Selected Financial Highlights

$ in millions except EPS and Operating Margin	1998	1997	1996
Net Sales	$ 8,902	$ 9,153	$ 8,607
Operating Margin (percent of sales)	8.5%	9.6%	8.2%
Net Income	194	407	264
Earnings per Share (diluted)	2.79	5.98	4.15
Cash Flow from Operations	214	730	743
Net Debt	2,790	2,730	3,255

Table of Contents

Financial Highlights by Sector

Acquisitions *$ Millions*		**1998**
ISAS	Aerostructures	$ 1,453
	Air Combat Systems	1,430
	AEW/EWS	679
	AGS	434
ESSS	Aerospace	1,047
	C^3I	907
	Defense Systems	311
	Other	225
Logicon	Federal Info Tech	813
	Technical Services	300
	Commercial Info Tech	113

Sales *$ Millions*		**1998**
ISAS	Air Combat Systems	$ 2,114
	Aerostructures	1,583
	AEW/EWS	780
	AGS	716
ESSS	Aerospace	1,265
	C^3I	904
	Defense Systems	544
	Other	186
Logicon	Federal Info Tech	787
	Technical Services	213
	Commercial Info Tech	107

Backlog *$ Millions*		**1998**
ISAS	Air Combat Systems	$ 2,998
	Aerostructures	2,034
	AEW/EWS	991
	AGS	910
ESSS	Aerospace	1,491
	C^3I	891
	Defense Systems	617
	Other	120
Logicon	Federal Info Tech	368
	Technical Services	148
	Commercial Info Tech	50

Margin *$ Millions*	**1998**
ISAS	$ 280
ESSS	218
Logicon	60

NORTHROP GRUMMAN today provides an array of world-class technologies and core competencies to military and commercial markets, principally as a leading defense electronics, systems integration, and information technology company that retains strong capabilities in military aircraft systems and modifications, commercial aircraft assemblies, and marine systems.

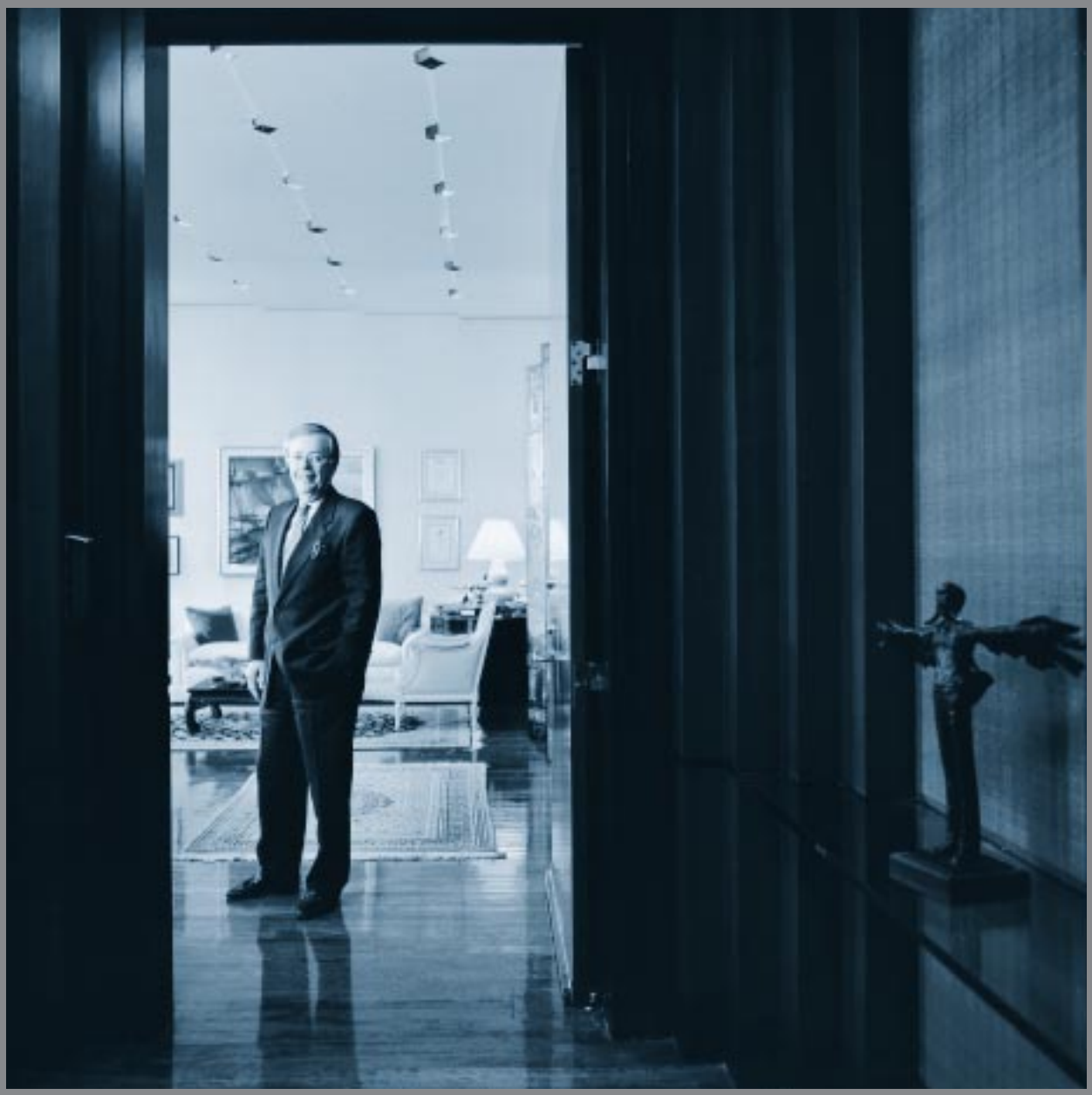
In demand as a prime contractor, principal subcontractor, partner, and preferred supplier, Northrop Grumman participates on many high-priority defense, commercial aerospace, and information technology programs in the United States and abroad. The company's growth strategy is bolstered by a strong financial base, led by an experienced leadership team, and executed by a dedicated workforce of approximately 49,000 employees.

Recent advances in defense technologies such as surveillance; integrated command, control, and communications; precision weapons; simulation; and electronic warfare have led senior leaders in the Department of Defense to consider the implications of dramatic, perhaps revolutionary, changes in the conduct of warfare in the decades ahead. In the commercial arena, globalization and privatization have increased international commerce and information flows, creating new opportunities for innovative leaders in fields ranging from aerostructures to airspace management, and from information technology to automation systems.

Anticipating these emerging opportunities, Northrop Grumman transformed itself during the 1990s into a broad-based enterprise that could meet the demands of this new defense and commercial aerospace environment. In August 1998, the company announced a major realignment to sharpen its collective focus in principal business areas, achieve operational efficiencies on a significant scale, and enhance its competitive position and opportunities for growth in the aerospace marketplace.

This report documents the company's 1998 operational results as well as the goals, challenges, and priorities of its executive team for 1999 and beyond. Following a message to shareholders from Northrop Grumman's Chairman, President, and Chief Executive Officer, each of the company's three business elements are profiled. The report concludes with a look at the management imperatives and financial priorities that guide the company's day-to-day operations and focus its collective efforts on creating lasting shareholder value.

Kent Kresa, *Chairman of the Board, President, and Chief Executive Officer*



Fellow Shareholders

"Today, notwithstanding the difficulties experienced in 1998, Northrop Grumman is a balanced and complete company – ready, willing, and able to continue as a strong, independent, competitive entity."

-- *Kent Kresa*

This past year was among the most challenging in our company's history. We began 1998 planning for a strategic combination with Lockheed Martin, a process that was terminated in July following months of uncertainty for our shareholders and employees. Our international aerospace business was affected adversely by serious financial turbulence in major overseas markets, primarily through sales deferrals. And, quite simply, we did not perform up to our expectations on several key programs; as a result, we failed to meet our financial objectives.

The challenges of 1998 were reflected in our financial results, which were clearly disappointing. Sales for the year were $8.9 billion, down by approximately $250 million from 1997. We reported 1998 net income of $194 million, or $2.79 per share, compared with $407 million, or $5.98 per share, in the prior year. Our 1998 results were reduced by pre-tax charges of $125 million related principally to the 747 program, pre-tax charges of $186 million recorded for costs associated with our terminated merger with Lockheed Martin, a $30 million write-off relating to an investment in Kistler Aerospace Corporation, and pre-tax charges of $25 million for cost increases on the E-2C and E-8C programs.

Yet, in my twenty-four years at Northrop Grumman, I've never seen the women and men of this company daunted by a challenge or temporary setback. During the 1990s, we completed an ambitious transformation of our company into a broad-based defense electronics, systems integration, and information technology (IT) enterprise with competitive air combat capabilities that track closely with the emerging needs of our customers.

The rationale underlying our transformation reflects the dynamics of our marketplace as well as our unflinching commitment to creating value for our shareholders. Today, notwithstanding the difficulties experienced in 1998, Northrop Grumman is a balanced and complete company – ready, willing, and able to continue as a strong, independent, competitive entity.

Positioned for Organic Growth and Strategic Opportunities

My confidence in Northrop Grumman's competitive posture derives from the growth prospects of our recent acquisitions, the cutting edge technologies we have nurtured for years, and the strong market positions we occupy in the current constellation of defense and aerospace firms.

