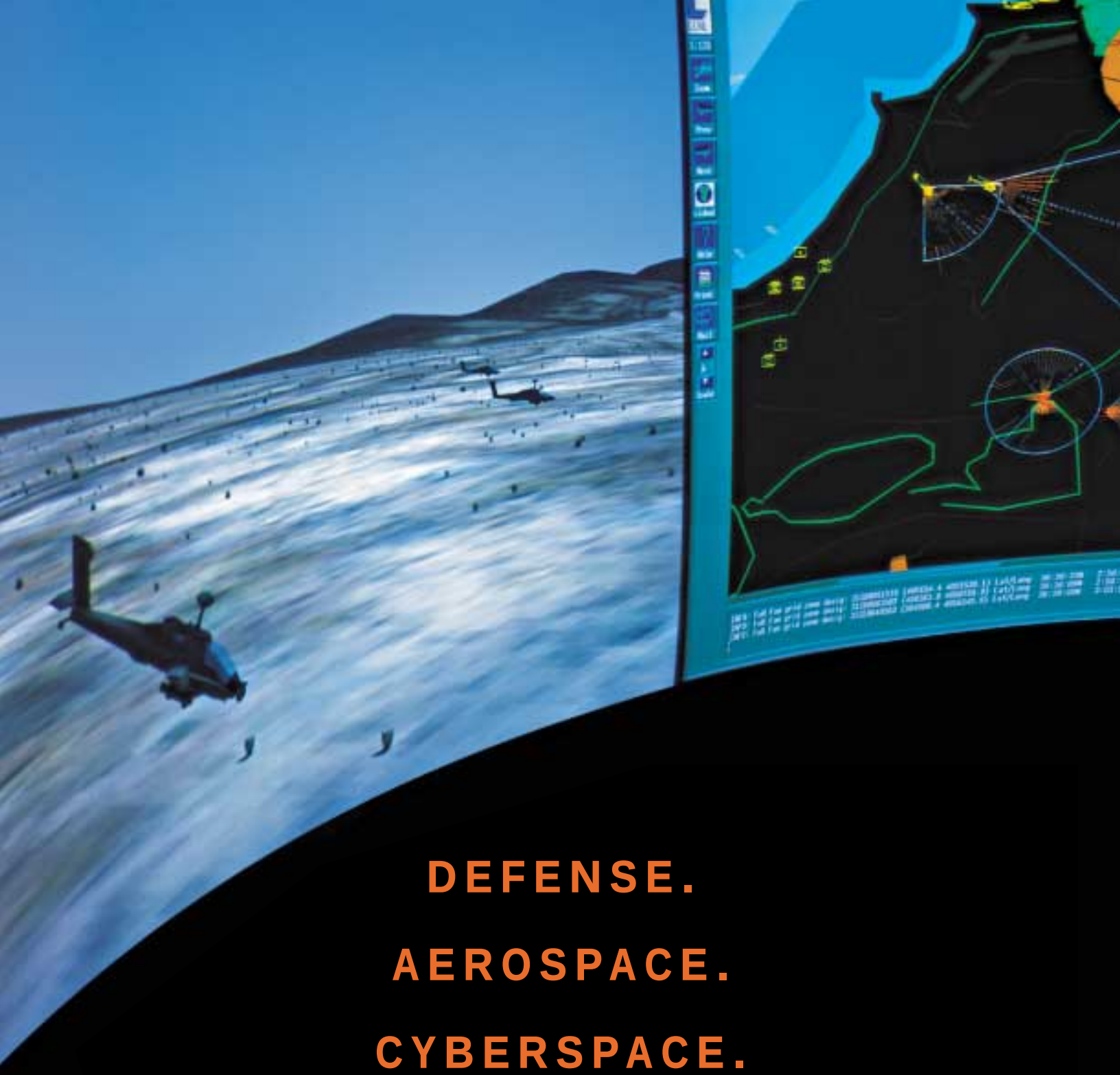


DEFENSE.
AEROSPACE.
CYBERSPACE.

Northrop Grumman Corporation

1999 Annual Report

ON THE COVER

Senior military planners developed and implemented new analytical models and techniques that aided NATO operations in Kosovo with the support of Logicon's Modeling, Simulation and Analysis Center. Logicon's software engineers and military analysts, working within the Joint Analytic Support Program (JASP), provide advanced information technology solutions for the increasingly complex operations of modern warfare.

TABLE OF CONTENTS

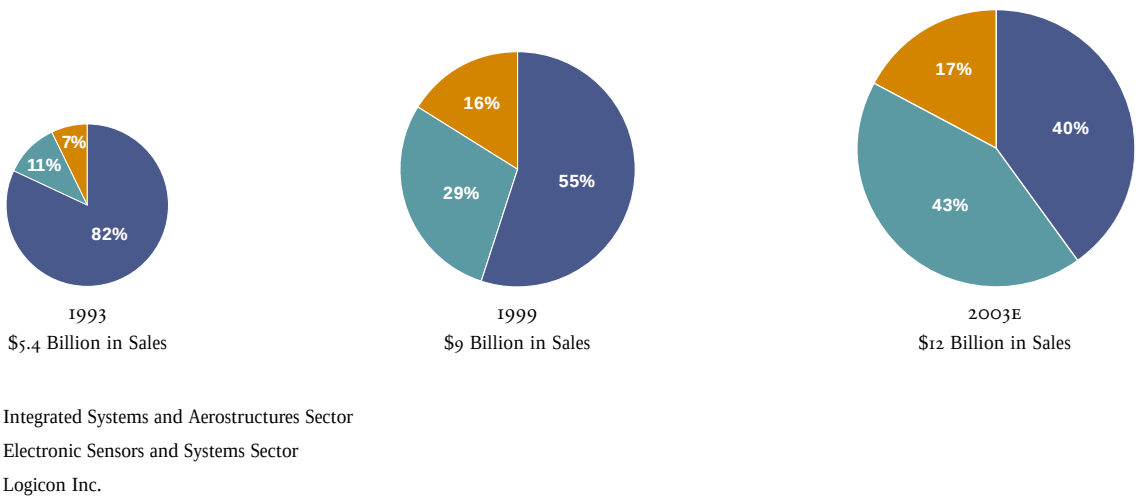
SELECTED FINANCIAL HIGHLIGHTS

$ in millions, except per share	1999	1998	1997
Net Sales	$8,995	$8,902	$9,153
Operating Margin as a percent of sales	10.8%	8.5%	9.6%
Net Income*	483	194	407
Earnings per Share (diluted)*	6.93	2.79	5.98
Cash Flow from Operations	1,207	244	730
Net Debt	2,083	2,787	2,728

** For 1999, before cumulative effect of accounting change.*

POSITIONED FOR GROWTH AND PROFITABILITY

Percent of Total Company Revenue by Sector



FINANCIAL HIGHLIGHTS BY SECTOR

ACQUISITIONS $ millions			1999	1998	1997
	ISAS	Air Combat Systems	$ 1,421	$ 1,430	$ 1,607
		Aerostructures	1,302	1,453	1,425
		AEW/EW	1,106	679	728
		AGS/BM	686	434	761
	ESSS	Aerospace Electronic Systems	1,375	1,047	1,496
		C^3I & N	727	907	964
		Defensive Electronic Systems	708	311	508
		Other	308	225	176
	LOGICON	Government Information Technology	1,015	813	711
		Technology Services	347	300	150
		Commercial Information Technology	140	113	97

SALES $ millions			1999	1998	1997
	ISAS	Air Combat Systems	$ 2,059	$ 2,114	$ 2,446
		Aerostructures	1,411	1,583	1,545
		AEW/EW	888	780	739
		AGS/BM	714	716	631
	ESSS	Aerospace Electronic Systems	1,105	1,265	1,240
		C^3I & N	843	904	887
		Defensive Electronic Systems	536	544	656
		Other	229	186	281
	LOGICON	Government Information Technology	971	787	770
		Technology Services	346	213	156
		Commercial Information Technology	142	107	96

BACKLOG $ millions			1999	1998	1997
	ISAS	Air Combat Systems	$ 2,360	$ 2,998	$ 3,682
		Aerostructures	1,925	2,034	2,164
		AEW/EW	1,209	991	1,092
		AGS/BM	882	910	1,192
	ESSS	Aerospace Electronic Systems	1,761	1,491	1,709
		C^3I & N	775	891	888
		Defensive Electronic Systems	789	617	850
		Other	199	120	81
	LOGICON	Government Information Technology	412	368	342
		Technology Services	149	148	61
		Commercial Information Technology	48	50	44

OPERATING MARGIN $ millions	1999	1998	1997
ISAS	$ 392	$ 280	$ 493
ESSS	199	218	248
LOGICON	80	60	67

This year's annual report focuses on the cyberspace revolution and the technological advances in battle management, surveillance, precision strike, and information warfare which will play crucial roles in the conduct of warfare in the twenty-first century. Cyberspace technology enables systems to assimilate with an astonishing volume of real-time information and takes battle management to an entirely new level.

Most military experts agree that NATO's Operation Allied Force provided the first glimpse of a fundamentally changed military strategy – a strategy made possible by two decades of investment in innovative technology. The all-air campaign demonstrated the dramatic impact of advances in airborne surveillance, mission planning, precision strike, electronic warfare, and information technology.

Northrop Grumman is at the forefront of the cyberspace revolution and the company's products and systems are important elements in the critical mission areas that defined success in the Balkans. In the pursuit to offer greater precision, capability, flexibility, and survivability, Northrop Grumman is strongly positioned to provide innovative technologies and solutions to its military, government, and commercial customers. Entering the twenty-first century, Northrop Grumman is the watchword in defense, aerospace, and cyberspace.

FELLOW SHAREHOLDERS

Northrop Grumman enters the twenty-first century in a strong and competitive position, following our excellent performance in 1999. We achieved record-setting milestones in what was a pivotal year for our company. We look to the future with great confidence as we pursue business strategies to further distinguish ourselves within the defense sector and, in doing so, enhance shareholder value.

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

SPECIFICALLY IN 1999, NORTHROP GRUMMAN:

- Achieved record net income of $483 million, or $6.93 per share (before the cumulative effect of an accounting change), versus net income of $194 million, or $2.79 per share, in 1998;
- Achieved improved operating results, recording sales of $9 billion and record operating margin of $969 million, up from $756 million in 1998;
- Generated record cash of $1.2 billion from operations, which improved the company's financial position by reducing its total debt by $700 million, achieving our goal of a 40 percent debt-to-capital ratio;
- Resolved outstanding issues including a settlement of contract claims relating to the Joint Surveillance Target Attack Radar System (Joint STARS) program and our Accurate Fuselage Assembly claim with Boeing, and turned around programs such as the Directional Infrared Countermeasures (DIRCM) system, which is now being produced for the U.S. and Great Britain;
- Strengthened our competitive position within the defense industry through improved operations and selected acquisitions;
- Pursued new business aggressively and won several important contracts, validating both the company's agile and responsive competitive stance and its strategy of moving into businesses with cutting-edge technologies.

And, in March 2000, Northrop Grumman's Electronic Sensors and Systems Sector (ES^3)continued this momentum by winning a key contract worth more than $1 billion to supply radar and electronic warfare systems for a fleet of 80 F-16 "Block 60" aircraft being produced by Lockheed Martin for the United Arab Emirates.

NORTHROP GRUMMAN'S STRONG COMPETITIVE POSITION

The contemporary U.S. defense industry has endured a great deal of consolidation during the past decade. Today, the landscape of competitors is less crowded, but there are clearly differences among defense companies some of which are facing organizational and operating challenges. Having effectively integrated and rationalized our acquisitions early on, I am pleased to report that Northrop Grumman is not facing these same issues. The company's operating machine is in excellent condition and our size enables us to be very flexible and to adapt rapidly to the emerging demands of our customers.

