

## **FORWARD-LOOKING STATEMENTS**

The discussions of the Company's business in this Report, including under the caption "Business", "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7, and in other public documents or statements that may from time to time incorporate or refer to these disclosures, contain various statements that are, or may be deemed to be, forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "plan," "expect," "believe," "anticipate," "estimate," "will," "should," "could" and other words and terms of similar meaning, typically identify such forward-looking statements. Forward-looking statements include, but are not limited to:

1. statements about what the Company or management believes or expects,
2. statements about anticipated technological developments or anticipated market response to or impact of current or future technological developments or product offerings,
3. statements about potential or anticipated benefits of recent acquisitions,
4. statements about trends in markets that are served or pursued by the Company,
5. statements implying that the Company's technology or products are well-suited for particular markets, and
6. statements about the Company's plans for product developments or market initiatives.

These statements are based on assumptions and analyses made by us in light of our experience and our perception of historical trends, current conditions and expected future developments, as well as other factors we believe are appropriate under the circumstances. Actual results could differ materially from those suggested in any forward-looking statements as a result of a variety of factors, including those risks and uncertainties set forth under Risk Factors in Item 1A. You should not place undue reliance on these forward-looking statements. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to these forward-looking statements to reflect events or circumstances that occur or arise or are anticipated to occur or arise after the date of this Report except as may be required by law.

## **PART I**

### **Item 1. Business**

#### **Overview**

In this report, unless the context otherwise requires, "we," "us," "our," and the "Company" refer to the continuing operations of EMS Technologies, Inc. and its consolidated subsidiaries. Unless otherwise indicated, all financial and statistical information pertains solely to our continuing operations.

We are a leading provider of wireless connectivity solutions addressing the enterprise mobility, communications-on-the-move, tracking and in-flight connectivity markets for both commercial and government users. We focus on the needs of the mobile information user and the increasing demand for wireless broadband communications. Our products and services enable communications across a variety of coverage areas, ranging from global to regional to within a single facility.

During 2009, our business operated in three segments, Communications & Tracking, LXE and Defense & Space ("D&S"). In early 2010, we realigned our business segments for strategic growth and replaced Communications & Tracking with two new segments, Aviation and Global Tracking (see the section "Our New Segment Structure as of 2010" below for additional information). Each of our segments is focused on a different application of wireless technology. These segments share a common foundation in broadband and other advanced wireless technologies, which provides important technical and marketing synergies and contributes to our ability to continually develop and commercialize new products for use in a wide array of mobile communications. Our business provides product solutions and services that enable aviation in-cabin wireless and satellite-based connectivity, security, vehicle and maritime tracking, and military radar/space and

communication-on-the-move applications. We also provide product solutions and support services for use in supply chain management networks for warehousing, distribution and ports, as well as new markets such as field services and agriculture.

Founded in 1968 as Electromagnetic Sciences, we initially concentrated on microwave components, products and technology and subsequently developed subsystems for one of the first electronically steerable antennas deployed in space. The expertise and technology we have developed during the past 41 years in this original business remain directly applicable to a range of our current defense and commercial products, including products for satellite, ground and airborne communications, as well as radar, signal intelligence and electronic countermeasure systems.

In the early 1980's, we developed a line of wireless mobile computers and local-area network products for use in materials-handling applications. These products enable our industrial customers to connect mobile employees to central data networks and take advantage of sophisticated enterprise software and automatic-identification technologies such as bar-code scanning and voice recognition.

Beginning in the mid-1990's and continuing through to present day, we have expanded into several new markets through the development or acquisition of additional product lines. We have established an industry-leading position in the market for high-speed, two-way satellite communications solutions for use on aircraft and other mobile platforms, and we develop and market antennas and terminals and support services for use by search-and-rescue and emergency management organizations around the world.

Today, our connectivity and tracking offerings serve the aeronautical, defense, maritime, commercial space and auto-identification/data capture markets making possible mobility, visibility and intelligence. For example, our Communications & Tracking segment supplies both high- and low-speed data communications equipment, which enable voice, e-mail, tracking, video conferencing and Internet capabilities on aircraft. Our D&S segment provides data links, radar and Satcom systems to give the military real-time intelligence integrated across naval, ground and air platforms. Our Communications & Tracking segment also provides the capability to track, monitor and control remote assets, regardless of whether they are fixed, semi-fixed or mobile. More than 18 governments worldwide rely on this segment's software and hardware for search and rescue applications. Our LXE segment develops supply chain logistics solutions with our wireless network infrastructure and rugged mobile computers.

