L 3 COMMUNICATIONS HOLDINGS INC
Form 10-K/A
June 20, 2002

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

FORM 10-K/A-1

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001

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

For the transition period from to

Commission file numbers 001-14141 and 333-46983

L-3 COMMUNICATIONS HOLDINGS, INC.
L-3 COMMUNICATIONS CORPORATION
(Exact names of registrants as specified in their charters)

DELAWARE	13-3937434 AND 13-3937436
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Nos.)
600 THIRD AVENUE, NEW YORK, NEW YORK	10016
(Address of principal executive offices)	(Zip Code)

(212) 697-1111
(Telephone number)

SECURITIES REGISTERED PURSUANT TO SECTION 12(B) OF THE ACT:

TITLE OF EACH CLASS	NAME OF EACH EXCHANGE ON WHICH REGISTERED:
L-3 Communications Holdings, Inc. common stock, par value $0.01 per share	New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act:
None.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. [X] Yes [ ] No

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

There were 39,600,795 shares of L-3 Communications Holdings, Inc. common stock with a par value of $0.01 outstanding as of the close of business on March 12, 2002. The aggregate market value of the L-3 Communications Holdings, Inc. voting stock held by non-affiliates of the registrant as of March 12, 2002 was approximately $4,394.5 million.

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L-3 COMMUNICATIONS HOLDINGS, INC.
L-3 COMMUNICATIONS CORPORATION

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FOR THE YEAR ENDED DECEMBER 31, 2001

L-3 COMMUNICATIONS HOLDINGS INC.

L-3 COMMUNICATIONS CORPORATION

FORM 10-K/A-1

DECEMBER 31, 2001

The undersigned Registrants hereby amend the 2001 Annual Report on Form 10-K as set forth in the pages attached hereto to amend the information contained in Item 1 "Business" and Item 7 "Management's Discussion and Analysis of Results of Operations and Financial Condition".

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrants have duly caused this amendment to be signed on their behalf by the undersigned, thereunto duly authorized, on June 19, 2002.

L-3 COMMUNICATIONS HOLDINGS, INC.
L-3 COMMUNICATIONS CORPORATION

By: /s/ Robert V. LaPenta

Name: Robert V. LaPenta
Title: President and Chief Financial Officer

For convenience purposes in this Annual Report on Form 10-K/A-1, "L-3 Holdings" refers to L-3 Communications Holdings, Inc., and "L-3 Communications" refers to L-3 Communications Corporation, a wholly-owned operating subsidiary of L-3 Holdings. "L-3", "we", "us" and "our" refer to L-3 Holdings and its subsidiaries, including L-3 Communications. The predecessor company refers to the ten initial business units we purchased from Lockheed Martin Corporation in April 1997.

ITEM 1. BUSINESS

L-3 Holdings, a Delaware corporation organized in 1997, derives all of its operating income and cash flow from its wholly-owned subsidiary L-3 Communications. L-3 Communications, a Delaware corporation, was organized in 1997 to acquire the predecessor company. The only indebtedness of L-3 Holdings are its 5.25% Convertible Senior Subordinated Notes due 2009 and its 4.00% Senior Subordinated Convertible Contingent Debt Securities due 2011 which are jointly and severally guaranteed by substantially all of its direct and indirect domestic subsidiaries including L-3 Communications. L-3 Holdings also has guaranteed the indebtedness under the bank credit facilities of L-3 Communications. L-3 Holdings relies on dividends and other payments from its subsidiaries or must raise funds in public or private equity or debt offerings to generate the funds necessary to pay principal and interest on its indebtedness.

OVERVIEW

We are a leading merchant supplier of sophisticated secure communication systems and specialized products. We produce secure, high data rate communication systems, training and simulation systems, engineering development and integration support, avionics and ocean products, fuzing products, telemetry, instrumentation, space and guidance products and microwave components. These systems and products are critical elements of virtually all major communication, command and control, intelligence gathering and space systems. Our systems and specialized products are used to connect a variety of airborne, space, ground-and sea-based communication systems and are used in the transmission, processing, recording, monitoring and dissemination functions of these communication systems. Our customers include the U.S. Department of Defense ("DoD"), certain U.S. Government intelligence agencies, major aerospace and defense contractors, foreign governments, commercial customers and certain other U.S. federal, state and local government agencies. For the year ended December 31, 2001, direct and indirect sales to the DoD provided 64.7% of our sales, and sales to commercial customers, foreign governments and U.S. federal, state and local government agencies other than the DoD provided 35.3% of our sales. Our business areas employ proprietary technologies and capabilities and have leading positions in their respective primary markets. For the year ended December 31, 2001, we had sales of $2,347.4 million, of which U.S. customers accounted for 82.1% and foreign customers accounted for 17.9%, and operating income of $275.3 million. We have two reportable segments: Secure Communication Systems and Specialized Products. Information on our reportable segments is included in Note 16 of our consolidated financial statements included elsewhere herein.

SECURE COMMUNICATION SYSTEMS

We are an established leader in secure, high data rate communication systems for military and other U.S. Government reconnaissance and surveillance applications and we believe that we have developed virtually every high bandwidth data link that is currently used by the DoD for surveillance and reconnaissance. Our major secure communication programs and systems include:

- secure data links for airborne, satellite, ground and sea-based remote platforms for real time information collection and dissemination to users;
- strategic and tactical signal intelligence systems that detect, collect, identify, analyze and disseminate information;
- secure telephone and network equipment and encryption management;
- communication software support services;
- communication systems for surface and undersea vessels and manned space flights; and

- wide-area security systems.

Our Secure Communication Systems segment includes our training and simulation businesses. We design, develop and manufacture advanced simulation and training products with high-fidelity representations of cockpits and operator stations for aircraft and vehicle system simulation. We also provide a wide range of engineering development and integration support to the DoD and other government agencies, a full range of teaching, training, logistic and training device support services to domestic and international military customers, and custom ballistic targets for the DoD.

Our Secure Communication Systems segment provided $1,241.6 million or 52.9% of our total sales for the year ended December 31, 2001.

SPECIALIZED PRODUCTS

We are a leading merchant supplier of products to military and commercial customers. We focus on niche markets in which we believe we can achieve a market leadership position. This reportable segment includes three product categories:

- Avionics and Ocean Products;
- Telemetry, Instrumentation and Space Products; and
- Microwave Components.

Avionics and Ocean Products. This business area includes our aviation and maritime recorders, airborne collision avoidance products, displays, antennas, acoustic undersea warfare products, naval power distribution, conditioning, switching and protection equipment, premium fuzing products and aircraft modernization services. We believe we are the leading manufacturer of commercial cockpit voice and flight data recorders (known as "black boxes") and a leading supplier of acoustic undersea warfare products and airborne dipping sonars to the U.S. Navy and over 20 foreign navies. These products represented 60.8% of

our Specialized Products segment sales for the year ended December 31, 2001.

Telemetry, Instrumentation and Space Products. We develop and manufacture commercial off-the-shelf, real-time data collection and transmission products and components for missile, aircraft and space-based electronic systems. These products are used to gather flight data and other critical information and transmit it from air or space to the ground. We are a leader in digital Global Positioning System receiver technology for high performance military applications. We are also a leading global satellite communications systems provider offering systems and services used in the satellite transmission of voice, video and data through earth stations for uplink and downlink terminals. We provide commercial, off-the-shelf satellite control software, telemetry, tracking and control, mission processors and software engineering services to foreign governments and commercial satellite markets. We are a leading producer of navigation products, gyroscopes, controlled momentum devices and star sensors for commercial, military and other applications. These products represented 29.1% of our Specialized Products segment sales for the year ended December 31, 2001.

Microwave Products. We are a premier worldwide supplier of commercial off-the-shelf, high-performance microwave components, base station antenna monitoring equipment, and RF radiation measurement instrumentation. Our microwave components are sold under the industry-recognized Narda brand name using an extensive catalog, which are distributed to the wireless, industrial and military communication markets. We also provide state-of-the-art, space-qualified communication components including channel amplifiers and frequency filters for the commercial communications satellite market. Narda also supplies filters to the cellular & PCS market worldwide. These products represented 10.1% of our Specialized Products segment sales for the year ended December 31, 2001.

Our Specialized Products segment provided $1,105.8 million or 47.1% of our total sales for the year ended December 31, 2001.

DEVELOPING COMMERCIAL OPPORTUNITIES

Our growth strategy includes identifying and exploiting commercial applications for select products and technologies currently sold to defense customers. We have currently identified two vertical markets where we believe there are significant opportunities to expand our existing commercial sales: Transportation Products and Broadband Wireless Communications Products. We believe that these vertical markets, together with our existing commercial products, provide us with the opportunity for substantial commercial growth in future years.

Within the transportation market, we have developed and are offering (1) an explosives detection system for checked baggage at airports, power propulsion systems and power switches, all of which are part of our Specialized Products segment, and (2) displays for rail transportation and internet service providers and cruise ship voyage recorders, all of which are part of our Aviation Products & Aircraft Modernization segment. We are developing additional products, including an enhanced collision avoidance product that incorporates ground proximity warning, also part of our Aviation Products & Aircraft Modernization segment.

Within the communications product market, we are offering local fixed

wireless access equipment for voice, DSL and internet access, transceivers for LMDS (Local Multipoint Distribution Service) and a broad range of commercial components and digital test equipment for broadband communications providers, all of which are part of our Secure Communications & ISR segment.

We have developed the majority of our commercial products employing technology funded by and used in our defense electronics businesses, thereby minimizing any required incremental development expenses. Sales generated from our developing commercial opportunities have not yet been material to us.

INDUSTRY OVERVIEW

The U.S. defense industry has undergone significant changes precipitated by ongoing U.S. federal budget pressures and adjustments in political roles and missions to reflect changing strategic and tactical threats. From the mid-1980s to the late 1990s, the U.S. defense budget experienced a decline in real dollars. This trend was reversed by an increase in defense spending in 1999, followed by current dollar increases in fiscal 2000, 2001 and 2002 with an anticipated increase in fiscal 2003 to $379.0 billion. In addition, the DoD philosophy has focused on its transformation strategy that balances modernization and recapitalization (or upgrading existing platforms) while enhancing readiness and joint operations which include digital command and control communications capabilities by incorporating advanced electronics to improve performance, reduce operating costs, and extend the life expectancy of its existing and future platforms. As a result, defense budget program allocations continue to favor advanced information technologies related to command and control, communications, (C(3)), intelligence, surveillance and reconnaissance (ISR). In addition, the DoD's emphasis on system interoperability, force multipliers and providing battlefield commanders with real-time data is increasing the electronic content of nearly all major military procurement and research programs. As a result, it is expected that the DoD's budget for communications and defense electronics will continue to grow.

The U.S. defense industry has also undergone dramatic consolidation resulting in the emergence of five dominant prime system contractors: The Boeing Company, Lockheed Martin Corporation, Northrop Grumman Corporation, Raytheon Company and General Dynamics Corporation. We believe that one outcome of this consolidation is that the DoD wants to ensure that continued vertical integration does not further diminish the fragmented, yet critical DoD vendor base. Additionally, we believe it has become uneconomical for the prime contractors to design, develop and manufacture numerous essential products, components and subsystems for their own use. We believe this situation has and will continue to create opportunities for merchant suppliers such as L-3. As the prime contractors continue to evaluate their core competencies and competitive positions, focusing their resources on larger programs and platforms, we expect the prime contractors to continue to exit non-strategic business areas and procure these needed elements on more favorable terms from independent, commercially oriented merchant suppliers. Examples of this trend include recent divestitures of certain non-core defense-related businesses by several of the prime contractors.

The focus on cost reduction by the prime contractors and DoD is also

driving increased use of commercial off-the-shelf products for upgrades of existing systems and in new systems. We believe the prime contractors will continue to be under pressure to reduce their costs and will increasingly seek to focus their resources and capabilities on major platforms and systems, turning to commercially oriented "best of breed" merchant suppliers to produce subsystems, components and products. We believe successful merchant suppliers will continue to use their resources to complement and support, rather than compete with, the prime contractors. We anticipate that the relationships between the major prime contractors and their primary suppliers will continue to evolve in a fashion similar to those employed in the automotive and commercial aircraft industries. We expect that these relationships will be defined by critical partnerships encompassing increasingly greater outsourcing of non-core products and systems by the prime contractors to their key merchant suppliers and increasing supplier participation in the development of future programs. We believe early involvement in the upgrading of existing systems and the design and engineering of new systems incorporating these outsourced products will provide merchant suppliers, including us, with a competitive advantage in securing new business and provide the prime contractors with significant cost reduction opportunities through coordination of the design, development and manufacturing processes.

BUSINESS STRATEGY

We intend to grow our sales, enhance our profitability and build on our position as a leading merchant supplier of communication systems and products to the major contractors in the aerospace and defense industry as well as the U.S. Government. We also intend to leverage our expertise and products into selected new commercial business areas where we can adapt our existing products and technologies. Our strategy to achieve our objectives includes:

EXPAND MERCHANT SUPPLIER RELATIONSHIPS. We have developed strong relationships with the DoD, several other U.S. Government agencies and all of the major U.S. defense prime contractors, enabling us to identify new business opportunities and anticipate customer needs. As an independent merchant supplier, we anticipate that our growth will be driven by expanding our share of existing programs and by participating in new programs. We identify opportunities where we are able to use our strong relationships to increase our business presence and allow customers to reduce their costs. We also expect to benefit from increased outsourcing by prime contractors who in the past may have limited their purchases to captive suppliers and who are now expected to view our capabilities on a more favorable basis due to our status as an independent company, which positions us to be a merchant supplier to multiple bidders on prime contract bids.

SUPPORT CUSTOMER REQUIREMENTS. A significant portion of our sales is derived from strategic, long-term programs and from programs for which we have been the incumbent supplier, and in many cases acted as the sole provider over many years. Our customer satisfaction and excellent performance record are evidenced by our performance-based award fees exceeding an average of 90% of the available award fees since our inception in April 1997. We believe that prime contractors will increasingly award long-term, outsourcing contracts to the best-of-breed merchant suppliers they believe to be most capable on the basis of quality, responsiveness, design, engineering and program management support as well as cost. We intend to continue to align our research and development, manufacturing and new business efforts to complement our customers' requirements and provide state-of-the-art products.

ENHANCE OPERATING MARGINS. We have a history of improving the operating performance of the businesses we acquire through the reduction of corporate administrative expenses and facilities costs, increasing sales, improving contract bidding controls and practices and increasing competitive contract award win rates. We have a tradition of enhancing operating margins, primarily

due to efficient management and elimination of significant corporate expense allocations. We intend to continue to enhance our operating performance by reducing overhead expenses, continuing consolidation and increasing productivity.