Our recently acquired defense electronics and IT business areas and technologies will fuel a growth engine that should deliver $12 billion in sales in 2003. Northrop Grumman has a solid position on a wide range of programs – in both defense and commercial markets, in the United States and abroad – and we are organized to capture business opportunities as a prime systems integrator, teammate, or principal subcontractor. In more than half of our business portfolio, we occupy either the leading or number two position among all competitors, including surveillance and battle management, airborne radars and countermeasures, and commercial aerostructures.

Northrop Grumman also recognized early this decade that we may be entering a period of revolutionary change in military affairs, propelled by the doctrinal implications of technologies ranging from stealth and precision targeting to advanced situation awareness and battle management capabilities. Should such a "revolution in military affairs" become a central tenet of U.S. defense planning, our business focus on sensors, electronic warfare systems, space, and information technologies will reinforce Northrop Grumman's competitive position well into the next century.

Moreover, following the rapid consolidation of our industry in recent years, our customers recognize that a strong Northrop Grumman is essential to an innovative and cost-effective defense industrial base. Last July, Defense Secretary William Cohen wrote to me that, "Northrop Grumman is one of our premier partners…a strong healthy company that we

expect will remain highly competitive, including as a prime contractor." One leading industry analyst describes Northrop Grumman as a "strategic pivot" that enriches the competitive playing field for the range of advanced defense systems. In an era of fewer – and larger – major U.S. defense contractors, Northrop Grumman plays a vital role in the defense marketplace.

We also have been active participants in the consolidation of our industry, and we retain the flexibility to pursue further strategic combinations. In 1998, for example, Northrop Grumman acquired Inter-National Research Institute, a highly regarded information technology firm specializing in command, control, communications, computers, intelligence, surveillance and reconnaissance (C^4ISR), and sophisticated data fusion. Also, in March 1999, the company announced plans to acquire the Information Systems Division of California Microwave, a leading prime contractor in tactical airborne reconnaissance, surveillance, communications, and mission planning systems. Both these acquisitions reflect our strategy of acquiring growing businesses that complement our existing programs and technologies.

Overcoming Obstacles, Looking Ahead

How did we address the internal and external challenges we faced in 1998?

Immediately after our proposed merger with Lockheed Martin was terminated in the face of government opposition, we realigned our operating units into three lean, sharply focused sectors and announced an ambitious cost-savings program that will result in some $300 million in reduced annual operating expenses by 2001.

In the international arena, which accounts for approximately 15 percent of our overall sales, we know that defense and commercial aerospace requirements have not disappeared in the post-Cold War era, especially the need for advanced electronics upgrades, air defense and information systems, commercial airliners, and air traffic control systems.

We also know that we did not financially perform as expected on the E-8 Joint STARS surveillance and battle management system, the 747 aerostructures program, and the Directional Infrared Countermeasures (DIRCM) program. We are working with our customers on contractual issues with regard to the Joint STARS and 747 fuselage programs. On all three programs we are implementing internal management, engineering, and process enhancements to ensure that these programs return to profitability soon. We recognize, of course, that any further reduction by The Boeing Company during 1999 in 747 fuselage deliveries could affect our current financial objectives for the year.

"…we may be entering a period of revolutionary change in military affairs…. Should such a revolution…become a central tenet of U.S. defense planning, our business focus on sensors, electronic warfare systems, space, and information technologies will reinforce Northrop Grumman's competitive position well into the next century."

Even as we contended with these challenges, however, each of our three operating sectors achieved some notable successes that will pay dividends in the future. At our Integrated Systems and Aerostructures Sector, which posted $5 billion in revenues in 1998, the next-generation F/A-18 multirole strike fighter, the E/F model, is moving into production this year and is smoothly assuming its mantle as the U.S. Navy's core aviation strike asset for the next decade and beyond. In addition, the B-2 will continue as an important source of income as the program transitions from production and modification to the depot phase.

The Joint STARS aircraft already in the field are receiving deserved plaudits from warfighters in the U.S. Air Force and Army. Our other major airborne surveillance platform, the E-2C, is in production and remains a high-priority airborne early warning and control system for the U.S. Navy and allied customers. We also have ambitious, but attainable, plans to compete for and win contracts from international customers for our air combat, battle management and surveillance, and airborne early warning and control systems.

And, with the exception of the 747 fuselage program, which accounts for 10 percent of the sector's total sales, our other aerostructures business with Boeing is healthy, including commercial programs as well as the nacelle systems, vertical tail, and other structures we supply for Boeing's C-17 airlifter.

Our Electronic Sensors and Systems Sector posted sales of $2.9 billion and had solid operating margins in 1998, even though the sector fell short of sales and contract acquisitions goals – again, due principally to program delays. We expect to see continued growth across this sector as major systems, including the F-22 radar and the Longbow fire control radar, infrared countermeasures systems, and several key naval, space, and automation systems transition into production during the next few years.

Logicon Inc., our information technology sector, is a major player in the government IT world, with solid growth opportunities in a variety of federal, state, and commercial markets. Logicon reported excellent results in 1998, recording more than $1 billion in sales and securing several impressive long-term contract wins, including a joint venture to provide base operations support for NASA and the Air Force worth more than $2.2 billion over ten years. We expect Logicon, which concentrated the company's existing IT operations, to double in size over the next five years.

Energetic Leadership Focused on Value Creation

We intend to remain a major force within the global aerospace industry of the twenty-first century. The management team at our business units has been assigned responsibility and accountability for realizing our vision and achieving the company's growth plan. We have an energetic group of senior executives whose teams are incentivized to adopt best practices and to ensure that a focus on value creation permeates the entire company.

Both the corporate organization and the operating sectors are intensively engaged in achieving our long-range performance goals, including:

- Performing on current contracts, and winning the business we need to win, in order to reach our objective of $12 billion in revenues by 2003;
- Attaining a company-wide average of 11 percent operating margin on our programs in the near term, improving to 12.5 percent in the long term;
- Cash generation, averaging $500 million per year between now and 2003, (excluding a one-time tax payment related to the B-2 bomber program) and, barring a better use of that cash, paying down our debt to reach a 40 percent debt-to-capitalization ratio;
- Streamlining our operations to save $300 million annually in operating costs, beginning in 2001.

Looking ahead, I see a united company that is excited about the growth opportunities before us; a company that is dedicated to a discipline of innovation and excellence across our R&D, manufacturing, and engineering activities; a company that encourages the initiatives of each sector and business unit, while recognizing that the future of each business area depends on the success of Northrop Grumman Corporation as a whole.

Our report this year features the leaders of our business units, as well as the perspectives of our Chief Financial Officer on how we manage those businesses to create value for shareholders. The thrust of the report documents our operational goals and challenges, as well as the priorities of our executive team.

My confidence in their vision and management acumen is matched by their commitment to maximizing our competitive advantages and generating growth. Most of all, this is the team I know can motivate our ultimate competitive advantage – the women and men of Northrop Grumman – to meet our commitments to our shareholders and all the stakeholders of this enterprise.

Looking back upon the events of the past year at Northrop Grumman, a casual observer might dwell on the obstacles we faced. I prefer to reflect on how our people responded to tremendous uncertainty and adversity, because our reactions to the events underscore our enduring strengths and demonstrate loudly and clearly why our shareholders should remain confident in Northrop Grumman's future.

Kent Kresa
Chairman of the Board, President, and Chief Executive Officer

March 25, 1999

Integrated Systems and Aerostructures

At ISA, we're essentially in three businesses all of which can and will deliver sound financial returns for the corporation: The *systems integration business* – designing, developing, integrating, and supporting fully missionized aerospace systems for new ways to meet the needs of our armed forces in the new millennium. The *situation awareness business* – adding information gathering and distribution capabilities and cost-effective battle management systems to make today's platforms perform brilliantly tomorrow. The *aerostructures business* - producing aerostructures for the world's most advanced military and commercial aircraft. But to accomplish these tasks, we are most of all in the *people business* – empowering and engaging our employees to apply their talents to the fullest to increase shareholder value. Technology and capital assets can be bought. But the creative focus and competitive fire found in a successful business come from individuals - and I'll put our team up against anybody's in the business.

-- Ralph D. Crosby, Jr., Corporate Vice President and Sector President

Ralph Crosby with an E-8C Joint Surveillance Target Attack Radar System aircraft. Joint STARS is a powerful airborne surveillance and target acquisition system operated jointly by the U.S. Air Force and Army for peacekeeping, crisis, and battle management missions around the world. It provides around-the-clock, real-time battlefield information essential to operational commanders.

SECTOR HIGHLIGHTS

In today's post-Cold War world, military leaders face a wide scope of potential missions, ranging from peacekeeping to rapid, long-range strike. Northrop Grumman's Integrated Systems and Aerostructures (ISA) Sector offers programs that give decision-makers and operational forces real-time access to critical battlefield information; the ability to reach areas of conflict quickly and effectively; and the tools to assure dominant situational awareness.

ISA, with $5 billion in 1998 sales, is a market leader in airborne surveillance – an area of growth identified in current defense plans – and a key player in air combat systems. In addition, as the world's largest aerostructures subcontractor, ISA provides components for military and commercial aircraft, including virtually all Boeing commercial airliners.