## **Competitive Strengths**

### ***Technological Leadership***

Since our founding in 1968, we have been an innovative leader in the development and commercialization of wireless communications technologies. Early in our history, we pioneered the use of ferrite materials for electronic beam forming, a practice that remains important in many sophisticated defense communications applications. Our more recent innovations include the following products, which we believe were the first in their respective markets: airborne terminals and antennas for high-speed, two-way data transmission via satellite for the communication of voice and data in the military, business and air transportation markets; airborne computer and networking systems; antenna systems allowing commercial airlines to provide satellite television to passengers, and satellite anti-jam systems to protect commercial communication satellites from jamming and transponder hijackings.

### ***Commitment to Research and Development***

We continually devote significant resources to research and development that enhances and maintains our technological advantages, and enables us to overcome the substantial technical barriers that are often encountered in the commercialization of sophisticated wireless communications equipment. Over the past three years, we have invested an aggregate of \$58 million in company-sponsored research and development. In addition, our work under government and commercial contracts for new wireless communications equipment often leads to innovations that benefit us on future contracts and product development efforts. Approximately 25% of our employees hold engineering degrees, and our engineers actively participate in professional and

industry technical conferences and working groups. As of December 31, 2009, our personnel have been awarded, and have assigned to us, 62 currently active U.S. patents and 28 foreign patents. In addition, as of December 31, 2009, we had pending applications for approximately 18 U.S. and 18 foreign patents covering various technology improvements and other current or potential products.

### ***Technological Synergies***

Although we conduct our businesses through separately managed segments, we have established a variety of processes that facilitate technical exchanges and cooperation among them. Our shared knowledge base and core expertise in wireless technologies create synergies among our various businesses. We believe this provides us advantages in research and development, manufacturing, and sales and marketing, and better positions us as an important supplier of connectivity and tracking systems and services to a diverse base of military and commercial customers. An example is the technical collaboration of engineering teams within our Aviation business to bring to market a new in-flight connectivity service that uses the Iridium network to reliably provide e-mail access to any WiFi-enabled smartphone or PDA.

### ***Strong Customer Relationships***

During our 41 years of operation, we have developed cooperative and on-going relationships with important commercial and government customers. We build and strengthen these relationships by anticipating and recognizing our customers' needs, by working with them to understand how we should focus our internal innovation efforts, and by providing customers with technologically advanced and cost-effective solutions coupled with excellent customer service. We continue to receive important orders and contracts from companies that have been our customers or industrial partners for many years. Within the Communications & Tracking segment, those firms include Airbus, Rockwell Collins, Honeywell, Panasonic Avionics and Aircell.

We are particularly proud of our industry recognition, including a Silver Supplier Award from Northrop Grumman Space Systems and seven MobileStar Awards given to our LXE segment for customer service excellence, voted on by industry decision makers. The LXE segment also has been awarded "Best Channel Vendor" by *Business Solutions* magazine.

### ***Diverse Global Customer Base***

We offer multiple wireless product lines to a diverse customer base through facilities in 13 countries. Sales to no individual customer exceeded more than 10% of our annual net sales during any of the years ended December 31, 2008 or 2007. Sales to one of our customers during the year ended December 31, 2009 exceeded 10% of our annual net sales, with sales of \$37.9 million, mainly due to a significant order received by our D&S segment that is not expected to reoccur. Sales to various customers for U.S. government end use accounted for 29.7% of our net sales in 2009, 26.3% of our net sales in 2008 and 24.6% of our net sales for 2007. Additionally, 29.8%, 39.6% and 38.8% of our net sales for 2009, 2008 and 2007, respectively, were derived from sales to customers outside the U.S. We believe our geographically diverse customer base and broad range of products provide us ample opportunity to grow our business and help mitigate the effects of a downturn in any one of our markets.