LEVERAGE TECHNICAL AND MARKET LEADERSHIP POSITIONS. We have developed strong, proprietary technical capabilities that have enabled us to capture the number one or number two market position in most of our key business areas, including secure, high data rate communications systems, solid state

aviation recorders, telemetry, instrumentation and space products, advanced antenna products and high performance microwave components. We continue to invest in company-sponsored independent research and development, including bid and proposal costs, in addition to making substantial investments in our technical and manufacturing resources. Further, we have a highly skilled workforce, including approximately 7,600 engineers. We are applying our technical expertise and capabilities to several closely aligned commercial business markets and applications such as transportation and broadband wireless communications and we expect to continue to explore other similar commercial opportunities.

MAINTAIN DIVERSIFIED BUSINESS MIX. We have a diverse and broad business mix with limited reliance on any particular program, a balance of cost-reimbursable and fixed-price contracts, a significant follow-on business and an attractive customer profile. Our largest program represented 3.9% of our sales for the year ended December 31, 2001 and is a long term, firm-fixed price contract for intelligence agencies and the DoD. No other program represented more than 3.2% of sales for the year ended December 31, 2001. Furthermore, 31.7% of our sales for the same period were from cost-reimbursable contracts, and 68.3% were from fixed-price contracts, providing us with a mix of predictable profitability (cost-reimbursable) and higher margin (fixed-price) business. We also enjoy a mix of defense and non-defense business, with direct and indirect sales to the DoD accounting for 64.7%, and sales to commercial customers, foreign governments and U.S. federal, state and local government agencies other than the DoD accounting for 35.3% of our sales for the year ended December 31, 2001. We intend to leverage this business profile to expand our merchant supplier business base.

CAPITALIZE ON STRATEGIC ACQUISITION OPPORTUNITIES. Recent U.S. defense industry consolidation has dramatically reduced the number of traditional middle-tier aerospace and defense companies, which are smaller than the five dominant prime system contractors and larger than the many smaller publicly and privately owned companies, as well as non-core aerospace and defense businesses of the prime contractors. We intend to enhance our existing product base through internal research and development efforts and selective acquisitions that will add new products in areas that complement our present technologies. We intend to continue acquiring potential targets with the following criteria:

- significant market position(s) in their business area(s);
- product offerings which complement and/or extend our product offerings; and
- positive future growth and earnings prospects.

Since January 1, 2001, we acquired thirteen businesses for an aggregate adjusted purchase price of $1,636.0 million, of which twelve businesses were acquired for an aggregate adjusted purchase price of $506.0 million during 2001.

For certain of these acquisitions, the purchase price may be subject to further adjustment based on actual closing date net assets or net working capital of the acquired business and the post-acquisition financial performance of the acquired business. The table below summarizes our primary acquisitions completed since January 1, 2001.

SELECTED RECENT ACQUISITIONS

BUSINESS NAME	DATE ACQUIRED	ACQUIRED FROM	PRICE ($ MN)	BUSINESS D
Aircraft Integration Systems	March 8, 2002	Raytheon Company	$ 1,130.0	Provides products for the global In Surveillance and market, specializ (SIGINT) and comm (COMINT) systems, ability to collec electronic signal communication nod real-time communi warfighter. Also and mission syste support capabilit
SY Technology	December 31, 2001	SY Technology, Inc.	48.0	Specializes in ai control, communic architectures; an systems technolog
BT Fuze Products	December 19, 2001	Bulova Technologies	49.5	Produces military inadvertent firin during handling.
Government Services Group (renamed L-3 Communications Analytics)	November 30, 2001	Emergent Technologies	39.8	Provides high-end and information s U.S. Air Force, A intelligence agen
Spar Aerospace Limited	November 23, 2001	Spar Stockholders	146.8	Provides turnkey cycle management wide body and rot providing value-a modernization for commercial aviati
EER Systems	May 31, 2001	EER Systems Stockholders	119.4	Provides a wide r engineering devel integration suppo civilian agencies governments and c
KDI Precision	May 4, 2001	KDI Precision	78.9	Produces military

Products	Stockholders	prevent the inadv and detonation of during handling.

PRODUCTS AND SERVICES

SECURE COMMUNICATION SYSTEMS

The systems, products and services, selected applications and selected platforms or end users of our Secure Communication Systems segment as of December 31, 2001 are summarized in the table below.

SYSTEMS/PRODUCTS/SERVICES	SELECTED APPLICATIONS	SELECTED PLA
HIGH DATA RATE COMMUNICATIONS		
o Wideband data links and ground terminals	o High performance, wideband secure communication links for relaying of intelligence and reconnaissance information	o Manned and un naval ships, satellites
SATELLITE COMMUNICATION TERMINALS		
o Ground-based satellite communication terminals and payloads	o Interoperable, transportable ground terminals	o Remote person communication forces
SPACE COMMUNICATION AND SATELLITE CONTROL		
o Satellite communication and tracking system	o On-board satellite external communications, video systems, solid state recorders and ground support equipment	o International Space Shuttle satellites
o Satellite command and control sustainment and support	o Software integration, test and maintenance support satellite control network and engineering support for satellite launch system	o U.S. Air Forc Network and r system
MILITARY COMMUNICATIONS		
o Shipboard communications systems	o Internal and external communications (radio room)	o Naval vessels
o Communication software support services	o Value-added, critical software support for C(3)I (Command, Control, Communication and Intelligence) systems and other	o DoD, FAA and

	engineering and technical services	
INFORMATION SECURITY SYSTEMS		
o STE (Secure Terminal Equipment)	o Secure and non-secure voice, data and video communication for office and battlefield utilizing ISDN and ATM commercial network technologies	o U.S. Armed se and security
TRAINING AND SIMULATION		
o Military Aircraft Flight Simulators	o Training for pilots, navigators, flight engineers, gunners and operators	o Military fixe aircraft and
o Battlefield and Weapon Simulation	o Missile system modeling and simulation	o U.S. Army Mis
	o Design and manufacture ballistic missile targets that are ground launched and air launched for threat replication targets	o U.S. Army Mis
o Training	o Training for soldiers on complex command and control systems	o DoD
	o Training and logistics services and training device support	o DoD and forei
o Human Patient Simulators	o Medical training	o Medical schoo and DoD

SECURE COMMUNICATION SYSTEMS (CONT.)

SYSTEMS/PRODUCTS/SERVICES	SELECTED APPLICATIONS	SELECTED PLATFORMS/END USERS
ENGINEERING DEVELOPMENT AND INTEGRATION SUPPORT		
o System Support	o C3ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance), modeling and simulation	o U.S. Armed services, intelli and security agencies, Balli Missile Defense Organization NASA and other U.S. Government agencies

SECURE COMMUNICATION SYSTEMS

We are an established leader in the development, construction and installation of communication systems for high performance intelligence collection, imagery processing and ground, air, sea and satellite communications

for the DoD and other U.S. Government agencies. We provide secure, high data rate, real-time communication systems for surveillance, reconnaissance and other intelligence collection systems. We also design, develop, produce and integrate communication systems and support equipment for space, ground and naval applications, as well as provide communication software support services to military and related government intelligence markets. Product lines of the Secure Communication Systems business include high data rate communications links, satellite communications terminals, naval vessel communication systems, space communications and satellite control systems, signal intelligence information processing systems, information security systems, tactical battlefield sensor systems and commercial communication systems.

High Data Rate Communications

We are a technology leader in high data rate, covert, jam-resistant microwave communications used in military and other national agency reconnaissance and surveillance applications. Our product line covers a full range of tactical and strategic secure point-to-point and relay data transmission systems, products and support services that conform to military and intelligence specifications. Our systems and products are capable of providing battlefield commanders with real-time, secure surveillance and targeting information and were used extensively by U.S. armed forces in the Persian Gulf War and during operations in Bosnia, Kosovo and Afghanistan.

Our current family of strategic and tactical data links or CDL (Common Data Link) systems are considered DoD standards for data link hardware. Our primary focus is spread spectrum secure communication links technology, which involves transmitting a data signal with a high-rate noise signal making it difficult to detect by others, and then re-capturing the signal and removing the noise. Our data links are capable of providing information at over 300 megabytes per second and use point-to-point and point-to-multipoint architectures.

We provide these secure high bandwidth products to the U.S. Air Force, the U.S. Navy, the U.S. Army and various U.S. Government agencies, many through long-term programs. The scope of these programs include air-to-ground, air-to-air, ground-to-air and satellite communications such as the U-2 Support Program, GUARDRAIL, ASTOR and major UAV (unmanned aerial vehicle) programs, such as Predator, Global Hawk and Fire Scout.

We remain the industry leader in the mobile airborne satellite terminal product market, delivering mobile satellite communication services to many airborne platforms. These services provide real time connectivity between the battlefield and non-local exploiters of ISR data.

Satellite Communication Terminals

We provide ground-to-satellite, high availability, real-time global communications capability through a family of transportable field terminals used to communicate with commercial, military and international satellites. These terminals provide remote personnel with constant and effective communication

capability and provide communications links to distant forces. Our TSS (TriBand SATCOM Subsystem) employs a 6.25 meter tactical dish with a single point feed that provides C, Ku and X band communication to support the U.S. Army. We also offer an 11.3 meter antenna satellite terminal which is transportable on two C-130 aircraft. The SHF PTS (Portable Terminal System) is a lightweight (28 pounds), portable terminal, which communicates through DSCS, NATO or SKYNET satellites and brings connectivity to small military tactical units and mobile

command posts.

We provide System Engineering and Software/Life-cycle support to the Air Force Satellite control network as well as the Eastern and Western Test Rangers. These contracts were recently won and last well beyond 2010.

Space Communications and Satellite Control

We produced and are delivering three communication subsystems for the ISS (International Space Station). These systems will control all ISS radio frequency communications and external video activities. We also provide solid-state recorders and memory units for data capture, storage, transfer and retrieval for space applications. Our standard NASA tape recorder has completed over five million hours of service without a mission failure. Our recorders are on National Oceanic & Atmospheric Administration weather satellites, the Earth Observing Satellite, AM spacecraft and Landsat-7 Earth-monitoring spacecraft. We have extended this technology to our Strategic Tactical Airborne Recorder (S/TAR (Trade Mark)) which was selected for the New Shared Reconnaissance Port (SHARD) Program. We also provide space and satellite system simulation, satellite operations and computer system training, depot support, network engineering, resource scheduling, launch system engineering, support, software integration and test through cost-plus contracts with the U.S. Air Force.

Military Communications

We provide integrated, computer controlled switching systems for the interior and exterior voice and data needs of naval vessels. Our products include the MarCom Integrated Voice Communication Systems for Aegis class destroyers and for the LPD amphibious ship class. We produced the MarCom Baseband Switch for Los Angeles class submarines. Our MarCom secure digital switching system provides an integrated approach to the specialized voice and data communications needs of shipboard environment for internal and external communications, command and control and air traffic control. Along with the Keyswitch Integrated Terminals, MarCom provides automated switching of radio/cryptocircuits, which results in significant timesavings. We also offer on-board, high data rate communications systems, which provide a data link for carrier battle groups, which are interoperable with the U.S. Air Force's Surveillance/reconnaissance terminals. We supply the "communications on the move" capability needed for the digital battlefield by packaging advanced communications into the U.S. Army's Interim Brigade Combat Team Commander's Vehicle.

Our Ilex Systems business provides systems and software engineering products and services for military applications. We specialize in the innovative application of state-of-the-art software technology and software development methodologies to produce comprehensive real-time solutions satisfying our customers' systems and software needs. We specialize in providing engineering services to the U.S. Army military intelligence community including the Communications-Electronics Command (CECOM) Software Engineering Center, for the development and maintenance of Intelligence, Electronic Warfare, Fusion and Sensor systems and software.

Information Security Systems

We believe we are a leader in the development of secure communications equipment for both military and commercial applications. We are producing the next generation digital, ISDN-compatible STE (secure telephone equipment). STE provides clearer voice and thirteen-times faster data/fax transmission capabilities than the previous generation secure telecommunications equipment. STE also supports secure conference calls and secure video teleconferencing. STE uses a CryptoCard security system which consists of a small, portable, cryptographic module holding the algorithms, keys and

personalized credentials to identify its user for secure communications access. We also provide the workstation component of the U.S. Government's EKMS (Electronic Key Management System), the next generation of information security systems. EKMS is the government's system to replace current "paper" encryption keys used to secure government communications with "electronic" encryption keys. The component we provide produces and distributes the electronic keys. We also develop specialized strategic and tactical signal intelligence systems to detect, acquire, collect, and process information derived from electronic sources. These systems are used by classified customers for intelligence gathering and require high-speed digital signal processing and high-density custom hardware designs.

Training and Simulation

We believe we are a leading provider of fully-integrated simulation training systems and related support services to the U.S. and foreign military agencies.

Our training devices and motion simulators business designs, develops and manufacturers advanced virtual reality simulation and high-fidelity representations of cockpits and mission stations for aircraft and land vehicles. We have developed flight simulators for most of the U.S. military aircraft in active operation. We have numerous proprietary technologies and fully-developed systems integration capabilities that provide competitive advantages. Our proprietary software is used for visual display systems, high-fidelity system models, database production, digital radar land mass image simulation and creation of synthetic environments. We are also a leader in developing training systems which allow multiple trainees at multiple sites to engage in networked group, unit and task force training and combat simulations. In addition we are developing, demonstrating, evaluating and transitioning training technologies and methods for use by warfighters at the US Air Force's Fighter Training Research Division.

Our products and services are designed to meet customer training requirements for aircrews, navigators, mission operators, gunners and maintenance technicians for virtually any platform, including military fixed and rotary wing aircraft, air vehicles and various ground vehicles. As one of the leading suppliers of both simulator systems and training services, we believe we are able to leverage our unique full-service capabilities to develop fully-integrated, innovative solutions for training systems, propose and provide program upgrades and modifications, as well as provide hands-on, best-in-class training operations in accordance with virtually any customer requirement in a timely manner.

We also design and develop prototypes of ballistic missile targets for present and future threat scenarios. We provide high-fidelity custom targets to the DoD that are complementary to the U.S. Government's growing focus and priority on national missile defense and space programs. We are the only provider of Ballistic Missile targets that have successfully launched a Ballistic Missile Target from an Air Force Cargo Aircraft.

We also develop and manage extensive programs in the United States and internationally, focusing on training and education, strategic planning, organizational design, democracy transition and leadership development. To provide these services, we utilize a pool of experienced former armed service, law enforcement and other national security professionals. In the United States, our personnel are instructors in the U.S. Army's Force Management School and other schools and courses and are also involved in recruiting for the U.S. Army. In addition, we own a one-third interest in Medical Education Technologies, Inc., which has developed and is producing human patient simulators for sale to medical teaching and training institutions and the DoD.

Engineering Development and Integration Support

We are a premier provider of numerous air campaign modeling and simulation tools for applications, such as Thunder, Storm and Brawler, for the U.S. Air Force Studies and Analysis Agency and of space science research for NASA. We also provide high-end systems support for the HAWK and PATRIOT missile systems, Unmanned Aerial Vehicles (UAVs), the Cooperative Engagement Capacity (CEC) Program, and the F/A-18.

