (379)           | (186)          |
| <b>Total acquisitions</b>                      | <b>\$22,858</b> | <b>\$23,307</b> | <b>\$9,225</b> |

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Electronic Systems acquisitions in 2002 were 7 percent higher than in 2001. Aerospace Electronic Systems (AES) includes funding in 2002 of \$116 million for the F-35, \$83 million for the Longbow missile multi-year contract, and \$82 million for the BAT program. C4ISR&N reflects increased awards for international air defense systems and \$150 million of funding for the Trident program. Defensive Electronic Systems includes a \$165 million award for ALQ-135 electronic countermeasures for the Korea F-15. Space Systems includes \$335 million of additional funding on the SBIRS High program.

Electronic Systems acquisitions in 2001 were 26 percent higher than in 2000. Results reported in 2001 include opening backlog acquired in the purchases of Litton and EIS of \$1.3 billion and \$43 million, respectively. AES includes funding in 2001 of \$255 million for the Wedgetail program, \$148 million for the BAT program and \$124 million for the Longbow missile multi-year contract. In C4ISR&N higher awards for air defense systems contributed to higher acquisitions in 2001 than in 2000. Navigation Systems in 2001 reflects \$820 million in Litton opening backlog acquired. In 2000, AES reflected 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 multi-year contract of \$245 million in 2000.

Ships segment acquisitions in 2002 include \$875 million of funding for the DD(X) program, included in the Surface Combatants business area, and \$590 million for LHD, included in the Amphibious and Auxiliary area. Newport News 2002 acquisitions included \$1.6 billion of aircraft carrier funding and \$828 million of funding for the submarine program. Negative acquisitions in the Commercial and International area incorporate a \$39 million dollar de-acquisition on the Polar Tanker program. In June 2002 Ships signed a Memorandum of Understanding (MOU) with the U.S. Navy and General Dynamics' Bath Iron Works to reallocate construction responsibilities for the San Antonio (LPD 17) class amphibious assault ships and certain USS Arleigh Burke (DDG 51) class Aegis guided missile destroyers. As a result of this agreement, Ship Systems sector will assume responsibility for the construction of all 12 San Antonio class LPDs, and will also assume responsibility for the program's life cycle support. In exchange, Bath Iron Works will construct DDG 102, a contract that was won by Ship Systems in December 2001. Bath Iron Works will also be awarded future DDG work as determined by the Department of the Navy.

Ships segment acquisitions in 2001 include backlog acquired in the Litton and Newport News transactions of \$10.5 billion. In 2001, Surface Combatants included a \$370 million contract award for an Aegis class large destroyer. Amphibious and Auxiliary for 2001 included a contract for \$113 million for the advanced procurement of material for Landing Platform Dock (LPD) 21, the fifth ship of the class. Commercial and International reported the 2001 de-acquisition of the Project America cruise ship program.

Information Technology acquisitions increased by 3 percent in 2002 over 2001. Government Information Technology (GIT) secured a major contract win with the Immigration and Naturalization Service (INS) to provide Information Technology infrastructure and support services, key elements in assisting the border enforcement and immigration benefits missions of the agency. The \$228 million INS contract positions the company to assist the new Department of Homeland Security with its Information Technology needs. In 2002, Technology Services funding for the Joint Base Operations Support Contract (J-BOSC) contract of \$268 million was received. 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. Technology Services also received a \$100 million contract win to provide electronic benefits transfer services to the state of Illinois which positions the company as a key provider to state government.

Information Technology acquisitions were 108 percent higher in 2001 over 2000 which reflected Litton opening backlog acquired of \$585 million. Government Information Technology acquisitions in 2001 include the effect of acquired backlog of \$513 million and contract awards for the three businesses acquired in 2000. Technology services includes acquisitions of \$322 million in 2001 for J-BOSC.

Integrated Systems acquisitions in 2002 were 56 percent higher than 2001. Funding in 2002 reflects \$784 million of funding for the F/A-18 contracts and \$271 million for the F-35 SDD contract. ACS continues to record incremental B-2 bomber funding which increased to \$388 million in 2002 from \$346 million

## **NORTHROP GRUMMAN CORPORATION**

in 2001 for ongoing development work, spares and other customer support for the operational aircraft program. ACS still expects to receive future post production business, such as airframe depot maintenance, repair of components, operational software changes, and product improvement modifications.

Integrated Systems acquisitions in 2001 were 25 percent lower compared with the 2000 fiscal year principally due to the timing of contract awards on major programs. Acquisitions in 2000 included funding of \$1.1 billion for the multi-year buy for 72 F/A-18E/F shipsets. AEW/EW includes funding for the multi-year buy for twenty five E-2C aircraft of \$133 million in 2002, \$231 million in 2001 and \$247 million in 2000. AGS/BM includes orders for two, one, and one Joint STARS aircraft in 2002, 2001 and 2000, respectively.

Backlog acquired and included in acquisitions for 2002 as a result of completion of the TRW transaction was \$2.7 billion for the Mission Systems segment and \$1.3 billion for the Space Technology segment.

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### Sales

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

#### Net Sales

| <i>\$ in millions</i>                           | 2002            | 2001            | 2000           |
|---|-----------------|-----------------|----------------|
| <b>Electronic Systems</b>                       |                 |                 |                |
| Aerospace Electronic Systems                    | \$ 1,536        | \$ 1,353        | \$ 956         |
| C <sup>4</sup> ISR&N                            | 1,405           | 1,166           | 968            |
| Defensive Electronic Systems                    | 780             | 693             | 511            |
| Navigation Systems                              | 668             | 591             |                |
| Space Systems                                   | 437             | 245             | 157            |
| Other   | 513             | 539             | 323            |
|   | <b>5,339</b>    | <b>4,587</b>    | <b>2,915</b>   |
| <b>Ships</b>                                    |                 |                 |                |
| Aircraft Carriers                               | 2,076           | 208             |                |
| Surface Combatants                              | 872             | 674             |                |
| Amphibious and Auxiliary                        | 845             | 522             |                |
| Submarines                                      | 581             | 54              |                |
| Commercial and International Services and Other | 212             | 396             |                |
| Intrasegment eliminations                       | (83)            | (63)            |                |
|   | <b>4,712</b>    | <b>1,880</b>    |                |
| <b>Information Technology</b>                   |                 |                 |                |
| Government Information Technology               | 2,697           | 2,237           | 815            |
| Enterprise Information Technology               | 750             | 829             | 229            |
| Technology Services                             | 657             | 571             | 522            |
| Commercial Information Technology               | 216             | 230             | 151            |
| Intrasegment eliminations                       | (83)            | (84)            |                |
|   | <b>4,237</b>    | <b>3,783</b>    | <b>1,717</b>   |
| <b>Integrated Systems</b>                       |                 |                 |                |
| Air Combat Systems                              | 1,915           | 1,600           | 1,722          |
| Airborne Early Warning/Electronic Warfare       | 759             | 740             | 780            |
| Airborne Ground Surveillance/Battle Management  | 600             | 663             | 674            |
| Intrasegment eliminations                       | (1)             | (2)             | (26)           |
|   | <b>3,273</b>    | <b>3,001</b>    | <b>3,150</b>   |
| Intersegment eliminations                       | <b>(355)</b>    | <b>(239)</b>    | <b>(164)</b>   |
| <b>Total sales</b>                              | <b>\$17,206</b> | <b>\$13,012</b> | <b>\$7,618</b> |

Electronics Systems segment sales increased by \$752 million or 16 percent in 2002 as compared with 2001. Growth in 2002 principally reflects a \$184 million increase at AES due to increased volume on the F-22, F-35, BAT, Firefinder and Longbow missile programs. C<sup>4</sup>ISR&N sales increased by \$239 million in 2002 principally due to higher volume on international programs. The Space Systems business area contributed an additional \$192 million as a result of increased volume on SBIRS High.

## **NORTHROP GRUMMAN CORPORATION**

Electronics Systems segment sales in 2001 reflect the addition of the Litton and EIS businesses which accounted for approximately \$1.2 billion of increased sales as compared with 2000, contributing \$101 million to AES, \$194 million to C<sup>4</sup>ISR&N, \$641 million to Navigation Systems, \$159 million to Defensive Electronic Systems and \$66 million to Space Systems. AES increased sales in 2001 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. For 2003, the company expects Electronic Systems segment sales to be between \$5.9 billion and \$6.1 billion.

Ships segment sales increased substantially in 2002 as compared with 2001, principally due to inclusion of the two ship businesses acquired in 2001 for a full year. In 2003 the company expects Ships sales to be just over \$5 billion.

Information Technology sales increased by 12 percent in 2002 as compared with 2001. This increase principally results from inclusion of a full year of Litton operations in 2002. Information Technology sales increased by \$2.1 billion in 2001 over 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 Enterprise Information Technology. For 2003, the company expects Information Technology sales to be between \$4.7 billion and \$4.9 billion.

Integrated Systems segment sales increased 9 percent in 2002 over 2001 principally from a \$143 million increase in F-35 sales and a \$145 million increase in Global Hawk sales. Integrated Systems sales in 2001 declined 5 percent as compared to 2000, primarily as a result of lower B-2 revenue which decreased by \$273 million. 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 continues. Integrated Systems revenue for 2003 is expected to be approximately \$3.6 billion to \$3.8 billion.

For 2003, Mission Systems sales are expected to be approximately \$3.9 billion and Space Technology sales are expected to be approximately \$2.5 billion.

### **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 68 percent of the 2002 year-end backlog will be converted into sales in 2003.

## NORTHROP GRUMMAN CORPORATION

### Backlog

| <i>\$ in millions</i>                          | 2002            | 2001     | 2000     |
|--|-----------------|----------|----------|
| <b>Electronic Systems</b>                      |                 |          |          |
| Aerospace Electronic Systems                   | \$ 2,480        | \$ 2,879 | \$ 2,907 |
| C+ISR&N  | 1,423           | 826      | 770      |
| Defensive Electronic Systems                   | 1,009           | 959      | 859      |
| Navigation Systems                             | 834             | 761      |          |
| Space Systems                                  | 288             | 110      | 124      |
| Other  | 461             | 361      | 298      |
|  | <b>6,495</b>    | 5,896    | 4,958    |
| <b>Ships</b>                                   |                 |          |          |
| Aircraft Carriers                              | 3,915           | 4,369    |          |
| Surface Combatants                             | 3,286           | 2,520    |          |
| Amphibious and Auxiliary                       | 2,118           | 1,779    |          |
| Submarines                                     | 802             | 555      |          |
| Commercial and International                   | 213             | 441      |          |
| Services and Other                             | 27              | 127      |          |
| Intrasegment eliminations                      |                 | (19)     |          |
|  | <b>10,361</b>   | 9,772    |          |
| <b>Information Technology</b>                  |                 |          |          |
| Government Information Technology              | 1,036           | 899      | 552      |
| Enterprise Information Technology              | 131             | 115      | 96       |
| Technology Services                            | 349             | 333      | 217      |
| Commercial Information Technology              | 73              | 89       | 78       |
|  | <b>1,589</b>    | 1,436    | 943      |
| <b>Integrated Systems</b>                      |                 |          |          |
| Air Combat Systems                             | 1,980           | 1,764    | 2,363    |
| Airborne Early Warning/Electronic Warfare      | 1,266           | 1,193    | 1,144    |
| Airborne Ground Surveillance/Battle Management | 492             | 566      | 784      |
|  | <b>3,738</b>    | 3,523    | 4,291    |
| <b>Mission Systems</b>                         | <b>2,748</b>    |          |          |
| <b>Space Technology</b>                        | <b>1,308</b>    |          |          |
| Intersegment eliminations                      | (186)           | (226)    | (86)     |
| <b>Total backlog</b>                           | <b>\$26,053</b> | \$20,401 | \$10,106 |

Total U.S. Government orders, including those made on behalf of foreign governments (FMS), comprised 84 percent of the backlog at the end of 2002 compared with 82 percent at the end of 2001 and 75 percent at the end of 2000. Total foreign customer orders, including FMS, accounted for 13 percent of the backlog in 2002 compared with 13 percent of the backlog at the end of 2001 and 22 percent at the end of 2000. Domestic commercial business in backlog was 5 percent at the end of 2002 compared with 7 percent at the end of 2001 and 5 percent at the end of 2000.

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### MEASURES OF PERFORMANCE

Effective January 1, 2002, the company adopted SFAS No. 142 – *Goodwill and Other Intangible Assets*, which changes the accounting for goodwill from an amortization method to an impairment-only approach and eliminates amortization of goodwill. In order to report on a comparable basis, operating results discussed herein have been adjusted to exclude goodwill amortization and are presented below. Further details are contained in the “Goodwill and Other Purchased Intangible Assets” footnote contained in the notes to the financial statements under Item 8 of this Form 10-K.

| <i>\$ in millions</i>  | 2002           | 2001           | 2000           |
|--|----------------|----------------|----------------|
| Adjusted segment operating margin                            |                |                |                |
| Electronic Systems   | \$ 435         | \$ 430         | \$ 220         |
| Ships  | 306            | 50             |                |
| Information Technology                                       | 249            | 231            | 123            |
| Integrated Systems   | 331            | 297            | 337            |
| Adjusted segment operating margin                            | 1,321          | 1,008          | 680            |
| Adjustments to reconcile to adjusted total operating margin: |                |                |                |
| Unallocated expenses   | (105)          | (134)          | (42)           |
| Pension income   | 90             | 335            | 538            |
| Reversal of CAS pension expense included above               | 100            | 43             | 42             |
| Reversal of royalty income included above                    | (15)           | (18)           | (6)            |
| Adjusted total operating margin                              | 1,391          | 1,234          | 1,212          |
| Goodwill amortization  |                | (201)          | (114)          |
| Segment operating margin as reported                         | <b>\$1,391</b> | <b>\$1,033</b> | <b>\$1,098</b> |

The company’s operating margin for 2002 was \$1,391 million compared with adjusted operating margin of \$1,234 in 2001 and adjusted operating margin of \$1,212 million in 2000. During 2001, the company’s operations substantially changed as a result of the Litton, EIS and Newport News acquisitions. The 2002 results reflect the first full year with these acquired businesses. These acquisitions have significantly increased the size of the company in the two year period and produced one of the largest defense contractors in the nation. The TRW acquisition was completed on December 11, 2002. The company’s 2002 income statement does not include TRW’s post-acquisition results because they were not material. The company is continuing the integration of the various businesses acquired to optimize operating performance.

Electronic Systems segment operating margin in 2002 was \$435 million compared with adjusted operating margin of \$430 million in 2001 and \$220 million in 2000. Operating margin for 2002 includes a pre-tax charge of \$65 million for the F-16 Block 60 fixed price combat avionics program, offsetting margin improvements across the sector. The charge resulted from increased costs associated with the complexity of the final design for the integrated electronic warfare system portion of the sensor suite being delivered for the Block 60 aircraft. The complexity of the design, finalized during the third quarter, and the associated material costs, exceeded that of the originally proposed configuration. The contract, which is currently in the EMD and transition to production phases, is expected to be completed in 2007. 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. Approximately half of the increase in 2001 operating margin 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. For 2003 management expects operating margin of nearly 10 percent of sales.

Ships segment operating margin was \$306 million in 2002 compared with adjusted operating margin of \$50 million in 2001. The increase is principally due to the Newport News and Litton acquisitions. Results in 2002

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include a third-quarter pretax charge of \$87 million recorded upon completion of a comprehensive review of the estimated costs to complete the three remaining Polar Tanker ships. The increased estimate-to-complete reflects a reduced learning curve experience ship to ship as well as one-time schedule penalties. The remaining three ships are scheduled for delivery in 2003, 2004 and 2005. The 2002 results also reflect an \$11 million increase in operating margin in the LPD program as a result of improved performance and completion of the assessment of the LPD/DDG swap agreement with Bath Iron Works. Also during the year the company reached an agreement to sell the partially complete structures and material associated with its cancelled commercial cruise ship program to Norwegian Cruise Line and successfully concluded negotiations on the majority of the program's vendor terminations resulting in a positive pretax third-quarter adjustment of \$69 million recorded to reverse previously established reserves. 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 2001. Ships also reported a downward operating margin adjustment of \$13 million on the Polar Tanker program in 2001. For 2003 management expects operating margin as a percent of sales in the mid-6 percent range.

Information Technology segment operating margin in 2002 was \$249 million compared with adjusted operating margin of \$231 million in 2001 and \$123 million in 2000. Operating margin for 2002 includes a \$20 million favorable pretax adjustment resulting from the restructuring of a Technology Services contract and a \$16 million charge recorded on the contract with Oracle relating to Oracle's Enterprise License Agreement with the State of California. In an effort to maintain solid customer relations, in July 2002 Northrop Grumman and Oracle rescinded the contract with the state. 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. For 2003, management expects operating margin as a percent of sales to be nearly 6 percent.

Integrated Systems segment operating margin in 2002 was \$331 million compared with adjusted operating margin of \$297 million in 2001 and \$337 million in 2000. The 2002 results reflect improved performance on the B-2 and E-2C programs as well as higher F-35 sales. 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. Results for 2001 also reflect lower B-2 volume. In 2000, the last three B-2's were delivered under the production contract. 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. Integrated Systems 2000 results reflect upward cumulative margin rate adjustments totaling \$16 million on the F/A-18E/F program and 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. For 2003 operating margin as a percent of sales is expected to be between 8 percent and 8.5 percent.

For 2003, management estimates operating margin as a percent of sales to be approximately 6 percent for Mission Systems and between 6.5 percent and 7 percent for Space Technology. These estimates were developed using preliminary estimates for fair value and conformance adjustments, including an estimate for annual purchased intangibles amortization expense of \$52 million for each sector. Management is still in the preliminary stages of determining fair value and conformance adjustments and the actual results could differ significantly from the estimates used.