### ***Strong Manufacturing Capabilities***

We manufacture certain of our products in our manufacturing facilities, and for others, we source components from foreign and domestic suppliers, and primarily perform final assembly and test functions. For our defense applications, we have developed our own highly specialized domestic manufacturing capabilities. Through our continuous efforts to improve our manufacturing and sourcing processes, we have dramatically reduced the time required for us to ship products in several of the commercial markets in which a short delivery cycle for custom-manufactured products is an important competitive factor. We have also achieved major reductions in rework on highly engineered space and defense products. These efforts have enhanced our ability to compete for new business and improved our profitability.

## Our Markets and Products

Our business is the design, manufacture and sale of advanced wireless communications products. We participate in selected markets within the broad wireless communications industry that typically require a high level of technical expertise, innovative product development and, in many cases, specialized manufacturing capabilities. Although our businesses share a common heritage and focus on wireless communications, they address a variety of markets with different technical and manufacturing requirements, distribution channels, customers and purchasing processes.

Accordingly, through 2009, we were organized into three separately managed reporting segments, as follows:

Segment	Primary Operations	Percentage of Net Sales		
		2009	2008	2007
Communications & Tracking	Satellite communications antennas, terminals and networking equipment for aircraft, rugged data storage, data recording/replay, end-to-end tracking and mapping equipment and services, and ground-based vehicles and satellite ground stations for search and rescue operations (majority commercial)	44.2	33.6	31.3
LXE	Rugged mobile terminals and related equipment for wireless data collection (predominantly commercial)	30.4	43.5	48.2
Defense & Space	Engineered hardware for satellites, defense and electronics applications (primarily defense)	25.4	22.9	20.5

### Communications & Tracking

The Communications & Tracking segment was previously reported as the Satellite Communications segment. The Communications & Tracking segment includes our SATCOM business, and the Sky Connect business acquired in August 2008, and the Formation and Satamatics businesses that were acquired in January and February 2009, respectively. In early 2010, we realigned our business segments for strategic growth and replaced Communications & Tracking with two new segments, Aviation and Global Tracking. A summary of the products and services offered by this segment, their key benefits and features, as well as the markets and customers that it serves are summarized by the new Aviation and Global Tracking businesses as follows:

New Segment	Primary Operations	Percentage of Net Sales		
		2009	2008	2007
Aviation	Connectivity and in-cabin infrastructure equipment for a broad range of commercial and military aircraft, including satellite communications antennas, terminals and networking equipment, rugged data storage and data recording/replay	34.5	27.7	24.6
Global Tracking	End-to-end tracking and mapping equipment and services for security, land tracking, and maritime markets, as well as, satellite ground stations for search and rescue operations	9.7	5.9	6.7

### Aviation

The Aviation segment includes SATCOM's aeronautical business, and the Sky Connect and Formation businesses, which were acquired in August 2008 and January 2009, respectively. Aviation designs and develops satellite-based communications solutions through a broad array of terminals and antennas for the aeronautical market. The segment also builds in-cabin connection devices and computers to process data on board aircraft, including rugged data storage, airborne connectivity, air-to-ground connectivity, and data recording and replay equipment.

Aviation's products enable customers in aircraft and other mobile platforms to communicate over satellite networks at a variety of data speeds. Most of its growth and major product expansions in these markets have occurred since 2004. Its equipment is used to safeguard and monitor cargo, personnel and fleet assets in some of the harshest environments of the world and for emergency management services.

The demand for mobile communications has driven the rise of aero-connectivity system use on business and commercial jets around the world. EMS continues to lead the industry as a key supplier of Inmarsat Swift64 and SwiftBroadband products that support airborne communications at DSL speeds, as well as Iridium-based messaging and tracking for airplanes and helicopters. Aviation's high-speed data terminals, antennas and networking products are designed for use in the aeronautical market. We believe that we are the top supplier of Swift64 high-speed data communications equipment, garnering more than an estimated 75% of the high-speed data Satcom market for military aircraft. Aviation's eNfusion Broadband™ line of aeronautical products enable voice, e-mail, videoconferencing and internet capabilities on a broad variety of aircraft. Aviation directly sells equipment and technology under the Forté, eNfusion and Fleet brand names, and also sells indirectly as a supplier to leading airframe and avionics manufacturers and other aviation players. Aviation customers include Fortune 100 companies and the U.S. Government's VIP Fleet, as well as the United States' leading airborne emergency medical service transport, air taxi, airborne firefighting and offshore oil transport companies.