The reorganization of our company into three operating sectors in August 1998 enabled us to become a stronger and more innovative competitor and we have captured the synergies across the company that we had hoped to achieve. Our management team and all of our employees worked hard to create this new structure, implementing lean practices, shared services, and other process improvements throughout our organization. We have effectively aligned our key business areas to maximize our strengths by increasing our capabilities and lowering our overall costs, thereby improving our competitiveness in the marketplace. The company is on track to achieve $300 million in reduced operating costs beginning in 2001, an initiative first announced some eighteen months ago. We are now leveraging the valuable synergism between each of our sectors, and the business potential is substantial. Early in 2000, for example, all three Northrop Grumman sectors were selected as part of a Lockheed Martin-led team to perform warfare systems integration for the nuclear-powered CVN 77 aircraft carrier.

OUR STRENGTH IN DEFENSE, AEROSPACE, AND CYBERSPACE

Northrop Grumman's strategy since the early 1990s has been principally guided by our analysis and vision of future wars and conflicts. Following the end of the Cold War, we began to consider how emerging and foreseeable technological advances might alter how modern militaries would fight in the twenty-first century. We benefited from detailed studies of military doctrine and analysis that suggested a "revolution in military affairs," or RMA, would occur. Today Northrop Grumman is a leading RMA company.

From our strong base as a traditional defense and aerospace contractor, Northrop Grumman has branched out into the cutting-edge advanced technologies of information systems and electronic warfare. In 1999, the Kosovo conflict was a demonstration of the power of surveillance and precision strike. In short, Kosovo illustrated loudly and clearly that we have the products and systems America and its allies need to prevail in future military conflicts.

"The company's operating machine is in excellent condition and our size enables us to be very flexible and to adapt rapidly to the emerging demands of our customers."

I am encouraged that the need for these same critical technologies and systems has been recognized in the proposed fiscal-year 2001 defense budget submitted to Congress in February of this year. This budget includes funding for many key technology platforms produced by Northrop Grumman. Although this budget request of $60 billion represents the largest increase since the Reagan administration, there is a growing concern that procurement is still not at an adequate level to meet our defense needs. The U.S. defense industry has great

capabilities and would clearly benefit from the right funding priorities. With these future needs in mind, Northrop Grumman will continue to emphasize our expertise in systems integration, advanced electronic systems, and information technology as we move our defense and aerospace capabilities further into the age of cyberspace to minimize casualties in future conflicts.

In response to the trend toward lower-risk warfare, one of the most promising new technologies to gain attention and support in 1999 – as well as from the proposed fiscal 2001 defense budget – is the unmanned aerial vehicle, or UAV. Northrop Grumman's acquisition of Ryan Aeronautical last July has positioned our company as a leader in meeting future military priorities in unmanned aerial reconnaissance and battle

"We are a strong and tenacious competitor in our chosen areas . . . . I am confident that we also possess the products and technologies that are in demand now and in years to come."

management. Ryan's state-of-the-art UAV, the Global Hawk, with its high endurance and large sensor payload, provides field commanders with unprecedented flexibility in a rapidly evolving combat theatre. Our company was recently awarded a $94 million contract for engineering, manufacturing and development of another UAV program, the U.S. Navy's Vertical Takeoff and Landing Tactical UAV system, which solidifies our position in this dynamic market.

As proven in Kosovo, Northrop Grumman's assets are truly part of the cyberspace revolution. Cyberspace is the dimension that ties our world together, enabling future systems to assimilate vast amounts of real-time information. Our role at Northrop Grumman will be to help our defense customers integrate these volumes of data instantly and take battle management to the next level: sorting, prioritizing, delivering, and sharing this information in an instant as well as ensuring that the enemy cannot exploit this "connectivity." I expect each of our sectors to play a key role in this cyberspace revolution – a revolution in which wars will be won not only by the fastest and most capable aircraft, but also by the fastest computer chip and the smartest, most robust software. Our size and technological prowess enable us to move with great speed to capture opportunities as they arise.

SECTOR HIGHLIGHTS

Our Integrated Systems and Aerostructures Sector (ISA) not only marked 1999 with a stunning showcase of its technological expertise in Kosovo, but also achieved an impressive productivity turnaround in its Joint STARS program, which is now profitable. The sector also won multi-year contracts for the E-2C Hawkeye and C-17 Globemaster III and anticipates a similar award in 2000 for the F/A-18E/F once Congressional procurement requirements have been met. Our aerostructures business continues to be challenged by Boeing's current production rates, and, in the fourth quarter, we made a downward cumulative adjustment of $27 million as a reserve against forward losses on all commercial aerostructures work. I am encouraged by the prospects for improvements in the Asian economy, and any increase in production rates will be beneficial for our company. Overall, as anticipated, ISA's sales will be lower in 2000 as B-2 production winds down.

Although international contract delays resulted in lower 1999 sales for ES^3, the sector still generated excellent cash flow and maintained its operating margin. ES^3 is one of the company's key growth engines and I am particularly encouraged by its 25 percent improvement in contract acquisitions in 1999 – which significantly

increased its funded order backlog, testimony to its ability to meet the growing demand for defense electronics. In 1999, ES^3 also continued to respond to the strong global demand for F-16 fighter radars and won an important Boeing-led competition to supply surveillance for Australia's $1 billion Project Wedgetail. With its highly diversified portfolio, ES^3 promises to make even more inroads into the global marketplace in 2000 and beyond.

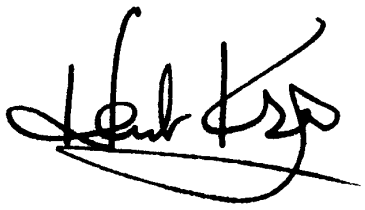
Logicon, our information technology sector, generated record results across the board in 1999. The sector posted an outstanding 32 percent increase in revenues and reported a record $1.5 billion in sales. I'm particularly proud of Logicon's outstanding win-rate performance and its nearly perfect record of retaining business that was re-competed. While Logicon's sales are not expected to increase by such high percentages again this year, with its significant funded and unfunded sales backlog it is well positioned for continued growth and profitability. Logicon is also leveraging the future demand for outsourcing by making significant forays into the growing public-sector market for IT services at both the state and federal level, as well as in commercial and international markets.

A LOOK AHEAD

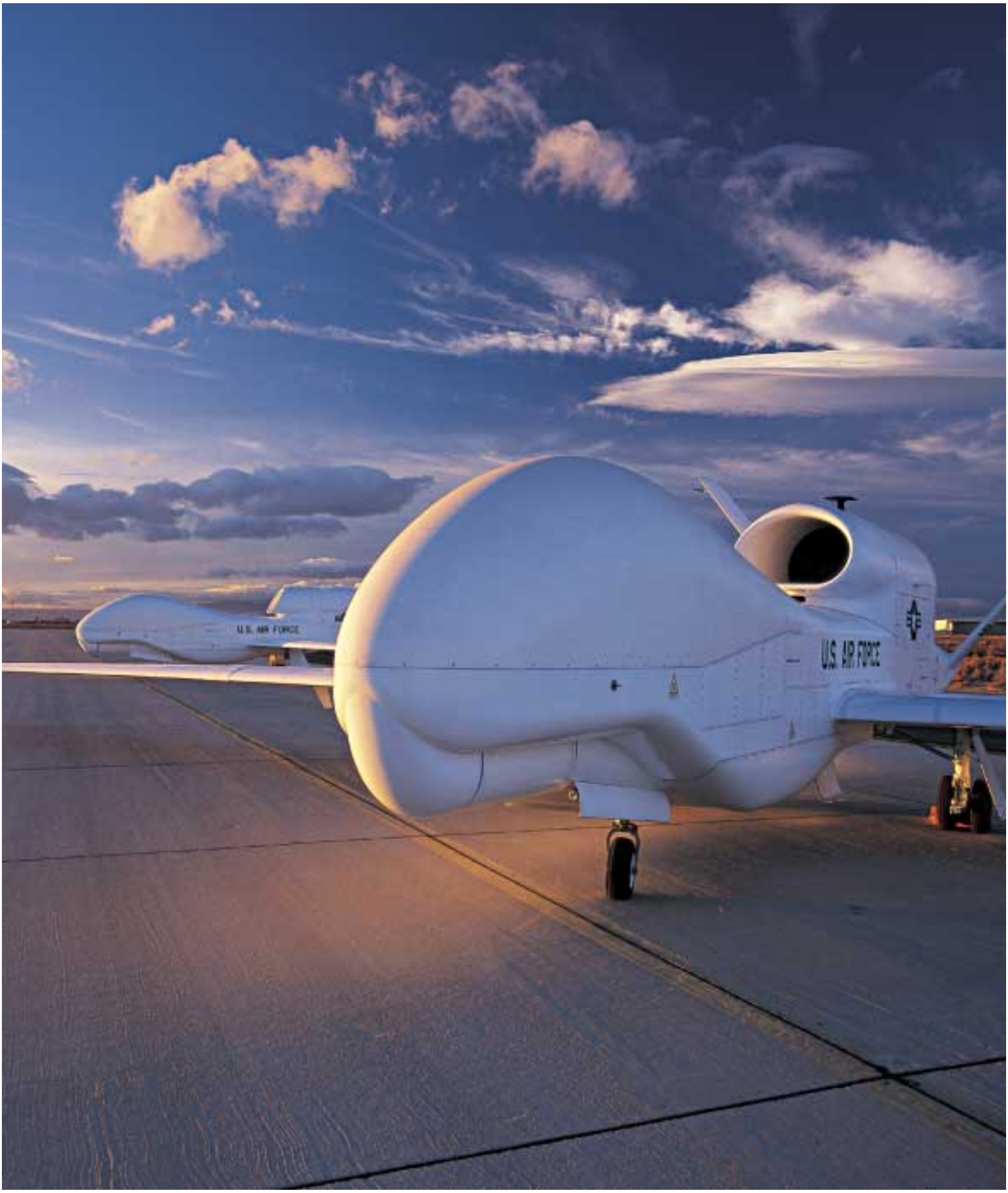
Northrop Grumman's strong 1999 results, improved operating performance, and strengthened industry position give us a solid foundation for the future. As a Northrop Grumman shareholder, I am disappointed that these milestones have not been reflected in our stock price. I believe that to a large degree the challenges facing other members of our industry as well as current investor interest in "dot com" telecommunications and Internet stocks are having an impact on our stock price. Over time, I believe Wall Street will recognize our achievements as we strive to differentiate ourselves by consistent performance.

Looking ahead, I expect Northrop Grumman's 2000 sales and earnings, exclusive of pension income, to be relatively unchanged from last year, due to the recognition of margin on Joint STARS and B-2 production late in 1999, both of which had been expected in 2000. We will take full advantage of the strong cash generated by our operations and will continue to evaluate strategic acquisitions and other initiatives to further enhance shareholder value. Beginning in 2001 and beyond, I look forward to solid growth in both sales and earnings.

Northrop Grumman is well positioned with programs and technologies that give us the competitive edge. We are a strong and tenacious competitor in our chosen areas, and we continue to enjoy the first or second position in the majority of our markets. I am confident that we also possess the products and technologies that are in demand now and in years to come. But most of all, I am confident in the men and women of Northrop Grumman, who have proven time and again that they have the dedication, ingenuity, and forward-looking vision to help us stay focused on the changing needs of our customers. In each of our markets, Northrop Grumman is extending our customers' reach every day, providing them with leading-edge technologies in defense, aerospace, and cyberspace.



Kent Kresa
Chairman of the Board, President, and Chief Executive Officer
March 22, 2000



Northrop Grumman's Global Hawk unmanned aerial reconnaissance system for the U.S. Air Force is transitioning into engineering and manufacturing development. This highly sophisticated and versatile aircraft, operating either independently or in conjunction with other surveillance systems, will play an integral role in the electronic battlefield of the future, providing military analysts with critical information in near real time for rapid decision-making.