Operating margin in 2002 includes pension income of \$90 million compared with \$335 million in 2001 and \$538 million in 2000. The lower pension income in 2002 and 2001 is principally the result of negative asset

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returns in 2001 and 2000. While in both years the company's pension fund returns exceeded benchmark indices, they posted a negative return of 4.9 percent in 2001 and a negative return at slightly less than breakeven in 2000. In 2002 the funds posted a negative return of 10 percent. For 2003, the company has lowered its assumption for expected long-term rate of return on plan assets from 9.5 percent to 9 percent to better reflect current long-term expectations for the plans' portfolios. The company has also lowered its assumption for the discount rate for obligations from 7 percent to 6.5 percent to reflect current rates as of December 31, 2002 for high-quality corporate long term bonds. As a result of the negative return on assets in 2002, the change in assumptions, and the inclusion of the TRW pension plans, the company expects to record pension expense, in accordance with SFAS No. 87 – *Employers Accounting for Pensions*, in 2003 of approximately \$600 million. Pension expense recognized under government Cost Accounting Standards (CAS), and which is therefore generally recoverable under government contracts, is estimated to be \$260 million for 2003. The company estimates pension plan contributions in 2003 to be approximately \$350 million. Starting in July 2003 the pension benefit for most employees, principally those participating in Northrop and Litton heritage plans, will be based upon new criteria, whereby employees earn age and service points over the employment period. Subsequent to the 2003 initial phase in, other exempt and non-exempt plans will be conformed to the new model. No settlement or curtailments will arise as a result of these changes. Union plans will not be affected by these plan modifications. Pension estimates for 2003 contemplate the plan changes.

Interest income in 2002 declined to \$11 million compared with \$33 million in 2001 and \$29 million in 2000. 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 all years includes interest earned on the temporary investment of excess cash.

Interest expense for 2002 was \$422 million as compared with \$373 million in 2001 and \$175 million in 2000. The 2002 increase as compared with 2001 reflects higher average debt levels resulting from the acquisitions completed in 2001. The increase in 2001 as compared with 2000 resulted from the company's initial financing activities related to the acquisitions of Litton, EIS and Newport News. Total debt was \$9.6 billion at the end of 2002 compared to \$5.5 billion at the end of 2001 and \$1.6 billion at the end of 2000. The 2002 year end balance includes \$4.8 billion of debt acquired upon completion of the TRW transaction on December 11, 2002. Following the sale of Auto in the first quarter of 2003, the company has commenced the first phase of its debt reduction plan. Interest expense net of interest income for 2003 is estimated to be approximately \$470 million.

The company's effective federal income tax rate on income from continuing operations was 31 percent in 2002, 37 percent in 2001, and 36 percent in 2000. The lower rate in 2002 reflects the elimination of goodwill amortization, most of which is non-deductible, upon adoption of SFAS No. 142 – *Goodwill and Other Intangible Assets*. In 2003, the company's effective federal income tax rate is expected to decrease to 28 percent, due to increased research and development credits.

Income (loss) from discontinued operations in 2002 and 2001 includes the results of operations of the Electron Devices and Ruggedized Displays businesses, which were sold in 2002, and the Component Technologies sector. Loss from discontinued operations in 2002 includes a goodwill impairment loss of \$186 million. The amount reported for 2000 includes the commercial aerostructures business, which was sold in that year.

The loss on disposal of discontinued operations includes any gain or loss from completed dispositions as well as the estimated loss from those businesses expected to be sold at a loss, where the sale has not yet been completed. Gains realized on the sale of any discontinued businesses are reported in the period in which their divestiture is complete.

Effective January 1, 2002, the company adopted SFAS No. 142 – *Goodwill and Other Intangible Assets*, implemented required disclosure provisions and eliminated the amortization of goodwill. During the second quarter of 2002, the company completed the first step of the required initial test for potential impairment of goodwill on the balance sheet at January 1, 2002. The company used a discounted cash flow approach, corroborated by comparative market multiples, where appropriate, to determine the fair value of reporting units. The results indicated potential impairment only in the reporting units of the Component Technologies sector due

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to unfavorable market conditions. During the third quarter of 2002, the company completed the measurement of the Component Technologies goodwill impairment as of January 1, 2002, and recorded a noncash charge of \$432 million, or \$3.67 per diluted share, which is reported in the caption "Cumulative effect of accounting change". For additional information see the "Goodwill and Other Purchased Intangible Assets" footnote to the consolidated condensed financial statements contained in this report on Form 10-K.

### 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.

| <i>Years ended December 31,</i>                   | <b>2002</b> | 2001 | 2000 |
|---|-------------|------|------|
| Cash came from                                    |             |      |      |
| Customers   | <b>94%</b>  | 75%  | 92%  |
| Lenders   | <b>3</b>    | 18   |      |
| Shareholders                                      |             | 4    |      |
| Buyers of assets/other                            | <b>3</b>    | 3    | 8    |
|   | <b>100%</b> | 100% | 100% |
| Cash went to                                      |             |      |      |
| Employees and suppliers of services and materials | <b>89%</b>  | 70%  | 80%  |
| Sellers of assets                                 | <b>2</b>    | 18   | 9    |
| Lenders   | <b>7</b>    | 10   | 9    |
| Suppliers of facilities/other                     | <b>1</b>    | 1    | 1    |
| Shareholders                                      | <b>1</b>    | 1    | 1    |
|   | <b>100%</b> | 100% | 100% |

In 2002 cash provided from operating activities was \$1,689 million as compared with the \$817 million generated in 2001 and the \$1,010 million generated in 2000. The increased level of cash provided in 2002 principally results from inclusion of the Litton and Newport News acquisitions for a full year, increased operating margin over 2001 and accelerated cash collections. The lower level of cash provided by operating activities in 2001 primarily reflected 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 equally in 2001 and 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. In 2000 cash from operations benefited from lower interest payments, reflecting the lower level of debt, and higher cash advances from customers.

Net working capital (current assets less current liabilities) at December 31, 2002, includes amounts reported as assets and liabilities of businesses held for sale which encompasses the assets and liabilities of discontinued businesses, Component Technologies sector and Auto. Applicable amounts for the prior year have been revised to conform to the 2002 presentation. Excluding these items, net adjusted working capital at December 31, 2002, was a negative \$566 million, primarily due to increased current taxes payable and customer advances.

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Adjusted net working capital at December 31, 2001 was a negative \$604 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. One of the largest components of the change in tax liabilities is the 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 during the performance of this contract will become payable. The contract was completed in the fourth quarter of 2002 with associated federal taxes of approximately \$1 billion paid in March 2003.

In accordance with SFAS No. 87 – *Employers' Accounting for Pension* the company's balance sheet at December 31, 2002, includes the recognition of an additional minimum pension liability. This adjustment was a non-cash \$994 million after-tax reduction of equity, which did not effect earnings and is potentially reversible should the performance of the capital markets improve or interest rates increase.

In 2002, cash generated from operating activities was sufficient to finance capital expenditures, pay dividends to shareholders, and reduce debt prior to completion of the TRW acquisition which included the assumption of \$4.8 billion of short-term and long-term obligations. 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. In 2000, cash generated by operating activities and the sale of Aerostructures provided sufficient cash flows to finance capital expenditures, pay dividends to shareholders, reduce debt and acquire new businesses. For 2003, the company expects cash from operating activities to be approximately \$1.1 billion to \$1.3 billion, before the \$1 billion B-2 tax payment.

Cash used in investing activities was \$118 million in 2002 compared to \$3.2 billion in 2001 and \$78 million in 2000. In 2002, the company sold two businesses for cash of \$135 million, incurred \$55 million for transaction costs pertaining to the acquisition of TRW, and spent approximately \$166 million in cash to complete the Newport News acquisition. In 2002 the company acquired TRW in an all stock transaction. 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 2002, capital expenditures were \$538 million, including \$30 million for capitalized software costs. In 2001, capital expenditures were \$393 million, including \$47 million for capitalized software costs, up from \$274 million in 2000, including \$32 million for capitalized software costs. Increasing levels of capital expenditures are primarily due to the acquired companies and to provide the productive capacity to perform existing contracts, prepare for future contracts, and conduct R&D in the pursuit of developing opportunities. Capital expenditure commitments at December 31, 2002, were approximately \$250 million, including \$6 million for environmental control and compliance purposes. For 2003 capital expenditures are expected to be approximately \$720 million, including approximately \$60 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 completed the sale of Auto to The Blackstone Group on February 28, 2003. The company received approximately \$4.7 billion, comprised of \$3.9 billion in cash and debt retained by Auto, a \$600 million payment-in-kind note and a 19.6 percent investment in the new enterprise. In March, 2003 the company commenced the first phase of its debt reduction plan by offering to purchase a range of debt securities, due 2004 to 2021, with interest rates ranging from 6.05 percent to 9.375 percent and a outstanding value of approximately \$2.85 billion. The offers were extended with a fixed spread over market of 35 to 95 basis points. The company will use a portion of the cash proceeds from the recent sale of Auto to finance the purchase of securities tendered pursuant to the offers. As of March 18, 2003 the company had repurchased 85.7 percent of the face value of the debt securities offered. The company has retained certain liabilities associated with the Auto business as well as the Aeronautical Systems business that TRW divested in 2002. The settlement of these liabilities is not expected to have a material effect on the company's financial position, results of operations, or cash flows.

Cash of \$623 million was used in financing activities in 2002 as compared to \$2,532 million provided in 2001 and \$755 million used in 2000. The use of cash in 2002 results from principal payments of long-term debt of \$500 million and dividends paid to shareholders of \$205 million. In December 2002, the company issued approximately 69.4 million shares of common stock in exchange for all of the outstanding shares of TRW in a transaction valued at approximately \$12.5 billion dollars, including the assumption of long-term debt of \$4.8 billion. For further discussion see the Acquisitions and Divestitures section contained elsewhere in the Management Discussion and Analysis.

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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, 2002 and 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 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.

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.

Upon the acquisition of TRW on December 11, 2002, TRW Automotive Inc. (TAI) became a subsidiary of Northrop Grumman Corporation. As of December 31, 2002, TAI has outstanding 100,000 shares of Series A Convertible Preferred Stock (TAI Series A) and 30,000 shares of Series B Preferred Stock (TAI Series B) (of which 14,000 shares are owned by Northrop Grumman) with a per share liquidation preference of \$1,000 plus accrued and unpaid dividends. The dividend rate of TAI Series A and B is 12 percent per year, payable quarterly, subject to increase if certain financial covenants are not maintained. TAI Series A and B shares are redeemable at the holders' option upon the sale of substantially all of the assets of TAI. The redemption, at the liquidation preference price, would be on May 29, 2003 or the holders may elect to defer such redemption until December 10, 2004. TAI Series B shares are redeemable at the holders' option on each of the 6<sup>th</sup> through 19<sup>th</sup> anniversaries and at any time after the 20<sup>th</sup> anniversary of the original issuance date. TAI may redeem the Series B shares on the 5<sup>th</sup>, 10<sup>th</sup>, 15<sup>th</sup>, and 20<sup>th</sup> anniversary dates. Holders of TAI Series B stock also may require Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.) to repurchase the shares at the second anniversary of issuance and Northrop Grumman Space & Mission Systems Corp. may redeem these shares on the third anniversary of issuance.

On February 28, 2003, the company sold all the assets of TAI to the Blackstone Group and TAI Series A and Series B became redeemable at the holders option. The company received notification that the holder of all TAI Series A shares and 2,000 TAI Series B shares has elected to have these shares redeemed on May 29, 2003. The company has also received notification that the holder of 14,000 TAI Series B shares intends to exercise its sale redemption election on December 10, 2004. These instruments are reported as "Minority interest" in the Consolidated Statements of Financial Position as of December 31, 2002.

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

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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.

During 1996, the U.S. Department of Justice (DOJ) advised TRW that it had been named as a defendant in lawsuits brought by a former employee originally filed under seal in 1994 and 1995 in the United States District Court for the Central District of California under the quitam provisions of the civil False Claims Act. The DOJ subsequently advised that it would intervene in the litigation. In a consolidated complaint filed jointly by the former employee and the DOJ, it alleged that TRW misclassified various costs and improperly charged those costs to certain of its federal contracts, that the United States has incurred substantial damages, and that TRW is liable for approximately \$56 million in single damages, subject to trebling, plus penalties, post-judgment interest, costs (including attorney's fees) and "all other proper relief." All substantive allegations against TRW have been denied in its answer to the consolidated complaint. The company intends to vigorously defend this matter. Trial is scheduled for November 2003.

On February 3, 2003, the Department of Justice filed a civil False Claims Act case against Newport News Shipbuilding, Inc. in the United States District Court for the Eastern District of Virginia. The government seeks single damages in an amount in excess of \$72 million, plus penalties, costs and interest. Damages may be trebled under the False Claims Act. The complaint alleges that the company improperly charged certain independent research and development cost to its government contracts with respect to the years 1994 through 1999. The company denies the allegations and intends to vigorously defend the matter.

The IRS is presently completing its audits of the B-2 program through the tax years ending December 31, 2000. Upon completion of these audits, the IRS may adopt a position that the B-2 program was completed in a year prior to 2002, which would create the potential for additional interest expense. Although it is not possible to predict the outcome of the tax audits at this time, management believes that its tax accounting for the B-2 program reflects the appropriate timing of contract completion.

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 \$841 million at December 31, 2002 and \$684 million at December 31, 2001. Increases in the 2002 period over 2001 reflect the effect of the TRW acquisition described elsewhere in this Form 10-K. The company also maintains self-insured workers' compensation plans, which are secured by surety bonds and a general agreement of indemnity with the surety. At December 31, 2002 and 2001, there were \$439 million and \$287 million of such instruments outstanding, respectively. For all years presented the company had no material related party transactions.

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 and cash available under credit lines are expected to be sufficient in 2003 to service debt, finance capital expansion projects, pay federal income taxes 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.

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### 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 and state Superfund laws. 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, 2002, the range of reasonably possible future costs for environmental remediation, including Superfund sites, is \$146 million to \$202 million, of which \$156 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 December 2002, the Financial Accounting Standards Board issued SFAS No. 148 – *Accounting for Stock-Based Compensation – Transition and Disclosure, an amendment of SFAS No. 123* which is effective for financial statements for fiscal years ending after December 15, 2002. This statement, which revises the disclosure only provisions of SFAS No. 123, will have no effect on the company's financial position, results of operations or cash flows. The provisions of this statement were adopted for the year ended December 31, 2002.

In November 2002, Financial Accounting Standards Board issued FIN 45 – *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. This Interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken by issuing the guarantee. Adoption of this statement is not expected to have a significant effect on the company's financial position, results of operations or cash flows.

In June 2002, the Financial Accounting Standards Board issued SFAS No. 146 – *Accounting for Costs Associated with Exit or Disposal Activities*, which requires a liability for a cost associated with an exit or disposal activity to be recognized and measured at its fair value in the period in which the liability is incurred. This statement will be adopted January 1, 2003, and is not expected to have a significant effect on the company's financial position, results of operations or cash flows.

In April 2002, the Financial Accounting Standards Board issued SFAS No. 145 – *Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections*. This statement clarifies

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guidance related to the reporting of gains and losses from extinguishment of debt and resolves inconsistencies related to the required accounting treatment of certain lease modifications. The provisions of this statement relating to extinguishment of debt become effective for financial statements issued for fiscal years beginning after May 15, 2002. The provisions of this statement relating to lease modification are effective for transactions occurring after May 15, 2002. Adoption of this standard did not have a material effect on the company's financial position, results of operations or cash flows.

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 became effective for financial statements issued for fiscal years beginning after December 15, 2001. Adoption of this standard did not have a material effect on the company's financial position, results of operations or cash flows.

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, ceased and an initial impairment assessment of goodwill was performed. Annual impairment tests are required thereafter. The company adopted SFAS No. 142 on January 1, 2002 and recorded an initial goodwill impairment charge of \$432 million, which is reported under the income statement caption "Cumulative Effect of Accounting Change".

## NORTHROP GRUMMAN CORPORATION

### FORWARD LOOKING STATEMENTS AND IMPORTANT FACTORS

Certain statements and assumptions in this report contain or are based on “forward-looking” information (that Northrop Grumman believes to be within the definition in the Private Securities Litigation Reform Act of 1995) and involve risks and uncertainties, and include, among others, statements in the future tense, and all statements accompanied by terms such as “project,” “expect,” “estimate,” “assume,” “intend”, “anticipate”, and variations thereof and similar terms. This information reflects the company’s best estimates when made, but the company expressly disclaims any duty to update this information if new data becomes available or estimates change after the date of this report. 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 contract prices 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 its ability to meet contract obligations within anticipated cost and time constraints. 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 TRW in 2002 and 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 subsequently develop, the company’s operating results may be adversely affected. Among the factors that may be involved would be unforeseen costs and expenses, overvalued assets, inflated contract values, previously undisclosed or undervalued liabilities, diversion of management focus, and any effects of complying with government-imposed organizational conflicts of interest rules as a result of the acquisitions.

## NORTHROP GRUMMAN CORPORATION

- 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, naval vessels, space technologies, 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 reduced.
- The company is subject to environmental litigation and other litigation, which, if not resolved within the company's expectation, could reduce future operating results.
- The company's pension income (expense) may fluctuate significantly. Pension income (expense) is based on assumptions of future market performance and actual performance may differ. If an event requires the company to reestimate its pension income (expense) during the year, its reported earnings could vary significantly.
- The indebtedness of the company has increased as a result of the acquisitions of Litton, EIS, Newport News, and TRW. The increase in debt has increased demands on the cash resources of the company.
- The company's tax filings are regularly examined by federal and state taxing authorities. Results of these examinations can result in tax deficiencies, cumulative interest payments, fines and penalties. Such assessments could negatively affect the company's results of operations, financial condition and/or cash flow.
- 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, 2002, 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 change in interest rates is tied to its \$2.5 billion credit agreement, which has no balance outstanding at December 31, 2002. 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, 2002, 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

## NORTHROP GRUMMAN CORPORATION

converted to U.S. dollars upon receipt to limit currency fluctuation exposures. At December 31, 2002, 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 sometimes 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.

In connection with the TRW acquisition, the company has acquired investments in RF Micro Devices, Inc. (RFMD) and Applera Corporation—Celera Genomics Group (Celera), two publicly traded companies. The company has also acquired certain hedges that are designed to protect the forecasted cash flows resulting from the future sale of shares in these investments. These hedges also mitigate any downside risk of loss and provide for additional gain depending on market conditions at maturity.