In the air transport market, Aviation delivers its equipment and technology through partners such as Panasonic Avionics, Aircell, OnAir, Aeromobile Row44, and LiveTV. Aviation's equipment and technology enables in-flight connectivity on more than 40 airlines, including Lufthansa, Delta Air Lines, Airtran, Continental, Emirates, Air France, Ryanair, and TAP, to name a few. In the aviation market, Aviation's terminals, antennas and networking equipment provide a globally capable solution for a broad variety of aircraft. One variant provides office-like communications capabilities to the cabin while providing critical safety communications capabilities to the cockpit. Aviation's CNX® Cabin Gateway family of networking products is widely used for airborne networking equipment, and variations of this product line offer compression and acceleration of data, which significantly reduces the user's airtime costs. Aviation's antennas are mounted on the fuselage or on the tail to accommodate a variety of aircraft, including the Bombardier Global Express, Dassault Falcon 7X, Gulfstream G550, and Airbus A320. More than 1,300 of Aviation's antennas have been installed on more than 35 different types of aircraft. Aviation also sells an antenna specifically for military use. This antenna is mounted in the forward hatch of a C-130 military cargo aircraft and, when connected to the transceiver, provides instant communications that can be rolled on and off the aircraft.

Aviation markets and sells most of its hardware through distributor channels. Third-party distributors sell directly to end — users, such as the aircraft manufacturers. One of Aviation's most significant distribution

channels relates to technology components or avionics terminal systems sold through leading airframe and avionics manufacturers, including Boeing, Airbus, Honeywell, Rockwell Collins, and Thales.

Products/Services	Key Features/Benefits	Selected Applications	Customers
Aeronautical Antennas	Mechanically and electronically-steered antennas for two-way communications connected to an aircraft's Satcom, steerable antenna systems for live television from broadcast satellites	Corporate aircraft, government and military aircraft, commercial airlines	Gulfstream, Bombardier, Honeywell, Dassault, Thales, L3 Communications, Boeing, Panasonic Avionics
Aeronautical Tracking	Lightweight, autonomous tracking terminals provide GPS-based location and status reporting from anywhere on or in-flight over the globe.	Off-shore Oil, Air Medical Transport, Fire Patrol and Suppression, Paramilitary Drug Interdiction, Pipeline Patrol	Bristow, Air Methods, Chevron, U.S. Forest Service, U.S. State Department, Military
Aeronautical Telephony and E-mail Services	Narrowband telephony provides in-flight voice and e-mail access to cabin telephones and cockpit interface devices	Corporate aircraft, Commercial airlines, helicopters, general aviation	El Al, Qantas, Pfizer, ALCOA, Merrill Lynch, Omniflight
Aeronautical Terminals	Provide aircraft operators with two-way high-speed data (broadband) capability	Corporate aircraft, government and military aircraft, commercial airlines	Corporate aircraft modification centers, U.S. Department of Defense, Northrop Grumman, L3 Communications, Boeing, Rockwell Collins, Honeywell, Thales
Avionics Data Networking Products	Data servers, routers, switches, and storage devices to manage Internet, entertainment and operational data aboard aircraft	Corporate aircraft, government and military aircraft, commercial airlines	Airbus, Boeing, Rockwell Collins, AirCell, Row44, Northrop Grumman, L3

**Global Tracking**

Global Tracking includes the asset tracking and emergency management operations of our SATCOM business, and the Satamatics business which was acquired in February 2009. Global Tracking provides the capability to track, monitor and control remote assets, regardless of whether they are fixed, semi-fixed or mobile. One of only two IsatM2M providers in the world and backed by a dedicated global network, the Global Tracking segment has in excess of 150,000 terminals delivered to date. Its equipment is used to safeguard and monitor cargo, personnel and fleet assets in some of the harshest environments of the world. Additionally, SATCOM is the leading provider of ground segment equipment for the Cospas-Sarsat search and rescue system and incident management software for rescue coordination worldwide with more than 75% market share. Global Tracking revenues are derived from both product sales and recurring airtime and support services. In 2009, more than half of this segment's revenue came from the services side of the business.