Airborne Ground Surveillance and Battle Management

Airborne Early Warning and Electronic Warfare

Air Combat Systems

Aerostructures

Future military operations will increasingly rely on gathering, organizing, and delivering key tactical and strategic information to decision makers and providing military leaders with the means to influence events over global distances. These same military leaders will require the tools to assure dominant situational awareness on a sustained basis in multiple locations.

Northrop Grumman's Integrated Systems and Aerostructures Sector (ISA) offers programs that meet these emerging needs, playing a vital and growing role in the changing warfare scenarios of the twenty-first century. Performance of key ISA-produced systems in Kosovo has validated this claim. From the debut of the B-2 Spirit stealth bomber to the critical roles played by the E-8C Joint Surveillance Target Attack Radar System (Joint STARS), the EA-6B Prowler support jammers, and the C-17 Globemaster III transport, ISA systems were critical contributors to NATO's success in the Balkans.

In 1999, ISA generated $5 billion in sales, posted operating margin of 7.8 percent, and generated excellent cash flow. Contract acquisitions totaled $4.4 billion, and funded sales order backlog remained robust at $6.4 billion. Its multi-year defense procurement programs continued to provide the sector with program stability, improved cash flow management, and opportunities to leverage expertise into new business areas.

By successfully integrating the programs, capabilities, talent, and expertise of three former operating divisions into a single sector at the beginning of 1999, ISA is establishing a new operating paradigm in the industry. As an integrated organization, ISA gained the critical mass to compete more effectively in key mission areas while operating more efficiently. The implementation of lean manufacturing, common systems, and shared services continues to reduce program cycle times while streamlining infrastructure costs, improving program affordability for ISA's customer base. As a result, ISA is on track to achieve a $200 million reduction in operating costs beginning in 2001.

AIRBORNE GROUND SURVEILLANCE AND BATTLE MANAGEMENT

Airborne ground surveillance continues to be in significant demand by the military. ISA is the prime contractor and systems integrator for Joint STARS, in production for the United States Air Force and Army. Joint STARS is the world's leading airborne ground surveillance and battle management system, providing real-time information on ground vehicles and slow-moving aircraft. In 1999, ISA delivered the fifth and sixth production Joint STARS aircraft, each ahead of schedule. The seventh production aircraft was delivered in March 2000, also ahead of schedule, with one more aircraft delivery expected in 2000. Four additional aircraft are scheduled for delivery in 2001. Responding to the requirement for critical

command-and-control capabilities during multiple, simultaneous conflict and peacekeeping missions, the fiscal-year 2001 budget proposal includes funding for a 15th Joint STARS.

The company resolved two key Joint STARS program issues in 1999. Production challenges of retrofitting the 707 aircraft for the program have been overcome, and the company has settled its contract claims with the U.S. Air Force. Northrop Grumman is now able to recognize underlying improved performance on the production phase of this high performance system. In 1999, the company began recording margin on Joint STARS and expects continued program profitability in the future.

Development continues on the next-generation technology for Joint STARS under the Radar Technology Insertion Program (RTIP). In January 2000, the Defense Acquisition Board approved the next phase of the program: the engineering and manufacturing development contract. The U.S. government is positioning RTIP as the leading-edge solution for NATO's alliance ground surveillance system. A decision on the program, which includes the Electronic Sensors and Systems Sector's (ES^3) next-generation ground surveillance radar sensor subsystem, is expected in 2002.

AIRBORNE EARLY WARNING AND ELECTRONIC WARFARE

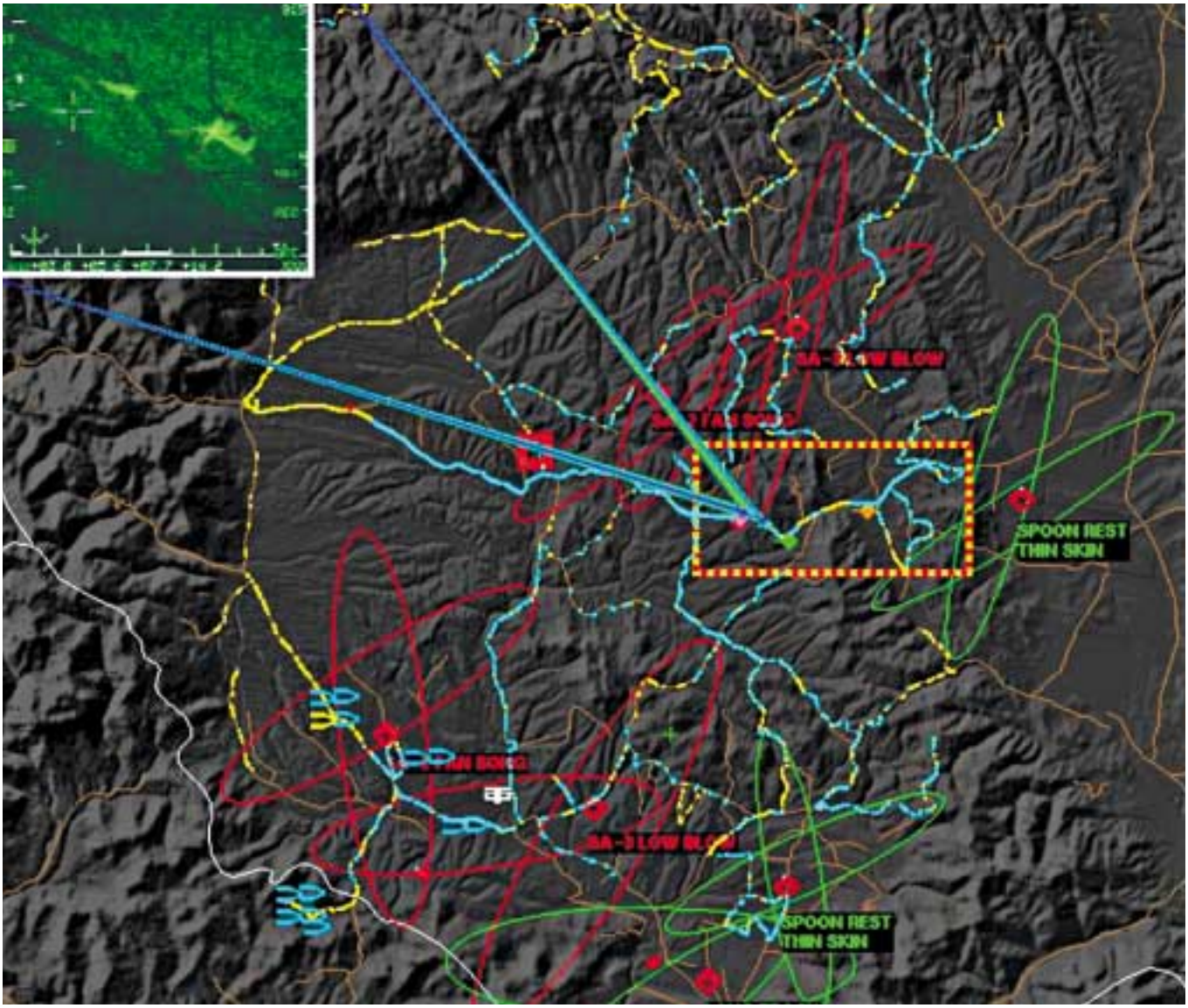
Northrop Grumman's all-weather E-2C Hawkeye is a premier airborne early warning and control (AEW&C) system for detecting and tracking air and sea targets to ensure the safety of the naval fleet and its aircraft. In 1999, ISA delivered three Hawkeye aircraft to its U.S. Navy customer and expects to deliver three more in 2000.

Production of the venerable E-2C platform with modernized systems was started in 1999 on a $1.3 billion, five-year contract with the U.S. Navy to produce 22 next-generation E-2C Hawkeye 2000 aircraft. The Hawkeye 2000 system will deliver advanced processing power and target detection and tracking capabilities. Delivery of the first aircraft is expected in late 2001. France is scheduled to receive its third Hawkeye 2000 aircraft in 2003 and is considering purchase of a fourth. Taiwan has ordered two additional upgraded E-2C Hawkeye aircraft.

The Egyptian Air Force is also investing $138 million to upgrade its E-2C Hawkeyes to improve its AEW&C system. Work on the first aircraft will begin in late 2002. ISA is performing a similar upgrade program on 13 Hawkeyes for Japan's Air Self Defense Force. Additional international sales are expected as countries upgrade systems to the Hawkeye 2000 configuration for advanced AEW

ISA is now working on next-generation advances for Joint STARS under a $1.3 billion Radar Technology Insertion Program (RTIP) that will provide the U.S. Air Force with enhanced capabilities to detect and identify ground activity faster and more accurately for peacekeeping, crisis, and battle management missions around the world. In a specialized laboratory that replicates the Joint STARS aircraft interior, engineers develop and modify software for RTIP, saving both time and costs during systems integration.

RTIP will give Joint STARS the ability to collect data that detects and identifies stationary and moving targets. In this representation, information from other U.S. surveillance assets is combined with RTIP to provide battlefield commanders in the future with critical information for rapid decision making. RTIP will have the capability to gather information that will autonomously identify targets of interest and track them for long periods of time. The yellow and blue dots show a history of moving vehicular traffic, and the insert displays supplementary radar information for individual vehicles.



capability and improved interoperability with their allies.

In 1999, the Kosovo conflict also underscored the importance of dedicated electronic jamming systems, such as Northrop Grumman's EA-6B aircraft. The Prowler remains the only electronic warfare aircraft used by the U.S. Air Force, Marine Corps, and Navy. To ensure its continued success primarily as a radar and communications jamming system, ISA is enhancing the Prowler under two major upgrade programs. The first program calls for the conversion of 20 Prowlers to an enhanced configuration that ensures

interoperability with other U.S. forces. In 1999, 12 Prowlers were delivered to the U.S. Navy, with the remaining eight scheduled for delivery by mid-2000. The second Prowler upgrade is the development of the next-generation EA-6B system, known as Improved Capability-III (ICAP-III). Initial operating capability of the system is planned for early 2004. The ICAP-III jamming system has a potential value of $750 million over the life of the contract. To accelerate these upgrades, the 2001 defense budget requests $203 million for the Prowler program.

The U.S. Navy is performing an analysis of alternatives that will determine which platform will serve as the follow-on support jamming system to the EA-6B, to which many of the ICAP-III technologies can be applied. ISA is also working with Boeing to evaluate a command and control warfare variant of the two-seat F/A-18 Super Hornet, nicknamed the "Growler," to meet this requirement.

AIR COMBAT SYSTEMS

ISA is the principal subcontractor to Boeing on the U.S. Navy's F/A-18 premier strike fighter program, producing nearly 40 percent of the aircraft. Last year marked the delivery of the final shipset off the C/D model production line – totaling almost 1,500 shipsets for the A/B and C/D configurations during the life of the program. The transition to the new E/F model, the next-generation Super Hornet, began in December. The Super Hornet, which offers even greater range, survivability, and payload, completed its operational evaluation, meeting every test objective. Full production is planned to begin in the spring of 2000, with the first Super Hornet squadron expected to begin operations in 2001. The U.S. Navy has ordered 62 Super Hornets and plans to purchase a minimum of 548 of the aircraft through 2010. The U.S. Congress last fall approved multi-year procurement of the F/A-18, providing a measure of stability to the program. Team Super Hornet was named as the 1999 recipient of the Robert J. Collier Trophy, representing the industry's top aeronautical achievement.

In 1999, ISA and Boeing signed an agreement for equal work-share on F/A-18 aircraft maintenance and upgrades. This new maintenance team approach, which is being conducted at Northrop Grumman's facility in Florida, has the potential to support all of the U.S. Navy's F/A-18 aircraft currently in service. In total, the F/A-18 Hornet and Super Hornet programs are expected to continue to provide solid revenues and income for Northrop Grumman over the next several decades.