In 2000, TRW monetized a portion of its holdings in RFMD through the execution of three forward share sale agreements. The company is now obligated under these agreements to deliver up to 4 million shares of RFMD common stock, in the aggregate, upon maturity of the contracts. Also in 2000, TRW similarly monetized its holdings of 229,354 shares in Celera through an agreement maturing in December 2003. The company is obligated under this agreement to deliver up to 229,354 shares of Celera common stock, in the aggregate, upon maturity of the contract. The actual number of shares to be delivered will be determined on the basis of a formula in the agreements. Through the setting of a floor and ceiling price, these agreements eliminate the company's exposure to downside market risk, while enabling the company to retain potential market appreciation up to the respective ceiling price. Certain terms of the agreements are summarized below:

|   | RFMD          |             |               | Celera        |
|---|---------------|-------------|---------------|---------------|
|   | February 2003 | August 2003 | February 2004 | December 2003 |
| Maturity dates                                | February 2003 | August 2003 | February 2004 | December 2003 |
| Number of shares                              | 1,333,334     | 1,333,334   | 1,333,332     | 229,354       |
| Floor price per share                         | \$54          | \$54        | \$54          | \$102         |
| Ceiling price per share                       | 79            | 86          | 93            | 176           |
| Up-front proceeds as a percent of floor price | 80%           | 78%         | 75%           | 80%           |

The investments in RFMD and Celera and the related hedge portion of the forward share sale agreements are carried at fair market value. Changes in fair market value of the company's shares of RFMD and Celera, including the shares monetized, are recorded in the other comprehensive income (loss) component of shareholders' equity. Any gains or losses reported in other comprehensive income (loss) will be reclassified to net income at the maturity of these agreements.

The fair value of the RFMD shares at December 31, 2002, excluding the effect of the forward share sale agreements, was approximately \$30 million. The fair value of the Celera shares at December 31, 2002, excluding the effect of the forward share sale agreement, was approximately \$2 million.

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**Item 8: Financial Statements and Supplementary Data**

**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**

| <i>December 31, \$ in millions</i>  | <b>2002</b>      | <b>2001</b>      |
|---|------------------|------------------|
| <b>Assets:</b>  |                  |                  |
| <b>Current assets</b>   |                  |                  |
| Cash and cash equivalents   | \$ 1,412         | \$ 464           |
| Accounts receivable   | 2,889            | 2,643            |
| Inventoried costs   | 1,091            | 1,098            |
| Deferred income taxes   | 662              | 36               |
| Prepaid expenses and other current assets   | 160              | 125              |
| Assets of businesses held for sale  | 9,621            | 1,207            |
| <b>Total current assets</b>   | <b>15,835</b>    | <b>5,573</b>     |
| <b>Property, plant and equipment</b>  |                  |                  |
| Land and land improvements  | 350              | 300              |
| Buildings   | 1,538            | 1,162            |
| Machinery and other equipment   | 2,948            | 2,189            |
| Leasehold improvements  | 160              | 81               |
|   | <b>4,996</b>     | <b>3,732</b>     |
| Accumulated depreciation  | <b>(1,391)</b>   | <b>(1,148)</b>   |
| <b>Net property, plant and equipment</b>  | <b>3,605</b>     | <b>2,584</b>     |
| <b>Other assets</b>   |                  |                  |
| Goodwill, net of accumulated amortization of \$730 in 2002 and 2001                                   | 15,657           | 7,903            |
| Other purchased intangible assets, net of accumulated amortization of \$760 in 2002 and \$596 in 2001 | 2,553            | 1,072            |
| Prepaid retiree benefits cost and intangible pension asset  | 3,618            | 3,075            |
| Deferred income taxes   | 174              | 2                |
| Miscellaneous other assets  | 824              | 609              |
| <b>Total other assets</b>   | <b>22,826</b>    | <b>12,661</b>    |
| <b>Total Assets</b>   | <b>\$ 42,266</b> | <b>\$ 20,818</b> |

**NORTHROP GRUMMAN CORPORATION**

| <i>December 31, \$ in millions</i>   | <b>2002</b>      | <b>2001</b>      |
|--|------------------|------------------|
| <b>Liabilities and Shareholders' Equity:</b>   |                  |                  |
| <b>Current liabilities</b>   |                  |                  |
| Notes payable to banks   | \$ 22            | \$ 30            |
| Current portion of long-term debt  | 203              | 420              |
| Trade accounts payable   | 1,427            | 982              |
| Accrued employees' compensation  | 1,018            | 827              |
| Advances on contracts  | 1,006            | 842              |
| Contract loss provisions   | 453              | 481              |
| Income taxes payable   | 1,237            | 137              |
| Deferred income taxes  |                  | 344              |
| Other current liabilities  | 1,414            | 907              |
| Liabilities of businesses held for sale  | 4,593            | 130              |
| <b>Total current liabilities</b>   | <b>11,373</b>    | <b>5,100</b>     |
| Long-term debt   | 9,398            | 5,038            |
| Accrued retiree benefits   | 5,942            | 1,927            |
| Deferred income taxes  |                  | 669              |
| Other long-term liabilities  | 742              | 221              |
| Minority interest  | 139              | 122              |
| Preferred stock  | 350              | 350              |
| <b>Shareholders' equity</b>  |                  |                  |
| Paid-in capital  |                  |                  |
| Preferred stock, 10,000,000 shares authorized; 3,500,000 shares issued and outstanding, reported above |                  |                  |
| Common stock, 800,000,000 shares authorized; issued and outstanding:                                   |                  |                  |
| 2002—182,602,390; 2001—108,556,081   | 12,511           | 4,451            |
| Retained earnings  | 2,870            | 3,011            |
| Unearned compensation  | (11)             | (18)             |
| Accumulated other comprehensive loss   | (1,048)          | (53)             |
| <b>Total shareholders' equity</b>  | <b>14,322</b>    | <b>7,391</b>     |
| <b>Total Liabilities and Shareholders' Equity</b>  | <b>\$ 42,266</b> | <b>\$ 20,818</b> |

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

## NORTHROP GRUMMAN CORPORATION

### CONSOLIDATED STATEMENTS OF INCOME

| <i>Years ended December 31, \$ in millions, except per share</i>                                    | 2002            | 2001     | 2000    |
|---|-----------------|----------|---------|
| Sales and service revenues  |                 |          |         |
| Product sales   | <b>\$13,638</b> | \$10,118 | \$6,133 |
| Service revenues  | <b>3,568</b>    | 2,894    | 1,485   |
| Total revenue   | <b>17,206</b>   | 13,012   | 7,618   |
| Cost of sales   |                 |          |         |
| Cost of product sales   | <b>10,842</b>   | 8,146    | 4,160   |
| Cost of service revenues  | <b>3,262</b>    | 2,561    | 1,286   |
| Administrative and general expenses   | <b>1,711</b>    | 1,272    | 1,074   |
| Operating margin  | <b>1,391</b>    | 1,033    | 1,098   |
| Other income (deductions)   |                 |          |         |
| Interest income   | <b>11</b>       | 33       | 29      |
| Interest expense  | <b>(422)</b>    | (373)    | (175)   |
| Other, net  | <b>29</b>       | 34       | 23      |
| Income from continuing operations before income taxes<br>and cumulative effect of accounting change | <b>1,009</b>    | 727      | 975     |
| Federal and foreign income taxes  | <b>312</b>      | 268      | 350     |
| Income from continuing operations before<br>cumulative effect of accounting change                  | <b>697</b>      | 459      | 625     |
| Income (loss) from discontinued operations,<br>net of federal income taxes                          | <b>(181)</b>    | (32)     | 39      |
| Loss on disposal of discontinued operations,<br>net of federal income taxes                         | <b>(20)</b>     |          | (56)    |
| Income before cumulative effect of accounting change  | <b>496</b>      | 427      | 608     |
| Cumulative effect of accounting change  | <b>(432)</b>    |          |         |
| Net income  | <b>\$ 64</b>    | \$ 427   | \$ 608  |
| Weighted average common shares outstanding, in millions   | <b>115.5</b>    | 84.5     | 70.6    |
| Basic earnings (loss) per share   |                 |          |         |
| Continuing operations   | <b>\$ 5.82</b>  | \$ 5.22  | \$ 8.86 |
| Discontinued operations   | <b>(1.57)</b>   | (.38)    | .55     |
| Disposal of discontinued operations   | <b>(.17)</b>    |          | (.80)   |
| Before cumulative effect of accounting change   | <b>4.08</b>     | 4.84     | 8.61    |
| Accounting change   | <b>(3.73)</b>   |          |         |
| Basic earnings per share  | <b>\$ .35</b>   | \$ 4.84  | \$ 8.61 |
| Diluted earnings (loss) per share   |                 |          |         |
| Continuing operations   | <b>\$ 5.72</b>  | \$ 5.17  | \$ 8.82 |
| Discontinued operations   | <b>(1.54)</b>   | (.37)    | .55     |
| Disposal of discontinued operations   | <b>(.17)</b>    |          | (.79)   |
| Before cumulative effect of accounting change   | <b>4.01</b>     | 4.80     | 8.58    |
| Accounting change   | <b>(3.67)</b>   |          |         |
| Diluted earnings per share  | <b>\$ .34</b>   | \$ 4.80  | \$ 8.58 |

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

## NORTHROP GRUMMAN CORPORATION

### CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

| <i>Years ended December 31, \$ in millions</i>    | <b>2002</b>     | 2001   | 2000   |
|---|-----------------|--------|--------|
| Net income  | <b>\$ 64</b>    | \$ 427 | \$ 608 |
| Other comprehensive income (loss)                 |                 |        |        |
| Change in cumulative translation adjustment       | <b>(1)</b>      | (3)    | (3)    |
| Minimum pension liability adjustments, before tax | <b>(1,699)</b>  | (41)   | (2)    |
| Income tax benefit                                | <b>705</b>      | 14     | 1      |
| Other comprehensive loss, net of tax              | <b>(995)</b>    | (30)   | (4)    |
| Comprehensive loss                                | <b>\$ (931)</b> | \$ 397 | \$ 604 |

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

**NORTHROP GRUMMAN CORPORATION**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| <i>Years ended December 31, \$ in millions</i>          | <b>2002</b>     | 2001     | 2000    |
|---|-----------------|----------|---------|
| <b>Operating Activities</b>                             |                 |          |         |
| Sources of Cash   |                 |          |         |
| Cash received from customers                            |                 |          |         |
| Progress payments                                       | <b>\$ 5,748</b> | \$ 3,102 | \$1,438 |
| Other collections                                       | <b>12,322</b>   | 11,148   | 7,003   |
| Proceeds from litigation settlement                     | <b>220</b>      | 220      |         |
| Income tax refunds received                             | <b>74</b>       | 23       | 15      |
| Interest received                                       | <b>69</b>       | 17       | 17      |
| Other cash receipts                                     | <b>34</b>       | 24       | 10      |
| Cash provided by operating activities                   | <b>18,467</b>   | 14,534   | 8,483   |
| Uses of Cash  |                 |          |         |
| Cash paid to suppliers and employees                    | <b>16,278</b>   | 13,251   | 7,250   |
| Interest paid   | <b>334</b>      | 333      | 165     |
| Income taxes paid                                       | <b>149</b>      | 126      | 57      |
| Other cash payments                                     | <b>17</b>       | 7        | 1       |
| Cash used in operating activities                       | <b>16,778</b>   | 13,717   | 7,473   |
| Net cash provided by operating activities               | <b>1,689</b>    | 817      | 1,010   |
| <b>Investing Activities</b>                             |                 |          |         |
| Additions to property, plant and equipment              | <b>(538)</b>    | (393)    | (274)   |
| Payments for businesses purchased, net of cash acquired | <b>181</b>      | (3,061)  | (510)   |
| Proceeds from sale of businesses                        | <b>135</b>      | 18       | 668     |
| Proceeds from sale of property, plant and equipment     | <b>45</b>       | 86       | 44      |
| Proceeds from sale of investment                        | <b>29</b>       |          |         |
| Collection of note receivable                           |                 | 148      |         |
| Other investing activities                              | <b>30</b>       | (2)      | (6)     |
| Net cash used in investing activities                   | <b>(118)</b>    | (3,204)  | (78)    |
| <b>Financing Activities</b>                             |                 |          |         |
| Borrowings under lines of credit                        | <b>507</b>      | 1,173    |         |
| Repayment of borrowings under lines of credit           | <b>(501)</b>    | (1,306)  | (175)   |
| Principal payments of long-term debt/capital leases     | <b>(500)</b>    | (119)    | (485)   |
| Proceeds from issuance of long-term debt                |                 | 1,491    |         |
| Proceeds from issuance of equity security units         |                 | 690      |         |
| Dividends paid  | <b>(205)</b>    | (158)    | (114)   |
| Proceeds from issuance of stock                         | <b>76</b>       | 825      | 19      |
| Other financing activities                              |                 | (64)     |         |
| Net cash (used in) provided by financing activities     | <b>(623)</b>    | 2,532    | (755)   |
| Increase in cash and cash equivalents                   | <b>948</b>      | 145      | 177     |
| Cash and cash equivalents balance at beginning of year  | <b>464</b>      | 319      | 142     |
| Cash and cash equivalents balance at end of year        | <b>\$ 1,412</b> | \$ 464   | \$ 319  |

## NORTHROP GRUMMAN CORPORATION

| <i>Years ended December 31, \$ in millions</i>                | 2002            | 2001            | 2000           |
|---|-----------------|-----------------|----------------|
| <b>Reconciliation of Net Income to Net Cash</b>               |                 |                 |                |
| <b>Provided by Operating Activities:</b>                      |                 |                 |                |
| Net income  | \$ 64           | \$ 427          | \$ 608         |
| Adjustments to reconcile net income to net cash provided      |                 |                 |                |
| Depreciation  | 361             | 266             | 175            |
| Amortization of intangible assets                             | 164             | 379             | 206            |
| Common stock issued to employees                              | 67              | 46              | 8              |
| Change in accounting principle                                | 432             |                 |                |
| Impairment of goodwill  | 186             |                 |                |
| Loss on disposal of discontinued operations                   | 20              |                 | 56             |
| Retiree benefits expense(income)                              | 42              | (257)           | (492)          |
| Decrease(increase) in   |                 |                 |                |
| Accounts receivable   | (771)           | 1,298           | (679)          |
| Inventoried costs   | (211)           | 36              | 77             |
| Prepaid expenses and other current assets                     | 38              | 19              | (28)           |
| Increase(decrease) in   |                 |                 |                |
| Progress payments   | 1,109           | (646)           | 666            |
| Accounts payable and accruals                                 | (265)           | (714)           | 87             |
| Provisions for contract losses                                | (135)           | (65)            | 20             |
| Deferred income taxes   | (1,513)         | 174             | 345            |
| Income taxes payable  | 1,049           | (9)             | 28             |
| Retiree benefits  | 900             | (75)            | (92)           |
| Increase (decrease) in net assets of businesses held for sale | 124             | (87)            |                |
| Other noncash transactions                                    | 28              | 25              | 25             |
| <b>Net cash provided by operating activities</b>              | <b>\$ 1,689</b> | <b>\$ 817</b>   | <b>\$1,010</b> |
| <b>Noncash Investing and Financing Activities:</b>            |                 |                 |                |
| Sale of business  |                 |                 |                |
| Note received, net of discount                                |                 |                 | \$ 125         |
| Purchase of businesses  |                 |                 |                |
| Fair value of assets acquired                                 | \$20,206        | \$11,957        | \$ 910         |
| Cash paid, net of cash acquired                               | 181             | (3,061)         | (510)          |
| Noncash stock compensation                                    | (151)           |                 |                |
| Common stock issued   | (7,753)         | (2,405)         | (140)          |
| Mandatorily redeemable preferred stock issued                 |                 | (350)           |                |
| <b>Liabilities assumed</b>                                    | <b>\$12,483</b> | <b>\$ 6,141</b> | <b>\$ 260</b>  |

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

**NORTHROP GRUMMAN CORPORATION**

**CONSOLIDATED STATEMENTS OF CHANGES  
IN SHAREHOLDERS' EQUITY**

| <i>Years ended December 31, \$ in millions, except per share</i> | <b>2002</b>     | 2001    | 2000    |
|--|-----------------|---------|---------|
| <b>Paid-in Capital</b>   |                 |         |         |
| At beginning of year   | <b>\$ 4,451</b> | \$1,200 | \$1,028 |
| Stock issued in purchase of businesses                           | <b>7,753</b>    | 2,405   | 140     |
| Stock issued in public offering                                  |                 | 784     |         |
| Equity security units issuance fees and forward contract fees    |                 | (56)    |         |
| Employee stock awards and options                                | <b>307</b>      | 118     | 32      |
| At end of year   | <b>12,511</b>   | 4,451   | 1,200   |
| <b>Retained Earnings</b>   |                 |         |         |
| At beginning of year   | <b>3,011</b>    | 2,742   | 2,248   |
| Net income   | <b>64</b>       | 427     | 608     |
| Cash dividends   | <b>(205)</b>    | (158)   | (114)   |
| At end of year   | <b>2,870</b>    | 3,011   | 2,742   |
| <b>Unearned Compensation</b>                                     |                 |         |         |
| At beginning of year   | <b>(18)</b>     |         |         |
| Issuance of unvested stock options                               |                 | (24)    |         |
| Amortization of unearned compensation                            | <b>7</b>        | 6       |         |
| At end of year   | <b>(11)</b>     | (18)    |         |
| <b>Accumulated Other Comprehensive Loss</b>                      |                 |         |         |
| At beginning of year   | <b>(53)</b>     | (23)    | (19)    |
| Change in cumulative translation adjustment                      | <b>(1)</b>      | (3)     | (3)     |
| Change in additional minimum pension liability, net of tax       | <b>(994)</b>    | (27)    | (1)     |
| At end of year   | <b>(1,048)</b>  | (53)    | (23)    |
| Total shareholders' equity                                       | <b>\$14,322</b> | \$7,391 | \$3,919 |
| Book value per share   | <b>\$ 78.27</b> | \$68.08 | \$54.38 |
| Cash dividends per share   | <b>\$ 1.60</b>  | \$ 1.60 | \$ 1.60 |

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

## **NORTHROP GRUMMAN CORPORATION**

### **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, mission systems, space technology 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.

##### **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. Sales under cost-reimbursement contracts and construction-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 are accounted for using the cost-to-cost type of percentage-of-completion method of accounting. Under this method sales 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. Sales under construction-type contracts that provide for delivery at a high volume per year are accounted for using the units-of-delivery type of percentage-of-completion method of accounting. Under this method sales are recognized as deliveries are made and are computed on the basis of the estimated final average unit cost plus profit. Revenue on service contracts is recognized as the services are performed.