Battle Management & Surveillance

ISA is the prime contractor and systems integrator for the Joint Surveillance Target Acquisition and Radar System (Joint STARS) in production for the U.S. Air Force and Army. Joint STARS offers battle commanders real-time access to situational data, while simultaneously transmitting crucial information to aircraft and ground troops. Joint STARS is the only platform in the United States arsenal that provides wide-area moving target indicator capability – combined with synthetic aperture radar imagery – to dramatically improve command-and-control capabilities and data clarity, as the system locates, classifies and tracks ground targets in all weather conditions from standoff distances.

In August 1998, ISA delivered the fourth production Joint STARS aircraft. Two aircraft are scheduled for delivery in 1999. In addition, the Air Force awarded ISA a contract in December 1998 to begin development of the next-generation technology for Joint STARS under the Radar Technology Insertion Program (RTIP). Including production, the total value of RTIP is expected to exceed $1.3 billion over nine years.

Airborne Early Warning and Electronic Warfare

Advanced airborne early warning and command (AEW&C) capabilities continue to be a priority for military forces around the world. The all-weather E-2C Hawkeye is meeting the AEW&C needs of the U.S. Navy and is operational in Egypt, Japan, Singapore, and Taiwan. In addition, Northrop Grumman delivered the first two E-2C aircraft for France in 1998. France is expected to order a third aircraft and is considering purchase of a fourth. Funding for a five-year, approximately $1.2 billion contract for twenty-one additional aircraft for the Navy was approved in the government's fiscal 1999 budget. These aircraft will be the next-generation E-2C configuration Hawkeye 2000.

Contractor selection is expected in 1999 for Turkey's $1 billion AEW program. ISA is offering the Hawkeye 2000 to Turkey, as well as providing this system for the C-130J-30 AEW variant that Lockheed Martin is offering. A C-130J variant with a new AURA (Advanced UHF Radar) also is being proposed to the Australian Royal Air Force for its Wedgetail contract. A decision on the $2 billion Wedgetail program is expected this year.

ISA also is enhancing the EA-6B Prowler aircraft under two major upgrade programs. The Prowler is the only electronic warfare aircraft for the U.S. Air Force, Marine Corps, and Navy. Twenty Prowlers are being converted to an enhanced configuration that insures interoperability with other U.S. forces. The first of these enhanced EA-6Bs was delivered to the Navy in December 1998. The second Prowler upgrade program calls for development of the next-generation EA-6B system, known as Improved Capability-III (ICAP-III). In March 1998, Northrop Grumman was awarded a contract valued at approximately $150 million for ICAP-III development. Initial operating capability of the system, which includes a reactive tactical jamming system, as well as new displays, controls, and associated software to counter advanced threat radars, is planned for early 2004.

Strategic Business Areas

- **Airborne Early Warning Aircraft**
- **Airborne Ground Surveillance and Battle Management Systems**
- **Air Combat Systems**
- **Tactical Aircraft Structures and Systems**
- **Tactical Aircraft Modification and Services**
- **Aerial Targets**
- **Aerostructures**
- **Integrated Airframe Systems**
- **Nacelle Systems**

Key Programs

E-8C
Joint Surveillance Target Acquisition and Radar System (Joint STARS)

E-2C
Hawkeye Airborne Early Warning & Control Aircraft

EA-6B
Prowler Electronic Warfare Aircraft

B-2
Spirit Stealth Bomber

Air Combat Systems

Northrop Grumman's contributions have shaped the history and impact of aviation for nearly three-quarters of a century, and the company currently holds key roles on several high-priority military aircraft programs.

The U.S. Navy's F/A-18 Hornet is the backbone of naval aviation. Northrop Grumman's ISA sector produces the center and aft fuselage sections, twin vertical stabilizers, and integrates all associated subsystems for the F/A-18. The sector has delivered more than 1,450 shipsets for F/A-18 aircraft during the life of the program for the Navy, Marine Corps, and several international customers. Moreover, international demand for tactical aircraft over the next two decades is expected to provide additional sales opportunities for Team Hornet.

The next-generation F/A-18E/F "Super Hornet" will provide even greater range, survivability, and payload over earlier models. That aircraft is currently in testing and is expected to enter service in 2001. Northrop Grumman delivered the first production F/A-18E/F shipset to prime contractor Boeing in June 1998, and the first production aircraft successfully completed its first flight in November.

Six of Northrop Grumman's B-2 Spirit stealth bombers – the only platform offering long range, large payload, precision weapons, and stealth in one package– were delivered in 1998 to the U.S. Air Force. Deliveries of the remaining Block 30 variants of the B-2 to the Air Force will continue through 2000. In 1998, the Air Force asked Northrop Grumman to provide airframe depot maintenance, software maintenance, sustaining engineering, and integration of upgrades into the B-2. In addition, ISA delivers weapons system upgrades for the aircraft, including $484 million in B-2 upgrade business awarded last year.

Aerostructures

The ability to reach distant or remote areas of conflict is of keen importance to military forces. The C-17 Globemaster III transport is a key platform in ensuring that U.S. forces can respond rapidly to events around the globe. The largest subcontractor on the C-17, ISA delivered the first production composite tail for the transport in December 1998. All future C-17s will have the lighter, more durable, and more affordable horizontal tail.

In the commercial marketplace, international financial conditions have resulted in rapidly declining aircraft orders, which has put pressure on all manufacturers of aerostructures, including Northrop Grumman. While most of the company's programs remained profitable in this environment, changes in rate, model mix, and design configuration on the 747 fuselage caused operating inefficiencies producing a loss on that program in 1998. Completion of an advanced manufacturing process for the fuselage, coupled with a specific and measurable plan for affordable production at two aircraft per month, will stabilize this program. Aerostructures will continue to contribute to sector profitability.

For the long term, the underlying need for modern jetliners remains robust. In 1998, ISA delivered the first tail section for the new 757-300, a stretch version of the original 757. In addition the company signed a Memorandum of Agreement for construction of the center wing box segment for all 767 jetliners. Northrop Grumman also was chosen by Boeing to produce additional passenger doors for the 747 – making ISA the sole supplier of doors for that aircraft.

F/A-18
Hornet Strike Fighter

F/A-18
Command & Control/Electronic Warfare Variant

Joint Strike Fighter

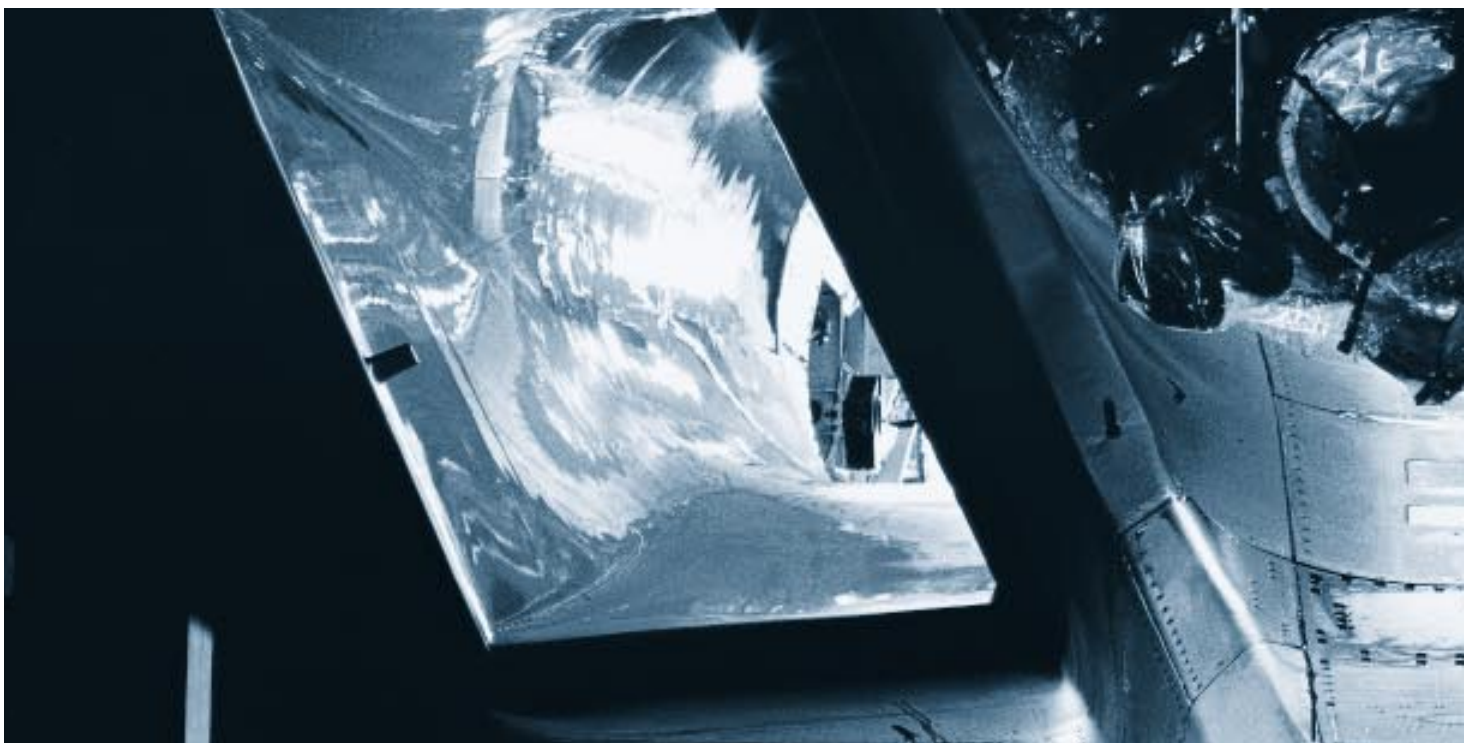
BQM-74E & CHUKAR III

C-17
Globemaster III

Boeing 700-Series
Aircraft Programs

Gulfstream V

The distinctive 24-foot radome of the E-2C Early Warning aircraft, the "eyes and ears" of the U.S. fleet, looms behind a pilot making his pre-flight inspection. The E-2C program will take a major step forward later this year as production of the Hawkeye 2000 begins. Northrop Grumman will produce 21 of the advanced E-2's under a multi-year procurement with the U.S. Navy.