Fueled by a combination of political support from NATO's highly successful air campaign over Serbia and the increasing technical maturity of the unmanned aerial vehicle (UAV) systems, interest in the UAV market increased significantly in 1999. Through its 1999 acquisition of Ryan Aeronautical, Northrop Grumman is now well positioned in this dynamic, fast-growing market. Global Hawk, Ryan's most sophisticated UAV and now a key program of ISA, is a high endurance, long-range surveillance system that may be used to augment manned aircraft, including ISA's Joint STARS, while operating in other theatres of conflict as a stand-alone system. Nearly $400 million has been added in the proposed fiscal-year 2001 defense budget for the acceleration of the Global Hawk program, validating the promise of this highly versatile UAV system.

Team Super Hornet was named as the 1999 recipient of the Robert J. Collier Trophy, representing the industry's top aeronautical achievement.

The application of "lean" practices on the assembly floor and in non-production areas such as engineering and supplier management is changing the way Northrop Grumman people build the U.S. Navy's F/A-18 Super Hornet. Lean thinking removes waste from processes throughout the enterprise, adding value to the product or service ultimately delivered to the customer. The result is shorter cycle times, improved quality, and lower costs.

Continuing its proud legacy as a major contributor to the national defense marketplace, ISA is well positioned for success and profitability.

ISA's position as a leader in the UAV market was solidified with its $93.7 million U.S. Navy contract award in early 2000 to provide an unmanned aircraft system that can take off and land vertically, operating from the decks of small warships. This Vertical Takeoff and Landing Tactical UAV (VTUAV) furnishes the fleet with a unique operational asset by providing reconnaissance, surveillance, and targeting mission capabilities.

As demonstrated during its maiden combat mission in the skies over Kosovo, the B-2 Spirit stealth bomber combines long-range, large payload, stealth, and precision strike capabilities. In 1999, ISA delivered seven Block 30 upgrades of the B-2 to its U.S. Air Force customer. Although no longer in production, the B-2 program is expected to provide Northrop Grumman with a steady stream of revenue and margin for many years to come. The U.S. Air Force awarded Northrop Grumman a contract as the prime systems integrator to oversee upgrades and maintenance for fleet combat readiness through 2005, with three, three-year options.

Northrop Grumman is a key member of the Lockheed Martin team competing to develop the Joint Strike Fighter (JSF), the military's next-generation strike aircraft and a significant growth opportunity for ISA and ES^3. ISA brings its strength in tactical aircraft systems integration, software development, low observability, and lean commercial practices to the team. The new fighter – a joint program of the U.S. Air Force, Marine Corps, and Navy – offers several flexible and service specific features, including one variant with the ability to transition from conventional to vertical flight and another to make carrier landings. All three versions will use common avionics systems architecture to contain costs. In addition to the three branches of the U.S. military, the British Royal Navy and Royal Air Force will also utilize the JSF. A decision on which team will develop the JSF, a 30-year, $750 billion program, is expected in early 2001.

AEROSTRUCTURES

The ability to reach distant or remote areas of conflict, as witnessed in NATO's Operation Allied Force, is of primary importance to allied military. The U.S. Air Force's C-17 Globemaster III transport, one of the high-profile performers of the Kosovo conflict, is a key platform ensuring that U.S. forces can respond rapidly to events around the globe. Northrop Grumman is the largest subcontractor to Boeing on the C-17, the most advanced military transport aircraft. ISA produces the horizontal and vertical stabilizers, nacelles, and aerial refueling installation along with the rudders and elevators.

In 1999 Asian financial conditions continued to affect commercial aircraft orders, maintaining pressure on all manufacturers, including Northrop Grumman. The company is encouraged by the steadily improving Asian economy, and any increases in commercial aircraft production by Boeing will be beneficial to ISA.

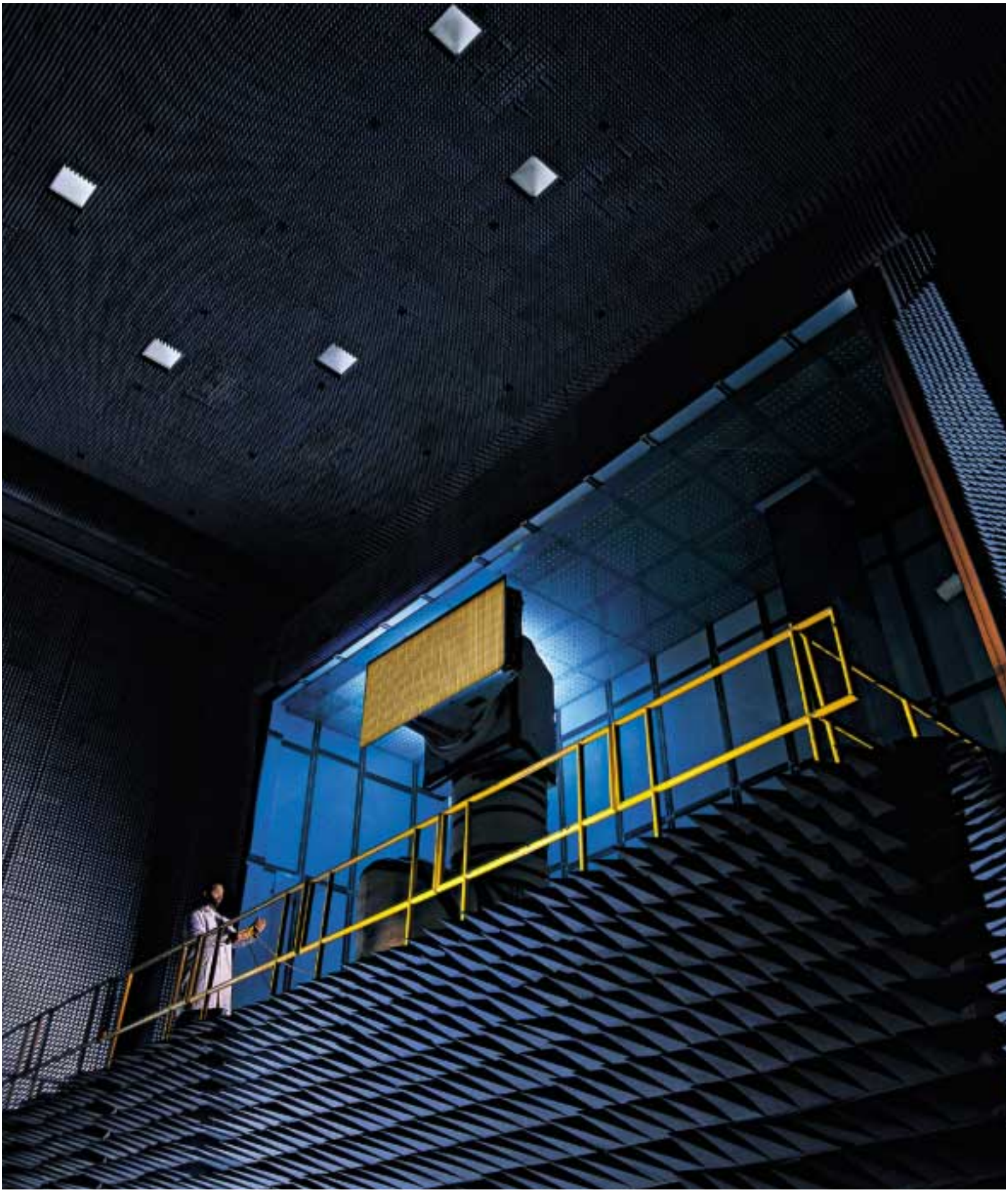
To realign its costs with the reduced commercial aircraft production figures and to maintain its leadership role in high-quality, low-cost airframe design, manufacturing, and systems integration, ISA adopted various production and cost initiatives across all business areas in 1999. These initiatives, including reductions in product cycle time and floor space,

Northrop Grumman has applied its composite technology experience to the redesigned tail of the C-17 airlifter, which features a new graphite horizontal stabilizer that replaces the previous aluminum structure. Larger than the wings on a typical fighter aircraft, the new stabilizer has 2,000 fewer parts and 42,000 fewer fasteners than the previous aluminum unit. This fully integrated aerostructure is one of the first of its kind to benefit from the U.S. government's implementation of best commercial practices on selected military programs.

have more appropriately aligned aerostructures' costs with its projected revenue expectations. In addition, an approximately 20 percent decrease in work force at ISA led to further efficiencies. During this process, the sector has remained sensitive to issues of employees' fair treatment, retraining, and redeployment.

Due in part to the lower anticipated rates in commercial aircraft orders from Boeing and the maturation of the B-2 program, 2000 sales for the sector are expected to decline by 12 to 15 percent. The implementation of production and cost initiatives will position the aerostructures business area and ISA as a competitive force going forward.

ISA has taken aggressive and focused action to realign itself as a supplier of choice for integrated airborne systems to meet national and international customers' needs. Continuing its proud legacy as a major contributor to the national defense marketplace, ISA is well positioned for success and profitability.



Northrop Grumman is a world leader in phased array radar and related equipment that can produce battlefield imagery from space without interference from weather or terrain. Advanced space programs such as Discoverer II and the Space-Based Infrared System help to position the company for further growth in this increasingly important technology area, which is a vital element in the emerging electronic battlefield of the twenty-first century. This indoor antenna range, one of the largest of its kind, is the only facility with the capability to test a payload as it will fly in space.

Aerospace Electronic Systems

Defensive Electronic Systems

C^{3}I & Naval and Marine Systems

Automation and Information Systems

Allied militaries are refining operational concepts in response to technologies that deliver the advantages of an integrated "electronic battlefield," escalating demand for electronic capabilities. High-fidelity sensor systems collect, interpret, and respond to data across a wide range of defense missions – from undersea to outer space to the cyberspace world. Northrop Grumman's Electronic Sensors and Systems Sector (ES^3) designs and produces key electronic systems for high-value platforms across the spectrum of conflict.

With 1999 sales of $2.7 billion and operating margin of 7.3 percent, ES^3 is a global leader, developing electronic sensing, processing, and communications technologies, as well as weapons, propulsion, and automation systems for the United States Department of Defense (DoD) and numerous governmental customers worldwide. International contracts currently comprise a third of ES^3's sales, and global markets remain a major focus of sector growth plans.

AEROSPACE ELECTRONIC SYSTEMS

Supporting military operations via surveillance of both friendly and adversarial activities, ES^3 produces the ground surveillance radar for Northrop Grumman's Joint Surveillance Target Attack Radar System (Joint STARS), which locates and tracks fixed and moving targets from significant distances. ES^3 is the radar supplier for the next-generation upgrade to the Joint STARS radar, the Radar Technology Insertion Program (RTIP), which was approved for engineering, manufacturing, and development by the Defense Acquisition Board in January 2000.

ES^3 also produces the world's preeminent airborne surveillance radar for the Boeing Airborne Early Warning and Control System (AWACS). With its 360-degree view and the ability to scan distances exceeding 200 miles, this radar offers real-time, all-altitude, and beyond-the-horizon detection and tracking of air and sea targets. NATO employed AWACS radars upgraded by the Radar System Improvement Program (RSIP) during the 1999 Kosovo conflict. The United States Air Force's AWACS aircraft will continue to be upgraded with RSIP's improved operational capabilities over the next four years. France, Japan, and Saudi Arabia have also shown interest in procuring the upgrade.

ES^3 will supply a new 360-degree, steerable beam Multirole Electronically Scanned Array (MESA) surveillance radar as part of Australia's Project Wedgetail. Wedgetail, awarded in 1999, is a Boeing-led program that will deliver seven Airborne Early Warning and Control (AEW&C) aircraft to the Royal Australian Air Force. The air and sea surveillance radar system will enter service within five years and is attracting interest in nations including Turkey, South Korea, Italy, Spain, and Israel.