Our products and services specialize in communication systems, training and simulation equipment and a broad range of hardware and software for the U.S. Army, Air Force and Navy, the Federal Aviation

Administration and the Ballistic Missile Defense Organization (BMDO). As one of the leading suppliers of high-end engineering and information support, we believe we are able to provide value-added C(3)ISR engineering support, wargames simulation and modeling of battlefield communications.

SPECIALIZED PRODUCTS

The products and services, selected applications and selected platforms or end users of our Specialized Communication Products segment as of December 31, 2001, are summarized in the table below.

PRODUCTS/SERVICES	SELECTED APPLICATIONS	SELECTED P
AVIONICS AND OCEAN PRODUCTS		
Aviation Products		
o Solid state crash protected cockpit voice and flight data recorders	o Voice recorders continuously record most recent 30-120 minutes of voice and sounds from cockpit and aircraft intercommunications. Flight data recorders record the last 25	o Business an and certain aircraft; s manufacture the Fairchi

	hours of flight parameters	
o TCAS (Traffic Alert and Collision Avoidance System)	o Reduce the potential for midair aircraft collisions by providing visual and audible warnings and maneuvering instructions to pilots	o Commercial, and militar
Antenna Products		
o Ultra-wide frequency and advanced radar antennas and rotary joints	o Surveillance and radar detection	o Military ai surveillanc bombers, at transport
o Precision antennas serving major military and commercial frequencies, including Ka band	o Antennas for high frequency, millimeter satellite communications	o Various mil customers i astronomers
Display Products		
o Cockpit and mission displays and controls	o High performance, ruggedized flat panel and cathode ray tube displays and processors	o Military ai surveillanc bombers, at transport a vehicles
Aircraft Modernization		
o High end aviation product modernization services	o Turnkey aviation life cycle management services	o Various mil wide body a aircraft
Ocean Products		
o Airborne dipping sonars	o Submarine detection and localization	o Various mil
o Submarine and surface ship towed arrays	o Submarine and surface ship detection and localization	o U.S. Navy a
o Naval and commercial power delivery and switching products	o Switching, distribution and protection, as well as frequency and voltage conversion	o All naval c submarines, aircraft ca

SPECIALIZED PRODUCTS (CONT.)

PRODUCTS/SERVICES	SELECTED APPLICATIONS	SELECTED PL
o Commercial transfer switches, uninterruptible power supplies and power products	o Production and maintenance of systems and high-speed switches for power interruption prevention	o Federal Avi Administrat providers, and rail tr
Premium Fuzing Products		

o Fuzing products	o Munitions and electronic and electro-mechanical safety and arming devices (ESADs)	o Various DoD military cu
TELEMETRY, INSTRUMENTATION AND SPACE PRODUCTS		
Airborne, Ground and Space Telemetry		
o Aircraft, missile and satellite telemetry and instrumentation systems	o Real-time data acquisition, measurement, processing, simulation, distribution, display and storage for flight testing	o Aircraft, m
o GPS (Global Positioning Systems) receivers	o Location tracking	o Guided proj
o Navigation systems and subsystems, gyroscopes, reaction wheels, star sensor	o Space navigation	o Hubble Spac Delta IV la satellites
Space Products		
o Global satellite communications systems	o Satellite transmission of voice, video and data	o Rural telep networks, d uplinks, sa and wideban
MICROWAVE COMPONENTS		
o Passive components, switches and wireless assemblies	o Radio transmission, switching and conditioning, antenna and base station testing and monitoring, broad-band and narrow-band applications (PCS, cellular, SMR and paging infrastructure)	o DoD, teleph providers a equipment m
o Safety products	o Radio frequency monitoring and measurement for safety	o Monitor cel industrial emissions
o Satellite and wireless components (channel amplifiers, transceivers, converters, filters and multiplexers)	o Satellite transponder control, channel and frequency separation	o Communicati wireless co equipment
o Amplifiers and amplifier based components (amplifiers, up/down converters and Ka assemblies)	o Automated test equipment, military electronic warfare, ground and space communications	o DoD and com operators

SPECIALIZED PRODUCTS

Avionics and Ocean Products

Aviation and Maritime Recorders. We manufacture commercial, solid-state, crash-protected recorders, commonly known as black boxes, under the Fairchild brand name for the aviation and maritime industries, and have delivered nearly 55,000 flight recorders to aircraft manufacturers and airlines around the world. We believe we are the leading manufacturer of commercial cockpit voice recorders and flight data recorders. The hardened voyage recorder, launched from our state-of-the-art aviation technology,

and expanded to include cutting edge internet communication protocols, has taken an early leadership position within the maritime industry. We offer three types of recorders:

- the cockpit voice recorder, which records the last 30 to 120 minutes of crew conversation and ambient sounds from the cockpit;
- the flight data recorder, which records the last 25 hours of aircraft flight parameters such as speed, altitude, acceleration and thrust from each engine and direction of the flight in its final moments; and
- the hardened voyage recorder, which stores and protects 12 hours of voice, radar, radio and shipboard performance data on solid state memory.

Recorders are highly ruggedized instruments, designed to absorb the shock equivalent to that of an object traveling at 268 knots stopping in 18 inches, fire resistant to 1,100 degrees centigrade and pressure resistant to 20,000 feet undersea for 30 days. Our recorders are mandated and regulated by various worldwide agencies for use in commercial airlines and a large portion of business aviation aircraft. In addition, our aviation recorders are certified and approved for installation at the world's leading aircraft original equipment manufacturers ("OEM's"), while our maritime recorders are an integral component to a mandated recording system for numerous vessels that travel on international waters. The U.S. military has recently required the installation of black boxes in military transport aircraft. We believe this development will provide us with new opportunities for expansion into the military market.

We have completed development of a combined voice and data recorder and are developing an enhanced recorder that monitors engine and other aircraft parameters for use in maintenance and safety applications.

Traffic Alert and Collision Avoidance Systems (TCAS). TCAS is an avionics safety system that was developed to reduce the potential for mid-air collisions. The system is designed to operate independently from the air traffic control ("ATC") system to provide a complementary supplement to the existing ATC system. TCAS operates by transmitting interrogations that elicit replies from transponders in nearby aircraft. The system tracks aircraft within certain range and altitude bands to determine whether they have the potential to become a collision threat.

There are two levels of TCAS protection currently in operation: TCAS I and TCAS II. In the United States, passenger aircraft with 10 to 30 seats must be equipped with a TCAS I system. The TCAS II system is required for passenger aircraft with more than 30 seats. These aircraft, as well as aircraft used in all-cargo operations, must also be equipped with transponders, either Mode S or Mode C. The transponder provides altitude and airplane identification to TCAS-equipped aircraft as well as to the ATC system.

If the TCAS I system calculates that an aircraft may be a threat, it provides the pilot with a visual and audible traffic advisory. The advisory information provides the intruder aircraft's range and relative altitude/bearing. In addition to traffic advisories, a TCAS II system will provide the pilot a resolution advisory ("RA"). This resolution advisory recommends a vertical maneuver to provide separation from the intruder aircraft.

TCAS systems have proven to be very effective, with many documented successful RA's. TCAS II has been in worldwide operation in many aircraft types

since 1990. Today, over 16,000 airline, corporate and military aircraft are equipped with TCAS II-type systems, logging over 100 million hours of operation. The number of reported near mid-air collisions in the U.S. has decreased significantly since 1989, a period during which both passenger and cargo air traffic has increased substantially.

Antenna Products. We produce high performance antennas under the Randtron brand name which are designed for:

- surveillance of high-resolution, ultra-wide frequency bands;
- detection of low radar cross-section targets and low radar cross-section installations;

- severe environmental applications; and
- polarization diversity.

Our primary product is a sophisticated 24-foot diameter antenna used on all E-2C surveillance aircraft. This airborne antenna is a rotating aerodynamic radome containing a UHF surveillance radar antenna, an IFF antenna, and forward and aft auxiliary antennas. Production is planned beyond 2001 for the E-2C, P-3 and C-130 AEW aircraft. We have been funded to begin the development of the next generation for this antenna. We also produce broadband antennas for a variety of tactical aircraft, as well as rotary joints for the AWAC antenna. We have delivered over 2,000 sets of antennas for aircraft and have a backlog of orders through 2004.

We are a leading supplier of ground based radomes used for air traffic control, weather radar, defense and scientific purposes. These radomes enclose an antenna system as a protective shield against the environment and are intended to enhance the performance of an antenna system.

Display Products. We design, develop and manufacture ruggedized displays for military and high-end commercial applications. Our current product line includes a family of high performance display processing systems, which use either a cathode ray tube or active matrix liquid crystal display. Our displays are used in numerous airborne, ship-board and ground based platforms and are designed to survive in military and harsh environments.

Aircraft Modernization. We are a leading global provider of turnkey aviation life cycle management services, providing value-added engineering and upgrades for selected military and commercial aviation programs, component repair and overhaul and support services. Our major programs include high-end aviation product modernization and services on the C-130 for a number of military organizations around the world, including the Canadian Department of National Defense, U.S. Coast Guard, Mexican Air Force, Royal Malaysian Air Force and Royal Australian Air Force. We also provide avionics maintenance, repair and overhaul for the Sikorsky S-61/H-3 Sea King helicopter for a number of military organizations including the Canadian military, the U.S. Navy and the Brazilian Air Force. We are also a full service provider for the Boeing 727 and 737 to a number of airlines, including Canada's WestJet.

Ocean Products. We are one of the world's leading suppliers of acoustic undersea warfare systems. Our experience spans a wide range of platforms, including helicopters, submarines and surface ships. Our products include towed array sonar, hull mounted sonar, airborne dipping sonar and ocean mapping sonar

for navies around the world.

We are also a leading provider of state-of-the-art power electronics systems and electrical power delivery systems and subsystems. We provide communications and control systems for the military and commercial customers. We offer the following:

- o military power propulsion, distribution and conversion equipment and components which focus on motor drives switching, distribution and protection, providing engineering design and development, manufacturing and overhaul and repair services; and

- o ship control and interior communications equipment.

We have been able to apply our static transfer switch technology, which we developed for the U.S. military, to commercial applications. Our commercial customers for static transfer switches are primarily financial institutions and internet service providers, including American Express, AOL-Time Warner, AT&T, Charles Schwab and the Federal Aviation Administration. In addition, we provide electrical products for rail transportation and utilities businesses.

Premium Fuzing Products. We are a leading provider of premium fuzing products, including proximity fuzes, electronic and electro-mechanical safety and arming devices (ESADs) and self-destruct/ sub-munition grenade fuzes. ESADs prevent the inadvertent firing and detonation of guided missiles during handling, flight operations and the initial phases of launch. Our proximity fuzes are used in smart munitions. All are considered to be critical safety and arming products. Additionally, during missile flight the ESAD independently analyzes flight conditions and determines safe separation distance after a missile launch.

Telemetry, Instrumentation and Space Products

We are a leader in the development and marketing of component products and systems used in telemetry and instrumentation for airborne applications such as satellites, aircraft, UAVs, launch vehicles, guided missiles, projectiles and targets. Telemetry involves the collection of data for various equipment performance parameters and is required when the object under test is moving too quickly or is of too great a distance to use a direct connection. Telemetry products measure, process, receive and collect thousands of parameters of a platform's operation including heat, vibration, stress and operational performance and transmits this data to the ground.

Additionally, our satellite telemetry equipment transmits data necessary for ground processing. These applications demand high reliability of components because of the high cost of satellite repair and the need for uninterrupted service. Telemetry products also provide the data used to terminate the flight of missiles and rockets under errant conditions and/or at the end of a mission. These telemetry and command/control products are currently used for a variety of missile and satellite programs.

Airborne, Ground and Space Telemetry. We provide airborne equipment and data link systems that gather critical information and then process, format and transmit the data to the ground from communications satellites, spacecraft, aircraft and missiles. These products are available in both commercial off-the-shelf and custom configurations and include software and software engineering services. Primary customers include many of the major defense contractors who manufacture aircraft, missiles, warheads, launch vehicles and

munitions. Our ground station instrumentation receives, encrypts and/or decrypts the serial stream of combined data in real-time as it is received from the airborne platform. We are a leader in digital GPS (Global Positioning System) receiver technology for high performance military applications. These GPS receivers are currently in use on aircraft, cruise missiles and precision guided bombs and provide highly accurate positioning and navigational information. Additionally, we provide navigation systems for high performance weapon pointing and positioning systems for programs such as MLRS (Multiple Launch Rocket System) and MFCS (Mortar Fire Control System).

Space Products. We offer value-added solutions that provide our customers with complex product integration and comprehensive support. We focus on the following niches within the satellite ground segment equipment market: telephony, video broadcasting and multimedia. Our customers include foreign communications companies, domestic and international prime communications infrastructure contractors, telecommunications or satellite service providers, broadcasters and media-related companies. We also provide space products for advanced guidance and control systems including gyroscopes, controlled momentum devices and star sensors. These products are used on satellites, launch vehicles, the Hubble Telescope, the Space Shuttle and the International Space Station.

Microwave Components

We are a premier worldwide supplier of commercial off-the-shelf and custom, high performance RF (radio frequency) microwave components, assemblies and instruments supplying the wireless communications, industrial and military markets. We are also a leading provider of state-of-the-art space-qualified commercial satellite and strategic military RF products and millimeter amplifier based products. We sell many of these components under the well-recognized Narda brand name through a comprehensive catalog of standard, stocked hardware. We also sell our products through a direct sales force and an extensive network of market representatives. Specific catalog offerings include wireless products, Electro-mechanical switches, power dividers and hybrids, couplers/detectors, attenuators, terminations and phase shifters, isolators and circulators, adapters, control products, sources, mixers, waveguide components, RF safety products, power meters/monitors and custom passive products. Passive components are generally purchased in both narrow and broadband frequency configurations by wireless equipment manufacturers, wireless service providers and military equipment suppliers. Commercial applications include cellular and PCS base station automated test equipment, and equipment for the paging industry. Military applications include electronic surveillance and countermeasure systems.

Our space-qualified and wireless components separate various signals and direct them to sections of the satellites' payload. Our main satellite products are channel amplifiers and linearizers, payload products, transponders and antennas. Channel amplifiers amplify the weak signals received from earth stations, and then drive the power amplifier tubes that broadcast the signal back to earth. Linearizers, used either in conjunction with a channel amplifier or by themselves, pre-distort a signal to be transmitted back to earth before it enters a traveling wave tube for amplification. This pre-distortion is exactly the opposite of the distortion created at peak power by the traveling wave tube and, consequently, has a cancellation effect that keeps the signal linear over a

much larger power band of the tube. The traveling wave tube and area covered by the satellite is significantly increased.

Narda is the world's largest supplier of non-ionizing radiation safety detection equipment. These devices are used to quantify and alarm of exposure to excessive RF radiation. This equipment is used by wireless tower operators and the military to protect personnel, and insure compliance to various published standards. We design and manufacture both broad and narrow band amplifiers and amplifier-based products in the microwave and millimeter wave frequencies. We use these amplifiers in defense and communications applications. These devices can be narrow band for communication needs or broadband for electronic warfare.