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.

## **NORTHROP GRUMMAN CORPORATION**

### **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 are therefore charged against income as incurred.

### **Product Warranty Costs**

The company provides certain product warranties that require repair or replacement of non-conforming items for a specified period of time. Most of the company's product warranties are provided under government contracts and are generally recoverable from the customer.

### **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.

### **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, 2002, the amount of foreign currency forward contracts outstanding was not material.

### **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, 2002.

### **Income Taxes**

Provisions for federal, foreign, 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.

### **Cash and Cash Equivalents**

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

## NORTHROP GRUMMAN CORPORATION

### 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:

|                               | Years           |
|-------------------------------|-----------------|
| Land improvements             | 2-40            |
| Buildings                     | 2-45            |
| Machinery and other equipment | 2-40            |
| Leasehold improvements        | Length of lease |

### Goodwill and Other Purchased Intangible Assets

Effective January 1, 2002, the company adopted Statement of Financial Accounting Standards (SFAS) No. 142 – *Goodwill and Other Intangible Assets*, which changed the accounting for goodwill and “indefinite lived” intangibles from an amortization method to an impairment-only approach. Accordingly, amortization of goodwill, including goodwill recorded in past business combinations, ceased on December 31, 2001. Beginning in 2002, impairment tests are performed at least annually as of April 30, and more often as circumstances require. When it is determined that an impairment has occurred, an appropriate charge to operations is recorded.

Goodwill and other purchased intangible assets balances are included in the identifiable assets of the industry segment to which they have been assigned. Any goodwill impairment, as well as the amortization of other purchased intangible assets, is charged against the respective industry segment operating margin.

### Forward Share Sale Agreements

The company hedges certain equity investments in publicly traded companies. These instruments protect the forecasted cash flows resulting from the contractual sale of shares in certain of the company’s investments in unconsolidated affiliates. These instruments are accounted for in accordance with SFAS No. 133 – *Accounting for Derivative Instruments and Hedging Activities*, as amended. The investments and the related hedge instruments are carried at fair market value. Changes in fair market value of the investments, including the shares monetized, are

## NORTHROP GRUMMAN CORPORATION

recorded in the other comprehensive income (loss) component of shareholders' equity. Any gains or losses reported in other comprehensive income (loss) will be reclassified to net earnings at the maturity of these agreements.

### 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.

### Stock Compensation Plans

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. Compensation for restricted performance stock rights is estimated and accrued over the vesting period.

| <i>December 31, \$ in millions, except per share</i>   | <b>2002</b>   | 2001          | 2000          |
|--|---------------|---------------|---------------|
| Net income as reported   | <b>\$ 64</b>  | \$ 427        | \$ 608        |
| Stock based compensation, net of tax, included in net income as reported   | <b>43</b>     | 13            | 9             |
| Stock based compensation, net of tax, that would have been included in net income, if the fair value method had been applied to all awards | <b>(65)</b>   | (26)          | (21)          |
| <b>Pro-forma net income using the fair value method</b>  | <b>\$ 42</b>  | <b>\$ 414</b> | <b>\$ 596</b> |
| <b>Basic Earnings Per Share</b>  |               |               |               |
| As reported  | <b>\$ .35</b> | \$ 4.84       | \$ 8.61       |
| Pro-forma  | <b>\$ .16</b> | \$ 4.69       | \$ 8.44       |
| <b>Diluted Earnings Per Share</b>  |               |               |               |
| As reported  | <b>\$ .34</b> | \$ 4.80       | \$ 8.58       |
| Pro-forma  | <b>\$ .15</b> | \$ 4.65       | \$ 8.41       |

Had compensation expense been determined based on the fair value at the grant dates for stock option awards, consistent with the method of SFAS No. 123–*Accounting for Stock Based Compensation*, net income, basic earnings per share, and diluted earnings per share would have been as shown in the table above. These amounts were determined using weighted-average per share fair values for market options granted in 2002, 2001, and 2000 of \$39, \$26 and \$25 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 2002, 2001, and 2000, respectively, the following additional assumptions: dividend yield; 1.4 percent, 2.0 percent and 2.2 percent; expected volatility; 35 percent, 33 percent and 32 percent; and risk-free interest rate; 3.5 percent, 4.7 percent and 6.6 percent.

### Financial Statement Reclassification

Certain amounts in the prior year financial statements and related notes have been reclassified to conform to the 2002 presentation.

## NORTHROP GRUMMAN CORPORATION

### NEW ACCOUNTING STANDARDS

In December 2002, the Financial Accounting Standards Board issued SFAS No. 148 – *Accounting for Stock-Based Compensation – Transition and Disclosure, an amendment of SFAS No. 123* which is effective for financial statements for fiscal years ending after December 15, 2002. This statement, which revises the disclosure only provisions of SFAS No. 123, will have no effect on the company’s financial position, results of operations or cash flows. The provisions of this statement were adopted for the year ended December 31, 2002.

In November 2002, Financial Accounting Standards Board issued FIN 45 – *Guarantor’s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. This Interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken by issuing the guarantee. Adoption of this statement is not expected to have a significant effect on the company’s financial position, results of operations or cash flows.

In June 2002, the Financial Accounting Standards Board issued SFAS No. 146 – *Accounting for Costs Associated with Exit or Disposal Activities*, which requires a liability for a cost associated with an exit or disposal activity to be recognized and measured at its fair value in the period in which the liability is incurred. This statement will be adopted January 1, 2003, and is not expected to have a significant effect on the company’s financial position, results of operations or cash flows.

In April 2002, the Financial Accounting Standards Board issued SFAS No. 145 – *Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections*. This statement clarifies guidance related to the reporting of gains and losses from extinguishment of debt and resolves inconsistencies related to the required accounting treatment of certain lease modifications. The provisions of this statement relating to extinguishment of debt become effective for financial statements issued for fiscal years beginning after May 15, 2002. The provisions of this statement relating to lease modification are effective for transactions occurring after May 15, 2002. Adoption of this standard did not have a material effect on the company’s financial position, results of operations or cash flows.

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 became effective for financial statements issued for fiscal years beginning after December 15, 2001. Adoption of this standard did not have a material effect on the company’s financial position, results of operations or cash flows.

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, ceased and an initial impairment assessment of goodwill was performed. Annual impairment tests are required thereafter. The company adopted SFAS No. 142 on January 1, 2002 and recorded an initial goodwill impairment charge of \$432 million, which is reported under the income statement caption “Cumulative effect of accounting change”.

## NORTHROP GRUMMAN CORPORATION

### DISPOSITIONS AND DISCONTINUED OPERATIONS

In October 2002, Northrop Grumman completed the sale of two Electronic Systems sector businesses, Electron Devices and Ruggedized Displays for \$135 million. During the third quarter of 2002, the company concluded that the Component Technologies businesses did not fit with the company's long-term plan and decided to sell the businesses. The company concluded the sale of the Component Technologies VEAM business units in the first quarter of 2003 and intends to conclude the sale of the remaining businesses by September 30, 2003. Therefore, the results of operations of these businesses are reported as discontinued operations, net of applicable income taxes, for all periods presented in accordance with SFAS No. 144 – *Accounting for the Impairment or Disposal of Long-Lived Assets*. The company completed its agreement to sell TRW's automotive business (Auto) to The Blackstone Group on February 28, 2003. The company received approximately \$4.7 billion, comprised of \$3.9 billion in cash and debt retained by Auto, a \$600 million payment-in-kind note and a 19.6 percent investment in the new enterprise. Cash proceeds from the sale will be used primarily to reduce debt. The company has retained certain liabilities associated with the Auto business as well as the Aeronautical Systems business that TRW divested in 2002. The settlement of these liabilities is not expected to have a material effect on the company's financial position, results of operations, or cash flows.

Effective 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. 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 results of operations from Aerostructures, prior to its disposal, are reported as discontinued operations.

The company's Consolidated Statements of Income and related footnote disclosures have been restated to reflect these businesses as discontinued operations for the periods presented. The Consolidated Statements of Cash Flows for 2002 and 2001 have been restated, however the Consolidated Statements of Cash Flows for 2000 has not been restated.

Operating results of the discontinued businesses are as follows:

| <i>\$ in millions</i>                                   | 2002            | 2001    | 2000    |
|---|-----------------|---------|---------|
| Sales   | <b>\$ 631</b>   | \$ 546  | \$ 669  |
| (Loss) income from discontinued operations              | <b>\$ (180)</b> | \$ (28) | \$ 61   |
| Income tax expense                                      | <b>(1)</b>      | (4)     | (22)    |
| (Loss) income from discontinued operations, net of tax  | <b>\$ (181)</b> | \$ (32) | \$ 39   |
| Loss on disposal of discontinued operations             | <b>\$ (9)</b>   |         | \$ (16) |
| Income tax expense                                      | <b>(11)</b>     |         | (40)    |
| Loss on disposal of discontinued operations, net of tax | <b>\$ (20)</b>  |         | \$ (56) |

Tax rates vary between discontinued operations and the company's effective tax rate due to the non-deductibility of goodwill for tax purposes.

## NORTHROP GRUMMAN CORPORATION

The major classes of assets and liabilities for these discontinued businesses were as follows:

| <i>(\$ in millions)</i>  | <b>2002</b>    | 2001           |
|--|----------------|----------------|
| Accounts receivable  | <b>\$1,429</b> | \$ 103         |
| Inventoried costs  | <b>678</b>     | 85             |
| Prepaid expenses and other current assets                          | <b>54</b>      | 3              |
| Net property, plant and equipment                                  | <b>2,799</b>   | 183            |
| Goodwill, net of accumulated amortization                          | <b>4,117</b>   | 765            |
| Deferred income taxes  | <b>245</b>     |                |
| Other purchased intangible assets, net of accumulated amortization | <b>102</b>     | 67             |
| Miscellaneous other assets   | <b>197</b>     | 1              |
| <b>Assets of businesses held for sale</b>                          | <b>\$9,621</b> | <b>\$1,207</b> |
| Notes payable to banks   | <b>\$ 338</b>  | \$ 8           |
| Trade accounts payable   | <b>1,441</b>   | 38             |
| Accrued employees' compensation                                    | <b>246</b>     | 20             |
| Income taxes payable   | <b>82</b>      |                |
| Deferred income taxes  | <b>7</b>       |                |
| Other current liabilities  | <b>547</b>     | 54             |
| Long-term debt   | <b>229</b>     | 1              |
| Accrued retiree benefits   | <b>1,386</b>   | 4              |
| Minority interest  | <b>81</b>      |                |
| Other long-term liabilities  | <b>236</b>     | 5              |
| <b>Liabilities of businesses held for sale</b>                     | <b>\$4,593</b> | <b>\$ 130</b>  |

## NORTHROP GRUMMAN CORPORATION

### ACQUISITIONS

In December 2002, the company purchased 100 percent of the common stock of TRW Inc. (TRW). The company issued 69.4 million shares of its common stock at an exchange ratio of .5357 for each TRW share, with cash paid in lieu of any fractional share of the company's stock which otherwise would be issued to the TRW shareholders. These shares were valued at \$107.31 per share for purchase accounting purposes. In accordance with generally accepted accounting principles, this value was determined based on the average closing stock price of the company's common stock from October 15, 2002, through October 21, 2002. TRW's defense business units will be operated as two separate sectors, Mission Systems and Space Technology. In connection with the acquisition of TRW, the company entered into a formal stipulation and consent decree (Final Judgment) with the United States Department of Justice that was filed in the U.S. District Court for the District of Columbia on December 11, 2002. Key provisions of the consent decree are intended to assure that the merger will not impede fair and open competition related to certain electronic satellite payloads. The consent decree does not require the divestiture of any businesses and will permit the company to operate its businesses and those of TRW as planned.

The major classes of assets and liabilities for TRW, including auto as business held for sale were as follows:

| <i>(\$ in millions)</i>                           | 2002            |
|---|-----------------|
| Cash and cash equivalents                         | \$ 278          |
| Accounts receivable                               | 483             |
| Prepaid expenses and other current assets         | 91              |
| Net property, plant and equipment                 | 668             |
| Deferred income taxes                             | 489             |
| Goodwill  | 7,410           |
| Other purchased intangible assets                 | 1,032           |
| Miscellaneous other assets                        | 540             |
| Assets of business held for sale                  | 9,215           |
| <b>Total assets</b>                               | <b>\$20,206</b> |
| Trade accounts payable                            | \$ 310          |
| Accrued employee's compensation                   | 291             |
| Current portion of long-term debt                 | 101             |
| Income taxes payable                              | 63              |
| Other current liabilities                         | 497             |
| Long-term debt                                    | 4,515           |
| Accrued retiree benefits                          | 1,848           |
| Deferred income taxes                             | 101             |
| Other long-term liabilities                       | 263             |
| Liabilities of businesses held for sale           | 4,490           |
| Shareholders' equity                              | 7,727           |
| <b>Total liabilities and shareholders' equity</b> | <b>\$20,206</b> |

The acquisition of TRW, which is valued at approximately \$12.5 billion, including the assumption of TRW's debt of \$4.8 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. The company is in the early stages of determining the fair market value of assets acquired and liabilities assumed. These financial statements reflect preliminary estimates of the fair market value for only purchased intangibles, retiree benefits assets and liabilities and debt as well as preliminary estimates of adjustments necessary to conform TRW to the company's accounting policies. Auto is included in the total TRW valuation and is valued and recorded at its sale price which represents its fair market value. The final determination of the fair market value of assets acquired and liabilities assumed and final allocation of the purchase price may differ significantly from the amounts included in these financial statements. Adjustments to the purchase price allocations are expected to be finalized by the fourth quarter of 2003, and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

## NORTHROP GRUMMAN CORPORATION

In 2001, the company purchased Litton Industries, Inc. (Litton), Electronics and Information Systems Group of Aerojet-General Corporation (EIS) and 80.7 percent of Newport News. On January 18, 2002, the company completed the acquisition of the remaining shares of Newport News and now owns 100 percent of Newport News. Newport News is the nation's sole designer, builder and refueler of nuclear powered aircraft carriers and one of only two domestic companies capable of designing and building nuclear-powered submarines. To complete the acquisition, the company issued an additional 3.2 million shares of its common stock and paid cash for the balance of the Newport News shares. In total, the company issued 16.6 million shares of its common stock in relation to the acquisition of Newport News. These shares were valued at \$95.22 per share for purchase accounting purposes. In accordance with generally accepted accounting principles, this value was determined based on the average closing stock price of the company's common stock from December 3, 2001, through December 7, 2001. Following the completion of the acquisition, the company eliminated the 19.3 percent minority interest from its financial statements.

The Litton, Newport News and EIS acquisitions were accounted for using the purchase method of accounting. As of December 31, 2002, the company has completed the fair market value and accounting conformance evaluation process for these acquisitions and all related adjustments have been reflected in these financial statements. 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. Litton's electronic components and materials business comprised Component Technologies, which is classified as discontinued operations. EIS was integrated into Electronic Systems and Newport News is included in the Ships segment.

In 2001, the company accrued \$119 million in restructuring costs related to the acquisition of Litton. These costs included \$29 million to exit a business, \$31 million to close down redundant facilities and \$59 million to terminate and relocate employees. Of the total amount accrued, \$5 million was expensed directly to the income statement and \$114 million was 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 utilized \$25 million of the balance sheet accrual. In 2002, the company accrued an additional \$13 million of costs to close down redundant facilities in relation to this acquisition. During 2002, the company utilized \$57 million of the balance sheet accrual. In addition, \$1 million was reversed to the income statement as it is no longer required. At December 31, 2002, \$49 million of accrued restructure costs remained, including \$25 million in other current liabilities, \$20 million in other long-term liabilities and \$4 million in liabilities of businesses held for sale.

The unaudited pro forma financial information contained herein for 2002 reflects the results of the company for the year ended December 31, 2002, combined with the pro forma results of TRW as if it had been acquired on January 1, 2002. The 2001 pro forma information reflects the results of the company for the year ended December 31, 2001, combined with the pro forma results of Litton, Newport News, and TRW as if they were acquired on January 1, 2001. Each year has been adjusted for TRW's sale of its Aeronautical Systems business to Goodrich Corporation and the company's divestiture of Auto. These combined results are not necessarily indicative of future operating results of the company. Pro forma amounts are presented below:

| <i>Years ended December 31, \$ in millions, except per share (unaudited)</i> | <b>2002</b>     | 2001     |
|--|-----------------|----------|
| Net sales  | <b>\$22,652</b> | \$21,439 |
| Income from continuing operations  | <b>808</b>      | 577      |
| Net income   | <b>175</b>      | 545      |
| Basic earnings per share   | <b>.81</b>      | 3.01     |
| Diluted earnings per share   | <b>.80</b>      | 3.00     |

In 2000, the company acquired Navia Aviation AS, Comptek Research, Inc., Federal Data Corporation, and Sterling Software, Inc., (known as Sterling's Federal Systems Group) for a total of \$643 million in cash and stock, net of cash acquired. The purchase method of accounting was used to record all four acquisitions. 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.

## NORTHROP GRUMMAN CORPORATION

### SEGMENT INFORMATION

The company is aligned into seven business sectors: Electronic Systems, Newport News, Ship Systems, Information Technology, Integrated Systems, Mission Systems and Space Technology. For financial reporting purposes each business sector is a reportable segment with the exception of Newport News and Ship Systems 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*. Segment reporting for Mission Systems and Space Technology, acquired in the TRW acquisition concluded on December 11, 2002, will commence in the first quarter of 2003 as 2002 results for these new segments were not material to the company. The preliminary valuations of TRW assets and liabilities are included in the Consolidated Statement of Financial Position as of December 31, 2002.

Electronic Systems is a leading designer, developer and manufacturer of a wide variety of advanced defense electronics and systems. Electronic Systems provides airborne radar systems, secondary surveillance systems, inertial navigation systems and sensors, electronic warfare systems, precision weapons, air traffic control systems, air defense systems communications systems, space systems, marine systems, oceanic and naval systems, integrated avionics systems and automation and information systems. Headquartered in Baltimore, Maryland the sector includes the Aerospace Electronic Systems, C<sup>4</sup>ISR&N, Defensive Electronic Systems, Navigation Systems, and Space Systems divisions. Operations not included in these divisions are reported as “Other.” Key products include fire control radars for the F-16 fighter aircraft, the F-22 air dominance fighter, the F-35 joint strike fighter, and the Longbow Apache helicopter; the AWACS airborne early warning radar; Joint STARS air-to-ground surveillance radar sensor; Longbow Hellfire missile; tactical military radars, countrywide air defense systems, airborne electronic countermeasures systems, sophisticated undersea warfare systems and naval propulsion and power generation systems. Electronic Systems has 51 major locations worldwide, 19 international offices and approximately 22,000 employees.