ES^3 holds a prominent position in advanced space-based technologies, which will offer key mission support to the warfighters of the twenty-first century. ES^3 currently

produces sensors for the Space-Based Infrared System ballistic missile warning and tracking system (SBIRS High). In 1999, ES^3 also received a $134 million contract to provide the payload and ground segment systems engineering and design for the Program Definition and Risk Reduction phase of the ground-based segment of the system (SBIRS Low) for the Spectrum Astro team. The sector was also selected to design sensor payloads for two of the three Discoverer II teams in a competition to produce the next generation of surveillance satellites.

A Northrop Grumman/Lockheed Martin joint venture supplies the Longbow AN/APG-78 multi-mode radar and AGM-114L RF Hellfire "fire-and-forget" missile for the AH-64D Longbow Apache helicopter in the United States and the WAH-64 Apache in the United Kingdom. In 1999, the U.S. Army awarded the joint venture a five-year Longbow Hellfire missile contract – worth potentially $1.2 billion – to build more than 10,000 missiles and associated equipment. Under a separate multi-year contract valued at $565 million, which was awarded in 1998, the joint venture is continuing production of 207 Longbow Apache fire control radars.

The radar and missile enable the potent Apache attack helicopter to detect, classify and prioritize fixed and mobile targets day or night, in poor weather and obscured

The Directional Infrared Countermeasure (DIRCM) system in its various forms defends aircraft from threats posed by heat-seeking missiles. The large and small turret versions have successfully completed flight and live-fire testing and are now in full production. The next-generation DIRCM, currently in development, is a highly compact, low-drag, laser-based system that protrudes as little as 3½ inches into the airstream and will offer IRCM protection to a wider variety of high performance military aircraft.

In March 2000, the United Arab Emirates agreed to purchase 80 F-16 "Block 60" aircraft, with the potential value of Northrop Grumman's participation on the program expected to exceed $1 billion.

conditions, then attack those targets with pinpoint accuracy from standoff distances. In 1999, the joint venture also began adapting the fire control radar for use on the RAH-66 Comanche helicopter.

During 1999, an ES^3-led team continued developing the advanced AN/APG-77 radar for the U.S. Air Force F-22 Raptor, America's premier air dominance fighter. The radar, which features an active electronically scanned antenna (AESA), will give an F-22 pilot unprecedented capability to track, target, and shoot at multiple threat aircraft before the adversary's radar ever detects the F-22.

Leveraging this fire control radar expertise, the sector continues to develop and refine its AESA radar technology for the pending Joint Strike Fighter (JSF) competition – the next-generation fighter for the United States and the British Royal Navy. ES^3 is also part of a team competing to provide electro-optical systems for the JSF. Current plans call for approximately three thousand aircraft to be purchased by U.S. services alone. A decision on the contract is expected by spring 2001.

ES^3 has produced more than six thousand fire control radars for F-16 fighters since 1976. Strong demand for new radars – along with updates of existing systems – continued in 1999. For example, the sector will be supplying its AN/APG-68 radar for additional Egyptian F-16 C/D aircraft. An updated version of the aircraft's radar, the AN/APG-68(V)XM, recently entered development and will provide greater air-to-air detection ranges and Synthetic Aperture Radar (SAR) ground imaging capability for precision targeting. Northrop Grumman will provide the upgraded radar for F-16s purchased by Israel and Greece. This technology update will ensure that the F-16 remains a world-class fighter for years to come.

In March 2000, the United Arab Emirates agreed to purchase 80 F-16 "Block 60" aircraft, with the potential value of Northrop Grumman's participation on the program expected to exceed $1 billion. The UAE Desert Falcon fleet will be equipped with ES^3's agile beam radar and internal forward-looking infrared and targeting system, as well as the sector's Integrated Electronic Warfare System.

The BAT "brilliant" antiarmor submunition, which employs passive acoustic and infrared sensors to destroy armored vehicles in hostile territory, began low-rate initial production (LRIP) in 1999 at a new ES^3 manufacturing facility at the U.S. Army's Redstone Arsenal. These submunitions are designed to be carried and dispensed by the U.S. Army's Tactical Missile System (ATACMS) Block II surface-to-surface missile, as well as other missiles, artillery rockets, and munitions dispensers. In 1999, ES^3 received two LRIP contracts valued at approximately $215 million to produce a total of 913 BAT submunitions. Total production potential is an estimated 20,000 BAT and product-improved BAT submunitions through 2011.

As interest in unmanned aerial vehicles (UAVs) continues to grow, ES^3 is providing its Tactical Endurance Synthetic Aperture Radar (TESAR) sensor for the U.S. Air Force's Predator UAV. ES^3 is also developing the radar system for the U.S. Army's Tactical UAV, which completed a successful autonomous first flight in 1999. Overall, the Pentagon's embrace of UAVs and Northrop Grumman's 1999

acquisition of Ryan Aeronautical will provide additional opportunities for ES^3 in this emerging business area. For example, ES^3, which is teamed with TAMAM-Israel Aircraft Industries, will provide the sensor package for the United States Navy's Vertical Takeoff and Landing Tactical UAV (VTUAV) recently won by Northrop Grumman.

DEFENSIVE ELECTRONIC SYSTEMS

In 1999, Northrop Grumman integrated its infrared (IR) and radio frequency (RF) electronic countermeasures businesses into a combined Defensive Systems Division within ES^3 to realize significant synergies and economies of scale.

The sector's Directional Infrared Countermeasures (DIRCM) system achieved several major milestones in 1999, including successful flight tests to evaluate the effectiveness of its large transmitter system and live-fire tests. ES^3 also demonstrated a new laser-based DIRCM system currently in development using a compact, mid-infrared, Viper™ laser. These achievements were instrumental in a decision by the U.S. Special Operations Command (SOCOM) to procure

A completed BAT "brilliant" antiarmor submunition undergoes thermal testing in the company's new production facility at the Redstone Arsenal in Huntsville, AL. Northrop Grumman received two low-rate initial production contracts in 1999 valued at $215 million for more than 900 BATs, which employ passive acoustic and infrared sensors to destroy armored vehicles in hostile territory. Under a separate four-year, $140 million contract, ES^3 has begun engineering and manufacturing development on a new, multi-mode BAT terminal seeker with radar and infrared sensors to detect, track, and then attack targets that are either hot or cold, moving or stationary. At right, a video camera captures a BAT just before its direct hit on a moving target at the U.S. Army's White Sands Missile Range, NM.

DIRCM, which is also in production for the U.K. Ministry of Defence.

ES³ and Rafael of Israel are teamed to produce and market LITENING II airborne laser target designator and navigation pods. Housed in a single, low-cost, high-performance pod and compatible with all F-16 fighters, LITENING II is a critical asset for the United States Air National Guard and Air Force Reserves. Under the teaming agreement, Northrop Grumman is the prime contractor for the LITENING II system on U.S.-built military aircraft sold to the U.S. government and to allied nations through the foreign military sales (FMS) program.

ES³-produced RF electronic countermeasures systems enable non-stealthy fighters to counter radar-guided threats. Systems include the AN/ALQ-131, which is a pod-mounted airborne electronic warfare system designed to counter surface-to-air and air-to-air radar threats. Key 1999 AN/ALQ-131 contracts included Block II conversion kits for the Royal Norwegian Air Force, Belgian Air Force, Egyptian Air Force, and Japan Air Self Defense Force. The AN/ALQ-135, an advanced internal RF countermeasures system designed for the F-15 fighter, continued to make strides in 1999 with its latest update, the Band 1.5, which enhances the system by providing low-frequency protection.

C³I & NAVAL AND MARINE SYSTEMS

ES³'s air defense, air traffic management, and communications capabilities compete in a demanding global marketplace for systems that ensure safe and reliable air travel. More than 30 percent of the sector's airspace management business derives from international orders, with systems in over 20 countries. In 1999, ES³ continued to leverage its position as a major supplier for en route, approach control, and airport surface movement radars in the global marketplace.

To enhance the sector's growth objectives, Northrop Grumman signed a definitive agreement in 1999 to acquire Navia Aviation AS, a Norway-based supplier of instrument landing systems, digital voice switching systems, and air traffic control (ATC) systems for commercial aviation worldwide. The sector's U.K.-based Park Air Electronics Ltd. subsidiary made major inroads into the worldwide ATC market in 1999 with its new VHF digital ground-to-air radio.

In 1999, the sector's new ASR-12/MSSR-based air traffic management system was delivered to Saudi Arabia, Georgia, and Egypt. The ASR-12 includes enhancements in moving target detection performance and solid-state reliability, with significantly reduced life cycle costs. Also, ES^3 completed upgrade kits for the 134 ASR-9 airport surveillance systems in service with the Federal Aviation Administration (FAA) and Defense Department ahead of schedule. The sector also successfully completed the critical design review for the FAA's ASR-9 Weather Systems Processor program and began production deliveries and installations at critical sites across the country.

Advanced development of a new family of solid-state, ground-based tactical surveillance radars, which will become available for delivery in mid-2001, will meet the need for a highly mobile and survivable air sovereignty and air defense capability. This new product is an evolution of the highly successful TPS-43/70/75 family of tactical radars delivered to 38 countries worldwide over the last 20 years.

ES^3 provides U.S. and allied navies with underwater sensors and vehicles; undersea weapon systems; shipboard radars and combat systems; and propulsion and power generation systems. Under the auspices of the SOCOM and the Naval Sea Systems Command, ES^3 is designing and building the Advanced SEAL Delivery System. The sector is also under contract to upgrade the U.S. Navy's SPQ-9 radar and is providing propulsion equipment for the Virginia class submarine. ES^3 has been selected, as part of a Lockheed Martin-led team, to provide weapons system integration for the next U.S. aircraft carrier, CVN 77. The sector is also participating on both the "Blue" and "Gold" competing teams for the DD-21, the Navy's next generation destroyer.

A sector-led industry team completed the final phase of development testing in 1999 on the WR-21 Intercooled Recuperated (ICR) advanced-cycle gas turbine ship propulsion engine. The ICR engine is being developed for naval warship applications for the U.S. Navy as well as the United Kingdom and France, which are partners with the United States in the design and development of the engine.

In late 1999, the U.S. Navy awarded ES^3 a $61.8 million contract in the competition to develop an Electromagnetic Aircraft Launch System (EMALS) to replace existing aircraft-carrier steam catapults. EMALS stores energy from the ship service distribution system and then releases that energy to launch aircraft. EMALS is expected to significantly improve performance and provide commanders with the capability to launch unmanned aerial vehicles.

AUTOMATION AND INFORMATION SYSTEMS

The sector's Automation and Information Systems business provides postal automation, image processing, asset track and trace, and integrated industrial material handling solutions to customers in the "time definite" delivery market. In 1999, the United States Postal Service (USPS) installed a first-of-its-kind "flats" sorting system at its

Building on a broad base of proven technologies, the sector is developing the advanced systems that meet the challenges of both military and commercial customers in the decades ahead.

Baltimore, MD, Processing and Distribution Center. The Automated Flats Sorting Machine (AFSM-100) was developed by ES³ and Rapistan Systems of Grand Rapids, MI, and allows the USPS to sort such items as magazines, catalogues, circulars, and oversized envelopes at double the speed and at lower cost than existing sorters. To achieve greater efficiencies and develop additional business opportunities, the sector reorganized this business unit in 1999.

For more than half a century, ES³ has been a leader in developing powerful new electronic and information systems for defense and commercial applications. Building on a broad base of proven technologies, the sector is developing the advanced systems that meet the challenges of both military and commercial customers in the decades ahead.

Northrop Grumman and the U.S. Navy have developed this Advanced SEAL Delivery System to provide greater range, speed, and comfort for special operations forces on missions in high threat environments. The first in a new class of dry submersibles, the easily transportable system eliminates extended exposure to cold water inherent in current SEAL delivery vehicles. Completion of successful shallow water testing is expected this spring, to be followed by more advanced deep water testing at Pearl Harbor. Additional vehicle production is anticipated.