The air induction system on the F/A-18E/F Super Hornet strike fighter was engineered to increase airflow capacity for its larger, more powerful engines. Current U.S. Navy plans call for 548 Super Hornets to be built by the year 2015. Northrop Grumman is principal subcontractor to The Boeing Company on the F/A-18, producing about 40% of each aircraft: the center and aft fuselage, vertical tails, and integration of associated subsystems.

Electronic Sensors and Systems

What keeps me awake at night? We expect to double our sector's sales in five years, while delivering superior cash-flow return on investment. Many of our key programs – from the ASR-12 air traffic control system to the F-22 Raptor radar to Longbow – are transitioning to production over the next year or two. We must manage that process with extraordinary focus on program and financial performance, while continuing to capture new business away from larger, aggressive competitors. Then I think about our broad array of world-class sensor systems, our defensive electronics portfolio, our automation systems, our underwater and marine propulsion technologies. Above all, I consider our talent base – across the United States and abroad. Then I realize, we're probably keeping some of those competitors awake at night as well.

-- James G. Roche, Corporate Vice President and Sector President

Jim Roche with several ASR-12 antennas awaiting shipment to international customers. The new, all-solid-state ASR-12 expands the current world-class performance of Northrop Grumman's ASR-9 to provide the latest generation in airport surveillance radar technology.

SECTOR HIGHLIGHTS

Exploitation of electronic capabilities will be critical both on and off the twenty-first century battlefield. Military leaders rely on high-fidelity sensor systems to collect, interpret, and act on information across the entire operational spectrum; air travel and global commerce require effective systems to manage traffic at the world's airports; and electronic automation is essential for delivery of goods in a worldwide marketplace.

Northrop Grumman's Electronic Sensors and Systems Sector (ES^3) with 1998 sales of $2.9 billion, provides a variety of electronic, underwater, and naval propulsion systems to numerous United States and other customers. With more than two hundred key programs, ES^3's diverse mix of customers and products, combined with dynamic advanced development programs, points to significant future growth.

Combat Electronics

Airborne forces increasingly turn to advanced sensors to enhance combat effectiveness. ES^3 offers U.S. and allied militaries leading-edge combat systems, weaponry, and countermeasure capabilities.

Among the sector's advanced systems are the Longbow fire control radar and Hellfire "fire-and-forget" missiles produced in joint venture with Lockheed Martin. They provide greatly enhanced attack and reconnaissance capabilities for more than six hundred U.S. and U.K. AH-64D Apache helicopters, and Longbow derivatives are in development for U.S. Army Comanche helicopters and ground vehicles.

ES^3 leads an industry team producing the U.S. Air Force's F-22 air dominance fighter's advanced combat radar. During 1999, fabrication begins on the first of more than three hundred production F-22 systems. Leveraging F-22 and other expertise, the sector is also developing radar and avionics for the Joint Strike Fighter under a $48 million contract.

In 1998, the United Arab Emirates announced that it had selected the F-16 Fighting Falcon as its advanced fighter aircraft. Serving as a major subcontractor to Lockheed Martin, ES^3 will develop and produce the fire control radar and internal forward-looking infrared targeting systems for the aircraft.

The sector's BAT "brilliant" antiarmor submunition uses passive acoustic and infrared sensors to destroy armored vehicles in hostile territory. Work on a low-rate initial production contract for three hundred BAT systems is expected to begin in mid-1999.

Advanced jamming systems from ES^3 counter radar-guided threats for all nonstealthy fighter aircraft in the U.S. inventory. These include the AN/ALQ-135, which was recently dubbed "mission essential" for all combat-bound U.S. F-15s to protect aircraft against heat-seeking missile threats. The sector is also developing a Directional Infrared Countermeasures system for the U.S. and U.K. This system successfully completed flight and live-fire tests in 1998. And, as part of the Lockheed Martin team on a $66 million contract, ES^3 is developing an advanced electronic warfare system for U.S. Navy combat and support ships.

Surveillance Systems

Surveillance of friendly and adversarial activities is crucial to effective military operations. ES^3 produces the radar for Northrop Grumman's Joint STARS, locating and tracking fixed and moving targets from standoff distances, and the sector is now developing next-generation advances for the system. With a 360-degree view and ability to scan distances exceeding 200 miles, the sector's AWACS surveillance radar offers near-real time, all-altitude, and beyond-the-horizon detection and tracking of air and sea targets. In 1998, the first four AWACS on Boeing 767 airframes were delivered to Japan. Under a $300 million U.S. Air Force contract, ES^3 is enhancing AWACS's effectiveness against countermeasures and smaller targets along with many reliability enhancements.

ES^3 also is developing a new 360-degree, multirole, electronically scanned array radar in partnership with Boeing on a 737-700 AEW&C aircraft. That system, along with ISA's Wedgetail proposal based on an advanced, solid-state version of the Hawkeye system with electronically scanned array capabilities integrated in the new Lockheed Martin C-130J-30 AEW variant aircraft, are candidates to meet Royal Australian Air Force surveillance requirements. Contractor selection is expected this year.

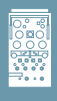
Strategic Business Areas

- **Combat Radar Systems Electronic Warfare Systems**
- **Airborne and Ground Surveillance Sensors**
- **Airspace Management Systems**
- **Oceanic and Marine Systems**
- **Airborne Early Warning Systems**
- **Automation and Information Systems**
- **Precision Weapons and Combat Support Systems**
- **Anti-submarine Warfare Systems**
- **Mine Warfare Systems**
- **Space-Borne Sensors & Systems**
- **Intelligence, Surveillance & Reconnaissance Systems**
- **Missile Launching and Handling Systems**

Key Programs

F-22
AN/APG-77
Radar

AH-64D APACHE
Longbow Fire Control Radar and Hellfire missiles



RF Electronic Countermeasures Systems

F-16
AN/APG-66
AN/APG-68
Radar

E-3 AWACS
Surveillance Radar

Unmanned aerial vehicles continue to gain prominence in high-risk scenarios. With more than $100 million in current UAV business, ES³ provides imaging radar sensor payloads for the U.S. Air Force's Predator as well as the forthcoming U.S. Army Tactical Unmanned Aerial Vehicle.

Space-based assets also offer militaries critical mission support. ES³ produces sensors for the Space-Based Infrared System ballistic missile warning and tracking system and was recently selected to design radar payloads for Discoverer II, the next generation of surveillance satellites, currently under competition.

Airspace Management

More than 30 percent of the sector's business is in international markets, including sales of its globally recognized air defense, air traffic management, and communications systems. The first ASR-12 systems were recently commissioned in Peru, Mexico, and El Salvador. Additional leading-edge, solid-state air traffic control systems will be delivered to Saudi Arabia, Georgia, and Egypt during 1999. Egypt awarded ES³ a $40 million contract for four turnkey air traffic control (ATC) systems, which include the ASR-12, monopulse secondary surveillance radars, and display, processing, and communications equipment.

In 1998, ES³ completed performance and capacity enhancements for the 134 ASR-9 airport surveillance systems in service with the FAA and Defense Department. ES³ is also improving weather detection capabilities for all FAA ASR-9s under a separate $49 million contract.

ES³ continues its leadership in turnkey air defense programs with a significant international win, valued at over $200 million, including four of the sector's highly successful AN/TPS-70 tactical radar systems.

Offering reliable, unattended operation, the sector's AN/FPS-130X is the world's only joint-use, three-dimensional, long-range air defense surveillance radar system and is a key component of the $180 million air defense system ES³ is providing Thailand. Officials in Thailand declared the first AN/FPS-130X air defense radar fully operational in late 1998.

ES³ continues to support the U.S. Air Force AN/TPS-75 tactical radar program with the deployment of modification kits to enhance the ability of U.S. forces to detect and track tactical ballistic missiles.

Marine and Undersea System

ES³ has provided U.S. and allied navies with underwater sensors; undersea warfare and mine reconnaissance systems; and propulsion and power generation for more than three decades. As sole Navy supplier for submarine propulsion and ballistic missile launchers, ES³ is converting the second of four Trident I submarines to carry Trident II missiles under several contracts totaling $95 million. The sector also is developing propulsion systems and turbine generators for the Navy's new attack submarine, as well as the first intercooled recuperated gas turbine, which offers U.S. and European surface ships nearly 30 percent fuel savings over conventional systems.