Newport News’ 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. Newport News is the nation’s sole designer, builder and refueler of nuclear-powered aircraft carriers and only one of two companies capable of designing and building nuclear-powered submarines. Major programs are the Nimitz-class nuclear powered aircraft carriers and the Virginia-class submarine program. The sector also provides after-market services for a wide array of naval and commercial vessels. Headquartered in Newport News, Virginia, the sector has approximately 18,000 employees.

Ship Systems is one of the nation’s leading full service systems providers for the design, engineering, construction, and life cycle support of major surface ships for the U.S. Navy, U.S. Coast Guard and international navies, and for commercial vessels of all types. Major programs for the U.S. Navy include the WASP LHD 1 Class and San Antonio LPD 17 Class amphibious assault ships, the Arleigh Burke DDG 51 and next generation DD(X) destroyers. The company is also a partner in the Coast Guard’s Deepwater modernization program and produces double-hulled crude oil tankers. Headquartered in Pascagoula, Mississippi, with primary operations in Pascagoula, Mississippi; New Orleans, Louisiana; Gulfport, Mississippi; and Tallulah, Louisiana, as well as in fleet support offices in the U.S. and Japan, Ship Systems has more than 16,000 employees.

The Information Technology segment consists of four lines of business: Government Information Technology, Enterprise Information Technology, Technology Services, and Commercial Information Technology. Government Information Technology covers a wide range of large-scale systems integration, solutions and services 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 (C<sup>4</sup>ISR); training and simulation; science and technology; and information systems markets. Enterprise Information Technology provides enterprise-wide infrastructure and Internet solutions and services to the defense and civil marketplace, including the delivery and integration of commercially available computers, networks, hardware, software and peripherals. Technology Services include base and range support, training and simulation, information systems, and state and local information technology services. Commercial Information Technology provides complete IT outsourcing services directed at the commercial market. Headquartered in Herndon, Virginia, the sector employs more than 23,000 professionals located in 500 sites worldwide.

## NORTHROP GRUMMAN CORPORATION

Integrated Systems is a leader in the design, development and production of airborne early warning, electronic warfare and surveillance and battlefield management systems. Integrated Systems includes the Air Combat, Airborne Early Warnings & Electronic Warfare Systems, and Airborne Ground Surveillance & Battle Management Systems divisions. Integrated Systems is the prime contractor for the Joint STARS advanced airborne targeting and battle management system, Global Hawk and the B-2 Spirit stealth bomber. The sector has principal roles in the F/A-18 Hornet strike fighter and F-35 joint strike fighter programs. Integrated Systems is upgrading the EA-6B Prowler electronic countermeasures aircraft and produces the E-2C Hawkeye early warning aircraft. Headquartered in El Segundo, California, the sector has approximately 12,000 employees.

Mission Systems, headquartered in Reston, Virginia, is a leading global system integrator of complex, mission-enabling systems for government, military and business clients. The organization's technology leadership spans four business areas: command, control and intelligence systems, federal and civil information systems, missile systems and technical services. Products and services are focused on the fields of command and control; strategic missiles; missile and air defense; airborne reconnaissance; unmanned aerial vehicles; intelligence management and processing; electro-magnetic and infrared analysis and decision support systems. Mission Systems has 15,000 employees in more than 300 locations around the world.

Space Technology sector develops a broad range of systems at the leading edge of space, defense and electronics technology. The sector creates products for U.S. government and commercial customers that contribute significantly to the nation's security and leadership in science and technology. Its business areas focus on the design and manufacture of spacecraft systems and subsystems; electronic systems, including communication systems for space and defense; commercial telecommunications products; digital broadband space payloads; space science instruments; advanced avionics systems; high energy laser systems; and spacecraft products, including solar arrays and reflectors. Headquartered in Redondo Beach, California, Space Technology has approximately 9,000 employees in more than 25 locations around the world.

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. The company's discontinued operations are excluded from all of the data elements in this table, except for assets by segment. Northrop Grumman's income statements do not include TRW's post-acquisition results because they were not material. Only the TRW assets at December 31, 2002, are included in the following table.

The company, effective December 31, 2002, revised the way it measures the profitability of its operating segments to better reflect its operating results. Pension and other retiree benefit expenses are now included in the sectors' cost of sales to the extent that these costs are currently recognized under government Cost Accounting Standards (CAS). In order to reconcile from segment operating margin to total company operating margin, these amounts are reported under the caption "Reversal of CAS pension expense included above." Total GAAP pension income or expense continues to be reported separately as a reconciling item under the caption "Pension income or expense." The reconciling item captioned "Unallocated expenses" includes unallocated corporate expenses, state tax provisions, and other retiree benefit expenses. Segment results for all periods presented have been conformed to the new method of measuring profitability.

Foreign sales amounted to approximately \$1.3 billion, \$1.3 billion and \$600 million for the years ended December 31, 2002, 2001 and 2000, 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.

**NORTHROP GRUMMAN CORPORATION**

**RESULTS OF OPERATIONS BY SEGMENT AND MAJOR CUSTOMER**

| <i>Years ended December 31, \$ in millions</i>      | <b>2002</b>     | <b>2001</b>     | <b>2000</b>    |
|---|-----------------|-----------------|----------------|
| <b>Net Sales</b>                                    |                 |                 |                |
| <b>Electronic Systems</b>                           |                 |                 |                |
| United States Government                            | \$ 2,966        | \$ 2,830        | \$2,102        |
| Other customers                                     | 2,120           | 1,591           | 692            |
| Intersegment sales                                  | 253             | 166             | 121            |
|   | <b>5,339</b>    | <b>4,587</b>    | <b>2,915</b>   |
| <b>Ships</b>  |                 |                 |                |
| United States Government                            | 4,445           | 1,487           |                |
| Other customers                                     | 251             | 392             |                |
| Intersegment sales                                  | 16              | 1               |                |
|   | <b>4,712</b>    | <b>1,880</b>    |                |
| <b>Information Technology</b>                       |                 |                 |                |
| United States Government                            | 3,700           | 3,231           | 1,457          |
| Other customers                                     | 467             | 491             | 228            |
| Intersegment sales                                  | 70              | 61              | 32             |
|   | <b>4,237</b>    | <b>3,783</b>    | <b>1,717</b>   |
| <b>Integrated Systems</b>                           |                 |                 |                |
| United States Government                            | 3,096           | 2,869           | 3,103          |
| Other customers                                     | 161             | 121             | 36             |
| Intersegment sales                                  | 16              | 11              | 11             |
|   | <b>3,273</b>    | <b>3,001</b>    | <b>3,150</b>   |
| Intersegment eliminations                           | (355)           | (239)           | (164)          |
| Total net sales                                     | <b>\$17,206</b> | <b>\$13,012</b> | <b>\$7,618</b> |
| <b>Operating Margin</b>                             |                 |                 |                |
| Electronic Systems                                  | \$ 435          | \$ 350          | \$ 157         |
| Ships   | 306             | 19              |                |
| Information Technology                              | 249             | 173             | 103            |
| Integrated Systems                                  | 331             | 265             | 306            |
|   | <b>1,321</b>    | <b>807</b>      | <b>566</b>     |
| Adjustments to reconcile to total operating margin: |                 |                 |                |
| Unallocated expenses                                | (105)           | (134)           | (42)           |
| Pension income                                      | 90              | 335             | 538            |
| Reversal of CAS pension expense included above      | 100             | 43              | 42             |
| Reversal of royalty income included above           | (15)            | (18)            | (6)            |
| Total operating margin                              | <b>\$ 1,391</b> | <b>\$ 1,033</b> | <b>\$1,098</b> |

## NORTHROP GRUMMAN CORPORATION

| <i>Years ended December 31, \$ in millions</i> | 2002     | 2001     | 2000    |
|--|----------|----------|---------|
| <b>Assets</b>                                  |          |          |         |
| Electronic Systems                             | \$ 5,446 | \$ 5,764 | \$4,069 |
| Ships  | 6,532    | 6,040    |         |
| Information Technology                         | 2,178    | 2,099    | 1,247   |
| Integrated Systems                             | 2,173    | 2,088    | 2,238   |
| Mission Systems                                | 4,759    |          |         |
| Space Technology                               | 4,829    |          |         |
| Segment assets                                 | 25,917   | 15,991   | 7,554   |
| General corporate                              | 6,728    | 3,620    | 2,068   |
| Assets of businesses held for sale             | 9,621    | 1,207    |         |
| Total assets                                   | \$42,266 | \$20,818 | \$9,622 |
| <b>Capital Expenditures</b>                    |          |          |         |
| Electronic Systems                             | \$ 263   | \$ 195   | \$ 118  |
| Ships  | 76       | 44       |         |
| Information Technology                         | 45       | 46       | 22      |
| Integrated Systems                             | 134      | 79       | 124     |
| General corporate                              | 3        | 3        | 1       |
| Total expenditures                             | \$ 521   | \$ 367   | \$ 265  |
| <b>Depreciation and Amortization</b>           |          |          |         |
| Electronic Systems                             | \$ 226   | \$ 301   | \$ 236  |
| Ships  | 147      | 82       |         |
| Information Technology                         | 44       | 90       | 32      |
| Integrated Systems                             | 78       | 102      | 112     |
| General corporate                              | 1        | 1        | 1       |
| Total depreciation and amortization            | \$ 496   | \$ 576   | \$ 381  |

## NORTHROP GRUMMAN CORPORATION

### EARNINGS PER SHARE

Basic earnings per share from continuing operations before cumulative effect of accounting change are calculated by dividing income available to common shareholders from continuing operations before cumulative effect of accounting change by the weighted average number of shares of common stock outstanding during each period, after giving recognition to stock splits and stock dividends. Income available to common shareholders from continuing operations before cumulative effect of accounting change is calculated by reducing income from continuing operations before cumulative effect of accounting change by the amount of dividends accrued on mandatorily redeemable preferred stock. Diluted earnings per share from continuing operations before cumulative effect of accounting change reflect the dilutive effect of stock options and other stock awards granted to employees under stock-based compensation plans and the dilutive effect of the equity security units as applicable. Shares issuable pursuant to 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 from continuing operations before cumulative effect of accounting change are calculated as follows:

| <i>(in millions, except per share)</i>   | 2002           | 2001           | 2000           |
|--|----------------|----------------|----------------|
| <b>Basic Earnings per Share</b>  |                |                |                |
| Income from continuing operations before cumulative effect of accounting change                                  | \$ 697         | \$ 459         | \$ 625         |
| Less preferred dividends   | 25             | 18             |                |
| Income available to common shareholders from continuing operations before cumulative effect of accounting change | <u>\$ 672</u>  | <u>\$ 441</u>  | <u>\$ 625</u>  |
| Weighted-average common shares outstanding   | 115.53         | 84.46          | 70.58          |
| <b>Basic earnings per share from continuing operations before cumulative effect of accounting change</b>         | <u>\$ 5.82</u> | <u>\$ 5.22</u> | <u>\$ 8.86</u> |
| <b>Diluted Earnings per Share</b>  |                |                |                |
| Income from continuing operations before cumulative effect of accounting change                                  | \$ 697         | \$ 459         | \$ 625         |
| Less preferred dividends   | 25             | 18             |                |
| Income available to common shareholders from continuing operations before cumulative effect of accounting change | <u>\$ 672</u>  | <u>\$ 441</u>  | <u>\$ 625</u>  |
| Weighted-average common shares outstanding   | 115.53         | 84.46          | 70.58          |
| Dilutive effect of stock options, awards and equity security units   | 1.90           | .80            | .30            |
| Weighted-average diluted shares outstanding  | <u>117.43</u>  | <u>85.26</u>   | <u>70.88</u>   |
| <b>Diluted earnings per share from continuing operations before cumulative effect of accounting change</b>       | <u>\$ 5.72</u> | <u>\$ 5.17</u> | <u>\$ 8.82</u> |

## NORTHROP GRUMMAN CORPORATION

### 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, 2002, are expected to be collected in 2003 except for approximately \$74 million due in 2004 and \$105 million due in 2005 and later.

Allowances for doubtful amounts mainly represent estimates of overhead type costs which may not be successfully negotiated and collected. Increases in 2002 reflect the acquisition of TRW.

Accounts receivable were composed of the following:

| <i>\$ in millions</i>                                | 2002            | 2001            |
|--|-----------------|-----------------|
| <b>Due from U.S. Government, long-term contracts</b> |                 |                 |
| Current accounts                                     |                 |                 |
| Billed   | \$ 963          | \$ 677          |
| Unbilled   | 15,710          | 12,987          |
| Progress payments received                           | (14,511)        | (12,112)        |
|  | <b>2,162</b>    | <b>1,552</b>    |
| <b>Due from other customers, long-term contracts</b> |                 |                 |
| Current accounts                                     |                 |                 |
| Billed   | 210             | 189             |
| Unbilled   | 126             | 209             |
|  | <b>336</b>      | <b>398</b>      |
| Total due, long-term contracts                       | <b>2,498</b>    | <b>1,950</b>    |
| <b>Trade and other accounts receivable</b>           |                 |                 |
| Due from U.S. Government                             | 426             | 383             |
| Due from other customers                             | 255             | 448             |
| Total due, trade and other                           | <b>681</b>      | <b>831</b>      |
|  | <b>3,179</b>    | <b>2,781</b>    |
| Allowances for doubtful amounts                      | (290)           | (138)           |
|  | <b>\$ 2,889</b> | <b>\$ 2,643</b> |

## NORTHROP GRUMMAN CORPORATION

### INVENTORIED COSTS

Inventoried costs were composed of the following:

| <i>\$ in millions</i>                    | 2002           | 2001    |
|--|----------------|---------|
| Production costs of contracts in process | <b>\$1,553</b> | \$1,554 |
| Administrative and general expenses      | <b>204</b>     | 221     |
|  | <b>1,757</b>   | 1,775   |
| Progress payments received               | <b>(988)</b>   | (881)   |
|  | <b>769</b>     | 894     |
| Product inventory                        | <b>322</b>     | 204     |
|  | <b>\$1,091</b> | \$1,098 |

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.

### GOODWILL AND OTHER PURCHASED INTANGIBLE ASSETS

Effective January 1, 2002, the company adopted SFAS No. 142 – *Goodwill and Other Intangible Assets*, which changes the accounting for goodwill from an amortization method to an impairment-only approach. In accordance with the statement, amortization of goodwill, including goodwill recorded in past business combinations, ceased December 31, 2001. The statement also required an initial impairment assessment of goodwill and annual impairment tests thereafter. During the second quarter of 2002, the company completed the first step of the required initial test for potential impairment of goodwill recorded at January 1, 2002. The company used a discounted cash flow approach, corroborated by comparative market multiples, where appropriate, to determine the fair value of reporting units. The results indicated potential impairment only in the reporting units of the Component Technologies sector due to unfavorable market conditions. During the third quarter of 2002, the company completed the measurement of the Component Technologies goodwill impairment as of January 1, 2002, and recorded a noncash charge of \$432 million, which, in accordance with GAAP, is reported in the 2002 first quarter under the caption “Cumulative effect of accounting change.”

## NORTHROP GRUMMAN CORPORATION

Goodwill was amortized on a straight-line basis over a weighted average period of 35 years in 2001, with the exception of approximately \$1.9 billion of goodwill resulting from the fourth quarter 2001 acquisitions of Newport News and EIS, which was not amortized pursuant to the transitional guidance of SFAS No. 142. The changes in the carrying amount of goodwill for the twelve months ended December 31, 2002, are summarized below. Amounts allocated to Mission Systems and Space Technology represent preliminary estimates.

| <i>\$ in millions</i>  | Balance as of 1/01/02 (including discontinued operations) | Goodwill acquired | Cumulative effect of accounting change | Goodwill impairment loss included in loss from discontinued operations | Goodwill transferred to assets of businesses held for sale | Fair value adjustments to net assets acquired in prior year | Balance as of 12/31/02 |
|------------------------|---|-------------------|--|--|--|---|------------------------|
| Electronic Systems     | \$2,590   | \$                | \$                                     | \$   | \$ (42)  | \$ 9  | \$ 2,557               |
| Ships                  | 3,308   | 322               |  |  |  | 5   | 3,635                  |
| Information Technology | 1,109   |                   |  |  |  | 8   | 1,117                  |
| Integrated Systems     | 938   |                   |  |  |  |   | 938                    |
| Component Technologies | 723   |                   | (432)                                  | (186)  | (112)  | 7   |                        |
| Mission Systems        |   | 3,705             |  |  |  |   | 3,705                  |
| Space Technology       |   | 3,705             |  |  |  |   | 3,705                  |
| <b>Total</b>           | <b>\$8,668</b>  | <b>\$7,732</b>    | <b>\$(432)</b>                         | <b>\$(186)</b>   | <b>\$(154)</b>   | <b>\$29</b>   | <b>\$15,657</b>        |

In connection with the Newport News acquisition the company assigned an estimated value of \$137 million as of December 31, 2001 of the purchase price to purchased intangible assets in the Ships segment, which was initially amortized on a straight-line basis over a weighted average period of 11 years. During the second quarter of 2002, the company completed its evaluation of the fair value of these purchased intangible assets, which resulted in a value of \$768 million and a weighted average useful life of 47 years. In connection with the acquisition of TRW, the company has recorded a preliminary estimate of \$1,032 million of the purchase price to purchased intangible assets using a preliminary weighted average life of 10 years. See the "Acquisitions" footnote contained herein for additional information. The table below summarizes the company's aggregate purchased intangible assets as of December 31, 2002.

| <i>\$ in millions</i>            | <b>Gross Carrying Amount</b> | <b>Accumulated Amortization</b> |
|----------------------------------|------------------------------|---------------------------------|
| Contract and program intangibles | \$3,253                      | \$(714)                         |
| Other purchased intangibles      | 60                           | (46)                            |
| <b>Total</b>                     | <b>\$3,313</b>               | <b>\$(760)</b>                  |