We offer standard packaged amplifiers for use in various test equipment and system applications. We design and manufacture millimeter range (at least 20 to 38GHz) amplifier products for use in emerging communication applications such as back haul radios, LMDS (Local Multipoint Distribution Service) and ground terminals for LEO satellites. Narda filters are sold to some of the world's leading service providers and base station OEM's. Robust demand continues for Narda filters due to ongoing system upgrades by service providers for 2.5G and 3.0G applications geared toward providing higher data rate capabilities for the commercial cellular and PCS marketplace.

We also design, manufacture and market solid state, broadband wireless communications infrastructure equipment, subsystems and modules used to provide point-to-Multipoint ("PMP") and point-to-point ("PTP") terrestrial and satellite-based distribution services in frequency bands from 24 to 38 Gigahertz. Our products include solid-state power amplifiers, hub transmitters, active repeaters, cell-to-cell relays, Internet access systems and other millimeter wave-based modules and subsystems. These products are used in various applications, such as broadband communications, local loop services and Ka-band satellite communications.

DEVELOPING COMMERCIAL OPPORTUNITIES

Part of our growth strategy is to identify commercial applications for select products and technologies currently sold to defense customers. We have initially identified two vertical markets where we believe there are significant opportunities to expand our products: transportation and broadband wireless communications.

Transportation. Our products, designed to meet strict government quality and reliability standards, are easily adapted to the commercial transportation marketplace. Our aircraft voice recorders, designed to meet FAA requirements, have been successfully marketed to the cruise ship, marine shipping and railroad industries. Similarly, our state-of-the-art power propulsion products, originally designed for the U.S. Navy, meet the needs of commuter railroads, including Philadelphia's regional rail system and New York City's Metropolitan Transportation Authority. Our explosives detection system, the eXaminer 3DX(TM) 6000, enables the rapid scanning of passenger checked baggage at airports using state-of-the-art technology. The new Transportation Security Administration (TSA), of the Department of Transportation, created as a result of the Aviation and Transportation Security Act enacted by Congress on January 3, 2002, has expressed requirements for as many as 500 examiner units.

Communications. The wireless communications technology we developed for our military customers also meets the needs of a growing commercial marketplace for technologically advanced communications products. Some of the products we have developed or are developing to exploit this market include wireless loop products, transceivers, LMDS, compression products, remote sensing internet

networks, microwave links and products for microwave base stations. Our Prime Wave fixed wireless loop products are an example of our expanding involvement in the commercial communications industry. Using synchronous CDMA technology that supports terrestrial, space, fixed and mobile communications, we produce wireless loop equipment for use in areas that do not have an adequate telecommunications infrastructure, including emerging market countries and customers in rural areas.

In the expanding broadband wireless commercial communications market, we also have developed a broad assortment of other products including transponders, payloads, uplinks- downlinks, fly-away SATCOM terminals, telemetry tracking and control and test equipment and waveform generators.

These new commercial products are subject to certain risks and may require us to:

- develop and maintain marketing, sales and customer support capabilities;
- secure sales and customer support capabilities;
- obtain customer and/or regulatory certification;
- respond to rapidly changing technologies including those developed by others that may render our products and systems obsolete or non-competitive; and
- obtain customer acceptance of these products and product performance.

Our efforts to expand our presence in commercial markets require significant resources, including additional working capital and capital expenditures, as well as the use of our management's time. Our ability to sell certain commercial products, particularly our broadband wireless communications products, depends to a significant degree on the efforts of independent distributors or communications service providers and on the financial viability of our existing and target customers for the commercial products. Certain of our existing and target customers are agencies or affiliates of governments of emerging and under-developed countries or private business enterprises operating in those countries. In addition, we have made equity investments in entities that plan to commence operations as communications service providers using some of our commercial products. We can give no assurance that these distributors or service providers will be able to market our products or their services successfully or that we will be able to realize a return of investment in them. We also cannot assure you that we will be successful in addressing these risks or in developing these commercial business opportunities.

BACKLOG AND ORDERS

We define funded backlog as the value of contract awards received from the U.S. Government, which the U.S. Government has appropriated funds, plus the value of contract awards and orders received from customers other than the U.S. Government, which have yet to be recognized as sales. Our funded backlog as of December 31, 2001 was $1,719.3 million and as of December 31, 2000 was $1,354.0 million. We expect to record as sales approximately 69.7% of our funded backlog as of December 31, 2001 during 2002. However, there can be no assurance that our funded backlog will become sales in any particular period, if at all. Our funded

orders for the year ended December 31, 2001 were $2,456.1 million, for the year ended December 31, 2000 were $2,013.7 million and for the year ended December 31, 1999 were $1,423.1 million.

Our funded backlog does not include the full value of our contract awards including those pertaining to multi-year, cost-reimbursable contracts, which are generally funded on an annual basis. Funded backlog also excludes the sales value of unexercised contract options that may be exercised by customers under existing contracts and the sales value of purchase orders that may be issued under indefinite quantity contracts or basic ordering agreements.

MAJOR CUSTOMERS

For the year ended December 31, 2001, direct and indirect sales to the DoD provided 64.7% of our sales, and sales to commercial, foreign governments and U.S. federal, state and local government agencies other than the DoD provided 35.3% of our sales.

Our U.S. Government sales are predominantly derived from contracts with agencies of, and prime contractors to, the U.S. Government. Various U.S. Government agencies and contracting entities exercise independent and individual purchasing decisions, subject to annual appropriations by the U.S. Congress. As of December 31, 2001, we had approximately 575 contracts each with a value exceeding $1.0 million. For the year ended December 31, 2001, sales of our five largest programs amounted to $249.7 million or 10.6% of our sales.

RESEARCH AND DEVELOPMENT

We conduct research and development activities that consist of projects involving basic research, applied research, development, and systems and other concept studies. We employ scientific, engineering and other personnel to improve our existing product lines and develop new products and technologies. As of December 31, 2001, we employed approximately 7,600 engineers, a substantial portion of whom hold advanced degrees. For the year ended December 31, 2001, we incurred $319.4 million on research and development costs for customer-funded contracts and spent $107.5 million on company-sponsored research and development projects, including bid and proposal costs.

COMPETITION

We encounter intense competition in all of our businesses. We believe that we are a significant supplier of many of the products that we manufacture and services we provide in our defense and government businesses, as well as in our commercial businesses.

Defense and Government Business

Our ability to compete for defense contracts depends on a variety of factors, including:

- the effectiveness and innovation of our research and development programs;
- our ability to offer better program performance than our competitors at a lower cost; and

- o the availability of our facilities, equipment and personnel to undertake the programs for which we compete.

In some instances, we are the incumbent supplier or have been the sole provider for many years for certain programs. We refer to such contracts as "sole-source" contracts. In such cases, there may be other suppliers who have the capability to compete for the programs involved, but they can only enter or reenter the market if the customer chooses to reopen the particular program to competition. Sole-source contracts accounted for approximately 62.4% and competitive contracts accounted for approximately 37.6% of our total sales for the year ended December 31, 2001. The majority of our sales are derived from contracts with the U.S. Government and its prime contractors, which are principally awarded on the basis of negotiations or competitive bids.

We believe that the U.S. defense industry structure contains three tiers of defense contractors. The first tier is dominated by five prime system contractors: The Boeing Company, Lockheed Martin Corporation, Northrop Grumman Corporation, Raytheon Company and General Dynamics Corporation, all of whom compete for major platform programs. The second tier defense contractors are smaller products and niche systems contractors and are comprised of traditional aerospace and defense companies, as well as, the non-core aerospace and defense sectors of certain industrial conglomerates and include L-3, Honeywell Inc., Rockwell Collins Inc., Harris Corporation, TRW Inc., ITT Industries, Inc., Alliant Techsystems Inc., United Technologies Corporation, and United Defense Industries Inc. The third tier, which represents the vendor base and supply chain for niche products, is comprised of numerous smaller publicly and privately owned aerospace and defense contractors.

We believe we are the aerospace and defense "merchant supplier" with the broadest and most diverse product portfolio. We supply our products to all of the five prime system contractors and in some cases directly to the end customer. We primarily compete with third tier contractors and certain of the second tier contractors and to a lesser extent with the prime system contractors in certain niche areas.

Some of the second tier contractors are larger than we are and have greater resources than we have available to us. We are larger than all of the third tier contractors and believe we have greater resources than all of them. We believe that most of our businesses enjoy the number one or number two competitive position in their respective market niches. We believe that the primary competitive factors for our businesses are: technology, quality, cost, market position and past performance. In addition, our ability to compete for non "sole source" contracts often requires us to "team" with one or more of the prime system contractors that bids and competes for major platform programs. Furthermore, our ability to "team" with a prime system contractor is often dependent upon the outcome of a competitive process.

We believe that we will continue to be a successful participant in the business areas in which we compete, based upon the quality and cost competitiveness of our products and services.

Commercial Activities

Our commercial activities have become an increasingly significant portion

of our business mix, and comprised 22.6% of our total sales for the year ended December 31, 2001. Our ability to compete for commercial business depends on a variety of factors, including:

- Pricing;
- Product features and performance;
- Reliability, scalability and compatibility;
- Customer relationships, service and support; and
- Brand recognition.

Inthese markets, we compete with various companies, several of which are listed below.

- Agilent Technologies, Inc.;
- Globecomm Systems, Inc.;
- ViaSat, Inc.;
- Honeywell Inc.;
- Smiths Industries; and
- Airspan Networks, Inc.

We believe that our sales in these business areas will continue to grow as a percentage of our total sales, even though several of our competitors may have greater resources and technologies than we have available to us.

PATENTS AND LICENSES

We do not believe that our patents, trademarks and licenses are material to our operations. Furthermore, our U.S. Government contracts generally permit us to use patents owned by others. Similar provisions in U.S. Government contracts awarded to other companies make it impossible for us to prevent the use of our patents in most domestic work performed by other companies for the U.S. Government.

RAW MATERIALS

In manufacturing our products, we use our own production capabilities as well as a diverse base of third party suppliers and sub-contractors. Although aspects of certain of our businesses require relatively scarce raw materials, we have not experienced difficulty in our ability to procure raw materials, components, sub-assemblies and other supplies required in our manufacturing processes.

CONTRACTS

A significant portion of our sales are derived from strategic, long-term programs and from sole-source contracts. Approximately 62.4% of our sales for the year ended December 31, 2001 were generated from sole-source contracts. Our customer satisfaction and performance record are evidenced by our receipt of performance-based award fees exceeding 91% of the available award fees on average during the year ended December 31, 2001. We believe that our customers will award long-term,

sole-source, outsourcing contracts to the most capable merchant supplier in terms of quality, responsiveness, design, engineering and program management support as well as cost. As a consequence of our strong competitive position,

for the year ended December 31, 2001, we won contract awards in excess of 50% on new competitive contracts that we bid on, and in excess of 90% on the contracts we rebid for which we were the incumbent supplier.

We have a diverse business mix with limited reliance on any single program, a balance of cost-plus and fixed price contracts, a significant sole-source follow-on business and an attractive customer profile. For the year ended December 31, 2001, 31.7% of our sales were generated from cost-reimbursable contracts and 68.3% from fixed-price contracts, providing us with a sales mix of predictable profitability (cost-reimbursable) and higher profit margin (fixed-price) business.

Generally, contracts are either fixed-price or cost-reimbursable. Under a fixed-price contract we agree to perform the scope of work required by the contract for a predetermined contract price. Although a fixed-price contract generally permits us to retain profits if the total actual contract costs are less than the estimated contract costs, we bear the risk that increased or unexpected costs may reduce our profit or cause us to sustain losses on the contract. Conversely, on a cost-reimbursable contract we are paid up to predetermined funding levels determined by our customers, our allowable incurred costs and generally a fee representing a profit on those costs, which can be fixed or variable depending on the contract's pricing arrangement. Therefore, on a cost-reimbursable contract we do not bear the risks of unexpected cost overruns. Generally, a fixed-price contract offers higher profit margins than a cost-reimbursable contract which is commensurate with the greater levels of risk assumed on a fixed-price contract.

Most of our U.S. Government business is subject to unique procurement and administrative rules based on both laws and regulations, including various profit and cost controls, allocations of costs to contracts and non-reimbursement of unallowable costs such as lobbying expenses and interest expenses. Our contract administration and cost accounting policies and practices are subject to oversight by government inspectors, technical specialists and auditors.

Certain of our sales are under foreign military sales agreements directly between the U.S. Government and foreign governments. In such cases, because we serve only as the supplier, we do not have unilateral control over the terms of the agreements. These contracts are subject to extensive legal and regulatory requirements and, from time to time, agencies of the U.S. Government investigate whether our operations are being conducted in accordance with these laws and regulations. Investigations could result in administrative, civil, or criminal liabilities, including repayments, disallowance of certain costs, or fines and penalties.

Certain of our sales are direct commercial sales to foreign governments. These sales are subject to U.S. Government approval and licensing under the Arms Export Control Act. Legal restrictions on sales of sensitive U.S. technology also limit the extent to which we can sell our products to foreign governments or private parties.

U.S. Government contracts are, by their terms, subject to termination by the U.S. Government either for its convenience or default by the contractor if the contractor fails to perform the contracts' scope of work. Upon termination other than for a contractor's default, the contractor will normally be entitled to reimbursement for allowable costs and an allowance for profit. Foreign defense contracts generally contain comparable provisions permitting termination at the convenience of the government. To date, none of our significant fixed price contracts have been terminated.

Companies supplying defense-related equipment to the U.S Government are subject to certain additional business risks peculiar to the U.S. defense

industry. Among these risks are the ability of the U.S. Government to unilaterally suspend a company from new contracts pending resolution of alleged violations of procurement laws or regulations. In addition, U.S. Government contracts are conditioned upon the continuing availability of Congressional appropriations. Congress usually appropriates funds for a given program on a September 30 fiscal year basis, even though contract performance may take years. Consequently, at the outset of a major program, the contract is usually partially funded, and additional monies are normally committed to the contract by the procuring agency only as appropriations are made by Congress for future fiscal years.

As is common in the U.S. defense industry, we are subject to business risks, including changes in the U.S. Government's procurement policies (such as greater emphasis on competitive procurement), governmental appropriations, national defense policies or regulations, service modernization plans, and availability of funds. A reduction in expenditures by the U.S. Government for products and services of the type we manufacture and provide, lower margins resulting from increasingly competitive procurement policies, a reduction in the volume of contracts or subcontracts awarded to us or if we incur substantial contract cost overruns could materially adversely affect our business.