A lightweight shipboard radar to detect low-flying antiship missiles has been developed which, when successfully tested, will be produced for up to one hundred U.S. Navy combatant and amphibious ships. The sector also is developing a small submarine that will provide safe underwater transportation to Navy SEALs in high-threat environments and is participating in the design of next-generation Navy surface combatants, including the $24 billion DD-21 land attack destroyer.

Automation and Information Systems

A major element of the sector's overall growth plan is its Automation and Information Systems business which provides postal automation, image processing, and material management; asset track and trace; and data communications capabilities for a variety of customers. In 1998, the U.S. Customs Service awarded ES³ a $45 million contract to provide automated license plate recognition systems. ES³ also is part of an industry team developing a $56 million next-generation 'flat-mail' sorting system for the U.S. Postal Service. In addition, the sector is upgrading systems that automate mail processing at more than 260 USPS distribution centers nationwide.

DIRCM
Directional Infrared Countermeasures

Air Traffic Control Systems and Air Defense Systems

BAT
"Brilliant" Antiarmor Submunition

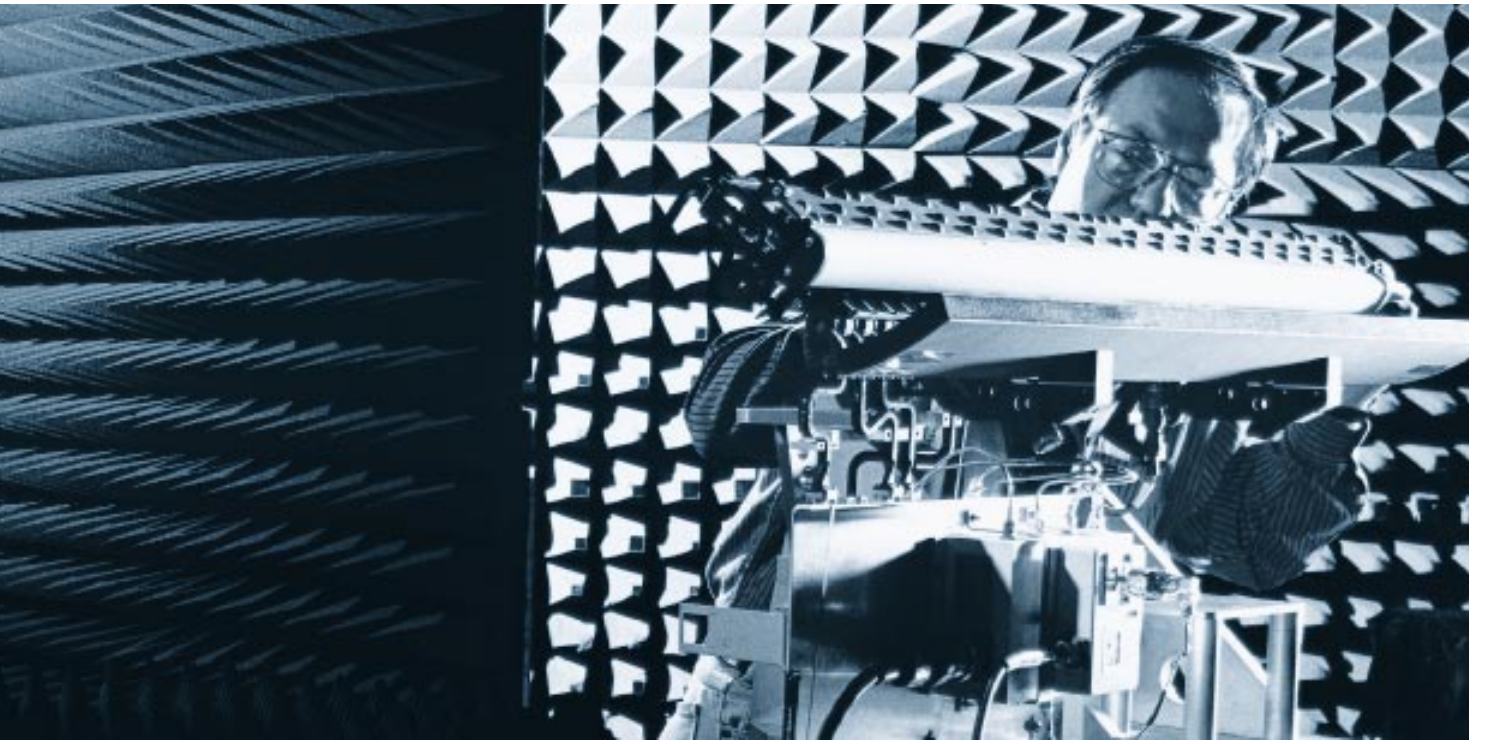
ASDS
Advanced SEAL Delivery System

Naval Propulsion and Power Generation Systems

SBIRS
Space-Based Infrared System

Postal Systems and Intelligent Material Management Systems and Asset Management and Distribution Systems

A technician prepares a Longbow radar antenna for testing in an anechoic chamber at an Electronic Sensors and Systems Sector facility. A Lockheed Martin/Northrop Grumman joint venture provides the Longbow fire control radar and Hellfire "fire-and-forget" missile for AH-64D Apache helicopters in both the U.S. and U.K.



The Northrop Grumman AN/APG-68 fire control radar for the F-16 fighter, in the open nose of a company testbed aircraft, is the U.S. Air Force's most reliable airborne radar. With more than 6,500 produced, the AN/APG-68 and its predecessor the AN/APG-66, are two of the most successful fire control radars ever built.

Logicon Inc.

By combining Northrop Grumman's information technology, internal information services, and technical support units, we transformed Logicon while retaining its solid reputation among customers. We now deliver a much broader array of information technology and technical services capabilities to the DoD, other government agencies, and commercial firms than ever before. We have a clear mission – profitable growth, with excellent cash-flow. We're not satisfied with $1 billion in annual sales; our 10,000 employees are committed to identifying new business opportunities while stretching our technological horizons. The information age has encouraged many tough competitors to enter our core business areas. Consolidation has begun in earnest, and only a few market leaders will thrive after all is said and done. Knowing the people who comprise Logicon, I can say that we not only recognize that challenge – we relish it.

-- Herbert W. Anderson, Corporate Vice President, President and Chief Executive Officer, Logicon Inc.

Herb Anderson in Logicon's Imaging and Information Systems Laboratory. This state-of-the-art lab is used to develop, test, and evaluate federal and state tax systems as well as the Department of Labor's ERISA Filing Acceptance System (EFAST). The on-screen icons represent some of Logicon's federal government customers who require information solutions, including (from left), National Aeronautics and Space Administration (NASA); U.S. Postal Service; Executive Office of the President; U.S. Air Force and Navy JPATS program; and, the Navy's Oceanographic Office.

SECTOR HIGHLIGHTS

Technological advances and the growing requirement for joint operations have pushed defense customers toward a "network-centric" concept of operations. This ongoing revolution in military affairs seeks seamless and coordinated use of diverse assets across all branches of the military – from space sensors to ground-based command-and-control systems. The push away from reliance on specific military platforms is made possible by robust information technology systems – the type of systems Northrop Grumman's Logicon subsidiary is actively developing and deploying for the U.S. government.

Away from the battlefield, all businesses and governmental organizations are searching for ways to enhance operations, increase effectiveness, and reduce costs. A core element to their strategies is the efficient application of current and emerging information technology.

Major Business Areas

Logicon is prepared to support the growing demand for high-performance network integration of military assets and world-class simulation and support services for complex systems. In addition, Logicon is ready to meet rapidly expanding demands in the commercial and government markets for information technology and services. Logicon's revenues topped $1 billion in 1998 and the company possesses critical capabilities in each business area to power its future growth.

In *Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C⁴ISR)*, Logicon's capabilities include geospatial intelligence systems, message analysis and dissemination, and tactical datalink services in support of DoD, and other government agencies.

Logicon performs systems integration and technical engineering services for major DoD *Weapon Systems*. These capabilities include independent verification and validation of software, missile targeting, mission planning, and surface ship and submarine combat systems engineering.

Information Systems capabilities of Logicon include large-scale systems integration, high performance computing, electronic document imaging, software development and licensing, and professional services.

Logicon is a leading developer and operator of modeling, simulation, and analysis systems with key *Training and Simulation* capabilities in analytical modeling, battle command training, tactical trainers, war-gaming simulation, and integrated management training systems.

In *Science and Technology*, Logicon has developed an understanding of scientific and political issues related to current and emerging technologies such as artificial intelligence, lasers, optics, nuclear weapons effects, and neural networks.

Logicon provides *Base and Range Support* at government sites across the country. Primary capabilities include space center operations and support, aircraft maintenance and logistics, data center operations, and outsourcing to federal, state, local, and commercial customers.

Logicon's *Systems Support Services* capabilities include hardware and software maintenance, help desk operations, and IT systems modernization that assist commercial enterprises in the deployment, operation, maintenance and upgrade of IT systems and networks.