All of the company's purchased intangible assets are subject to amortization and are being amortized on a straight-line basis over an aggregate weighted average period of 20 years. Aggregate amortization expense for the twelve months ended December 31, 2002, was \$178 million, including \$14 million of amortization expense reported in discontinued operations. The table below shows expected amortization for purchased intangibles as of December 31, 2002, for the next five years:

| <i>\$ in millions</i>  |       |
|------------------------|-------|
| Year ended December 31 |       |
| 2003                   | \$265 |
| 2004                   | 263   |
| 2005                   | 254   |
| 2006                   | 192   |
| 2007                   | 179   |

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The table below reconciles and compares reported amounts to adjusted amounts excluding goodwill amortization.

| <i>\$ in millions</i>   | Year ended December 31, |         |         |
|---|-------------------------|---------|---------|
|   | 2002                    | 2001    | 2000    |
| <b>Operating Margin</b>   |                         |         |         |
| Electronic Systems  | \$ 435                  | \$ 350  | \$ 157  |
| Add back goodwill amortization  |                         | 80      | 63      |
| Electronic Systems – comparable                                       | 435                     | 430     | 220     |
| Ships   | 306                     | 19      |         |
| Add back goodwill amortization  |                         | 31      |         |
| Ships – comparable  | 306                     | 50      |         |
| Information Technology  | 249                     | 173     | 103     |
| Add back goodwill amortization  |                         | 58      | 20      |
| Information Technology – comparable                                   | 249                     | 231     | 123     |
| Integrated Systems  | 331                     | 265     | 306     |
| Add back goodwill amortization  |                         | 32      | 31      |
| Integrated Systems – comparable                                       | 331                     | 297     | 337     |
| Segment Operating Margin  | 1,321                   | 807     | 566     |
| Add back goodwill amortization  |                         | 201     | 114     |
| Segment Operating Margin – comparable                                 | \$1,321                 | \$1,008 | \$ 680  |
| Total Operating Margin  | \$1,391                 | \$1,033 | \$1,098 |
| Add back goodwill amortization  |                         | 201     | 114     |
| Total Operating Margin – comparable                                   | \$1,391                 | \$1,234 | \$1,212 |
| <b>Net Income</b>   |                         |         |         |
| As reported   | \$ 64                   | \$ 427  | \$ 608  |
| Add back goodwill amortization, net of tax                            |                         | 183     | 93      |
| Add back goodwill amortization in discontinued operations, net of tax |                         | 35      |         |
| Comparable  | \$ 64                   | \$ 645  | \$ 701  |
| <b>Basic Earnings Per Share</b>                                       |                         |         |         |
| As reported   | \$ .35                  | \$ 4.84 | \$ 8.61 |
| Add back goodwill amortization, net of tax                            |                         | 2.17    | 1.32    |
| Add back goodwill amortization in discontinued operations, net of tax |                         | .41     |         |
| Comparable  | \$ .35                  | \$ 7.42 | \$ 9.93 |
| <b>Diluted Earnings Per Share</b>                                     |                         |         |         |
| As reported   | \$ .34                  | \$ 4.80 | \$ 8.58 |
| Add back goodwill amortization, net of tax                            |                         | 2.15    | 1.31    |
| Add back goodwill amortization in discontinued operations, net of tax |                         | .40     |         |
| Comparable  | \$ .34                  | \$ 7.35 | \$ 9.89 |

## NORTHROP GRUMMAN CORPORATION

### FAIR VALUE OF FINANCIAL INSTRUMENTS

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

| <i>\$ in millions</i>         | 2002            |            | 2001            |            |
|-------------------------------|-----------------|------------|-----------------|------------|
|                               | Carrying Amount | Fair Value | Carrying Amount | Fair Value |
| Cash and cash equivalents     | \$1,412         | \$ 1,412   | \$ 464          | \$ 464     |
| Short-term notes payable      | 22              | 22         | 30              | 30         |
| Long-term debt                | 9,601           | 10,179     | 5,458           | 5,819      |
| Forward share sale agreements |                 |            |                 |            |
| Liability portion             | (228)           | (237)      |                 |            |
| Hedge portion                 | 205             | 205        |                 |            |

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 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 as of the years ended December 31, 2002, or December 31, 2001. 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, 2002, the amount of foreign currency forward contracts outstanding was not material.

In connection with the TRW acquisition, the company has acquired investments in RF Micro Devices, Inc. (RFMD) and Applera Corporation – Celera Genomics Group (Celera), two publicly traded companies. The company has also acquired certain hedges that are designed to protect the forecasted cash flows resulting from the future sale of shares in these investments.

In 2000, TRW monetized a portion of its holdings in RFMD through the execution of three forward share sale agreements. The company is now obligated under these agreements to deliver up to 4 million shares of RFMD common stock, in the aggregate, upon maturity of the contracts. Also in 2000, TRW similarly monetized its holdings of 229,354 shares in Celera through an agreement maturing in December 2003. The company is obligated under this agreement to deliver up to 229,354 shares of Celera common stock, in the aggregate, upon maturity of the contract. The actual number of shares to be delivered will be determined on the basis of a formula in the agreements. Through the setting of a floor and ceiling price, these agreements eliminate the company's exposure to downside market risk, while enabling the company to retain potential market appreciation up to the respective ceiling price. Certain terms of the agreements are summarized below:

|   | RFMD          |             |               | Celera        |
|---|---------------|-------------|---------------|---------------|
|   | February 2003 | August 2003 | February 2004 | December 2003 |
| Maturity dates                                | February 2003 | August 2003 | February 2004 | December 2003 |
| Number of shares                              | 1,333,334     | 1,333,334   | 1,333,332     | 229,354       |
| Floor price per share                         | \$54          | \$54        | \$54          | \$102         |
| Ceiling price per share                       | 79            | 86          | 93            | 176           |
| Up-front proceeds as a percent of floor price | 80%           | 78%         | 75%           | 80%           |

## NORTHROP GRUMMAN CORPORATION

The investments in RFMD and Celera and the related hedge portion of the forward share sale agreements are carried at fair market value. Changes in fair market value of the company's shares of RFMD and Celera, including the shares monetized, are recorded in the other comprehensive income (loss) component of shareholders' equity. Any gains or losses reported in other comprehensive income (loss) will be reclassified to net income at the maturity of these agreements.

The fair value of the RFMD shares at December 31, 2002, excluding the effect of the forward share sale agreements, was approximately \$30 million. The fair value of the Celera shares at December 31, 2002, excluding the effect of the forward share sale agreement, was approximately \$2 million.

### INCOME TAXES

Income tax expense, both federal and foreign, consisted of the following:

| <i>Years ended December 31, \$ in millions</i>      | <b>2002</b>    | 2001          | 2000          |
|---|----------------|---------------|---------------|
| <b>Income taxes on continuing operations:</b>       |                |               |               |
| Currently payable                                   |                |               |               |
| Federal income taxes                                | <b>\$1,017</b> | \$ 45         | \$ 96         |
| Foreign income taxes                                | <b>16</b>      | 10            | 5             |
|   | <b>1,033</b>   | 55            | 101           |
| Change in deferred federal and foreign income taxes | <b>(721)</b>   | 213           | 249           |
| <b>Total income taxes on continuing operations</b>  | <b>\$ 312</b>  | <b>\$ 268</b> | <b>\$ 350</b> |

Income tax expense differs from the amount computed by multiplying the statutory federal income tax rate times the income from continuing operations before income taxes and 2002's cumulative effect of accounting change due to the following:

| <i>Years ended December 31, \$ in millions</i>                | <b>2002</b>   | 2001          | 2000          |
|---|---------------|---------------|---------------|
| Income tax expense on continuing operations at statutory rate | <b>\$ 353</b> | \$ 245        | \$ 341        |
| Goodwill amortization   |               | 58            | 20            |
| Extraterritorial income exclusion/foreign sales corporation   | <b>(10)</b>   | (15)          | (7)           |
| Other, net  | <b>(31)</b>   | (20)          | (4)           |
|   | <b>\$ 312</b> | <b>\$ 268</b> | <b>\$ 350</b> |

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and tax purposes. Such amounts are classified as current or deferred based upon the balance sheet classification of the related assets and liabilities. The company's principal temporary differences stem from the recognition of income on contracts and retiree benefit plan income/expense under different methods for tax purposes than for financial reporting.

## NORTHROP GRUMMAN CORPORATION

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 previously:

| <i>Years ended December 31, \$ in millions</i>                     | <b>2002</b>    | 2001     |
|--|----------------|----------|
| <b>Assets</b>  |                |          |
| Retirement benefit plan expense                                    | <b>\$1,429</b> | \$ 51    |
| Administration and general expenses period costed for tax purposes | <b>8</b>       | 30       |
| Provision for estimated expenses                                   | <b>542</b>     | 466      |
| Contract accounting differences                                    | <b>456</b>     |          |
| Tax credits  | <b>36</b>      | 104      |
| Other  | <b>708</b>     | 126      |
| Total deferred tax assets  | <b>3,179</b>   | 777      |
| <b>Liabilities</b>   |                |          |
| Retirement benefit plan income                                     | <b>451</b>     | 318      |
| Contract accounting differences                                    | <b>14</b>      | 729      |
| Purchased intangibles  | <b>608</b>     | 163      |
| Depreciation and amortization                                      | <b>354</b>     | 328      |
| Goodwill amortization  | <b>367</b>     | 171      |
| Other  | <b>549</b>     | 43       |
| Total deferred tax liabilities                                     | <b>2,343</b>   | 1,752    |
| Net deferred tax assets (liabilities)                              | <b>\$ 836</b>  | \$ (975) |

At December 31, 2002 and 2001 the company had net current deferred tax assets of \$662 million and \$36 million, respectively, and non-current net deferred tax assets of \$174 million and \$2 million, respectively. At December 31, 2001, the company had net current deferred tax liabilities of \$344 million and non-current net deferred tax liabilities of \$669 million.

Consolidated year-end deferred tax balances include amounts acquired in the TRW transaction, net of deferred tax balances related to Auto which have been classified as assets/liabilities of businesses held for sale. 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 \$78 million at December 31, 2002, 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 \$7 million at December 31, 2002, to offset future federal income tax liabilities. These credits will expire in 2003 and 2004. The company utilized \$27 million of carryforward credits attributable to research activities during 2002. The company also utilized \$53 million in alternative minimum tax credit carryforwards during 2002. The company also has at December 31, 2002, other credit forwards from TRW in the amount of \$29 million available for future tax offsets.

As of December 31, 2002, the company had approximately \$960 million of goodwill amortizable over periods of approximately 8 years which arose in connection with the acquisition of Westinghouse defense electronics operations in 1996 and are reported in the Eletronics Systems sector.

## **NORTHROP GRUMMAN CORPORATION**

### **NOTES PAYABLE TO BANKS AND LONG-TERM DEBT**

The company has available short-term credit lines in the form of money market facilities with several banks. The amount and conditions for borrowing under these credit lines depend on the availability and terms prevailing in the marketplace. No fees or compensating balances are required for these credit facilities. In connection with the acquisition of TRW, the company assumed various notes and debentures amounting to approximately \$4.8 billion.

In March, 2003 the company commenced the first phase of its debt reduction plan by offering to purchase a range of debt securities, due 2004 to 2021, with interest rates ranging from 6.05 percent to 9.375 percent and an outstanding value of approximately \$2.85 billion. The offers were extended with a fixed spread over market of 35 to 95 basis points. The company will use a portion of the cash proceeds from the recent sale of Auto to finance the purchase of securities tendered pursuant to the offers. As of March 18, 2003 the company had repurchased 85.7 percent of the face value of the debt securities offered.

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 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'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 covenants, representations and warranties, funding conditions and events of default. Under the most restrictive provision of the Credit Facilities, the estimated amount available for common stock dividend declaration, while maintaining financial agreement covenant compliance, was \$507 million at December 31, 2002.

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.

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

| <i>\$ in millions</i>  | 2002           | 2001    |
|--|----------------|---------|
| Notes due 2003 to 2028, rates from 3.00% to 9.375%           | <b>\$5,946</b> | \$2,446 |
| Equity security unit notes due 2006, 7.25%                   | <b>690</b>     | 690     |
| Debentures due 2016 to 2036, rates from 6.75% to 7.75%       | <b>2,826</b>   | 2,180   |
| Other indebtedness due 2004 to 2024, rates from 7.0% to 8.5% | <b>139</b>     | 142     |
|  | <b>9,601</b>   | 5,458   |
| Less current portion   | <b>203</b>     | 420     |
|  | <b>\$9,398</b> | \$5,038 |

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, 2002 matures as follows:

| <i>\$ in millions</i>                      |                |
|--|----------------|
| Year Ended December 31                     |                |
| 2004                                       | \$1,085        |
| 2005                                       | 207            |
| 2006                                       | 2,095          |
| 2007                                       | 82             |
| Thereafter                                 | 5,435          |
| Total principal payments                   | 8,904          |
| Premium on long-term debt, net of discount | 494            |
| Total long-term debt                       | <b>\$9,398</b> |

The premium on long-term debt primarily represents non-cash fair market value adjustments resulting from the acquisitions of Litton and TRW.

### MINORITY INTEREST

As of December 31, 2002, the minority interest balance is primarily comprised of preferred shares of a subsidiary totaling \$116 million. Upon the acquisition of TRW on December 11, 2002, TRW Automotive Inc. (TAI) became a subsidiary of Northrop Grumman Corporation. As of December 31, 2002, TAI has outstanding 100,000 shares of Series A Convertible Preferred Stock (TAI Series A) and 30,000 shares of Series B Preferred Stock (TAI Series B) (of which 14,000 shares are owned by Northrop Grumman) with a per share liquidation preference of \$1,000 plus accrued and unpaid dividends. The dividend rate of TAI Series A and B is 12 percent per year, payable quarterly, subject to increase if certain financial covenants are not maintained. TAI Series A and B shares are redeemable at the holders' option upon the sale of substantially all of the assets of TAI. The redemption, at the liquidation preference price, would be on May 29, 2003 or the holders may elect to defer such redemption until December 10, 2004. TAI Series B shares are redeemable at the holders option on each of the 6<sup>th</sup> through 19<sup>th</sup> anniversaries and at any time after the 20<sup>th</sup> anniversary of the original issuance date. TAI may redeem the Series B shares on the 5<sup>th</sup>, 10<sup>th</sup>, 15<sup>th</sup>, and 20<sup>th</sup> anniversary dates. Holders of TAI Series B stock also may require Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.) to repurchase the shares at the second anniversary of issuance and Northrop Grumman Space & Mission Systems Corp. may redeem these shares on the third anniversary of issuance.

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On February 28, 2003, the company sold all the assets of TAI to the Blackstone Group and TAI Series A and Series B became redeemable at the holders option. The company received notification that the holder of all TAI Series A shares and 2,000 TAI Series B shares has elected to have these shares redeemed on May 29, 2003. The company has also received notification that the holder of 14,000 TAI Series B shares intends to exercise its sale redemption election on December 10, 2004.

At December 31, 2001, the minority interest balance was principally comprised of the 19.3 percent minority share in Newport News which the company did not own. On January 18, 2002, the company completed the acquisition of the remaining shares of Newport News and now owns 100 percent of Newport News. Following the completion of the acquisition, the company eliminated the 19.3 percent minority interest from its financial statements.

### **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 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 over 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. Starting in July, 2003 the pension benefit for most employees, principally those participating in Northrop and Litton heritage plans, will be based upon new criteria, whereby employees earn age and service points over the employment period. Subsequent to the 2003 initial phase in, other exempt and non-exempt plans will be conformed to the new model. No settlement or curtailments will arise as a result of these changes. Union plans will not be affected by these plan modifications. Nine of the company's 21 qualified plans, which cover approximately 60 percent of all employees, were in a legally defined full-funding limitation status at December 31, 2002.