ENVIRONMENTAL MATTERS

Our operations are subject to various federal, state and local environmental laws and regulations relating to the discharge, storage, treatment, handling, disposal and remediation of certain materials, substances and wastes used in our operations. We continually assess our obligations and compliance with respect to these requirements. We have also assessed the risk of environmental contamination on various manufacturing facilities of our acquired businesses and, where appropriate, have obtained indemnification, either from the sellers of those acquired businesses or through pollution liability insurance. We believe that our current operations are in substantial compliance with all existing applicable environmental laws and permits. We believe our current expenditures will allow us to continue to be in compliance with applicable environmental laws and regulations. While it is difficult to determine the timing and ultimate cost to be incurred in order to comply with these laws, based upon available internal and external assessments, with respect to those environmental loss contingencies of which we are aware, we believe that even without considering potential insurance recoveries, if any, there are no environmental loss contingencies that, individually or in the aggregate, would be material to our consolidated results of operations.

Despite our current level of compliance, new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new clean-up requirements may require us to incur costs in the future that could have a negative effect on our financial condition or results of operations.

PENSION PLANS

In connection with our acquisition of the predecessor company, we assumed certain liabilities relating to defined benefit pension plans for present and former employees and retirees of certain businesses which were transferred from Lockheed Martin to us. Prior to the consummation of our acquisition of the

predecessor company, Lockheed Martin received a letter from the Pension Benefit Guaranty Corporation (the "PBGC") which requested information regarding the transfer of such pension plans and indicated that the PBGC believed certain of such pension plans were underfunded using the PBGC's actuarial assumptions. The PBGC assumptions result in a larger liability for accrued benefits than the assumptions used for financial reporting under Statement of Financial Accounting Standards No. 87. The PBGC underfunding is related to the Communication Systems -- West and Aviation Recorders pension plans (the "Subject Plans").

With respect to the Subject Plans, Lockheed Martin entered into an agreement (the "Lockheed Martin Commitment") among Lockheed Martin, L-3 Communications and the PBGC dated as of April 30, 1997. The material terms and conditions of the Lockheed Martin Commitment include a commitment by Lockheed Martin to the PBGC to, under certain circumstances, assume sponsorship of the Subject Plans or provide another form of financial support for the Subject Plans. The Lockheed Martin Commitment will continue with respect to any Subject Plan until such time as such Subject Plan is no longer underfunded on a PBGC basis for two consecutive years or, at any time after May 31, 2002, if we achieve investment grade credit ratings. Pursuant to the Lockheed Martin Commitment, the PBGC agreed that it would take no further action in connection with our acquisition of the predecessor company.

Upon the occurrence of certain events, Lockheed Martin, at its option, has the right to decide whether to cause us to transfer sponsorship of any or all of the Subject Plans to Lockheed Martin, even if the PBGC has not sought to terminate the Subject Plans. Such a triggering event occurred in 1998, but

reversed in 1999, relating to a decrease in the PBGC-mandated discount rate in 1998 that had resulted in an increase in the underlying liability. We notified Lockheed Martin of the 1998 triggering event, and in February 1999, Lockheed Martin informed us that it had no present intention to exercise its right to cause us to transfer sponsorship of the Subject Plans. If Lockheed Martin did assume sponsorship of these plans, it would be primarily liable for the costs associated with funding the Subject Plans or any costs associated with the termination of the Subject Plans, but we would be required to reimburse Lockheed Martin for these costs. To date, there has been no impact on pension expense and funding requirements resulting from this arrangement. In the event Lockheed Martin assumes sponsorship of the Subject Plans we would be required to reimburse Lockheed Martin for all amounts that it contributes to, or costs it incurs with respect to, the Subject Plans. For the year ended December 31, 2001, no pension contributions were required to be made by us to the Subject Plans. For subsequent years, our funding requirements will depend upon prevailing interest rates, return on plan assets and underlying actuarial assumptions.

We have performed our obligations under the letter agreement with Lockheed Martin and the Lockheed Martin Commitment and have not received any communications from the PBGC concerning actions which the PBGC contemplates taking in respect of the Subject Plans.

EMPLOYEES

As of December 31, 2001, we employed approximately 18,000 full-time and part-time employees, the majority of whom are located in the United States. Of these employees, approximately 11.1% are covered by 35 separate collective bargaining agreements with various labor unions. We have a continuing need for skilled and professional personnel to meet contract schedules and obtain new and ongoing orders for our products. We believe that relations with our employees are good.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION

OVERVIEW

We are a leading merchant supplier of sophisticated secure communication systems and specialized products. These systems and products are critical elements of virtually all major communication, command and control, intelligence gathering and space systems. Our customers include the U.S. Department of Defense ("DoD"), certain U.S. Government intelligence agencies, major aerospace and defense contractors, foreign governments, commercial customers and certain other government agencies. We have two reportable segments: Secure Communication Systems and Specialized Products.

Our Secure Communication Systems segment provides secure, high data rate communication systems for military and other U.S. Government reconnaissance and surveillance applications. The Secure Communication Systems segment also produces advanced simulation and training products, and provides a wide range of engineering development and integration support to the DoD and other U.S. federal, state and local government agencies, communication software support services and a full range of teaching, training, logistic and training device support services to domestic and international military customers, and custom ballistic targets for the DoD. Our Specialized Products segment includes three product categories: avionics and ocean products, telemetry, instrumentation and space products and microwave components.

In recent years, domestic and worldwide political and economic developments have significantly affected the markets for defense systems, products and services. Two events in 2001 had a dramatic impact on the domestic and international political and economic landscape. They impacted L-3 and the defense industry generally. First, the events of September 11 created uncertainty and exposed vulnerabilities in security and the overall defense of the U.S. homeland. Second, in the conclusions of the U.S. Quadrennial Defense Review (QDR) there was a fundamental and philosophical shift in focus from a "threat-based" model to one that emphasizes the capabilities needed to defeat a full spectrum of adversaries. Transforming the nation's defense posture to a capabilities-based approach involves creating the ability for a more flexible response, with greater force mobility, stronger space capabilities, missile defense, improved communications and information systems security and an increased emphasis on homeland defense.

The current defense budget and proposed budgets for 2003 through 2006 have been increased by approximately 20% over previous budgets for those same years with increased focus on command, control, communications, intelligence, surveillance and reconnaissance (C(3)ISR), precision-guided weapons, unmanned aerial vehicles (UAVs), communications networks and missile defense. We believe we are well positioned to benefit from increased spending in those areas. In addition, increased emphasis on homeland defense may increase demand for our capabilities in areas such as airport security systems, information security, crisis management, preparedness and prevention services, and civilian security

operations. While there is no assurance that the proposed increased DoD budget levels will be approved by Congress, after over a decade of downward trends, the current outlook is one of increased spending, which we believe should positively affect our future sales and could potentially favorably affect our future operating profits because of increased sale volumes.

All of our domestic government contracts and subcontracts are subject to audit and various cost controls, and include standard provisions for termination for the convenience of the U.S. Government. Multiyear U.S. Government contracts and related orders are subject to cancellation if funds for contract performance for any subsequent year become unavailable. Foreign government contracts generally include comparable provisions relating to termination for the convenience of the relevant foreign government.

ACQUISITIONS AND DIVESTITURES

The table below summarizes the material acquisitions that we have completed during the three years ended December 31, 2001.

ACQUIRED COMPANY	DATE ACQUIRED	PURCHASE PRICE (1)
		(in million
Microdyne Corporation	January 8, 1999	$ 91.1
Aydin Corporation	April 16, 1999	$ 70.5
Interstate Electronics Corporation	June 30, 1999	$ 40.0
Space and Navigation Systems	December 31, 1999	$ 55.2
Training Devices and Training Services (TDTS) business of Raytheon Company	February 10, 2000	$158.1 (
Trex Communications Corporation	February 14, 2000	$ 49.3
Traffic Alert and Collision Avoidance Systems	April 28, 2000	$239.2
MPRI, Inc.	June 30, 2000	$ 39.6 (
Coleman Research Corporation	December 29, 2000	$ 60.0 (
KDI Precision Products	May 4, 2001	$ 78.9
EER Systems	May 31, 2001	$119.4 (
Spar Aerospace Limited	November 23, 2001	$146.8 (
Emergent Government Services Group	November 30, 2001	$ 39.8 (
BT Fuze Products	December 19, 2001	$ 49.5 (
SY Technology	December 31, 2001	$ 48.0 (

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(1) Purchase price represents the contractual consideration for the acquired business excluding adjustments for net cash acquired and acquisition costs.

(2) Following the acquisition we changed TDTS's name to L-3 Communications Link Simulation and Training.

(3) Includes $4.0 million of additional purchase price that was based on the financial performance of MPRI for the year ended June 30, 2001.

(4) Excludes additional purchase price, not to exceed $5.0 million, which is contingent upon the financial performance of Coleman for the year ended December 31, 2001.

(5) Excludes additional purchase price, not to exceed $10.0 million, which is contingent upon the financial performance of EER for the year ended December 31, 2001 and the year ending December 31, 2002.

(6) Includes $43.6 million for the remaining 29.7% of the outstanding common stock of Spar at December 31, 2001 that we acquired and paid for in January 2002.

(7) Purchase price is subject to adjustment based on actual closing date net assets or net working capital of the acquired business.

(8) Following the acquisition we changed Emergent Government Services Group's name to L-3 Communications Analytics.

(9) Excludes additional purchase price, not to exceed $4.8 million, which is contingent upon the financial performance of SY for the year ended December 31, 2001 and the years ending December 31, 2002 and 2003.

On January 14, 2002, we agreed to acquire Aircraft Integration Systems ("AIS"), a division of Raytheon Company, for $1.13 billion in cash. The acquisition was completed on March 8, 2002, and was financed using cash on hand, borrowings under our senior credit facilities and a $500.0 million senior subordinated bridge loan. We expect to offer and sell approximately $1.0 billion of debt and equity securities during the first half of 2002, depending on capital market conditions, and use the proceeds from those offerings to repay the $500.0 million senior subordinated bridge loan and the borrowings made under the senior credit facilities.

On January 2, 2002, we agreed to acquire the explosives detection systems business of PerkinElmer for $100.0 million in cash. The acquisition is subject to customary closing conditions, including clearance under the Hart-Scott-Rodino Antitrust Improvements Act. We expect to complete this acquisition during the second quarter of 2002.

Additionally, we purchased other businesses during 1999, 2000 and 2001, which individually and in the aggregate were not material to our consolidated results of operations, financial position or cash flows in the year acquired.

All of our acquisitions have been accounted for as purchase business combinations and are included in our consolidated results of operations from their respective effective dates.

On May 31, 2001, we sold a 30% interest in Aviation Communications and Surveillance Systems LLC ("ACSS") which comprises our TCAS business to Thales Avionics, a wholly owned subsidiary of Thales (formerly Thomson-CSF), for $75.2 million of cash. We continue to consolidate the financial statements of ACSS.

We regularly evaluate potential acquisitions and joint venture transactions, but we have not entered into any other agreements with respect to any material transactions at this time.

CRITICAL ACCOUNTING POLICIES

Our significant accounting policies are described in Note 2 to the consolidated financial statements. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of sales and costs and expenses during the reporting period. The most significant of these estimates and assumptions relate to contract estimates of sales and estimated costs to complete contracts in process, estimates of market values for inventories reported at lower of cost or market, estimates of pension and postretirement benefit obligations, recoverability of recorded amounts of fixed assets and goodwill, income taxes, including the valuations of deferred tax assets, litigation and environmental obligations. Actual results could differ from these estimates. We believe the following critical accounting policies contain the more significant judgements and estimates used in the preparation of our financial statements.

Revenue Recognition on Contracts and Contract Estimates. The substantial majority of our direct and indirect sales to the U.S. Government and certain of our sales to foreign governments and commercial customers are made pursuant to written contractual arrangements or "contracts" to design, develop, manufacture and or modify complex products, and to the specifications of the buyers (customers) or to provide services related to the performance of such contracts. These contracts are within the scope of the American Institute of Certified Public Accountants Statement of Position 81-1 Accounting for Performance of Construction-Type and Certain Production-Type Contracts ("SOP 81-1"), and sales and profits on them are recognized using percentage-of-completion methods of accounting. Sales and profits on fixed-price production contracts whose units are produced and delivered in a continuous or sequential process are recorded as units are delivered based on their selling prices (the "units-of-delivery" method). Sales and profits on other fixed-price contracts are recorded based on the ratio of total actual incurred costs to date to the total estimated costs for each contract (the "cost-to-cost method"). Sales and fees on cost-reimbursable contracts are recognized as costs are incurred. Amounts representing contract change orders or claims are included in sales only when they can be reliably estimated and their realization is reasonably assured. Under the percentage-of-completion methods of accounting, a single estimated total

profit margin is used to recognize profit for each contract over its entire period of performance which can exceed one year. The impact of revisions in profit estimates are recognized on a cumulative catch-up basis in the period in which the revisions are made. Provisions for anticipated losses on contracts are recorded in the period in which they become evident. The revisions in contract estimates, if significant, can materially affect our results of operations and cash flows, as well as our valuations of Contracts in Process.

Accounting for the sales and profit on a contract requires estimates of (1) the contract value or total contract revenue, (2) the total costs at completion, which is equal to the sum of the actual incurred costs to date on the contract and the estimated costs to complete the contract's scope of work and (3) the measurement of progress towards completion. The estimated profit or loss on a contract is equal to the difference between the total contract value and the estimated total cost at completion. Under the units-of-delivery percentage of completion method, sales on a contract are recorded as the units are delivered during the period at an amount equal to the contractual selling price of those

units. Under the cost-to-cost percentage of completion method, sales on a contract are recorded at amounts equal to the ratio of cumulative costs incurred to date to total estimated costs at completion multiplied by the contract value, less the cumulative sales recognized in prior periods. The profit recorded on a contract under both the units-of-delivery method and cost-to-cost method is equal to the estimated total profit margin for the contract stated as a percentage of contract revenue multiplied by the sales recorded on the contract during the period. Adjustments to original estimates for a contract's revenues, estimated costs at completion and estimated total profit are often required as work progresses under a contract, as experience is gained and as more information is obtained, even though the scope of work required under the contract may not change, or if contract modifications occur. Sales on a cost-reimbursable contract are recorded as costs are incurred at an amount equal to the costs incurred plus the fee (profit) on the contract which is determined according to the contract's fee arrangement.

For the year ended December 31, 2001: (1) sales recognized using the units-of-delivery percentage of completion method accounted for 17.9% of total sales, (2) sales recognized using the cost-to-cost percentage of completion method accounted for 36.8% of total sales, and (3) sales on cost-reimbursable contracts, which are recognized as costs are incurred, accounted for 26.4% of total sales. The remaining 18.9% of sales for the year ended December 31, 2001 pertain to sales on arrangements that are not within the scope of SOP 81-1, which are recorded when products are delivered and services are performed.