INRI Acquisition

Shortly after realigning its existing IT units into a combined Logicon subsidiary in August 1998, Northrop Grumman purchased the Inter-National Research Institute (INRI). Specializing in software and application development for DoD command and control, tracking, data fusion, and mapping functions, INRI brings new capabilities and growth opportunities to the expanding C⁴ISR business area.

The company's C⁴ISR activities were also bolstered in 1998 as the DoD tapped Logicon to help enhance interoperability among its critical assets, particularly in conducting tactical operations at sea. Under a $40 million contract with the DoD's Space and Naval Warfare Systems Center, Logicon will provide engineering and technical support for submarine and satellite communications systems providing improved infrastructure for joint operations. Logicon is well positioned for future opportunities in this growing market.

Logicon is becoming one of the industry's top providers of modeling, simulation, and analysis, offering advanced analytical modeling as well as battle command and tactical training capabilities to defense and government

Strategic Business Areas

Command, Control, Communications, Computers, Intelligence, Surveillance & Reconnaissance (C⁴ISR)

Weapon Systems

Information Systems

Training and Simulation

Science and Technology

Base and Range Support

Systems Support Services

Key Programs

AEGIS
Combat System

D/SIDDOMS
Defense/System, Integration, Design, Development, Operations, and Maintenance Services

High Performance Computing Modernization Program

customers. The U.S. Navy recently selected Logicon to provide computer-based training support and services for AEGIS combat training and simulation systems. Worth as much as $40 million during the next five years, the contract builds on Northrop Grumman's solid reputation in warfare analysis, modeling, simulation, and training systems development.

Non-DoD customers also are turning to Logicon to meet their IT and services requirements. A $91 million, six-year contract awarded in 1998 significantly expands the company's current work at NASA's Ames Research Center to include technical services for flight simulators, such as NASA's Vertical Motion Simulator.

In addition, Logicon is part of an industry alliance that has been selected to provide a fifteen-year, multibillion dollar modernization of the U.S. tax system. Logicon and its teammates will provide new IT and data handling systems for the IRS in order to improve service to taxpayers and enhance its information security. This builds on Logicon's previous successes developing systems to enhance processing of tax forms for the IRS as well as providing IT and other critical services to the Department of Treasury.

Space Gateway Support

Northrop Grumman's success in managing large-scale service contracts also is well recognized throughout the defense industry. As managing partner of a joint venture with ICF Kaiser and Wackenhut Services, Logicon will provide extensive base operations support for Cape Canaveral Air Station, Patrick AFB, and Kennedy Space Center. Services provided under this massive $2.2 billion, ten-year contract range from public works to information technology and reflect the U.S. government's increasing desire to outsource these activities to private contractors.

In a move that could open doors to growing overseas operations support opportunities, Logicon teamed with Northrop Grumman's ES^3 in 1998 to win a contract supporting the U.S. Air Force's counterdrug surveillance and control system. As part of this $60 million, five-year contract, Northrop Grumman will perform maintenance, operations, and logistic support for radar sites and satellite stations throughout South and Central America and the Caribbean.

In most areas, state and local governments' appetite for IT systems and support is growing far more rapidly than that of the DoD or federal agencies. Northrop Grumman has targeted state and local governments as key areas for growth. The Welfare Fraud Linkage Analysis Database (WFLAD) system developed and maintained by Logicon offers Los Angeles County a system for identifying potential welfare fraud. This system provides Logicon entry into this valuable customer base. Logicon is leveraging experience gained through WFLAD in offering solutions to other county, state, and federal agencies' rapidly emerging requirements for effective, affordable IT systems.

DoD Healthcare Systems

Commercial IT markets are rapidly expanding. For example, the U.S. healthcare industry's demand for IT is growing at about 22 percent per year. Logicon is leveraging knowledge and experience gained on several small commercial healthcare programs and is prime contractor for the Defense/System, Integration, Design, Development, Operations, and Maintenance Services (D/SIDDOMS) program to capitalize on this market growth. Under the $280 million program, the company is overhauling DoD healthcare systems that track medical information for more than 8.5 million people.

Logicon is also responsible for providing internal information services (IIS) throughout Northrop Grumman. Effective internal IT capabilities provide more than cost savings; they offer a strategic advantage and enhance overall profitability. In 1998, – eighteen months ahead of schedule, – Logicon's IIS function reached a five-year goal of generating $100 million pre-tax profit for the corporation through IT service efficiencies.

Northrop Grumman's former Data Systems and Services Division and Logicon were each on track to post double-digit sales growth on their own in the next five years. By building market share, exploiting synergies across the company, improving systems and management processes, and seeking strategic alliances, Northrop Grumman's combined IT and services enterprise should double its revenues to $2 billion over the next few years.

White House Web Site

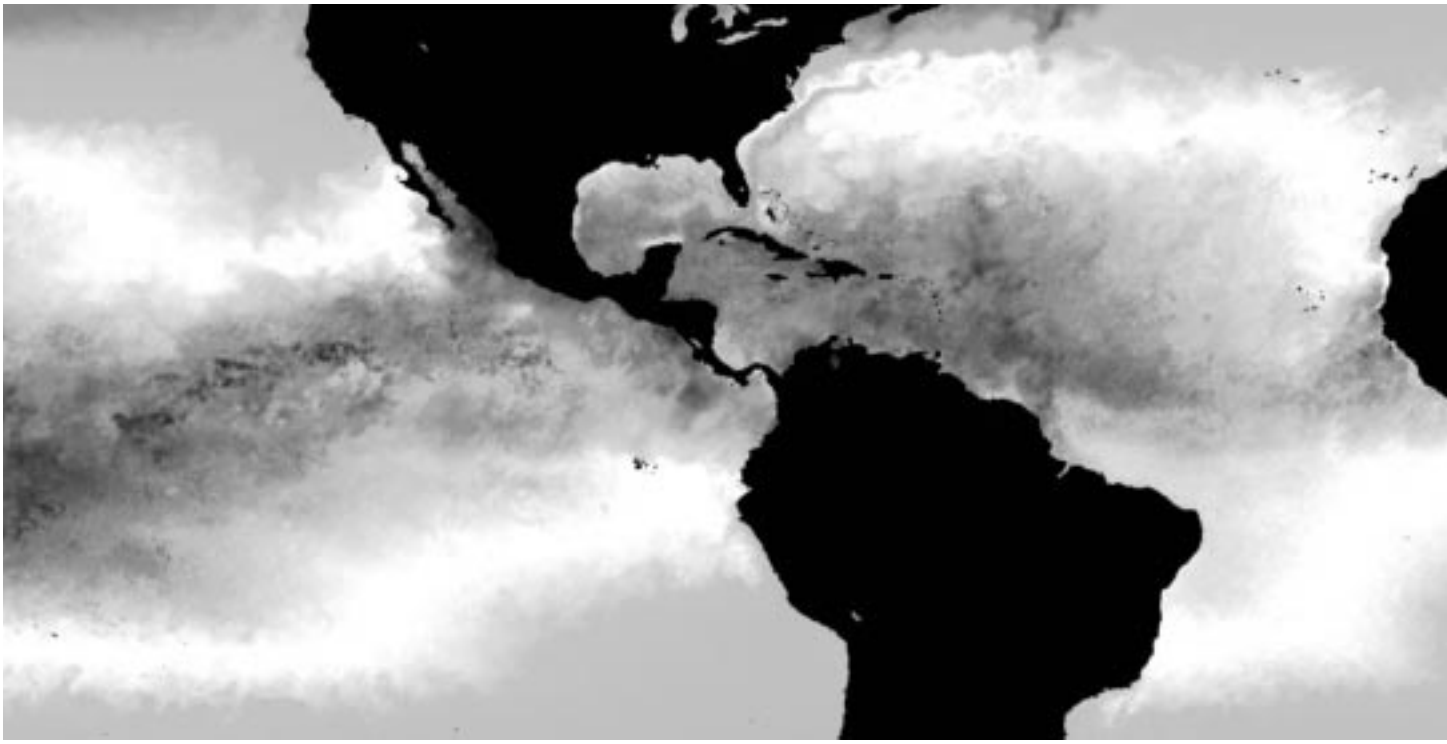
SCRIPS
IRS Service Center Recognition/Image Processing System