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. Certain employees achieve eligibility to participate in these contributory plans upon retirement from active service and if they meet specified age and years of service requirements. Election to participate must be made at the date of retirement. Qualifying dependents are also eligible for medical coverage. Approximately 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

## NORTHROP GRUMMAN CORPORATION

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 Voluntary Employees' Beneficiary Association (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.

| <i>\$ in millions</i>  | Pension Benefits |                 |                 | Medical and Life Benefits |             |              |
|--|------------------|-----------------|-----------------|---------------------------|-------------|--------------|
|  | 2002             | 2001            | 2000            | 2002                      | 2001        | 2000         |
| <b>Components of net periodic benefit cost (income)</b>              |                  |                 |                 |                           |             |              |
| Service cost   | \$ 303           | \$ 205          | \$ 175          | \$ 34                     | \$25        | \$ 26        |
| Interest cost  | 859              | 770             | 694             | 128                       | 99          | 98           |
| Expected return on plan assets                                       | (1,289)          | (1,273)         | (1,236)         | (29)                      | (35)        | (43)         |
| Amortization of  |                  |                 |                 |                           |             |              |
| Prior service costs  | 51               | 52              | 41              | 1                         |             | 1            |
| Transition assets, net   | (34)             | (39)            | (40)            |                           |             |              |
| Net loss (gain) from previous years                                  | 14               | (52)            | (194)           | 1                         | (11)        | (29)         |
| Curtailed income   |                  |                 | (31)            |                           |             | 1            |
| Settlement cost (income)   | 2                |                 | 131             | (3)                       |             | (370)        |
| <b>Net periodic benefit cost (income)</b>                            | <b>(94)</b>      | <b>(337)</b>    | <b>(460)</b>    | <b>132</b>                | <b>78</b>   | <b>(316)</b> |
| Less net periodic benefit cost (income) included in                  |                  |                 |                 |                           |             |              |
| Income from discontinued operations                                  | (4)              | (2)             | (22)            |                           |             | 7            |
| Loss on disposal of discontinued operations                          |                  |                 | 100             |                           |             | (369)        |
| <b>Net periodic benefit cost (income) from continuing operations</b> | <b>\$ (90)</b>   | <b>\$ (335)</b> | <b>\$ (538)</b> | <b>\$ 132</b>             | <b>\$78</b> | <b>\$ 46</b> |
| <b>Defined contribution plans cost</b>                               | <b>\$ 148</b>    | <b>\$ 120</b>   | <b>\$ 80</b>    |                           |             |              |

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.

|  | 2002  | 2001  | 2000  |
|--|-------|-------|-------|
| Discount rate for obligations                    | 6.50% | 7.00% | 7.50% |
| Rate of increase for compensation                | 4.00  | 4.50  | 5.00  |
| Expected long-term rate of return on plan assets | 9.00  | 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 expected long-term rate of return on plan assets was reduced accordingly to an after tax rate. 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 10 percent for 2003 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:

| <i>\$ in millions</i>                                   | 1-Percentage-Point Increase | 1-Percentage-Point Decrease |
|---|-----------------------------|-----------------------------|
| Effect on total of service and interest cost components | \$ 15                       | \$ (13)                     |
| Effect on postretirement benefit obligation             | 191                         | (162)                       |

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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 23 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.

| <i>\$ in millions</i>   | <b>Pension Benefits</b> |          | <b>Medical and Life Benefits</b> |           |
|---|-------------------------|----------|----------------------------------|-----------|
|   | <b>2002</b>             | 2001     | <b>2002</b>                      | 2001      |
| <b>Change in benefit obligation</b>   |                         |          |                                  |           |
| Benefit obligation at beginning of year                                       | <b>\$12,404</b>         | \$ 9,121 | <b>\$ 1,813</b>                  | \$ 1,173  |
| Service cost  | <b>303</b>              | 205      | <b>34</b>                        | 25        |
| Interest cost   | <b>859</b>              | 770      | <b>128</b>                       | 99        |
| Plan participants' contributions  | <b>14</b>               | 10       | <b>50</b>                        | 41        |
| Plan amendments   | <b>34</b>               | 12       |                                  | 5         |
| Actuarial loss  | <b>230</b>              | 705      | <b>262</b>                       | 120       |
| Divestiture   | <b>(10)</b>             | (18)     | <b>(3)</b>                       |           |
| Acquisitions  | <b>8,450</b>            | 2,391    | <b>1,700</b>                     | 484       |
| Benefits paid   | <b>(760)</b>            | (792)    | <b>(175)</b>                     | (134)     |
| Benefit obligation at end of year   | <b>21,524</b>           | 12,404   | <b>3,809</b>                     | 1,813     |
| <b>Change in plan assets</b>  |                         |          |                                  |           |
| Fair value of plan assets at beginning of year                                | <b>13,889</b>           | 11,763   | <b>488</b>                       | 580       |
| Actual loss on plan assets  | <b>(1,355)</b>          | (537)    | <b>(81)</b>                      | (44)      |
| Employer contributions  | <b>115</b>              | 152      | <b>95</b>                        | 42        |
| Plan participants' contributions  | <b>14</b>               | 10       | <b>50</b>                        | 41        |
| Divestiture   | <b>(9)</b>              | (18)     |                                  |           |
| Acquisitions  | <b>6,638</b>            | 3,311    | <b>184</b>                       | 3         |
| Benefits paid   | <b>(760)</b>            | (792)    | <b>(175)</b>                     | (134)     |
| Fair value of plan assets at end of year                                      | <b>18,532</b>           | 13,889   | <b>561</b>                       | 488       |
| Funded status   | <b>(2,992)</b>          | 1,485    | <b>(3,248)</b>                   | (1,325)   |
| Unrecognized prior service cost   | <b>293</b>              | 310      | <b>6</b>                         | 7         |
| Unrecognized net transition asset   |                         | (34)     |                                  |           |
| Unrecognized net loss   | <b>3,622</b>            | 765      | <b>380</b>                       | 8         |
| Net asset (liability) recognized  | <b>\$ 923</b>           | \$ 2,526 | <b>\$(2,862)</b>                 | \$(1,310) |
| <b>Amounts recognized in the statements of financial position</b>             |                         |          |                                  |           |
| Prepaid benefit cost  | <b>\$ 3,224</b>         | \$ 3,026 | <b>\$ 43</b>                     | \$ 40     |
| Accrued benefit liability   | <b>(1,893)</b>          | (496)    | <b>(1,927)</b>                   | (1,350)   |
| Accrued benefit liability included in liabilities of businesses held for sale | <b>(408)</b>            | (4)      | <b>(978)</b>                     |           |
| Additional minimum liability  | <b>(2,122)</b>          | (81)     |                                  |           |
| Intangible asset  | <b>351</b>              | 9        |                                  |           |
| Accumulated other comprehensive loss  | <b>1,771</b>            | 72       |                                  |           |
| Net asset (liability) recognized  | <b>\$ 923</b>           | \$ 2,526 | <b>\$(2,862)</b>                 | \$(1,310) |

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For pension plans with benefit obligations in excess of assets as of December 31, 2002, the projected benefit obligation was \$19,344 million, the accumulated benefit obligation was \$17,649 million, and the fair value of assets was \$15,922 million. 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.

Pension plan assets at December 31, 2002, comprised 43 percent domestic equity investments in listed companies (including 7 percent in Northrop Grumman common stock); 17 percent equity investments listed on international exchanges; 29 percent in fixed income investments; 9 percent in venture capital and real estate investments; and 2 percent in cash and cash equivalents. The investment in Northrop Grumman represents 10,854,939 shares, or 5.95 percent of the company's total shares outstanding.

Retiree health care and life insurance plan assets at December 31, 2002, comprised 57 percent domestic equity investments in listed companies; 21 percent equity investments on international exchanges; 15 percent in fixed income investments and 7 percent in cash and equivalents.

### LITIGATION, COMMITMENTS AND CONTINGENCIES

The company is subject to a range of claims, lawsuits, environmental matters 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 internal and external legal counsel. In accordance with SFAS No. 5—*Accounting for Contingencies*, amounts are recorded as charges to earnings when management has determined that it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The ultimate resolution of any exposure to the company may vary from earlier estimates as further facts and circumstances become known. Based upon available information, it is the company's expectation that known legal actions are either without merit or will have no material adverse effect on the company's results of operations or financial position. For newly acquired businesses, management applies judgment in estimating the fair value of liabilities assumed, including those related to claims, lawsuits, environmental matters and administrative proceedings, as part of its purchase accounting activities. While the company cannot predict the ultimate outcome of these matters, resolution of one or more of these matters individually or in the aggregate is not expected to have a material effect on the company's financial position or results of operations, but resolution of these matters may have a material effect on cash flows.

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 Claims 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.

During 1996, in *U.S. exrel, Bagley v. TRW Inc.*, the U.S. Department of Justice (DOJ) advised TRW that it had been named as a defendant in lawsuits brought by a former employee originally filed under seal in 1994 and 1995 in the United States District Court for the Central District of California under the *qui tam* provisions of the civil False Claims Act. The DOJ subsequently advised that it would intervene in the litigation. In a consolidated complaint filed jointly by the former employee and the DOJ, it is alleged that TRW misclassified various costs and improperly charged those costs to certain of its federal contracts, that the United States has incurred substantial damages, and that TRW is liable for approximately \$56 million in single damages, subject to trebling, plus penalties, post-judgment interest, costs (including attorneys' fees) and "all other proper relief." All substantive allegations against TRW have been denied in its answer to the consolidated complaint. The company denies the allegations and intends to vigorously defend this matter. Trial is scheduled for November 2003.

On February 3, 2003, the Department of Justice filed a civil False Claims Act case against Newport News Shipbuilding, Inc. in the United States District Court for the Eastern District of Virginia. The government seeks single damages in an amount in excess of \$72 million, plus penalties, costs and interest. Damages may be trebled under the False Claims Act. The complaint alleges that the company improperly charged certain independent research and development costs to its government contracts with respect to the years 1994 through 1999. The company denies the allegations and intends to vigorously defend the matter.

## **NORTHROP GRUMMAN CORPORATION**

The IRS is presently completing its audits of the B-2 program through the tax years ending December 31, 2000. Upon completion of these audits, the IRS may adopt a position that the B-2 program was completed in a year prior to 2002, which would create the potential for additional interest expense. Although it is not possible to predict the outcome of the tax audits at this time, management believes that its tax accounting for the B-2 program reflects the appropriate timing of contract completion.

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, 2002, the range of reasonably possible future costs for environmental remediation is \$146 million to \$202 million, of which \$156 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 does not make use of business arrangements or other business activities that involve so-called off balance sheet, variable interest or 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 performance totaled \$841 million at December 31, 2002 and \$684 million at December 31, 2001. Increases in 2002 over 2001 reflect the effect of the TRW acquisition. For all years presented, the company had no material related party transactions. The company also maintains self-insured workers' compensation plans, which are secured by surety bonds and a general agreement of indemnity with the surety. At December 31, 2002 and 2001, there were \$439 million and \$287 million of such instruments outstanding, respectively.

Rental expense for operating leases was \$233 million for 2002, \$219 million for 2001 and \$122 million for 2000. Minimum rental commitments under long-term noncancellable operating leases total \$1.7 billion which is payable as follows: 2003 - \$367 million, 2004 - \$297 million, 2005 - \$236 million, 2006 - \$181 million, 2007 - \$149 million, and 2008 and thereafter - \$459 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, or (ii) initiated a tender offer for 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.

## **NORTHROP GRUMMAN CORPORATION**

### **STOCK COMPENSATION PLANS**

At December 31, 2002, 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 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. At December 31, 2002, 2.8 million shares were available for future grants under the 2001 LTISP.

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, 2002, 204,000 shares were available for future grants under the SOPND.

In connection with the acquisition of Litton, the company converted Litton stock options to company stock options. For Litton options only, a reduction of equity was recorded which is being amortized as compensation expense. Acquired TRW options were converted to the company's options and fully vested on the date of acquisition. 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 \$63 million in 2002, \$21 million in 2001, and \$14 million in 2000.

## NORTHROP GRUMMAN CORPORATION

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

|   | Shares<br>Under Option | Weighted-<br>Average<br>Exercise<br>Prices | Shares<br>Exercisable |
|---|------------------------|--|-----------------------|
| 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             |
| Granted, market options                             | 2,255,063              | 114  |                       |
| Options acquired and vested upon acquisition of TRW | 5,810,231              | 92   |                       |
| Cancelled   | (199,759)              | 78   |                       |
| Exercised   | (1,184,350)            | 76   |                       |
| <b>Outstanding at December 31, 2002</b>             | <b>13,393,798</b>      | <b>90</b>                                  | <b>8,531,746</b>      |

At December 31, 2002, the following stock options were outstanding:

| Range of<br>Exercise<br>Prices | Options Outstanding                  |   |  | Options Exercisable                  |  |
|--------------------------------|--------------------------------------|---|--|--------------------------------------|--|
|                                | Number<br>Outstanding<br>at 12/31/02 | Weighted-<br>Average<br>Remaining<br>Contractual Life | Weighted-<br>Average<br>Exercise<br>Prices | Number<br>Exercisable<br>at 12/31/02 | Weighted-<br>Average<br>Exercise<br>Prices |
| \$14 to 77                     | 2,880,198                            | 6.6 years   | \$ 66                                      | 1,894,906                            | \$ 66                                      |
| 78 to 90                       | 3,538,409                            | 7.1 years   | 81   | 2,078,615                            | 82   |
| 91 to 107                      | 3,394,102                            | 5.6 years   | 97   | 3,090,071                            | 97   |
| 108 to 128                     | <u>3,581,089</u>                     | 8.5 years   | 112  | <u>1,468,154</u>                     | 109  |
|                                | <u>13,393,798</u>                    |   |  | <u>8,531,746</u>                     |  |

Restricted performance stock rights and restricted stock rights were granted with weighted-average grant-date fair values per share as follows: 2002 - 826,145 at \$114; 2001 - 846,145 at \$81; and 2000 - 38,890 at \$65.

## NORTHROP GRUMMAN CORPORATION

### UNAUDITED SELECTED QUARTERLY DATA

Quarterly financial results are set forth in the following tables together with dividend and common stock price data. Information in the following tables has been restated to reflect discontinued operations. 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, 2003, was 37,300.

#### 2002 Quarters

| <i>\$ in millions, except per share</i>   | 4        | 3        | 2        | 1        |
|---|----------|----------|----------|----------|
| Net sales   | \$ 4,830 | \$ 4,214 | \$ 4,231 | \$ 3,931 |
| Operating margin  | 411      | 313      | 354      | 313      |
| Income from continuing operations before cumulative effect of accounting change                     | 226      | 141      | 181      | 149      |
| Net income (loss)   | 224      | (59)     | 182      | (283)    |
| Basic earnings per share from continuing operations before cumulative effect of accounting change   | 1.76     | 1.19     | 1.55     | 1.29     |
| Basic earnings (loss) per share   | 1.75     | (.58)    | 1.56     | (2.59)   |
| Diluted earnings per share from continuing operations before cumulative effect of accounting change | 1.73     | 1.17     | 1.52     | 1.27     |
| Diluted earnings (loss) per share   | 1.72     | (.56)    | 1.53     | (2.56)   |
| Dividends per common share  | .40      | .40      | .40      | .40      |
| Dividends per mandatorily redeemable preferred share  | 1.75     | 1.75     | 1.75     | 1.75     |
| <i>Stock price per share:</i>   |          |          |          |          |
| High  | 125.50   | 129.83   | 135.00   | 118.89   |
| Low   | 87.20    | 93.31    | 111.30   | 95.50    |

In the fourth quarter of 2002, the company acquired TRW and entered into a transaction to sell the TRW's automotive business. The Electron Devices and Ruggedized Displays businesses were sold in October of 2002. In the third quarter of 2002, the company recorded a pretax charge of \$65 million on the F-16 Block 60 combat avionics program, recorded a pretax charge of \$87 million on the Polar Tanker program, recorded a pretax adjustment of \$69 million to reverse previously established reserves on the cruise ship program, and recorded a \$20 million favorable pretax adjustment from restructuring a Technology Services contract. Also in the third quarter, the company recorded an after tax loss from discontinued operations of \$178 million, including a goodwill impairment loss of \$186 million. In the second quarter, the company recorded a \$16 million charge on a contract with Oracle relating to Oracle's Enterprise License Agreement with the State of California. In July 2002 Northrop Grumman and Oracle rescinded the contract with the state. In the first quarter, the company completed its acquisition of Newport News. The first quarter also includes a \$432 million charge to record the cumulative effect of an accounting change upon adoption of SFAS No. 142 – *Goodwill and Other Intangible Assets*.

## NORTHROP GRUMMAN CORPORATION

### 2001 Quarters

*\$ in millions, except per share*

|   | 4        | 3        | 2       | 1       |
|---|----------|----------|---------|---------|
| Net sales   | \$ 4,145 | \$ 3,410 | \$3,471 | \$1,986 |
| Operating margin                                      | 324      | 240      | 279     | 190     |
| Income from continuing operations                     | 141      | 92       | 123     | 103     |
| Net income  | 131      | 79       | 114     | 103     |
| Basic earnings per share from continuing operations   | 1.40     | 1.01     | 1.39    | 1.43    |
| Basic earnings per share                              | 1.29     | .85      | 1.29    | 1.43    |
| Diluted earnings per share from continuing operations | 1.38     | 1.00     | 1.38    | 1.42    |
| 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    |         |
| <i>Stock price per share:</i>                         |          |          |         |         |
| High  | 110.56   | 104.50   | 97.06   | 99.10   |
| Low   | 88.50    | 76.40    | 76.40   | 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 pretax 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.

## **NORTHROP GRUMMAN CORPORATION**

### **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 2002 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, 2003

## **NORTHROP GRUMMAN CORPORATION**

### **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, 2002 and 2001, 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, 2002. Our audits also included the financial statement schedule listed in the Index at Item 15. 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, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002, 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, the Company changed its method of accounting for goodwill and other intangible assets effective January 1, 2002, to conform to Statement of Financial Accounting Standards No. 142 – *Goodwill and Other Intangible Assets*.

/s/ DELOITTE & TOUCHE LLP

Deloitte & Touche LLP  
Los Angeles, California  
March 18, 2003

## NORTHROP GRUMMAN CORPORATION

### **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 2003 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 2003 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 2003 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 2003 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

### **Item 14. Controls and Procedures**

- (a) Evaluation of disclosure controls and procedures. Registrant's principal executive officer (Chairman and Chief Executive Officer) and principal financial officer (Corporate Vice President and Chief Financial Officer) have evaluated Registrant's disclosure controls and procedures as of a date within 90 days of the filing date of this Annual Report on Form 10-K and have concluded that these controls and procedures are designed to ensure that information required to be disclosed by the Registrant in this Annual Report on Form 10-K is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and Form 10-K. These disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by Registrant in the reports that it files or submits under the Securities Exchange Act of 1934 (15 USC § 78a et seq) is accumulated and communicated to Registrant's management, including the principal executive officer and the principal financial officer, as appropriate to allow timely decisions regarding required disclosure. The principal executive officer and the principal financial officer have also concluded based upon their evaluation that there are no significant deficiencies or material weaknesses in these disclosure controls and procedures.
- (b) Changes in internal controls. There were no significant changes in the Registrant's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation.

## NORTHROP GRUMMAN CORPORATION

### PART IV

#### Item 15. 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.

- (b) Reports on Form 8-K.

A report on Form 8-K was dated and filed October 17, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the issuance on October 17, 2002 of its earnings release for the fiscal quarter ended September 30, 2002 and incorporating such press release by reference into the Form 8-K, and (ii) filing the press release as an exhibit pursuant to Item 7(c).

A report on Form 8-K was dated and filed October 28, 2002 by Northrop Grumman Corporation, which furnished pursuant to Items 7 and 9 certain investor presentation materials.

A report on Form 8-K was dated and filed November 12, 2002 by Northrop Grumman Corporation, which furnished pursuant to Items 7 and 9 certifications of its Chairman and Chief Executive Officer and Corporate Vice President and Chief Financial Officer in connection with its Quarterly Report on Form 10-Q for the quarterly period ending September 30, 2002. Such certifications were filed pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

A report on Form 8-K was dated and filed November 19, 2002 by Northrop Grumman Corporation reporting pursuant to Item 5 that it had entered into a Master Purchase Agreement dated as of November 18, 2002 with BCP Acquisition Company, L.L.C. providing for the purchase and sale of certain of TRW Inc.'s automotive business assets and property, and including as exhibits pursuant to Item 7 the Master Purchase Agreement and press release relating thereto.