Valuation of Deferred Tax Assets and Liabilities. At December 31, 2001, we had net deferred tax assets of $160.8 million, including $32.5 million for net operating loss carryforwards and $31.9 million for tax credit carryforwards which are subject to various limitations and will expire if unused within their respective carryforward periods. Deferred taxes are determined separately for each of our tax-paying entities in each tax jurisdiction. Future realization of deferred tax assets ultimately depends on the existence of sufficient taxable income of the appropriate character (for example, ordinary income or capital gain) within the carryback and carryforward periods available under the tax law. Based on our estimates of the amounts and timing of future taxable income, we believe that we will realize our recorded deferred tax assets. A change in the ability of our operations to continue to generate future taxable income could affect our ability to realize the future tax deductions underlying our net deferred tax assets, and require us to provide a valuation allowance against our net deferred tax assets. Such changes, if significant, could have a material impact in our effective tax rate, results of operations and financial position in any given period.

RESULTS OF OPERATIONS

The following information should be read in conjunction with our consolidated financial statements. Our results of operations for the periods presented are impacted significantly by our acquisitions. (See Note 3 to the consolidated financial statements for a discussion of our acquisitions, including pro forma sales, net income and diluted earnings per share data for the years ended December 31, 2001 and 2000). The tables below provide our selected income statement data for the years ended December 31, 2001, 2000 and 1999.

SEGMENT OPERATING DATA

	YEAR ENDED DECEMBER 31,		
	2001	2000	1999
	(in millions)		
Sales(1):			
Secure Communication Systems	$ 1,241.6	$ 847.1	$ 542.9
Specialized Products	1,105.8	1,063.0	862.6
Total	$ 2,347.4	$ 1,910.1	$ 1,405.5
Operating income:			
Secure Communication Systems	$ 146.2	$ 91.3	$ 47.0
Specialized Products	129.1	131.4	103.5
Operating income	$ 275.3	$ 222.7	$ 150.5

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(1) Sales are after intersegment eliminations. See Note 16 to the consolidated financial statements.

YEAR ENDED DECEMBER 31, 2001 COMPARED WITH YEAR ENDED DECEMBER 31, 2000

Sales increased $437.3 million to $2,347.4 million in 2001 compared with 2000. The MPRI, Coleman KDI, and EER acquisitions contributed $335.6 million of the sales increase in 2001. The remaining sales increase in 2001 was primarily attributable to volume increases of (1) $66.0 million on secure telephone equipment and secure data links, (2) $53.1 million on aviation products, (3) $21.2 million on training devices and services, (4) $20.8 million in microwave components, (5) $16.2 million on acoustic undersea warfare products and (6) $4.4 million on airport security systems. These sale increases were partially offset by declines of $56.7 million on naval power equipment arising from lower shipments caused by production quality control problems and customer-directed reductions in delivery requirements, and volume declines of $23.3 million primarily on telemetry and space products related to the continued decline in the space and broadband commercial communications markets.

Cost of sales increased $313.6 million to $1,648.1 million in 2001 from $1,334.5 million in 2000 consistent with the increases in sales. Selling, general and administrative ("SG&A") expenses increased $71.1 million to $424.0 million in 2001 from $352.9 million in 2000 due to the SG&A associated with our acquired businesses. SG&A expenses as a percentage of sales declined to 18.1% in 2001 from 18.5% in 2000 primarily due to our cost reductions.

Operating income increased because of higher sales by $52.6 million to $275.3 million in 2001 compared with 2000. Operating income as a percentage of sales ("operating margin") remained unchanged at 11.7% although operating margins improved in our Secure Communications Systems segment and declined in our Specialized Products segment, the details of which are discussed below.

Interest expense decreased $6.6 million to $86.4 million in 2001 because of lower interest rates, changes in the components and levels of our debt, and

savings of $4.1 million from the interest rate swap agreements we entered into in July 2001 and November 2001. The interest rate swap agreements exchange the fixed interest rate of 8% on our $200.0 million Senior Subordinated Notes due 2008 and the fixed interest rate of 8 1/2% on our $180.0 million Senior Subordinated Notes due 2008 to variable interest rates determined using the six month LIBOR rate (see Liquidity and Capital Resources section below).

Interest and other income decreased $2.6 million to $1.8 million. Interest and other income for 2001 includes a net pre-tax gain of $0.6 million ($0.01 per diluted share), consisting of an after-tax gain of

$4.3 million from the sale of a 30% interest in ACSS to Thales Avionics and an after-tax charge of $3.9 million to write-down the carrying amount of an investment in common stock of a telecommunications company because the decline of its value was determined to be other than temporary. Also included in interest and other income for 2001 is a pre-tax charge of $0.5 million to account for the increase, in accordance with the Financial Accounting Standards Board's ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 133, Accounting for Derivative Instruments and Hedging Activities, in the fair value assigned to the embedded derivatives in our $420.0 million 4% Senior Subordinated Convertible Contingent Debt Securities due 2011 ("CODES"), we sold in the fourth quarter of 2001 (see Liquidity and Capital Resources section below), and a pre-tax loss of $0.8 million from an equity method investment. Interest and other income for 2000 includes a net pre-tax gain of $2.5 million ($0.04 per diluted share), consisting of an after-tax gain of $9.2 million from the sale of our interests in certain businesses and an after-tax charge of $7.6 million on the write-down in the carrying amount of an investment in a telecommunications venture that is no longer a going concern, the carrying amount of an investment in a telecommunications equipment provider that was determined to be permanently impaired and a related intangible asset. Excluding these net gains from both 2001 and 2000, diluted EPS increased 26.2% to $2.94 in 2001 from $2.33 in 2000.

The income tax provision for 2001 is based on an effective income tax rate for 2001 of 38.0% which declined slightly from the effective tax rate of 38.3% for 2000.

Basic earnings per share ("EPS") grew 24.2% to $3.08 in 2001 and diluted EPS grew 24.5% to $2.95 in 2001. Diluted weighted-average common shares outstanding increased 22.2% in 2001, primarily because of the sale of our common stock in May 2001, and the dilutive effect of our Convertible Notes we sold in the fourth quarter of 2000 (see Liquidity and Capital Resources section below).

SECURE COMMUNICATIONS SYSTEMS

Sales within our Secure Communication Systems segment increased $394.5 million or 46.6% to $1,241.6 million in 2001 compared with 2000. The increase in sales was principally attributed to $277.0 million from the Coleman Research, MPRI and EER acquired businesses and $117.5 million of increased sales primarily from secure data links, secure telephone equipment, airport security systems, Prime Wave fixed wireless access products and training, teaching and logistic services.

Operating income increased because of higher sales and operating margin by $54.9 million to $146.2 million in 2001. Operating margin improved 1.0 percentage points from 10.8% in 2000 to 11.8% in 2001. Reductions in contract costs related to favorable performances on the AVCATT Contract, arising from engineering design changes, material sourcing changes and unit price reductions

on several parts in the contract bill of materials that occurred during 2001 accounted for an increase of 1.1 percentage points. Reductions in engineering and production overhead costs in our Training and Simulation businesses accounted for 0.9 percentage points of the increase. Increased volume, cost reductions and improved operating efficiencies on secure telephone equipment and airport security systems accounted for 0.5 percentage points of the increase. These increases were partially offset by a decrease of 1.4 percentage points due to negative contract margins and increased expenditures and bad debts associated with our Prime Wave business and a net 0.1 percentage point decrease was due to our other businesses.

SPECIALIZED PRODUCTS

Sales within our Specialized Products segment increased $42.8 million or 4.0% to $1,105.8 million in 2001 compared with 2000. The increase in sales was principally attributable to the KDI acquired business offset by decreases in sales of telemetry and space products, naval power equipment and displays partially offset by increases in aviation products, microwave components and acoustic undersea warfare products. We expect sales of our telemetry and space products for 2002 to remain essentially unchanged as compared to 2001, due to continued softness in the space and broadband commercial communications markets.

Operating income decreased because of lower operating margin by $2.3 million in 2001 to $129.1 million. Operating margin decreased 0.7 percentage points to 11.7% in 2001 from 12.4% in 2000.

Unfavorable performance on certain contracts and lower production levels for naval power equipment accounted for 3.2 percentage points of the decrease. Reduced volume on telemetry and space products accounted for a decrease of 0.5 percentage points. These decreases were partially offset by a 3.3 percentage point improvement from increased volume on aviation products and microwave components. The remaining net 0.3 percentage point decrease was attributable to our other businesses.

YEAR ENDED DECEMBER 31, 2000 COMPARED WITH YEAR ENDED DECEMBER 31, 1999

Sales increased $504.6 million to $1,910.1 million in 2000 compared with 1999. The TDTS, TCAS, MPRI and Space and Navigation Systems acquisitions contributed $429.1 million of the increase in sales. The remaining increase in sales during 2000 was principally attributable to volume increases of (1) $30.7 million on aviation recorders and display products, (2) $17.7 million on communications software support services, (3) $15.2 million on acoustic undersea warfare products, (4) $13.6 million on microwave components, and (5) $9.4 million on secure telephone equipment. These increases were partially offset by declines in volume of $17.6 million, primarily on naval power equipment.

Cost of sales increased $355.0 million to $1,334.5 million in 2000 from $979.5 million in 1999 consistent with the increases in sales. SG&A expenses increased $77.4 million to $352.9 million in 2000 from $275.5 million in 1999 due to the SG&A associated with our acquired businesses. SG&A expenses as a percentage of sales declined to 18.5% in 2000 from 19.6% in 1999 primarily due to cost reductions.

Operating income increased $72.2 million to $222.7 million in 2000.

Operating margin improved to 11.7% from 10.7% and was attributable to improvements in both of the Secure Communication Systems and Specialized Products segments which are described below.

Interest expense increased $32.4 million to $93.0 million in 2000 principally because of the higher average outstanding debt during 2000. Interest and other income decreased $1.1 million to $4.4 million. Interest and other income for 2000 includes a net pre-tax gain of $2.5 million ($0.04 per diluted share), consisting of an after-tax gain of $9.2 million from the sale of our interests in certain businesses and an after-tax charge of $7.6 million on the write-down in the carrying amount of an investment in a telecommunications venture that is no longer a going concern, the carrying amount of an investment in a telecommunications equipment provider that was determined to be permanently impaired and a related intangible asset. Excluding the net gain, diluted EPS was $2.33, an increase of 33.1% in 2000 compared with 1999.

The income tax provision for 2000 is based on an effective income tax rate for 2000 of 38.3% which declined slightly from the effective tax rate of 38.5% for 1999.

Basic EPS grew 35.5% to $2.48 in 2000 and diluted EPS grew 35.4% to $2.37 in 2000. Basic weighted-average common shares outstanding increased 3.9% in 2000, and diluted weighted-average common shares outstanding increased 4.3% in 2000, primarily because of common stock issued for exercises of employee stock options.

SECURE COMMUNICATIONS SYSTEMS

Sales within our Secure Communication Systems segment increased $304.2 million to $847.1 million in 2000 compared with 1999. We attribute the increase in sales principally to $308.0 million from the Link Training and Simulation and MPRI acquired businesses. The remaining change in sales was due to the decline on the U-2 Support services contract and on communications subsystems from the International Space Station partially offset by increased sales of secure telephone equipment, wideband secure data links, communication software support services and airport security systems.

Operating income increased because of higher sales and operating margin by $44.3 million to $91.3 million in 2000. Operating margin improved 2.1 percentage points from 8.7% in 1999 to 10.8% in 2000. Cost improvements on high data rate and military communication systems accounted for 2.0 percentage points of the increase. Our divestiture of the Network Security Systems business during 2000 accounted for another 0.9 percentage point increase. The increase in operating margin was partially offset by a decrease of 0.7 percentage points in our Prime Wave business due to higher marketing and development

costs. The remaining net 0.1 percentage point decrease was attributable to our other businesses. Additionally, during 2000, a larger percentage of our sales were generated from fixed-price contracts which generally have higher margins than sales generated from cost-reimbursable contracts.

SPECIALIZED PRODUCTS

Sales within our Specialized Products segment increased $200.4 million to $1,063.0 million in 2000 compared with 1999. We attribute this increase in sales principally to $121.0 million from the TCAS and Space and Navigation Systems acquired businesses and $79.4 million from volume increases on acoustic undersea warfare products, aviation recorders, and display products. These increases in

sales were partially offset by decreased shipments of naval power equipment in 2000 compared with 1999 principally due to the slippage of certain sales into 2001 which were previously anticipated to occur in 2000. Sales of our telemetry products were essentially unchanged in 2000 compared with 1999 due to continued softness in the space and broadband commercial communications markets.

Operating income increased because of higher sales and operating margin by $27.9 million to $131.4 million in 2000. Operating margin improved 0.4 percentage points to 12.4% in 2000 from 12.0% from 1999. Increased volume on the TCAS acquired business accounted for 2.3 percentage points of the increase. Increased volume and cost improvements in aviation recorders, display and acoustic undersea warfare products accounted for another 2.0 percentage points of the increase. These increases were partially offset by a decrease of 2.3 percentage points on our naval power equipment due to less shipments and a decrease of 1.4 percentage points in telemetry and space products and microwave components as a result of reduced volumes and a change in the sales mix to lower margin products. The remaining net 0.2 percentage point decrease was attributable to our other businesses.

LIQUIDITY AND CAPITAL RESOURCES

BALANCE SHEET

Contracts in process increased $101.7 million from December 31, 2000 to $801.8 million at December 31, 2001. The increase included $61.0 million related to acquired businesses and $40.7 million principally from:

- increases of $56.2 million in unbilled contract receivables principally arising from an increase in programs in production phases, during which unbilled costs and profits generally exceed progress payments and advances received from the customers until contract shipments are completed;

- increases of $31.9 million in inventories, including inventories of our Prime Wave business, naval power equipment products and on certain other programs and products; and

- decreases of $47.4 million in billed receivables due to improved collections on certain programs, partially offset by increases at our Prime Wave business.

Included in contracts in process at December 31, 2001, are billed receivables of $15.8 million and inventories of $30.2 million related to our Prime Wave business. At December 31, 2000, we had $6.4 million of billed receivables and $17.4 million of inventories related to our Prime Wave business.

The increases in property, plant and equipment, intangibles, and accrued employment costs during 2001 were principally related to acquired businesses. The decreases in accounts payable and accrued expenses were principally related to the timing of payments to vendors partially offset by balances of acquired businesses. The increase in other current liabilities is primarily attributable to balances of acquired businesses and an accrual of $43.6 million related to the remaining outstanding common stock of Spar at December 31, 2001, that we acquired and paid for in January 2002, and was partially offset by a decline in estimated contract costs in excess of billings to complete contracts in process. The decrease in other liabilities is in part related to the issuance of common stock in April 2001 to satisfy our $17.7 million obligation for the additional purchase price for the ILEX acquisition completed in 1998. The decrease is also related to a reclassification of the current portion of estimated costs in excess of billings to complete contracts in process to other current liabilities.