GBTS
Ground-based Training System

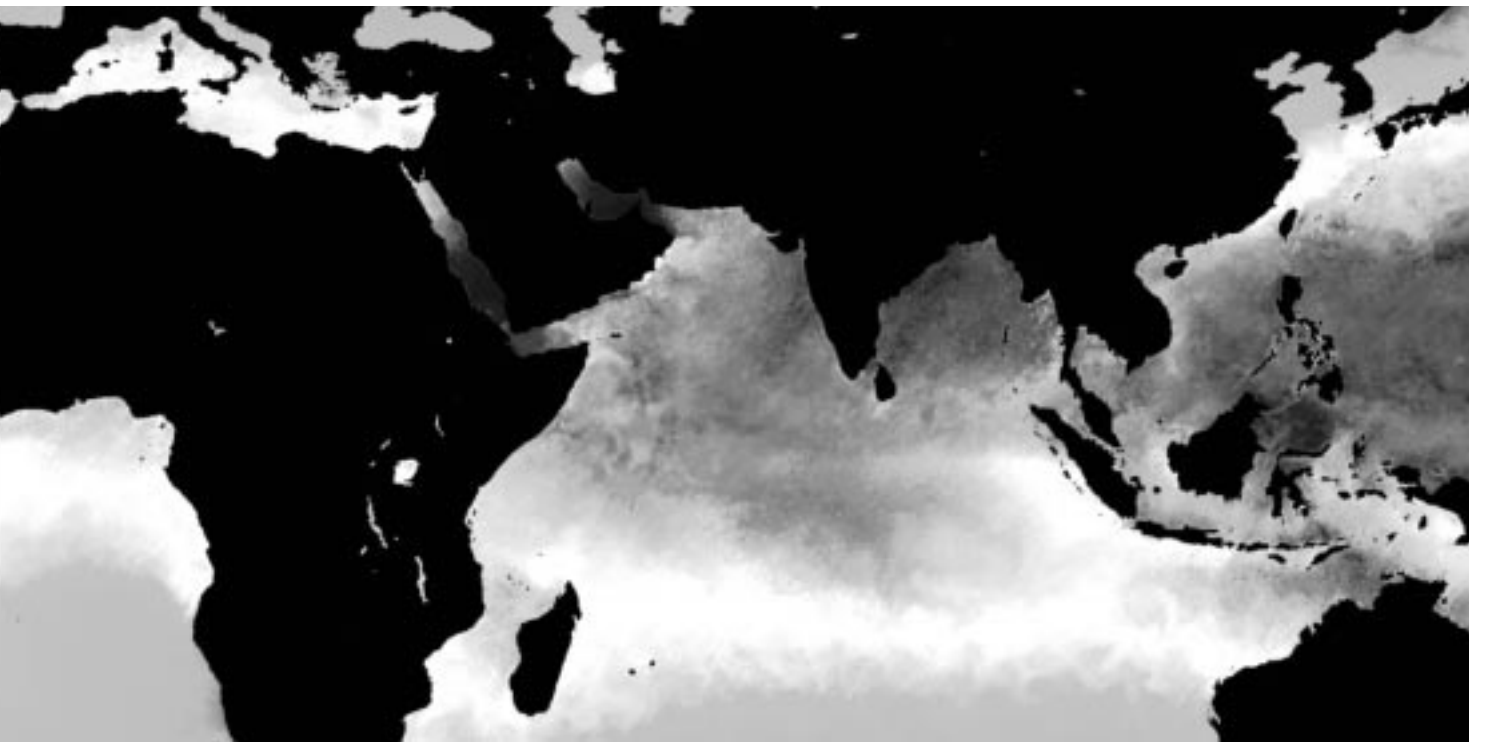
United States Postal Service Processing/Information Management Systems

NASA Base Support

Logicon's Modeling Simulation and Analysis Center (MSAC) uses Defense Department computer models and the latest in visualization media to compare and evaluate exceptionally realistic, complex battlefield scenarios. The Center provides Northrop Grumman and its customers with unique insights into the nature of conflict as far as three decades into the future.



Daily global sea surface temperature change data is visualized at the Naval Oceanographic Office (NAVOCEANO) at the Stennis Space Center. NAVOCEANO is part of the DoD High Performance Computing Modernization program. In 1998, Northrop Grumman completed a system upgrade making NAVOCEANO one of the most powerful computing centers in the United States.



Chief Financial Officer's Review

Our technologies are awesome, and I am proud to be part of an enterprise that contributes so much to our nation's defense. But when I come to work every day, I think and act like a Northrop Grumman shareholder. Part of my job is to help our people understand the connections among shareholder value, the continuing vitality of the company, and rewarding careers. The defense, commercial aerospace, and information technology businesses today are about *business* as much as about our products and customers. Our people need to focus on margins as well as military aircraft, cash management as well as battle management, and debt-to-cap as well as data systems. We realigned our operating elements in 1998 to focus our resources, achieve operating efficiencies, and provide clear metrics to evaluate sector performance. We will continue to be active in the M&A arena as well. Bottom line? When we perform to our expectations, we compete with anybody in our business.

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

Dick Waugh with several members of his senior financial staff, at the corporate headquarters in Los Angeles.

FINANCIAL & MANAGEMENT PRIORITIES

Northrop Grumman has assembled a portfolio of businesses that represent significant earnings power and are critical to military and commercial customers in the United States and around the world. The overriding mission of the company's leadership team is to deliver performance that is commensurate with Northrop Grumman's strategic capabilities by the application of specific and measurable principles of shareholder value creation.

To achieve this mission, Northrop Grumman has established aggressive objectives for sales, cash generation, and operating margins during the next five years, including internal revenue growth to $12 billion by 2003, cash flows averaging $500 million annually (excluding a one-time tax payment related to the B-2 bomber program), and company-wide operating margins of 12.5 percent. To accomplish these goals, Northrop Grumman has reorganized its business units, established specific cost-reduction targets, and strengthened its marketing efforts to seize new business opportunities.

The company also has participated actively in the consolidation that has occurred within our industry during the 1990s. After successfully completing four major acquisitions between 1993 and 1997 – bringing together systems integration, electronics, and information technology businesses – the company is positioned for competitiveness and growth.

Top-line performance will benefit from these efforts over the next five years, even though sales are expected to be relatively flat for the next two years due to the winding down of the B-2 program and uncertain international economic conditions. Northrop Grumman's $12 billion sales objective by 2003 is aggressive, and it is predicated in part on winning certain competitive contracts in the United States as well as overseas. Yet, much of the anticipated growth will be internally generated as the company transitions to production on many key programs and cash flows increase. Given Northrop Grumman's improving balance sheet – debt-to-capitalization ratio has been reduced from 74 percent to 50 percent in the past three years – the company retains the financial flexibility to pursue additional acquisitions that make compelling strategic sense and yield higher returns than other means to enhance shareholder value. Top-line growth is part of the value equation, but margin improvement, cash generation, and sound asset utilization are equally essential. A key long-term priority for all Northrop Grumman business units is to achieve a margin rate of 12.5 percent by improving contract performance, upgrading business and operating systems and processes, centralized procurement, and additional reductions in overhead rates. For example, facilities space will be reduced across the company by 9 million square feet, to 30 million square feet, during the next two years.

In August 1998, the company announced a major reorganization of its operating units to optimize its competitive advantages and realize cost reductions of at least $300 million annually, beginning in 2001. The realignment establishes three sectors from six prior operating units, and the company expects to achieve performance enhancements from process reengineering and reductions in corporate and capital expenses.

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Beginning with the release of the company's 1998 financial results, Northrop Grumman will report financial information consistent with the new organizational structure of the company, as opposed to product-based business segments. Prior-year financial data is restated to be on a comparable basis. These changes conform to new federal accounting standards, and they will also serve to provide clear measurements for assessing the performance of the company's current operations.

In addition, the company has worked to build an awareness of shareholder value creation that influences virtually every decision made at Northrop Grumman. Efforts to raise awareness about shareholder value include company-wide education programs, compensation incentives linked to share value for officers and key managers, and new policies geared toward increasing officer stock ownership.

This value-based management philosophy is anchored in cash-flow return on investment (CFROI) principles. Superior CFROI depends on achieving product innovation and quality improvement to assure future revenue growth through customer satisfaction, margin enhancement, and sound asset management. The end result of this process yields increasing net cash returns on investment in excess of the company's cost of capital. Earning cost of capital is the minimum level of return necessary to compensate shareholders for investing in Northrop Grumman.

Ongoing employee education programs are designed to make explicit the links among the daily business actions of our people, the long-term health of the company, and enhanced career opportunities for employees. Understanding this linkage is critical to sustaining a sense of ownership among employees at all levels.

Shareholder value is the primary factor in determining incentive compensation for Northrop Grumman officers and key managers. The annual bonus system is tightly aligned to factors that drive shareholder value, including return-on-equity and warranted equity value measurements. Performance share awards are tied to outperforming the company's peer group, and the premium priced options granted to senior executives are among the most aggressive of all publicly held companies in the aerospace industry.

Of course, a regrettable by-product of any continuous streamlining effort is a reduction in the company's workforce. Northrop Grumman announced reduction goals of approximately 2,100 positions as a result of realignment and consolidation by 2001. Together with employment losses resulting from the winding down of programs such as the B-2 and the F/A-18C/D, total employment at Northrop Grumman will be reduced from 54,000 in 1998 to 46,000 by the end of 2001. The company will provide support programs and other assistance to affected individuals, including outplacement assistance services.

However, even as these necessary actions are implemented, the company is recruiting new employees with critical engineering and computer science-related skills. This effort is consistent with a skills-mix adjustment associated with the long-term growth prospects in defense electronics and information technology and services.

The end result of these efforts to hone efficiencies and raise awareness about value creation is a competitive company that is acutely attuned to the requirements of its shareholders, customers, employees, and all stakeholders.