Critical information today travels with unprecedented speed and volume while military decision making is immediate and unforgiving. In this environment, the function of command and control is both a technical challenge and an absolute necessity. Logicon supports such command and control operations for the AEGIS weapon system at the U.S. Navy's training and simulation center, where the company provides a full spectrum of training system operations and technical and engineering support.

Government Information Technology

Technology Services

Commercial Information Technology

Cross-Sector Business Opportunities

Logicon, Northrop Grumman's information technology (IT) sector, delivers world-class IT and technical services capabilities to a wide variety of military, government, and commercial clients. Its proven ability to deliver results to these customers has established Logicon as one of the leaders in the IT marketplace. Logicon, now the third-largest IT supplier to the federal government according to *Government Executive* magazine, is capitalizing on this success by expanding its horizons to capture additional federal, commercial, and international opportunities.

One of the clearest demonstrations of Logicon's success is the company's exceptional win rate. In 1999, Logicon was awarded the majority of its submitted proposals while posting a near-perfect record on business won as the incumbent. For the year, Logicon achieved an impressive 32 percent growth rate, posting record sales of $1.5 billion and operating margin of 5.5 percent, while producing solid cash flow

Looking ahead, Logicon's key growth strategies include building market share, exploiting synergies across Northrop Grumman, improving systems and management processes, and forging strategic alliances. Leveraging these strategies alongside existing core competencies and strengths, Logicon's combined IT systems and services enterprise is projected to increase its revenues by approximately 10 percent in 2000, reaching almost $2 billion in annual revenue by 2003.

GOVERNMENT INFORMATION TECHNOLOGY

COMMAND AND CONTROL/TRAINING AND SIMULATION: As demonstrated during NATO's Operation Allied Force, military planners now have an extraordinary wealth of information available to them, much of it in near real time. But making sense of this information and presenting it in a timely, concise format remains a challenge. Complicating the task is the need to develop decisive action plans while minimizing collateral damage. To assist in this process, Logicon was awarded a 30-month, $67 million contract to provide the Joint Mission Planning System (JMPS) for the U.S. Navy, Air Force, and Special Operations Command. This 1999 program win further enhances Logicon's position as a leading provider of Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C^4ISR) systems and services. JMPS incorporates commercial technology and familiar Microsoft Windows interfaces to organize and customize vast amounts of mission-essential information and simplify it for ease of use. This system is expected to be the centerpiece for all future air mission planning activities, providing versatile, cost-effective systems integration within and between the various military services and commands.

Logicon also develops world-class analytical simulation and support services for the military's complex systems, including the Joint Analytic Support Program (JASP), used extensively by the Joint Chiefs of Staff's various Commanders in Chief (CINCs) during NATO's Operation Allied Force. JASP is an extremely powerful analytical tool to help the CINCs answer the "what if" questions that are essential to effective military planning.

Logicon's Inter-National Research Institute (INRI) subsidiary, acquired in 1998, received an important follow-on contract for the Defense Information Infrastructure (DII) Common Operating Environment (COE). Developed by INRI, this software provides the backbone infrastructure for interoperable computer systems and applications of Department of Defense (DoD) programs. INRI brings key C^4ISR capabilities as well as an important customer base in the DoD and international markets. Northrop Grumman's 1999 acquisition of Data Procurement Corporation, which specializes in IT services and support for U.S. government agencies, enhances the company's position within the intelligence community.

In 1999, Logicon also won several key U.S. Army training and simulation contracts, including a $214 million, five-year Battle Command Training Program, extending the relationship that began with the program's inception in 1987. As a result, Logicon will continue to support the U.S. Army in planning scenario development; simulation-based training; exercise execution; and after-action review. Logicon also was awarded a five-year contract, worth up to $370 million, to develop and provide distance-learning training products and services to various U.S. Army schools, ensuring a coherent and integrated training system for the customer.

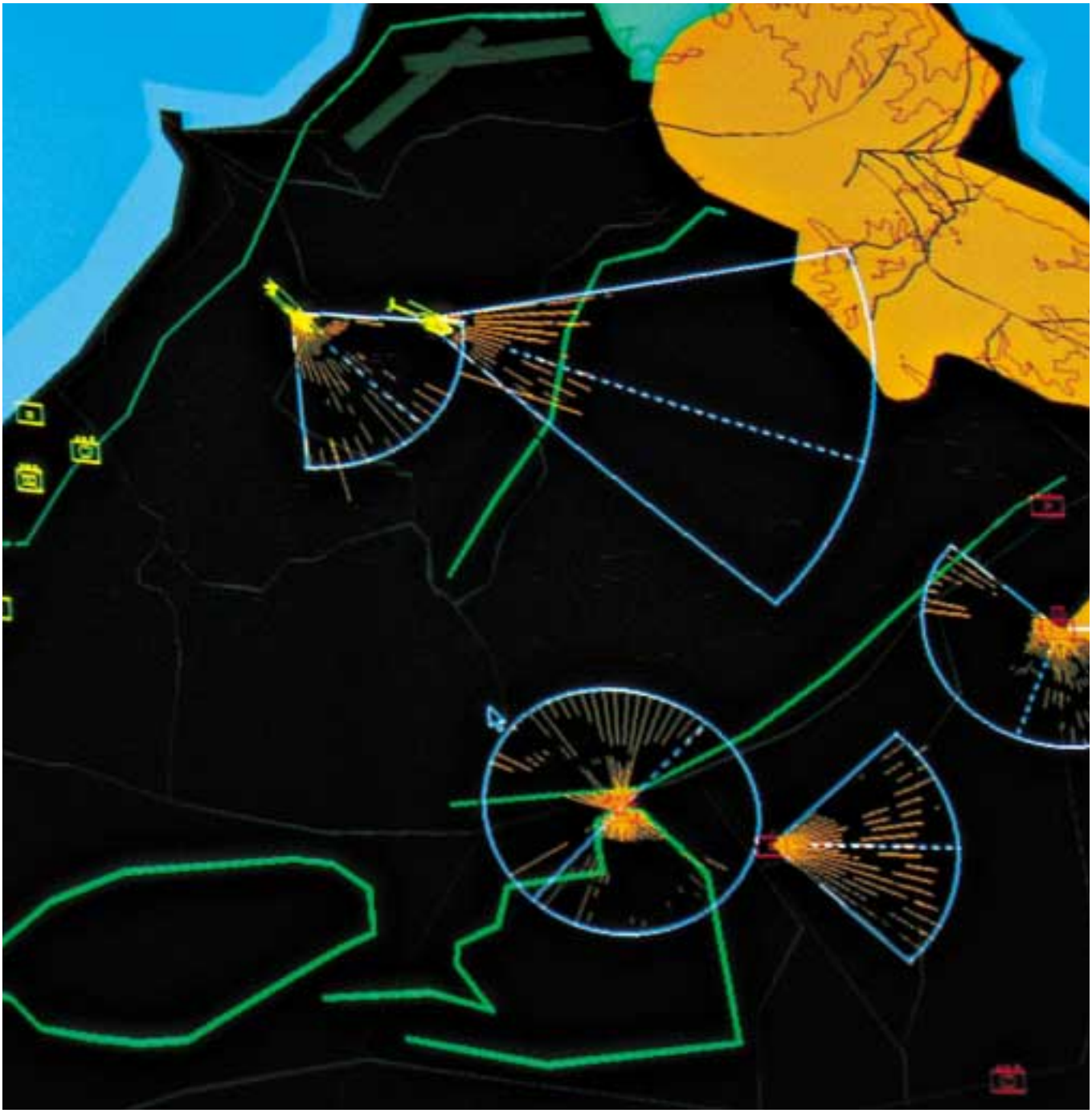
WEAPON SYSTEMS: Logicon continues to play a critical role on the AEGIS weapon system by performing test and evaluation as well as independent verification and validation of AEGIS software. The sector is also the top provider of AEGIS live test operations and furnishes systems engineering support.

In 1999, Logicon affirmed its role as a leading provider of support for naval weapon systems, winning a five-year, $43 million contract from the Naval Undersea Warfare Center. The Center provides research, development, test and evaluation, engineering, and fleet support for submarines, autonomous underwater systems, and undersea warfare weapon systems. Logicon also received a contract to provide fleet introduction and logistics support services for Arleigh Burke (DDG-51) Class destroyers.

FEDERAL INFORMATION TECHNOLOGY SERVICES: Government agencies are more aware of both the critical nature of IT systems for enhancing growth and the mounting complexities of their design, configuration, operation, and support. Information experts like Logicon, which focus on IT disciplines, offer these agencies inherent economies of scale and advantages in hiring and training IT professionals. This move toward contracting systems integration is expected to build momentum as government agencies attempt to manage within budget caps and a shrinking workforce while continuing to strive for higher levels of service and support for their constituents.

The Internal Revenue Service (IRS) awarded an industry team, led by Computer Sciences Corporation and including Logicon, a multi-year multibillion-dollar contract to modernize its IT systems and services. Logicon's proven large-scale information systems integration expertise and its success on its Service Center Recognition Image Processing System (SCRIPS) enhanced its credentials for the IRS' current modernization program. Logicon's success has led the IRS to extend the original SCRIPS contract by two years to 2003. Equally important, this extension and several technical upgrades provide the IRS with additional flexibility, including the option of expanding the program beyond the five IRS regional service centers or adding to the three families of tax forms the system currently processes. In 1999, the SCRIPS system processed its 500 millionth tax form.

Logicon's demonstrated expertise in providing security solutions for both commercial and public sectors resulted in strong growth in this business area. Several prime contracts were signed in 1999 with the Department of Transportation, the Defense Planning and Accounting Service, and the U.S. Air Force. Logicon also was selected to provide IT security services through the General Services Administration's (GSA) Safeguard program, offering industry best practices to its government customers.



Logicon is exploring ways to combine today's two-dimensional military simulations – such as the Joint Conflict and Tactical Simulation (JCATS) – with state-of-the-art three-dimensional visualization. This innovative display using immersive, virtual reality environments will give warfighters a better understanding of the evolving battlefield. Analysts using this computerized capability will be able to rapidly design, test, and explore tactics for a variety of advanced weapon systems, reducing overall development and implementation costs.

With significant funded and unfunded backlog and a robust pipeline of business opportunities, Logicon is well positioned in key growth areas for continued success.

While partnering with industry teams is a solution for massive change, many federal agencies are maintaining internal IT staffs while looking for greater agility. As a result, the government solicited bids for multi-year contracts for distinct professional service and systems integration engagements. In 1999, Logicon was selected by the GSA as one of ten prime professional service firms to which federal agencies, both domestic and overseas, can turn for a wide range of information technology services. This multi-year GSA contract known as ANSWER, has the potential value to Logicon of $1 billion, depending on the number of task orders received.

Another area where Logicon's unique expertise has benefited the federal government is in the reselling and licensing of software and hardware. Through strategic alliances with predominant software manufacturers, Logicon's Application Solutions organization provides enterprise-wide licenses and leases to meet enterprise- and agency-level customer needs. In 1999, significant sales to the DoD for Oracle and Netscape software highlighted this business area.

DIVERSIFICATION INTO GROWING IT MARKETS: With greater dollar volumes and higher projected growth rates, the state and local IT markets offer Logicon strong business opportunities. Logicon has applied its core capabilities, initially developed in the federal and commercial arenas, to this growing market. In 1999, Logicon was selected by the State of Texas Department of Protective and Regulatory Services to provide IT outsourcing to support and operate the vast majority of the department's data systems, networks, and critical applications. The company also remains a leader in state and local tax processing modernization initiatives designed to streamline operations and improve the relationships with federal computing programs.

Also, the U.S. healthcare IT industry, which is projected to expand at an impressive 22 percent annually, continues to offer Logicon strong growth opportunities. Logicon is incorporating the knowledge and expertise gained on its DoD engagements to target the dynamic commercial market. Specifically, through its work as a prime contractor on the $280 million Defense/Systems, Integration, Design, Development, Operations, and Maintenance Services (D/SIDDOMS) program, Logicon continues to overhaul the DoD IT systems that track medical information. Logicon's success in modernizing military healthcare systems, including the Veterans Administration hospital IT system, offers opportunities to further capitalize on this growing commercial healthcare business.