The decrease in accrued interest was due to the effect of lower interest rates, as well as interest savings of $4.1 million from the interest rate swap agreements we entered into in July 2001 and November 2001, partially offset by an increase in accrued interest due to higher outstanding debt balances at December 31, 2001, attributable to our sale of the CODES in the fourth quarter of 2001. The quarterly cash interest payments on our Senior Subordinated Notes and Convertible Notes in 2001 were $8.0 million in the first quarter and third quarter, $27.6 million in the second quarter and $27.2 million in the fourth quarter. Our cash interest payments may be adjusted in future years due to the interest rate swap agreements we entered into on our $200.0 million 8% Senior Subordinated Notes due 2008 and our $180.0 million 8 1/2% Senior Subordinated Notes due 2008 and changes in the amount of our outstanding debt.

STATEMENT OF CASH FLOWS

The following table provides cash flow statement data:

	YEARS ENDED DECEMBER 31,		
	2001	2000	1999
	(IN MILLIONS)		
Net cash from operating activities	$ 173.0	$ 113.8	$ 99.0
Net cash used in investing activities	(424.9)	(608.2)	(284.8)
Net cash from financing activities	580.3	484.3	202.4

OPERATING ACTIVITIES

During 2001, we generated $173.0 million of cash from our operating activities, an increase of $59.2 million from the $113.8 million generated during 2000. Earnings adjusted for non-cash items and deferred income taxes increased $83.2 million to $283.5 million in 2001 from $200.3 million in 2000. During 2001, our working capital and operating assets and liabilities increased $110.5 million compared with an increase of $86.5 million in 2000.

In 2001, we used cash for increases in inventories, receivables and negative operating margins related to our Prime Wave business and naval power equipment products, as well as for incurred contract costs in excess of billings for the continued effort on the AVCATT contract. These uses of cash were partially offset by a settlement of certain items related to a services agreement and lower income tax payments related to an increase in tax deductions for temporary differences between the tax basis and financial reporting amounts for inventoried costs, income recognition on contracts in process, and long-lived assets including goodwill and other intangibles. We expect the amount of our deferred income tax provision for 2002, excluding any additional income tax benefits arising from the acquisition of AIS, to be consistent with that for 2001.

During 2000, we generated $113.8 million of cash from our operating activities, an increase of $14.8 million from the $99.0 million generated during 1999. Earnings adjusted for non-cash items and deferred taxes increased $48.5

million to $200.3 million in 2000 from $151.8 million in 1999. During 2000, our working capital and operating assets and liabilities increased $86.5 million compared with an increase of $52.8 million in 1999. Our cash flows from operating activities during 2000 include uses of cash relating to performance on certain contracts in process including the AVCATT contract that were assumed in the TDTS acquisition for which the estimated costs exceed the estimated billings to complete these contracts.

INVESTING ACTIVITIES

In 2001, we invested $446.9 million to acquire businesses, compared with $599.6 million in 2000 and $272.2 million in 1999.

We make capital expenditures for the improvement of manufacturing facilities and equipment. We expect that our capital expenditures for the year ending December 31, 2002 will be between $75 million and $80 million, including Aircraft Integration Systems, compared with $48.1 million for the year ended December 31, 2001. The anticipated increase is principally due to capital expenditures for our acquired businesses. Dispositions of property, plant and equipment for 2000 includes net proceeds of $13.3 million related to a facility located in Hauppauge, NY which we sold and leased back in December 2000.

On May 31, 2001, we sold a 30% interest in ACSS to Thales Avionics for $75.2 million in cash. In 2000, we sold our interests in two businesses for net cash proceeds of $19.6 million, which are included in other investing activities.

On January 14, 2002, we agreed to acquire AIS for $1.13 billion in cash plus acquisition costs. The acquisition was completed on March 8, 2002. The acquisition was financed using cash on hand, borrowings under our senior credit facilities and a $500.0 million senior subordinated bridge loan. We expect to offer and sell approximately $1.0 billion of debt and equity securities during the first half of 2002, depending on capital market conditions, and use the proceeds from those offerings to repay the $500.0 million senior subordinated bridge loan and the borrowings made under the senior credit facilities.

FINANCING ACTIVITIES

DEBT. In May 2001, we restructured our senior credit facilities. At December 31, 2001, the senior credit facilities were comprised of a $400.0 million five year revolving credit facility maturing on May 15, 2006 and a $200.0 million 364-day revolving facility maturing on May 15, 2002 under which at the maturity date we may, (1) at our request and subject to approval of the lenders, extend the maturity date, in whole or in part, for an additional 364-day period, or (2) at our election, convert the outstanding principal amount thereunder into a term loan which would be repayable in a single payment two years from the conversion date. Additionally, the senior credit facilities provided us the ability to increase, on an uncommitted basis, the amount of either the five year revolving credit facility or the 364-day revolving credit facility up to an additional $150.0 million in the aggregate.

At December 31, 2001, available borrowings under our senior credit facilities were $497.6 million, after reductions for outstanding letters of credit of $102.4 million. There were no outstanding borrowings under our senior credit facilities at December 31, 2001.

On February 26, 2002, the lenders approved a $150.0 million increase in the amount of our senior credit facilities. The five year revolving credit facility

increased by $100.0 million to $500.0 million. The 364-day revolving credit facility increased by $50.0 million to $250.0 million. Additionally, the maturity date of the $200.0 million 364-day revolving credit facility was extended to February 26, 2003.

On March 8, 2002, we borrowed $500.0 million under a senior subordinated bridge loan facility ("Bridge Loan Facility") to finance a portion of the purchase price of AIS and related expenses as discussed above. The Bridge Loan Facility is subordinated in right of payment to all of L-3 Communications' existing and future senior debt and ranks pari passu with our other senior subordinated indebtedness and related guarantees discussed below. Borrowings under the Bridge Loan Facility bear interest through March 8, 2003, at our option, at either the one-month or three-month LIBOR rate plus a spread equal to 350 basis points. The Bridge Loan Facility matures on May 15, 2009, but if the loans under the facility are not repaid by March 8, 2003, each lender's loan will be automatically converted into an exchange note with terms substantially similar to those of our other senior subordinated indebtedness discussed below, and will bear interest at a fixed rate equal to the yield to maturity on our highest yielding existing subordinated indebtedness at the time of exchange plus 100 basis points. Subject to the exceptions set forth in the Bridge Loan Facility, we are required to prepay the Bridge Loan Facility with the net cash proceeds from:

- any debt offerings by L-3 Holdings or its subsidiaries, including L-3 Communications;
- issuance of any equity interests in L-3 Holdings or L-3 Communications;
- incurrence of any other indebtedness of L-3 Holdings or any of its subsidiaries, including L-3 Communications (other than under the senior credit facilities and certain permitted indebtedness); and
- any sale of assets or stock of any subsidiaries of L-3 Communications.

In the fourth quarter of 2001, L-3 Holdings sold $420.0 million of 4% Senior Subordinated Convertible Contingent Debt Securities due 2011 ("CODES"). The net proceeds from this offering amounted to approximately $407.5 million after underwriting discounts and commissions and other

offering expenses. Interest is payable semi-annually on March 15 and September 15 of each year commencing March 15, 2002. The CODES are convertible into L-3 Holdings' common stock at a conversion price of $107.625 per share (3,902,439 shares) under any of the following circumstances: (1) during any Conversion Period (defined below) if the closing sales price of the common stock of L-3 Holdings is more than 120% of the conversion price ($129.15) for at least 20 trading days in the 30 consecutive trading-day period ending on the first day of the respective Conversion Period, (2) during the five business day period following any 10 consecutive trading-day period in which the average of the trading prices for the CODES was less than 105% of the conversion value, (3) if the credit ratings assigned to the CODES by either Moody's or Standard & Poor's are below certain specified ratings, (4) if they have been called for redemption by us, or (5) upon the occurrence of certain specified corporate transactions. A Conversion Period is the period from and including the thirtieth trading day in a fiscal quarter to, but not including, the thirtieth trading day of the immediately following fiscal quarter. There are four Conversion Periods in each fiscal year. Additionally, holders of the CODES have a right to receive contingent interest payments, not to exceed a per annum rate of 0.5% of the

outstanding principal amount of the CODES, which will be paid on the CODES during any six-month period following a six-month period in which the average trading price of the CODES is above 120% of the principal amount of the CODES. The contingent interest payment provision as well as the ability of the holders of the CODES to exercise the conversion features as a result of changes in the credit ratings assigned to the CODES have been accounted for as embedded derivatives.

In the fourth quarter of 2000, L-3 Holdings sold $300.0 million of 5 1/4% Convertible Senior Subordinated Notes due 2009 (the "Convertible Notes"). The net proceeds from this offering amounted to $290.5 million after underwriting discounts and commissions and other offering expenses, and were used to repay revolver borrowings outstanding under our senior credit facilities. The Convertible Notes may be converted at any time into L-3 Holdings common stock at a conversion price of $81.50 per share (3,680,982 shares).

In April 1997, May 1998 and December 1998, L-3 Communications sold $225.0 million of 10 3/8% Senior Subordinated Notes due 2007, $180.0 million of 8 1/2% Senior Subordinated Notes due 2008, and $200.0 million of 8% Senior Subordinated Notes due 2008 (collectively, the "Senior Subordinated Notes"), whose aggregate net proceeds amounted to $576.0 million after underwriting discounts and commissions and other offering expenses.

In November 2001, we entered into interest rate swap agreements on our $180.0 million of 8 1/2% Senior Subordinated Notes due 2008. These swap agreements exchange our fixed interest rate for a variable interest rate on the entire principal amount. Under these swap agreements, we will pay or receive the difference between the fixed interest rate of 8 1/2% on the senior subordinated notes and a variable interest rate, set in arrears, determined two business days prior to the interest payment date of the related senior subordinated notes equal to (1) the six month LIBOR rate plus (2) an average of 350.8 basis points. In July 2001, we entered into interest rate swap agreements on our $200.0 million of 8% Senior Subordinated Notes due 2008. These swap agreements exchange our fixed interest rate for a variable interest rate on the entire principal amount. Under these swap agreements, we will pay or receive the difference between the fixed interest rate of 8% on the senior subordinated notes and a variable interest rate, set in arrears, determined two business days prior to the interest payment date of the related senior subordinated notes equal to (1) the six month LIBOR rate plus (2) an average of 192 basis points. The difference to be paid or received on these swap agreements is recorded as an adjustment to interest expense. The swap agreements are accounted for as fair value hedges.

The senior credit facilities, Bridge Loan Facility, Senior Subordinated Notes, Convertible Notes and CODES agreements contain financial covenants and other restrictive covenants which remain in effect so long as we owe any amount or any commitment to lend exists thereunder. As of December 31, 2001, we were in compliance with those covenants at all times. The borrowings under the senior credit facilities are guaranteed by L-3 Holdings and by substantially all of the domestic subsidiaries of L-3 Communications on a senior basis. The payments of principal and premium, if any, and interest on the Senior Subordinated Notes and Bridge Loan Facility are unconditionally guaranteed, on an unsecured senior subordinated basis, jointly and severally, by all of L-3 Communications' restricted subsidiaries other than its foreign

subsidiaries. The guarantees of the Senior Subordinated Notes and Bridge Loan Facility are junior to the guarantees of the senior credit facilities and rank pari passu with each other and the guarantees of the Convertible Notes and the CODES. The Convertible Notes and CODES are unconditionally guaranteed, on an

unsecured senior subordinated basis, jointly and severally, by L-3 Communications and substantially all of its direct and indirect domestic subsidiaries. These guarantees rank junior to the guarantees of the senior credit facilities and rank pari passu with each other and the guarantees of the Senior Subordinated Notes and Bridge Loan Facility. See Note 7 to our consolidated financial statements for a description of our debt and related financial covenants at December 31, 2001.

EARNINGS BEFORE INTEREST, TAXES, DEPRECIATION AND AMORTIZATION (EBITDA)

Our EBITDA was $362.3 million for 2001, $297.0 million for 2000 and $204.2 million for 1999. We define EBITDA as operating income plus depreciation expense and amortization expense. Other than our amount of debt and interest expense, EBITDA is the major component in the calculation of the debt ratio and interest coverage ratio which are part of the financial covenants for our debt. The debt ratio is defined as the ratio of consolidated total debt to consolidated EBITDA. The interest coverage ratio is equal to the ratio of consolidated EBITDA to consolidated cash interest expense. The higher our EBITDA is on a relative basis to our outstanding debt, the lower our debt ratio will be. A lower debt ratio indicates a higher borrowing capacity. Similarly, an increase in our EBITDA on a relative basis to consolidated cash interest expense, results in a higher interest coverage ratio, which indicates a greater capacity to service debt.

EBITDA is presented as additional information because we believe it to be a useful indicator of an entity's debt capacity and its ability to service its debt. EBITDA is not a substitute for operating income, net income or cash flows from operating activities as determined in accordance with generally accepted accounting principles in the United States of America. EBITDA is not a complete net cash flow measure because EBITDA is a financial performance measurement that does not include reductions for cash payments for an entity's obligation to service its debt, fund its working capital and capital expenditures and pay its income taxes. Rather, EBITDA is one potential indicator of an entity's ability to fund these cash requirements. EBITDA as we defined it may differ from similarly named measures used by other entities and, consequently could be misleading unless all entities calculate and define EBITDA in the same manner. EBITDA is also not a complete measure of an entity's profitability because it does not include costs and expenses for depreciation and amortization, interest and income taxes.

CONTRACTAL OBLIGATIONS AND CONTINGENT COMMITMENTS

The tables below present our contractual obligations and contingent commitments as of December 31, 2001.

		YEARS ENDING DECEMBER		
CONTRACTUAL OBLIGATIONS:	TOTAL	2002	2003	2004
		(IN MILLIONS)		
Principal amount of long-term debt	$ 1,325.0	$ --	$ --	$ --
Non-cancelable operating leases	350.5	61.9	49.3	33.1

Capital leases	4.7	1.7	1.4	0.9
Total	$ 1,680.2	$ 63.6	$ 50.7	$ 34.0

		YEARS ENDING DE	
CONTINGENT COMMITMENTS:	TOTAL	2002	2003
		(IN MILLIONS)	
Outstanding letters of credit under our senior credit facilities	$ 102.4	$ 86.5	$ 10.6
Other outstanding letters of credit	20.0	12.5	7.3
Construction agency agreement	43.5	43.5	--
Simulator systems operating leases	89.2	--	4.2
Guarantees of affiliate debt	1.0	1.0	--
Capital contributions for limited partnership investments	5.0	5.0	--
Total	$ 261.1	$ 148.5	$ 22.1

EQUITY. On May 2, 2001, we sold 4.6 million shares of L-3 Holdings common stock in a public offering for $80.00 per share. In addition, as part of the transaction, other selling stockholders including affiliates of Lehman Brothers Inc. sold 2.3 million secondary shares. Upon closing, we received net proceeds of $353.6 million, which we used to repay borrowings outstanding under our senior credit facilities, pay for the KDI and EER acquisitions and to increase cash and cash equivalents.