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Summary Financials

Consolidated Statements of Financial Position

	Year ended December 31,	
$ in millions	1998	1997
Assets:		
Current assets		
Cash and cash equivalents	$ 44	$ 63
Accounts receivable	1,507	1,441
Inventoried costs	1,373	1,283
Deferred income taxes	24	82
Prepaid expenses	85	67
Total current assets	3,033	2,936
Property, plant and equipment at cost		
Land and land improvements	170	201
Buildings	785	769
Machinery and other equipment	2,014	2,063
Leasehold improvements	89	76
	3,058	3,109
Accumulated depreciation	(1,784)	(1,763)
	1,274	1,346
Other assets		
Goodwill, net of accumulated amortization of $338 in 1998 and $244 in 1997	3,381	3,421
Other purchased intangibles, net of accumulated amortization of $295 in 1998 and $208 in 1997	795	896
Prepaid pension cost, intangible pension asset and benefit trust fund	787	452
Deferred income taxes	166	485
Assets available for sale	37	60
Investments in and advances to affiliates and sundry assets	63	81
	5,229	5,395
	$ 9,536	$ 9,677
Liabilities and Shareholders' Equity:		
Current liabilities		
Notes payable to banks	$ 69	$ 91
Current portion of long-term debt	200	200
Trade accounts payable	416	463
Accrued employees' compensation	337	366
Advances on contracts	354	410
Deferred income taxes	527	717
Other current liabilities	464	468
Total current liabilities	2,367	2,715
Long-term debt	2,562	2,500
Accrued retiree benefits	1,704	1,716
Other long-term liabilities	53	48
Deferred income taxes		75
Shareholders' equity		
Paid-in capital		
Preferred stock, 10,000,000 shares authorized; *none issued*		
Common stock, 200,000,000 shares authorized; *issued and outstanding:*		
1998-68,836,810		
1997-67,278,876	989	838
Retained earnings	1,892	1,807
Accumulated other comprehensive income(loss)	(31)	(22)
	2,850	2,623
	$ 9,536	$ 9,677

Consolidated Statements of Income

$ in millions, except per share	Year ended December 31, 1998	1997	1996
Net sales	$ 8,902	$ 9,153	$ 8,607
Cost of sales			
Operating costs	6,930	7,040	6,658
Administrative and general expenses	1,216	1,233	1,246
Operating margin	756	880	703
Other income(deductions)			
Interest income	11	17	12
Merger costs	(186)	(18)	
Interest expense	(233)	(257)	(270)
Investment gains (losses)	(30)		28
Other, net	(6)	29	(41)
Income before income taxes	312	651	432
Federal and foreign income taxes	118	244	168
Net income	$ 194	$ 407	$ 264
Weighted average common shares outstanding in millions	68.5	66.7	62.6
Basic earnings per share	$ 2.83	$ 6.10	$ 4.22
Diluted earnings per share	2.79	5.98	4.15

Summary Financial Information

The condensed presentation of operating results and selected financial data on this and the preceding and following pages is intended only as a convenient reference. The Company's 1998 Report on Form 10K (the "Report") includes, among other things, the audited consolidated financial statements and notes thereto, the independent auditor's report, and management's discussion and analysis of financial condition and results of operations. That Report identifies important qualifications and risks, and the information on pages 36 through 38 should be read together with the Report for a complete understanding of the Company's financial position, results of operations, cash flows and changes in equity. A copy of the Report may be found as an insert in the pouch attached to the back cover of this document, or a copy may be obtained by calling the numbers shown under General Information.

Selected Financial Data

	Year ended December 31,				
$ in millions, except per share	1998	1997	1996	1995	1994
Net sales to					
United States Government	$ 6,717	$ 7,210	$ 7,224	$ 6,148	$ 5,980
The Boeing Company	1,075	883	569	569	483
Other customers	1,110	1,060	814	555	562
Total net sales	$ 8,902	$ 9,153	$ 8,607	$ 7,272	$ 7,025
Operating margin	$ 756	$ 880	$ 703	$ 572	$ 224
Net income	194	407	264	277	53
Basic earnings per share	2.83	6.10	4.22	4.79	.92
Diluted earnings per share	2.79	5.98	4.15	4.71	.91
Cash dividends per share	1.60	1.60	1.60	1.60	1.60
Net working capital	666	221	106	435	533
Current ratio	1.28 to 1	1.08 to 1	1.04 to 1	1.25 to 1	1.27 to 1
Total assets	$ 9,536	$ 9,677	$ 9,645	$ 5,642	$ 6,192
Long-term debt	2,562	2,500	2,950	1,163	1,633
Total long-term obligations	4,319	4,339	4,694	2,281	2,793
Long-term debt as a percentage of shareholders' equity	89.9%	95.3%	129.3%	73.3%	116.8%
Operating margin as a percentage of					
Net sales	8.5	9.6	8.2	7.9	3.2
Average segment assets	9.0	10.4	10.3	10.8	5.5
Net income as a percentage of					
Net sales	2.2	4.5	3.1	3.8	.8
Average assets	2.0	4.2	3.5	4.7	1.1
Average shareholders' equity	7.1	16.6	13.6	18.5	3.8
Research and development expenses					
Contract	$ 1,489	$ 1,670	$ 1,632	$ 1,179	$ 1,480
Noncontract	203	256	255	164	121
Payroll and employee benefits	3,476	3,504	3,378	2,883	2,827
Number of employees at year-end	49,600	52,000	51,600	42,300	46,900
Number of shareholders at year-end	11,774	11,400	11,773	12,471	12,878
Depreciation	$ 207	$ 232	$ 210	$ 231	$ 231
Amortization of					
Goodwill	94	94	83	38	28
Other purchased intangibles	92	92	82	21	15
Maintenance and repairs	92	107	93	80	105
Rent expense	106	108	110	106	99
Floor area (millions of square feet)					
Owned	19.2	20.5	22.5	20.1	21.3
Commercially leased	10.6	10.0	9.9	8.2	8.5
Leased from United States Government	7.6	8.8	9.0	10.2	9.4

Board of Directors

Kent Kresa
Chairman of the Board, President, and Chief Executive Officer, Northrop Grumman Corporation

Jack R. Borsting
E. Morgan Stanley Professor of Business Administration, University of Southern California

John T. Chain, Jr.
General, U.S. Air Force (Ret.), Chairman of the Board, Thomas Group, Inc. (management consulting company)

Jack Edwards
Member, Hand Arendall, L.L.C. (law firm)

Phillip Frost
Chairman of the Board and Chief Executive Officer, IVAX Corporation (pharmaceutical company)

Robert A. Lutz
Chairman of the Board, President, and Chief Executive Officer, Exide Corporation (battery manufacturing company)

Aulana L. Peters
Partner, Gibson, Dunn and Crutcher (law firm)

John E. Robson
Senior Advisor, BancBoston Robertson Stephens (investment bankers)

Richard M. Rosenberg
Chairman and Chief Executive Officer (retired), BankAmerica Corporation (bank holding company)

John Brooks Slaughter
President, Occidental College

Richard J. Stegemeier
Chairman Emeritus, Unocal Corporation (integrated petroleum company)

Committees of the Board

Executive and Public Policy
Aulana L. Peters, Chairman
Phillip Frost
Robert A. Lutz
John Brooks Slaughter
Richard J. Stegemeier

Finance
Richard M. Rosenberg, Chairman
John T. Chain, Jr.
Jack Edwards
Phillip Frost
Robert A. Lutz
John E. Robson

Nominating and Corporate Governance
Jack R. Borsting, Chairman
John T. Chain, Jr.
Richard M. Rosenberg
John Brooks Slaughter

Audit
Jack Edwards, Chairman
Jack R. Borsting
Aulana L. Peters
John Brooks Slaughter
Richard J. Stegemeier

Compensation and Management Development
Richard J. Stegemeier, Chairman
Jack R. Borsting
John T. Chain, Jr.
Jack Edwards
John E. Robson

Elected Officers

Kent Kresa
Chairman of the Board, President, and Chief Executive Officer

Herbert W. Anderson
Corporate Vice President, President, and Chief Executive Officer, Logicon Inc.

Ralph D. Crosby, Jr.
Corporate Vice President and President, Integrated Systems and Aerostructures Sector

Marvin Elkin
Corporate Vice President and Chief Human Resources and Administrative Officer

Nelson F. Gibbs
Corporate Vice President and Controller

Robert W. Helm
Corporate Vice President, Government Relations

Richard R. Molleur
Corporate Vice President and General Counsel

John H. Mullan
Corporate Vice President and Secretary

Albert F. Myers
Corporate Vice President and Treasurer

James G. Roche
Corporate Vice President and President, Electronic Sensors and Systems Sector

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

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 http://www.northgrum.com. Shareholders can also receive copies of this report or quarterly earnings statements by mail from the Wall Street Journal reader 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 19, 1999,
10:00 a.m. PDT
Miramar Sheraton Hotel
101 Wilshire Boulevard
Santa Monica, California 90401
(310) 576-7777

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 Plan

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. There are no service charges or brokerage commissions.

For information on the company's Dividend Reinvestment Service or for assistance with other stock ownership inquires, contact our Transfer Agent and Registrar, ChaseMellon Shareholder Services 1-800-279-1242. Questions regarding stock ownership may also be directed to Northrop Grumman's Shareholder Services at (310) 201-3286.

Investor Relations

Securities analysts, institutional investors, and portfolio managers should contact Northrop Grumman Investor Relations at (310) 201-3423.

Media Relations

Inquiries from the media should be directed to Northrop Grumman Corporate Communications at (310) 201-3335.

Corporate Headquarters

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Private Securities Litigation Reform Act of 1995

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

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.