Logicon also has an established foothold in the burgeoning e-business IT market. Authentication and certification tools using "smart card" technologies developed by Logicon offer major credit card companies advanced security-protection features. Logicon is also working with the GSA to develop an e-commerce system to dispose of government property, as well as providing support to the IRS on its electronic tax-filing program. According to some estimates, this evolving e-business market will approach $1 trillion by 2003, offering Logicon significant opportunities to match its capabilities with emerging initiatives.

TECHNOLOGY SERVICES

BASE AND RANGE SUPPORT: Logicon's success in managing large-scale service contracts is recognized throughout the defense

Logicon, through its Space Gateway Support joint venture, provides complete security services for each Space Shuttle mission as part of the Joint Base Operations Support Contract (J-BOSC). This contract, which combines the operations and support of NASA's Kennedy Space Center, Patrick Air Force Base, and Cape Canaveral Air Station, is an example of an accelerating trend in which such services for government installations are outsourced to private contractors. Logicon is aggressively pursuing additional opportunities in this business area.

industry and NASA. In 1999, Logicon was awarded a contract to provide management services at three Army bases in Virginia, augmenting ongoing base and range support programs at Vance Air Force Base, OK. In 2000, Logicon will continue to consolidate its base operations and support programs at NASA's Kennedy Space Center, Patrick Air Force Base, and Cape Canaveral Naval Air Station, creating a world-class and internationally competitive launch operation that provides significant cost efficiencies to the customer.

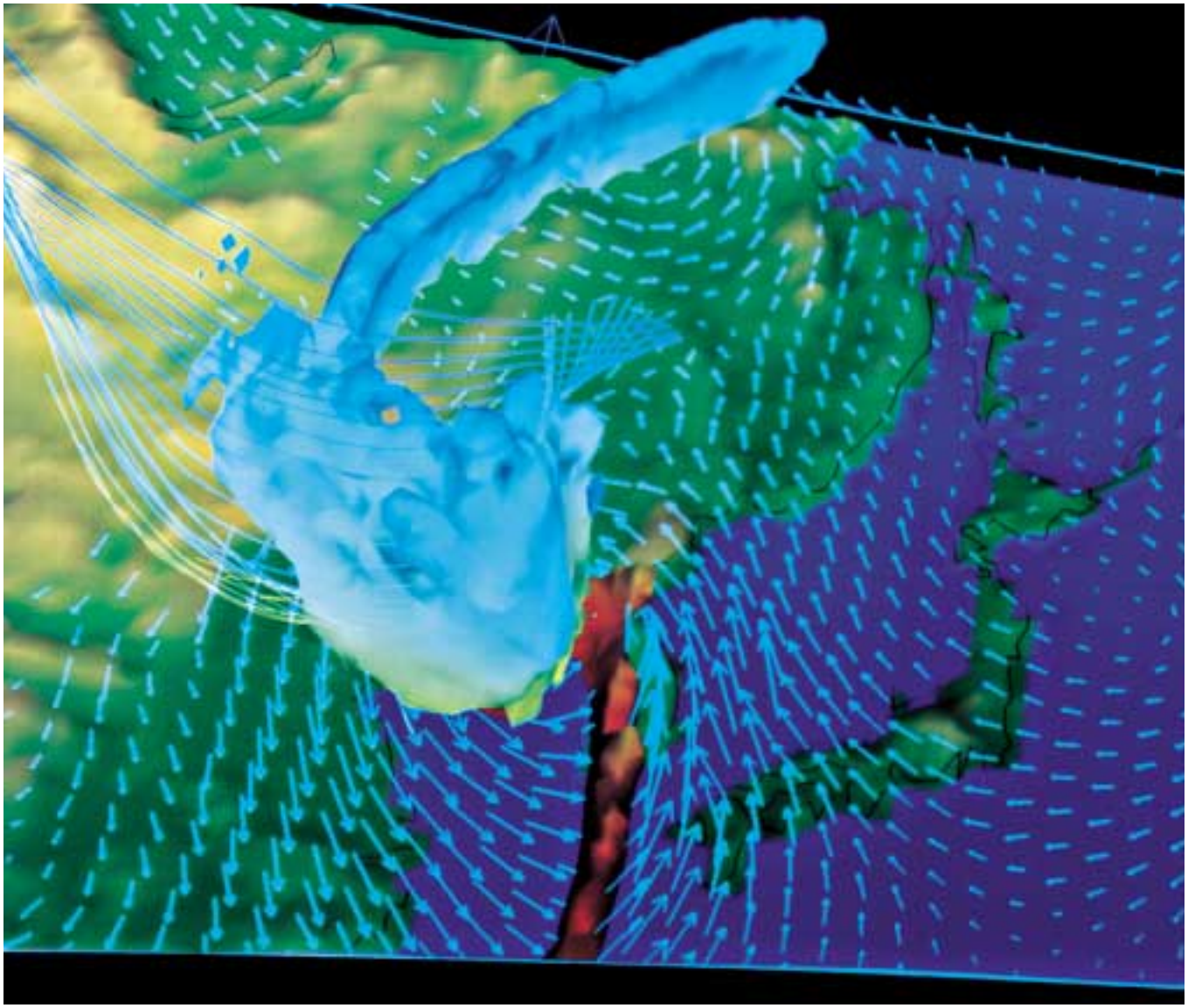
COMMERCIAL INFORMATION TECHNOLOGY

Logicon is actively growing its commercial IT business. In 1999, the company won contracts to provide IT services to Unocal, Cadence Design Systems, and Polytechnic University of New York. Increasingly, Logicon is able to leverage its systems support services expertise, developed in the commercial arena, to provide a wider spectrum of distributed systems management services.

CROSS-SECTOR BUSINESS OPPORTUNITIES

Logicon is teamed with ES^3 to support the U.S. Air Force's Space-Based Infrared System Low (SBIRS Low) program. Logicon provides systems engineering support, including simulation and modeling, offering an entry into the space-based technology marketplace. Logicon is also teamed with ISA to provide the U.S. Air Force Materiel Command with design engineering support services. These examples of cross-sector teaming reveal the breadth of Northrop Grumman's corporate capabilities and make the company one of the few contractors able to service the full range of customer requirements.

Supercomputers allow for the development of complex analytical models and more precise weather forecasting. Logicon supports the development and application of these models at the Fleet Numerical and Meteorological Center in Monterey, CA, and maintains the supercomputer at the Naval Oceanographic Office at Stennis Space Center, MS. The knowledge gained provides the U.S. Navy with critical information on the movement and temperature of the Earth's oceans and provides insights on the weather, such as the dynamics of a cyclone as it moves across the peninsula of Korea, as shown at right.



Logicon's Internal Information Services (IIS) unit completed major business systems initiatives throughout Northrop Grumman, further improving the company's overall operational efficiencies and effectiveness. These state-of-the-art business systems also help to further strengthen the overall competitiveness of Northrop Grumman. IIS was one of three Logicon business units to receive a Level 3 rating on the Software Engineering Institute's Software Capability Maturity Model – independent confirmation of the business unit's sound processes for developing robust, high-quality software.

By capitalizing on its core capabilities and cross-sector business opportunities, Logicon is expected to post double-digit revenue growth in 2000 and beyond. With significant funded and unfunded backlog and a robust pipeline of business opportunities, Logicon is well positioned in key growth areas for continued success.

NORTHROP GRUMMAN'S COMMUNITY OUTREACH: MAKING A DIFFERENCE

At Northrop Grumman, community involvement has always been a top priority. Just as the company strives to achieve technological innovation in business, it also endeavors to make valued contributions to the communities where its employees live and work.

These goals are inextricably linked. Northrop Grumman owes much of its success to its talented workforce. By aiming to improve the quality of life in its local communities, the company not only helps to create a better environment for employees, but also fosters development of the talent pool of tomorrow.

Civic involvement also allows Northrop Grumman to put its values to work by promoting leadership. And it demonstrates that Northrop Grumman values its employees by embracing the opportunity to build a brighter future for everyone.

SHARING OUR KNOWLEDGE

Northrop Grumman has long realized that tomorrow's business and technology leaders are the young people of today. Across the nation, from Baltimore to Los Angeles, Northrop Grumman employees take the time to teach and inspire young people. Two educational programs are particularly notable, but are only a fraction of the company's total commitment to community education.

Public high school seniors in Southern California receive valuable career-building experience through the nationally recognized High School Involvement Partnership (HIP). During their final semester, students receive on-the-job training at Northrop Grumman facilities by working alongside the company's Integrated Systems and Aerostructures Sector (ISA) and Logicon Inc. employees who also volunteer as mentors. Students learn everything from engineering to metal bond inspection, computer support to accounting principles.

The engineers of tomorrow also get a jump start at Northrop Grumman's Electronic Systems and Sensors Sector (ES^3). Hundreds of ES^3 employees participate in the national Discover "E" program, which encourages students to pursue an engineering career. By fostering student interest in technology, science, and mathematics, Discover "E" helps students understand how these subjects can be incorporated into their daily lives. The company also makes a

Students participating in this year's High School Involvement Partnership (HIP) meet with Ginger Recanzone, left, ISA HIP program coordinator, and Sandra Evers-Manly, center, corporate director of Workforce Diversity, EEO Programs, and Contributions, herself a graduate of a Northrop Grumman intern program. Since 1971, HIP has prepared more than 5,100 high school seniors for the transition from education to vocation by providing on-the-job training at company facilities. This program has earned the most prestigious recognition given for volunteer community involvement, the President's Service Award.

One of Northrop Grumman's ongoing community partners is the Chesapeake Bay Foundation, whose grassroots efforts focus on mobilizing individuals to benefit the Chesapeake Bay watershed. Each year, thousands of volunteer BaySavers, including Northrop Grumman employees, plant trees, shrubs, and underwater grasses, clear spawning grounds for migratory fish, create habitat for birds, animals, and fish, and raise oysters and shad for release.

donation to the math and science programs at each participating school. Many Northrop Grumman engineers have taken the program an extra step by establishing mentor relationships that continue throughout the calendar year.

SERVING OUR COMMUNITIES

Northrop Grumman reaches out to people when they are in need, based on the belief that when people are strong, communities are strong. Northrop Grumman employees embody this philosophy in a myriad of ways.

In December of 1999, a large Dallas warehouse was filled with nearly 800,000 cans of food, thanks to the efforts of Northrop Grumman employees. It was just one result of many holiday giving programs held throughout Northrop Grumman – in this case the annual food drive conducted by ISA employees. Over the last 16 years, ISA employees across the nation have delivered more than 12 million cans of food for the needy in their local communities.

In Bethpage, N.Y., CareCats – a community-minded volunteer group of employees and retirees – participates in more than 30 charitable events yearly. Logicon employees help students access the Internet on a company-sponsored "Net Day," and the company and its employees are long-standing and substantial contributors to United Way.

From coast to coast, Northrop Grumman employees take part in many civic efforts, including Christmas in April, Habitat for Humanity, the Special Olympics, blood drives, surplus property donations, and the March of Dimes' WalkAmerica. To protect the environment, employees have beautified roadsides through the Adopt-A-Highway program, while in Annapolis, MD, employees have organized a clean-up group Save Our Streams. In Rolling Meadows, IL, workers have even formed a SCUBA club to remove debris dumped in local ponds and lakes.

MAKING FINANCIAL COMMITMENTS

Northrop Grumman's communities are extremely diverse. The corporation supports differing needs by contributing to nonprofit organizations that address the pressing issues of individuals and the families they serve. These include pre-college education, domestic violence and child abuse, dropout prevention, child care, housing and the homeless, youth and family counseling, health services, the arts, and job training and employment.