On February 4, 1999, we sold 5.0 million shares of L-3 Holdings common stock in a public offering for $42.00 per share which generated net proceeds of $201.6 million. In addition, as part of the same transaction, 6.5 million shares of L-3 Holdings common stock were sold by Lehman Brothers Capital Partners III, L.P. and its affiliates ("the Lehman Partnership") and Lockheed Martin in a secondary public offering. In October 1999, Lockheed Martin sold its remaining L-3 Holdings common stock. In December 1999, the Lehman Partnership distributed approximately 3.8 million shares of its shares of common stock of L-3 Holdings to its partners. On December 31, 2001, the Lehman Partnership owned approximately 4.4% of the outstanding common stock of L-3 Holdings.

Based upon our current level of operations, we believe that our cash from operating activities, together with available borrowings under the senior credit facilities, will be adequate to meet our anticipated requirements for working capital, capital expenditures, commitments, research and development expenditures, contingent purchase prices, program and other discretionary investments, and interest payments for the foreseeable future. There can be no assurance, however, that our business will continue to generate cash flow at current levels, or that currently anticipated improvements will be achieved. If we are unable to generate sufficient cash flow from operations to service our debt, we may be required to sell assets, reduce capital expenditures, refinance

all or a portion of our existing debt or obtain additional financing. Our ability to make scheduled principal payments or to pay interest on or to refinance our indebtedness depends on our future performance and financial results, which, to a certain extent, are subject to general conditions in or affecting the defense industry and to general economic, political, financial, competitive, legislative and regulatory factors beyond our control. There can be no assurance that sufficient funds will be available to enable us to service our indebtedness, to make necessary capital expenditures and to make discretionary investments.

DERIVATIVE FINANCIAL INSTRUMENTS

Included in our derivative financial instruments are interest rate swap agreements, caps, floors, foreign currency forward contracts and the embedded derivatives related to the issuance of our CODES. All of our derivative financial instruments that are sensitive to market risk are entered into for purposes other than trading.

EMBEDDED DERIVATIVES. The contingent interest payment and contingent conversion features of the CODES are embedded derivatives which were bifurcated from the CODES, and a portion of the net proceeds received from the CODES equal to their aggregate fair value of $2.5 million was ascribed to the embedded derivatives as required by SFAS No. 133. The subsequent changes in the fair values of the embedded derivatives are recorded in the statement of operations. Their fair values at December 31, 2001 were $3.1 million.

INTEREST RATE RISK. Our financial instruments that are sensitive to changes in interest rates include borrowings under the senior credit facilities and our purchased interest rate cap contracts, written interest rate floor contracts and interest rate swap agreements, all of which are denominated in U.S. dollars. The interest rates on the Senior Subordinated Notes, Convertible Notes and CODES are fixed-rate and are not affected by changes in interest rates.

To mitigate risks associated with changing interest rates on borrowings under the senior credit facilities that bear interest at variable rates we entered into interest rate cap and floor contracts. The interest rate cap contract provides protection against increases in interest rates on borrowings to the extent:

- those borrowings are less than or equal to the notional amount of the cap contract; and
- the interest rate paid on the borrowings rises above the sum of the cap reference rate plus our applicable borrowing spread.

However, the written interest rate floor limits our ability to enjoy decreases in interest rates on our borrowings to the extent:

- those borrowings are less than or equal to the notional amount of the floor contract; and
- the interest rate paid on those borrowings falls below the sum of the floor reference rate plus our applicable borrowing spread.

In 2001, we entered into interest rate swap agreements on $380.0 million of our senior subordinated notes to convert their fixed interest rates to variable rates and to take advantage of the current low interest rate environment. These swap agreements are described above. For every basis point (0.01%) that the six

month LIBOR interest rate is greater than 4.99%, we will incur an additional $18,000 of interest expense above the fixed interest rate on $180.0 million of senior subordinated notes calculated on a per annum basis until maturity. For every basis point that the six month LIBOR interest rate is greater than 6.08%, we will incur an additional $20,000 of interest expense above the fixed interest rate on $200.0 million of senior subordinated notes calculated on a per annum basis until maturity. Conversely, for every basis point that the six month LIBOR interest rate is less than 4.99%, we will recognize $18,000 of interest income on $180.0 million of senior subordinated notes calculated on a per annum basis until maturity. For every basis point that the six month LIBOR interest rate is less than 6.08%, we will recognize $20,000 of interest income on $200.0 million of senior subordinated notes calculated on a per annum basis until maturity. The six month LIBOR rate at December 31, 2001 was 1.96%.

We attempt to manage exposure to counterparty credit risk by entering into interest rate agreements only with major financial institutions that are expected to perform fully under the terms of such agreements. Cash payments between us and the counterparties are made at the end of each quarter on the caps and floors and on the interest payment dates of the senior subordinated notes on the interest rate swap agreements. Such payments are recorded as adjustments to interest expense. Additional data on our debt obligations, our applicable borrowing spreads included in the interest rates we pay on borrowings under the senior credit facilities and interest rate agreements are provided in Notes 7 and 8 to our consolidated financial statements.

The table below presents significant contract terms and fair values as of December 31, 2001 for our interest rate agreements.

	CAPS	FLOORS	INTEREST RATE SWAP	
		(in millions)		
Notional amount	$ 100.0	$ 50.0	$ 200.0	$
Interest rate	7.5%	5.5%	8.0%	
Reference rate	3 month LIBOR	3 month LIBOR	6 month LIBOR	
Designated maturity	Quarterly	Quarterly	Semi-Annual	
Expiration date	March 28, 2002	March 28, 2002	August 1, 2008	
Fair value	$ --	$ (0.4)	$2.4	

FOREIGN CURRENCY EXCHANGE RISK. We conduct some of our operations outside the U.S. in functional currencies other than the U.S. dollar. Additionally, some of our U.S. operations have contracts with foreign customers denominated in foreign currencies. To mitigate the risk associated with certain of these contracts denominated in foreign currency we have entered into foreign currency forward contracts. At December 31, 2001, the notional value of foreign currency forward contracts was $7.1 million and the fair value of these contracts was $0.3 million. We account for these contracts as cash flow hedges.

EQUITY PRICE RISK. Our investments in common equities are subject to equity price risk. The fair values of the Company's investments are based on quoted market prices, as available, and on historical cost for investments which it is not practicable to estimate fair value. Both the carrying values and estimated fair values of such instruments amounted to $16.5 million at the end of 2001.

BACKLOG AND ORDERS

We define funded backlog as the value of contract awards received from the U.S. Government, which the U.S. Government has appropriated funds, plus the value of contract awards and orders received from customers other than the U.S. Government which have yet to be recognized as sales. Our funded backlog as of December 31, 2001 was $1,719.3 million and as of December 31, 2000 was $1,354.0 million. We expect to record as sales approximately 69.7% of our December 31, 2001 funded backlog during 2002. However, there can be no assurance that our funded backlog will become sales in any particular period, if at all. Our funded orders were $2,456.1 million for 2001, $2,013.7 million for 2000 and $1,423.1 million for 1999.

Our funded backlog does not include the full value of our contract awards including those pertaining to multi-year, cost-plus reimbursable contracts, which are generally funded on an annual basis. Funded backlog also excludes the sales value of unexercised contract options that may be exercised by customers under existing contracts and the sales value of purchase orders that may be issued under indefinite quantity contracts or basic ordering agreements.

RESEARCH AND DEVELOPMENT

Company-sponsored research and development costs including bid and proposal costs were $107.5 million for 2001, $101.9 million for 2000 and $76.1 million for 1999. Customer-funded research and development costs were $319.4 million for 2001, $299.3 million for 2000 and $226.3 million for 1999.

CONTINGENCIES

We are engaged in providing products and services under contracts with the U.S. Government and to a lesser degree, under foreign government contracts, some of which are funded by the U.S. Government. All such contracts are subject to extensive legal and regulatory requirements, and, periodically, agencies of the U.S. Government investigate whether such contracts were and are being conducted in accordance with these requirements. Under government procurement regulations, an indictment by a federal grand jury could result in the suspension for a period of time from eligibility for awards of new government contracts. A conviction could result in debarment from contracting with the federal government for a specified term. Additionally, in the event that U.S. Government expenditures for products and services of the type we manufacture and provide are reduced, and not offset by greater commercial sales or other new programs or products, or acquisitions, there may be a reduction in the volume of contracts or subcontracts awarded to us.

We continually assess our obligations with respect to applicable environmental protection laws. While it is difficult to determine the timing and ultimate cost to be incurred in order to comply with these laws, based upon available internal and external assessments, with respect to those environmental loss contingencies of which we are aware, we believe that even without considering potential insurance recoveries, if any, there are no environmental loss contingencies that, individually or in the aggregate, would be material to our consolidated financial position, results of operations or cash flows. Also, we have been periodically subject to litigation, claims or assessments and various contingent liabilities incidental to our business. We accrue for these contingencies when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated.

With respect to those investigative actions, items of litigation, claims or assessments of which we are aware, we are of the opinion that the probability is remote that, after taking into account certain

provisions that have been made with respect to these matters, the ultimate resolution of any such investigative actions, items of litigation, claims or assessments will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

RECENTLY ISSUED AND PROPOSED ACCOUNTING STANDARDS

In July 2001, the FASB issued SFAS No. 141, Business Combinations, which supersedes Accounting Principles Board Opinion ("APB") No. 16, Business Combinations. SFAS No. 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001 and establishes specific criteria for the recognition of intangible assets separately from goodwill. In July 2001, the FASB also issued SFAS No. 142, Goodwill and Other Intangible Assets, which supersedes APB No. 17, Intangible Assets. SFAS No. 142 revises the standards for accounting for goodwill and intangible assets. SFAS No. 142 requires that goodwill and indefinite lived identifiable intangible assets shall no longer be amortized, but be tested for impairment at least annually. SFAS No. 142 also requires that the amortization period of identifiable intangible assets with finite lives be no longer limited to forty years. The provisions of SFAS No. 142 are effective beginning January 1, 2002, with full implementation of the impairment measurement provisions completed by December 31, 2002. Under SFAS No. 142, we will not amortize goodwill, but will be required to amortize identifiable intangibles with finite lives. Our goodwill amortization expense for the year ended December 31, 2001 was $42.6 million. Based on a preliminary internal assessment, we do not believe that the cumulative effect of the accounting change resulting from the adoption of the transitional impairment provisions of SFAS No. 142 will be material.

In August of 2001, the FASB issued SFAS No. 143, Accounting for Asset Retirement Obligations. SFAS No. 143 applies to legal obligations associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development or normal operation of a long-lived asset, except for certain obligations of lessees. This statement does not apply to obligations that arise solely from a plan to dispose of a long-lived asset. SFAS No. 143 requires that estimated asset retirement costs be measured at their fair values and recognized as assets and depreciated over the useful life of the related asset. Similarly, liabilities for the present value of asset retirement obligations are to be recognized and accreted as interest expense each year to their estimated future value until the asset is retired. These provisions will be applied to existing asset retirement obligations as of the adoption date as a cumulative-effect of a change in accounting policy. SFAS No. 143 is effective for our fiscal years beginning January 1, 2003. SFAS No. 143 will not have a material effect on our consolidated results of operations and financial position.

In October of 2001, the FASB issued SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. SFAS No. 144 addresses financial accounting and reporting for the impairment or disposal of long-lived assets. This statement supersedes SFAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of, and the accounting and reporting provisions of Accounting Principles Board Opinion No. 30, Reporting the Results of Operations -- Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions (APB No. 30), for the disposal of a segment of a business (as previously defined in that Opinion). SFAS No. 144 expands the scope of accounting for disposals to include all components of an entity, including reportable segments and operating segments, reporting units, subsidiaries and certain asset groups. It requires the gain or loss on disposal to be measured as the difference between (1) the fair value less the costs to sell and (2) the

carrying value of the component, and such gain or loss cannot include the estimated future operating losses of the component, which were included in the gain or loss determination under APB No. 30. SFAS No. 144 also amends Accounting Research Bulletin No. 51, Consolidated Financial Statements, to eliminate the exception to consolidation for a subsidiary for which control is likely to be temporary. The provisions of SFAS No. 144 are effective for our fiscal years beginning January 1, 2002, and interim periods within those fiscal years. SFAS No. 144 will not have a material effect on our consolidated results of operations and financial position.

INFLATION

The effect of inflation on our sales and earnings has not been significant. Although a majority of our sales are made under long-term contracts, the selling prices of such contracts, established for deliveries in

the future, generally reflect estimated costs to be incurred in these future periods. In addition, some contracts provide for price adjustments through escalation clauses.

FORWARD-LOOKING STATEMENTS

Certain of the matters discussed concerning our operations, cash flows, financial position, economic performance, and financial condition, including in particular, the likelihood of our success in developing and expanding our business and the realization of sales from backlog, include forward- looking statements within the meaning of section 27A of the Securities Act and Section 21E of the Exchange Act.

Statements that are predictive in nature, that depend upon or refer to events or conditions or that include words such as "expects," "anticipates," "intends," "plans," "believes," "estimates" and similar expressions are forward-looking statements. Although we believe that these statements are based upon reasonable assumptions, including projections of orders, sales, operating margins, earnings, cash flow, research and development costs, working capital, capital expenditures and other projections, they are subject to several risks and uncertainties, and therefore, we can give no assurance that these statements will be achieved.

Such statements will also be influenced by factors such as:

- our dependence on the defense industry and the business risks peculiar to that industry including changing priorities or reductions in the U.S. Government defense budget;
- our reliance on contracts with a limited number of agencies of, or contractors to, the U.S. Government and the possibility of termination of government contracts by unilateral government action or for failure to perform;
- our ability to obtain future government contracts on a timely basis;
- the availability of government funding and changes in customer requirements for our products and services;
- our significant amount of debt and the restrictions contained in our debt agreements;

- collective bargaining agreements and labor disputes;
- economic conditions, competitive environment, international business and political conditions, timing of international awards and contracts;
- our extensive use of fixed-price contracts as compared to cost-reimbursable contracts;
- our ability to identify future acquisition candidates or to integrate acquired operations;
- the rapid change of technology and high level of competition in the communication equipment industry;
- our introduction of new products into commercial markets or our investments in commercial products or companies;
- pension, environmental or legal matters or proceedings and various other market, competition and industry factors, many of which are beyond our control; and
- the fair values of the assets including goodwill and other intangibles of our businesses which can be impaired or reduced by the other factors discussed above.

Readers of this document are cautioned that our forward-looking statements are not guarantees of future performance and the actual results or developments may differ materially from the expectations expressed in the forward-looking statements.

As for the forward-looking statements that relate to future financial results and other projections, actual results will be different due to the inherent uncertainties of estimates, forecasts and projections and may be better or worse than projected. Given these uncertainties, you should not place any reliance on these forward-looking statements. These forward-looking statements also represent our estimates and

assumptions only as of the date that they were made. We expressly disclaim a duty to provide updates to these forward-looking statements, and the estimates and assumptions associated with them, after the date of this filing to reflect events or changes or circumstances or changes in expectations or the occurrence of anticipated events.

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