A report on Form 8-K was dated and filed November 21, 2002 by Northrop Grumman Corporation, which furnished pursuant to Items 7 and 9 certain investor presentation materials and a press release issued November 21, 2002 providing updated financial guidance to reflect the proposed acquisition of TRW Inc. and the sale of its automotive business.

A report on Form 8-K was dated November 21, 2002 and filed November 22, 2002 by Northrop Grumman Corporation, which furnished pursuant to Items 7 and 9 an investor presentation transcript.

A report on Form 8-K was dated and filed November 25, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 that Northrop Grumman would commence mailing to its stockholders supplemental disclosure material relating to the proposed acquisition of TRW Inc. and (ii) furnishing the supplemental disclosure material as an exhibit pursuant to Item 7.

A report on Form 8-K was dated November 22 and filed November 25, 2002 by Northrop Grumman Corporation, which furnished pursuant to Items 7 and 9 certain investor presentation materials.

A report on Form 8-K was dated and filed November 27, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the issuance by Northrop Grumman and TRW Inc. of a joint press release relating to

## NORTHROP GRUMMAN CORPORATION

notice to the Department of Justice of their intention to complete the acquisition on December 11, 2002 and (ii) including the press release as an exhibit pursuant to Item 7.

A report on Form 8-K was dated and filed December 5, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the issuance by Northrop Grumman and TRW Inc. of a joint press release relating to their continuing discussions with the Department of Justice about the proposed acquisition and (ii) included the press release as an exhibit pursuant to Item 7.

A report on Form 8-K was dated and filed December 10, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the issuance by Northrop Grumman of a press release announcing its agreement with the Department of Justice on the terms of a consent decree relating to the proposed acquisition of TRW Inc. and (ii) included the press release as an exhibit pursuant to Item 7.

A report on Form 8-K was dated and filed December 11, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the issuance by Northrop Grumman of a press release announcing a consent decree with the Department of Justice relating to the proposed acquisition of TRW Inc. and (ii) including the press release as an exhibit pursuant to Item 7.

A report on Form 8-K was dated December 11, 2002 and filed December 12, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the issuance by Northrop Grumman of a press release announcing shareholder approval of the issuance of Northrop Grumman common stock for the proposed acquisition of TRW Inc., and (ii) including the press release as an exhibit pursuant to Item 7.

A report on Form 8-K was dated December 12, 2002 and filed December 13, 2002 by Northrop Grumman Corporation reporting pursuant to Item 5 the issuance by Northrop Grumman of a press release announcing the closing of its acquisition of TRW Inc. and including the press release as an exhibit pursuant to Item 7. The Form 8-K also reported pursuant to Item 5 on the proposed Final Judgment and Stipulation and Order entered by the federal court relating to the acquisition, and filed as an exhibit pursuant to Item 7 the Stipulation and Order with the proposed Final Judgment.

A report on Form 8-K was dated and filed December 20, 2002 by Northrop Grumman Corporation reporting pursuant to Item 2 on the acquisition of TRW Inc. The Form 8-K also (i) incorporated by reference pursuant to Item 7(a) certain financial statements of TRW Inc. previously filed by TRW Inc., (ii) reported pursuant to Item 7(b) that certain required pro forma financial information would be filed no later than 60 days after the date of the Form 8-K, and (iii) included as an exhibit pursuant to Item 7(c), by incorporation by reference to Northrop Grumman's Registration Statement No. 333-83672, the merger agreement relating to the acquisition of TRW Inc.

A report on Form 8-K was dated December 23, 2002 and filed December 27, 2002 by Northrop Grumman Corporation (i) reporting pursuant to Item 5 the execution on December 20, 2002 of Amendment No. 1 to the Master Purchase Agreement dated as of November 18, 2002 with BCP Acquisition Company, L.L.C. providing for TRW Inc. and TRW Automotive Inc. to become parties to the Master Purchase Agreement, and (ii) including Amendment No. 1 as an exhibit pursuant to Item 7.

A report on Form 8-K/A was dated and filed January 22, 2003 by Northrop Grumman Corporation reporting pursuant to Item 7 certain required pro forma financial information.

A report on Form 8-K was dated and filed February 3, 2003 by Northrop Grumman Corporation, which included pursuant to Items 7 and 9 certain investment conference presentation materials.

A report on Form 8-K was dated and filed February 13, 2003 by Northrop Grumman Corporation, which included pursuant to Items 7 and 9 certain investor presentation materials.

A report on Form 8-K was dated February 28, 2003 and filed March 5, 2003 by Northrop Grumman Corporation (i) reporting pursuant to Item 2 the completion of the sale of TRW's automotive business by Northrop Grumman pursuant to the Master Purchase Agreement, dated November 18, 2002 (as amended by Amendment No. 1 dated December 1, 2002 and Amendment No. 2 dated February 18, 2003), by and among Northrop Grumman, Northrop Grumman Space & Mission Systems Corp. (formerly known as TRW, Inc.), TRW Automotive, Inc, and BCP Acquisition Company L.L.C. and (ii) including Amendment No. 2 as an exhibit pursuant to Item 7.

## NORTHROP GRUMMAN CORPORATION

### 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) Amendment and Plan of Merger dated as of June 30, 2002 by and among TRW Inc., Northrop Grumman Corporation and Richmond Acquisition Corporation (incorporated by reference to Annex A to Amendment No. 4 to Form S-4 Registration Statement No. 333-83672 filed July 17, 2002)
- 2(c) Master Purchase Agreement between BCP Acquisition Company L.L.C. and Northrop Grumman Corporation dated as of November 18, 2002 (incorporated by reference to Exhibit 2.1 to Form 8-K dated November 18, 2002, filed November 19, 2002), and amended December 20, 2002, (incorporated by reference to Exhibit 99.1 to Form 8-K dated December 20, 2002, filed December 27, 2002) and February 28, 2003 (incorporated by reference to Exhibit 99.1 to Form 8-K dated February 28, 2003, filed March 5, 2003)
- 3(a) Restated Certificate of Incorporation of Northrop Grumman Corporation (incorporated by reference to Exhibit C to the Definitive Proxy Statement on Schedule 14A filed April 4, 2002)
- \*3(b) Amended Bylaws of Northrop Grumman Corporation
- 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  $\frac{3}{4}$ % Debentures due 2016 and 7  $\frac{7}{8}$ % 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  $\frac{3}{4}$ % 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  $\frac{7}{8}$ % 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)

## NORTHROP GRUMMAN CORPORATION

- 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(l) Form of Officers' Certificate establishing the terms of Northrop Grumman Systems Corporation's 7 1/8% Notes due 2011 and 7 3/4% 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. (predecessor-in-interest to Northrop Grumman Systems Corporation) and The Bank of New York, as trustee, under which its 6.05% Senior Notes due 2003 and 6.75% Senior Debentures due 2018 were issued (incorporated by reference to Exhibit 4.1 to the Form 10-Q of Litton Industries, Inc. 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 among Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), 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) Supplemental Indenture with respect to Indenture dated April 13, 1998, dated as of December 20, 2002 among Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee
- 4(r) Senior Indenture dated as of December 15, 1991 between Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and The Bank of New York, as trustee, under which its 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 the Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1996, filed June 11, 1996)
- 4(s) Supplemental Indenture with respect to Indenture dated December 15, 1991, dated as of April 3, 2001, among Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), 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(t) Supplemental Indenture with respect to Indenture dated December 15, 1991, dated as of December 20, 2002 among Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee

## NORTHROP GRUMMAN CORPORATION

- 4(u) Form of Exchange Security for the \$400,000,000 8% senior notes due 2009 of Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) (incorporated by reference to Exhibit 4.3 to the Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 2000, filed June 9, 2000)
- 4(v) Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of May 1, 1986 (incorporated by reference to Exhibit 2 to the Form 8-A Registration Statement of TRW Inc. dated July 3, 1986)
- 4(w) First Supplemental Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of August 24, 1989 (incorporated by reference to Exhibit 4(b) to Form S-3 Registration Statement No. 33-30350 of TRW Inc.)
- 4(x) Second Supplemental Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of June 2, 1999 (incorporated by reference to Exhibit 4(c) to Form S-4 Registration Statement No. 333-83227 of TRW Inc. filed July 20, 1999)
- 4(y) Third Supplemental Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of June 2, 1999 (incorporated by reference to Exhibit 4(d) to Form S-4 Registration Statement No. 333-83227 of TRW Inc. filed July 20, 1999)
- 4(z) Fourth Supplemental Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of June 2, 1999 (incorporated by reference to Exhibit 4(e) to Form S-4 Registration Statement No. 333-83227 of TRW Inc. filed July 20, 1999)
- 4(aa) Fifth Supplemental Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of June 2, 1999 (incorporated by reference to Exhibit 4(f) to Form S-4 Registration Statement No. 333-83227 of TRW Inc. filed July 20, 1999)
- 4(bb) Sixth Supplemental Indenture between TRW Inc. (now named Northrop Grumman Space & Mission Systems Corp.) and The Chase Manhattan Bank, as successor Trustee, dated as of June 2, 1999 (incorporated by reference to Exhibit 4(g) to Form S-4 Registration Statement No. 333-83227 of TRW Inc. filed July 20, 1999)
- 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 Restricted Performance Stock Rights Agreement under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.42 to Amendment No. 6 to Form S-4 Registration Statement No. 333-83672 filed September 13, 2002)
- 10(e) Form of Notice of Non-Qualified 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)

## NORTHROP GRUMMAN CORPORATION

- 10(f) Form of Non-Qualified Stock Option Agreement under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock (for officers) (incorporated by reference to Exhibit 10.41 to Amendment No. 6 to Form S-4 Registration Statement No. 333-83672 filed September 13, 2002)
- 10(g) 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)
- 10(h) Restricted Performance Stock Rights Agreement of Kent Kresa, dated August 20, 2002 under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.44 to Amendment No. 6 to Form S-4 Registration Statement No. 333-83672 filed September 13, 2002)
- 10(i) Notice of Grant of Non-Qualified 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(j) Non-Qualified Stock Option Agreement of Kent Kresa, dated August 20, 2002, under the Northrop Grumman Corporation 2001 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.43 to Amendment No. 6 to Form S-4 Registration Statement No. 333-83672 filed September 13, 2002)
- 10(k) 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. (predecessor-in-interest to Northrop Grumman Systems Corporation), 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(l) Form of Guarantee dated as of April 3, 2001 by Northrop Grumman Corporation of the indenture indebtedness issued by the former Litton Industries, Inc. (incorporated by reference to Exhibit 10.10 to Form 8-K dated and filed April 17, 2001)
- 10(m) 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)
- 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, 1999)
- 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)
- 10(q) Northrop Grumman Corporation ERISA Supplemental Plan I (incorporated by reference to Exhibit 10(d) to Form 10-K filed February 28, 1994)
- 10(r) Retirement Plan for Independent Outside Directors as amended April 24, 1998 (incorporated by reference to Exhibit 10(g) to Form 10-K filed March 23, 1999)

## NORTHROP GRUMMAN CORPORATION

- 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)
- 10(v) Executive Long-Term Disability Insurance Policy (incorporated by reference to Exhibit 10(k) to Form 10-K filed February 22, 1996)
- 10(w) Key Executive Medical Plan Benefit Matrix (incorporated by reference to Exhibit 10(l) to Form 10-K filed February 22, 1996)
- 10(x) Executive Dental Insurance Policy Group Numbers 5134 and 5135 (incorporated by reference to Exhibit 10(m) to Form 10-K filed February 22, 1996)
- 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 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 (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 December 18, 2002
- 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) The 2002 Incentive Compensation Plan of Northrop Grumman Corporation (incorporated by reference to Exhibit B to the Definitive Proxy Statement on Schedule 14A filed April 4, 2002)

## NORTHROP GRUMMAN CORPORATION

- 10(ll) 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)
  - \*10(mm) Transition Agreement dated as of February 19, 2003 between Northrop Grumman Corporation and Kent Kresa
  - \*10(nn) Employment Agreement dated February 19, 2003 between Northrop Grumman Corporation and Dr. Ronald D. Sugar
  - 10(oo) Amended and Restated TRW Supplementary Retirement Income Plan effective October 23, 2002 (incorporated by reference to Exhibit 10(f) to Form 10-Q of TRW Inc. filed November 6, 2002)
  - \*10(qq) Form of Guarantee dated as of January 9, 2003 by Northrop Grumman Space & Mission Systems Corp. (formerly known as TRW Inc.) of Northrop Grumman Systems Corporation indenture indebtedness
  - \*21 Subsidiaries
  - \*23 Independent Auditors' Consent
  - \*24 Power of Attorney
- \* Filed with this Report

**NORTHROP GRUMMAN CORPORATION**

**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 21st day of March 2003.

By:           /S/ Sandra J. Wright            
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 21st day of March 2003, by the following persons and in the capacities indicated.

| <u>Signature</u>       | <u>Title</u>  |
|------------------------|---|
| Kent Kresa*            | Chairman and Chief Executive Officer,<br>Director (Principal Executive Officer)       |
| Richard B. Waugh, Jr.* | Corporate Vice President and Chief<br>Financial Officer (Principal Financial Officer) |
| Ronald D. Sugar*       | President and Chief Operating Officer, Director                                       |
| John T. Chain, Jr.*    | Director  |
| Lewis W. Coleman*      | Director  |
| Vic Fazio*             | Director  |
| Phillip Frost*         | Director  |
| Charles R. Larson*     | Director  |
| Charles H. Noski*      | Director  |
| Jay H. Nussbaum*       | Director  |
| Phillip A. Odeen*      | Director  |
| Aulana L. Peters*      | Director  |
| John Brooks Slaughter* | Director  |

\*By:           /S/ John H. Mullan            
John H. Mullan  
Attorney-in-Fact  
pursuant to a power of attorney

## NORTHROP GRUMMAN CORPORATION

### CERTIFICATION

I, Kent Kresa, Chairman and Chief Executive Officer, certify that:

1. I have reviewed this annual report on Form 10-K of Northrop Grumman Corporation (“registrant”);
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant’s disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the “Evaluation Date”); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant’s ability to record, process, summarize and report financial data and have identified for the registrant’s auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal controls; and
6. The registrant’s other certifying officer and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 21, 2003

/s/ Kent Kresa  
\_\_\_\_\_  
Kent Kresa  
Chairman and Chief Executive Officer

## NORTHROP GRUMMAN CORPORATION

### CERTIFICATION

I, Richard B. Waugh, Jr., Corporate Vice President and Chief Financial Officer, certify that:

1. I have reviewed this annual report on Form 10-K of Northrop Grumman Corporation (“registrant”);
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant’s disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the “Evaluation Date”); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant’s ability to record, process, summarize and report financial data and have identified for the registrant’s auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal controls; and
6. The registrant’s other certifying officer and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 21, 2003

/s/ Richard B. Waugh, Jr.

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

NORTHROP GRUMMAN CORPORATION

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS

(Dollars in Thousands)

| <u>COL. A</u>  | <u>COL. B</u>                                 | <u>COL. C</u>                              | <u>COL. D</u>                                       | <u>COL. E</u>                           |
|--|---|--|---|---|
| <u>Classification</u>                                    | <u>Balance at<br/>Beginning<br/>of Period</u> | <u>Additions<br/>At Cost<sup>(2)</sup></u> | <u>Changes -<br/>Add<br/>(Deduct)<sup>(1)</sup></u> | <u>Balance at<br/>End<br/>of Period</u> |
| Description:   |   |  |   |   |
| Year ended December 31, 2000                             |   |  |   |   |
| Reserves and allowances deducted<br>from asset accounts: |   |  |   |   |
| Allowances for doubtful amounts                          | \$ 37,674                                     | \$ 26,548                                  | \$(10,766)  | \$ 53,456                               |
| Year ended December 31, 2001                             |   |  |   |   |
| Reserves and allowances deducted<br>from asset accounts: |   |  |   |   |
| Allowances for doubtful amounts <sup>(3)</sup>           | \$ 53,456                                     | \$103,413                                  | \$(18,940)  | \$137,929                               |
| Year ended December 31, 2002                             |   |  |   |   |
| Reserves and allowances deducted<br>from asset accounts: |   |  |   |   |
| Allowances for doubtful amounts                          | \$137,929                                     | \$218,943                                  | \$(66,952)  | \$289,920                               |

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

(2) Includes reserves and allowances acquired of \$71,899 and \$56,141 for the years ended December 31, 2002 and 2001, respectively.

(3) Prior year amounts have been reclassified to conform to current year presentation and have been restated for discontinued operations.

## NORTHROP GRUMMAN VALUES

**WE, THE WOMEN AND MEN OF NORTHROP GRUMMAN,** are guided by the following Values. They describe our company as we want it to be. We want our decisions and actions to demonstrate these Values. We believe that putting our Values into practice creates long-term benefits for shareholders, customers, employees, suppliers, and the communities we serve.

**WE TAKE RESPONSIBILITY FOR QUALITY...** Our products and services will be “best in class” in terms of value received for dollars paid. We will deliver excellence, strive for continuous improvement and respond vigorously to change. Each of us is responsible for the quality of whatever we do.

**WE DELIVER CUSTOMER SATISFACTION...** We are dedicated to satisfying our customers. We believe in respecting our customers, listening to their requests and understanding their expectations. We strive to exceed their expectations in affordability, quality and on-time delivery.

**WE PROVIDE LEADERSHIP AS A COMPANY AND AS INDIVIDUALS...** Northrop Grumman’s leadership is founded on talented employees effectively applying advanced technology, innovative manufacturing and sound business management. We add more value at lower cost with faster response. We each lead through our competence, creativity and teamwork.

**WE ACT WITH INTEGRITY IN ALL WE DO...** We are each personally accountable for the highest standards of behavior, including honesty and fairness in all aspects of our work. We fulfill our commitments as responsible citizens and employees. We will consistently treat customers and company resources with the respect they deserve.

**WE VALUE NORTHROP GRUMMAN PEOPLE...** We treat one another with respect and take pride in the significant contributions that come from the diversity of individuals and ideas. Our continued success requires us to provide the education and development needed to help our people grow. We are committed to openness and trust in all relationships.

**WE REGARD OUR SUPPLIERS AS ESSENTIAL TEAM MEMBERS...** We owe our suppliers the same type of respect that we show to our customers. Our suppliers deserve fair and equitable treatment, clear agreements and honest feedback on performance. We consider our suppliers’ needs in conducting all aspects of our business.