Recognizing the benefits provided by proven welfare-to-work efforts, the company supports Los Angeles' Crystal Stairs and its Project 730. This program transitions women from welfare, improves parenting skills, and enhances child-care services, helping end the cycle of poverty.

On national and local levels, Northrop Grumman gets involved in every community in which it operates and where its employees live so that it is more than a good corporate citizen and is truly a valued "neighbor of choice."

CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

($ in millions) December 31,	1999	1998
ASSETS:		
Cash and cash equivalents	$ 142	$ 44
Accounts receivable	1,402	1,507
Inventoried costs	1,190	1,373
Other current assets	59	109
Total current assets	2,793	3,033
Property, plant and equipment	2,895	3,058
Accumulated depreciation	(1,655)	(1,784)
Property, plant and equipment, net	1,240	1,274
Goodwill, net	3,469	3,381
Other purchased intangibles, net	761	795
Prepaid retiree benefits cost, intangible pension asset and benefit trust fund	946	787
Other assets	76	266
Total other assets	5,252	5,229
	$ 9,285	$ 9,536
LIABILITIES AND SHAREHOLDERS' EQUITY:		
Current portion of long-term debt and notes payable to banks	$ 225	$ 269
Trade accounts payable	490	416
Accrued employees' compensation	366	337
Advances on contracts	316	354
Income taxes payable and deferred income taxes	608	527
Other current liabilities	459	464
Total current liabilities	2,464	2,367
Long-term debt	2,000	2,562
Accrued retiree benefits and other long-term liabilities	1,564	1,757
Paid-in capital		
Preferred stock, 10,000,000 shares authorized; and none issued		
Common stock, 200,000,000 shares authorized; issued and outstanding:		
1999 – 69,719,164		
1998 – 68,836,810	1,028	989
Retained earnings	2,248	1,892
Accumulated other comprehensive loss	(19)	(31)
Total shareholders' equity	3,257	2,850
	$ 9,285	$ 9,536

These condensed financial statements should be read in conjunction with the full financial statements presented in the company's Form 10-K.

CONDENSED CONSOLIDATED STATEMENTS OF INCOME

($ in millions, except per share) Year ended December 31,	1999	1998	1997
Net sales	$ 8,995	$ 8,902	$ 9,153
Cost of sales	8,026	8,146	8,273
Operating margin	969	756	880
Interest expense	(224)	(233)	(257)
Merger costs		(186)	(18)
Other income (deductions)	17	(25)	46
Income before income taxes	762	312	651
Federal and foreign income taxes	279	118	244
Income before cumulative effect of accounting change	483	194	407
Cumulative effect of accounting change	(16)		
Net income	$ 467	$ 194	$ 407
Weighted average common shares outstanding, in millions:			
Basic	69.3	68.5	66.7
Diluted	69.7	69.5	68.1
Basic earnings per share:			
Before cumulative effect of accounting change	$ 6.97	$ 2.83	$ 6.10
Accounting change	(.24)		
Basic earnings per share	$ 6.73	$ 2.83	$ 6.10
Diluted earnings per share:			
Before cumulative effect of accounting change	$ 6.93	$ 2.79	$ 5.98
Accounting change	(.24)		
Diluted earnings per share	$ 6.69	$ 2.79	$ 5.98

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

($ in millions) Year ended December 31,	1999	1998	1997
OPERATING ACTIVITIES			
Sources of Cash			
Cash received from customers	$ 9,141	$ 8,773	$ 9,314
Other cash receipts	100	43	37
Cash provided by operating activities	9,241	8,816	9,351
Uses of cash			
Cash paid to suppliers and employees	7,715	8,273	8,280
Interest paid	216	219	251
Other cash payments	103	80	90
Cash used in operating activities	8,034	8,572	8,621
Net cash provided by operating activities	1,207	244	730
INVESTING ACTIVITIES			
Payment for businesses purchased, net of cash acquired	(232)	(50)	
Additions to property, plant and equipment	(201)	(211)	(238)
Other investing activities	41	26	125
Net cash used in investing activities	(392)	(235)	(113)
FINANCING ACTIVITIES			
Payments of debt, net of borrowings	(612)	40	(586)
Dividends paid	(111)	(109)	(102)
Other financing activities	6	41	11
Net cash used in financing activities	(717)	(28)	(677)
Increase (decrease) in cash and cash equivalents	98	(19)	(60)
Cash and cash equivalents balance at beginning of year	44	63	123
Cash and cash equivalents balance at end of year	$ 142	$ 44	$ 63

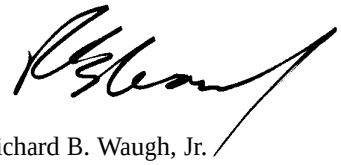
These condensed financial statements should be read in conjunction with the full financial statements presented in the company's Form 10-K.

REPORT OF MANAGEMENT

The condensed consolidated financial statements in this summary annual report are an abridged version derived from the consolidated financial statements reported in the company's 1999 Report on Form 10-K. These condensed financial statements are intended to be used as a convenient reference. For a complete understanding of the company's financial position, results of operations, cash flows and changes in equity, these condensed financial statements should be read in conjunction with the full financial statements presented in the company's Form 10-K. That report includes, among other things, the audited consolidated financial statements, notes thereto, management's discussion and analysis of financial condition and results of operations, and identification of important qualifications and risks. A copy of the Form 10-K may be obtained by calling or faxing a request to the numbers shown under General Information.

Management is responsible for preparing the consolidated financial statements. In meeting this responsibility, management depends on the company's system of internal accounting controls, which is designed to provide reasonable assurance that assets are safeguarded and that transactions are executed in accordance with appropriate authorization and are recorded and reported properly. The company's independent accountants are engaged to express their independent, professional opinion on management's financial statements.

Deloitte & Touche LLP, independent accountants, audited the company's consolidated financial statements and issued a report, which is included in the company's Form 10-K. In addition, they issued a report on the condensed consolidated financial statements (see below).



Richard B. Waugh, Jr.
Corporate Vice President and
Chief Financial Officer
January 26, 2000

INDEPENDENT AUDITORS' REPORT

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

We have audited the consolidated statements of financial position of Northrop Grumman Corporation and Subsidiaries as of December 31, 1999 and 1998, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 1999. Such consolidated financial statements and our report thereon dated January 26, 2000, expressing an unqualified opinion and including an explanatory paragraph concerning the change in accounting for start-up activities (which are not included herein), are included in Form 10-K. The accompanying condensed consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on such condensed consolidated financial statements in relation to the complete consolidated financial statements.

In our opinion, the information set forth in the accompanying condensed consolidated balance sheets as of December 31, 1999 and 1998 and the related condensed consolidated statements of income and cash flows for each of the three years in the period ended December 31, 1999 is fairly stated in all material respects in relation to the basic consolidated financial statements from which it has been derived.

Los Angeles, California
January 26, 2000

SELECTED FINANCIAL DATA

($ in millions, except per share) Year ended December 31,	1999	1998	1997	1996	1995
Net Sales to					
United States Government	$ 7,067	$ 6,717	$ 7,210	$ 7,224	$ 6,148
The Boeing Company	733	1,075	883	569	569
Other customers	1,195	1,110	1,060	814	555
Total net sales	$ 8,995	$ 8,902	$ 9,153	$ 8,607	$ 7,272
Operating margin	$ 969	$ 756	$ 880	$ 703	$ 572
Net income	467	194	407	264	277
Basic earnings per share	6.73	2.83	6.10	4.22	4.79
Diluted earnings per share	6.69	2.79	5.98	4.15	4.71
Cash dividends per share	1.60	1.60	1.60	1.60	1.60
Net working capital	329	666	221	106	435
Current ratio	1.13 to 1	1.28 to 1	1.08 to 1	1.04 to 1	1.25 to 1
Total assets	$ 9,285	$ 9,536	$ 9,677	$ 9,645	$ 5,642
Long-term debt	2,000	2,562	2,500	2,950	1,163
Total long-term obligations	3,564	4,319	4,339	4,694	2,281
Long-term debt as a percentage of shareholders' equity	61.4%	89.9%	95.3%	129.3%	73.3%
Operating margin as a percentage of					
Net sales	10.8	8.5	9.6	8.2	7.9
Average segment assets	11.9	9.0	10.4	10.3	10.8
Net income as a percentage of					
Net sales	5.2	2.2	4.5	3.1	3.8
Average assets	4.9	2.0	4.2	3.5	4.7
Average shareholders' equity	15.3	7.1	16.6	13.6	18.5
Research and development expenses					
Contract	$ 1,149	$ 1,489	$ 1,670	$ 1,632	$ 1,179
Noncontract	197	203	256	255	164
Payroll and employee benefits	3,304	3,476	3,504	3,378	2,883
Number of employees at year-end	44,600	49,600	52,000	51,600	42,300
Number of shareholders at year-end	11,173	11,774	11,400	11,773	12,471
Depreciation	$ 193	$ 207	$ 232	$ 210	$ 231
Amortization of					
Goodwill	103	94	94	83	38
Other purchased intangibles	93	92	92	82	21
Maintenance and repairs	92	92	107	93	80
Rent expense	117	106	108	110	106
Floor area (millions of square feet)					
Owned	18.8	19.2	20.5	22.5	20.1
Commercially leased	10.6	10.6	10.0	9.9	8.2
Leased from United States Government	7.5	7.6	8.8	9.0	10.2

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)

Vic Fazio
Senior Partner, Clark & Weinstock Inc. (consulting firm)

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

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

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

John E. Robson
Senior Advisor, Robertson Stephens, a FleetBoston Financial Company (investment bankers)

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

John Brooks Slaughter
President Emeritus, Occidental College and Melbo Professor of Leadership in Education; University of Southern California

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

COMMITTEES OF THE BOARD

PUBLIC ISSUES AND 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
Vic Fazio
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

J. Michael Hateley
Corporate Vice President and Chief Human Resources and Administrative Officer

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

VISIT US ON THE WEB

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 Annual Reports 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 17, 2000
10:00 A.M. PDT
Fairmont Miramar Hotel,
Santa Monica
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.

For information on the company's Dividend Reinvestment Service or for assistance with other stock ownership inquires, 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. 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@mail.northgrum.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@mail.northgrum.com.

CORPORATE HEADQUARTERS

Northrop Grumman Corporation
1840 Century Park East
Los Angeles, California 90067-2199
(310) 553-6262
Fax (310) 553-2076
http://www.northgrum.com

CORPORATE GOVERNMENT RELATIONS

Northrop Grumman Corporation
1000 Wilson Boulevard, Suite 2300
Arlington, Virginia 22209-2278
(703) 875-8400
Fax (703) 276-0711

ELECTRONIC SENSORS & SYSTEMS SECTOR

Northrop Grumman Corporation
P.O. Box 17319, MS A170
Baltimore, Maryland 21203-7319
(410) 993-2463
Fax (410) 993-2481
http://sensor.northgrum.com

INTEGRATED SYSTEMS & AEROSTRUCTURES SECTOR

Northrop Grumman Corporation
9314 West Jefferson Boulevard
Dallas, Texas 75211-9300
(972) 946-2011
Fax (972) 266-4171
http://www.northgrum.com/isa_www

LOGICON INC.

A Northrop Grumman Company
2411 Dulles Corner Park, Suite 800
Herndon, Virginia 20171-3430
(703) 713-4000
Fax (703) 713-4127
http://www.logicon.com

NORTHROP GRUMMAN ELECTRONIC SENSORS & SYSTEMS INTERNATIONAL

P.O. Box 451, MS A275
Baltimore, Maryland 21203-7319
(410) 765-2700

NORTHROP GRUMMAN INTERNATIONAL INC.

(Integrated Systems & Aerostructures Sector)
1000 Wilson Boulevard, Suite 2800
Arlington, Virginia 22209-2278
(703) 875-8333

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 Form 10-K.

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.

NORTHROP GRUMMAN

Northrop Grumman Corporation
1840 Century Park East
Los Angeles, California 90067-2199