Tracking terminals are sold in three vertical markets — security, land tracking and maritime. The segment also offers end-to-end solutions in the various markets with the inclusion of its applications, systems integration, including tracking and mapping, multi-network communication gateways and communication devices. These products and services are sold to military for Blue Force Tracking systems used by NATO, and in the transport trucking market predominantly in the Americas, Africa and the Middle East. It provides critical logistics support to coalition forces in Afghanistan and Iraq.

Global Tracking markets and sells most of its equipment and services through its value-added-reseller network, and directly markets its emergency management products to end-user organizations in governments worldwide.

Products/Services	Key Features/Benefits	Selected Applications	Customers
<u>Very Low Data Rate:</u>			
SAT202	Fourth-generation IsatM2M terminal, smaller, lighter, engineered in-house	Tracking, M2M communications, fleet management, rapid alerting, ship ID and position	Maritime commercial and private trucking fleets, tuna fishing fleets, logistics security
	Near global operation		
“Osprey” Personnel Tracking Terminal	Cost effective messaging for small data payloads	Lone worker, Corporate Duty of Care, Personnel Security	NGO’s, Private Security Firms, Risk Management, Government, Military
<u>Low Data Rate:</u>			
Satellite Packet Data Terminals	Iridium, Skyterra, and Inmarsat-based, two-way messaging, micro telemetry, geo fencing, security/panic alarm,	Transportation, Public Safety, Workforce Automation, Oil and Gas Remote Monitoring and Control, Force Tracking	NGOs, Long-Haul Trucking Companies, NATO, EU, U.S. Department of Defense
	Both regional and global services available		
Emergency Management Products	Hardware and software for search and rescue (SAR) systems	Rescue and Mission Control Centers	Over 18 Governments Worldwide
Services and Support	24/7 global operations in 5 countries, lifecycle support maintenance, in-field subject-matter consulting expertise, network and airtime services		

**LXE**

LXE’s rugged terminals and wireless wide-area networks (“WWAN”) have been installed at more than 7,500 sites worldwide, including the facilities of many Fortune 500 companies and some of the world’s largest materials-handling installations. In 2009, 2008 and 2007, approximately 51%, 56% and 55% of LXE’s net sales were generated outside the U.S., respectively.

A typical LXE system consists of mobile terminals that incorporate WLAN radios, automatic-identification capabilities, network access points that provide a radio link to the wired network and associated host computers, and software that manages and facilitates the communications process. LXE’s systems generally incorporate barcode scanning or other automatic-identification capabilities, and are primarily based on the 802.11 open system standards. Uses of these systems include employment of real-time data communications in directing and tracking inventory movement in a large warehouse, manufacturing facility, or container yard.

In 2009, LXE began placing greater emphasis on markets outside these core warehousing, manufacturing and intermodal markets. The introduction of the ultra-rugged MX9 handheld computer, which supports WWAN in a terrestrial cellular network, and the addition of WWAN support in the VX8 and VX9 vehicle-mount computers, are the first steps to migrate the product line in this direction. These products allow LXE to sell into a wider range of potential markets including field service, transportation, forestry, agriculture, mining, utilities and public safety. LXE also began shipping a custom version of the MX9 to Itron, the leading worldwide provider of utility meters and the systems used to read them, for use in their meter reading applications. This gives LXE a significant position in the tough outdoor data collection application. LXE products normally are used in conjunction with IT infrastructure products provided by others, such as host computer systems and inventory-management or other applications software.

LXE generally designs and manufactures the mobile computers it sells for use in wireless systems. In addition, LXE sells certain handheld models that it jointly designed with original equipment manufacturers. LXE’s computers are grouped into three product families: handheld units, hands-free units that can be worn on the

wrist or hip and operated using a keypad or voice and units that are mounted on a forklift, truck or other vehicle. LXE has also developed “hybrid” units, which easily detach from vehicle-mounting hardware to operate as a handheld device. All are ruggedized to withstand harsh conditions in warehouses, port facilities and outdoor environments. The latest generation of mobile computers has significantly more computing power than previous models, supports the Windows® and Windows CE® operating systems, and offers improved power-management features and superior ergonomics. Radio access points and other infrastructure products are generally acquired from third parties for resale and installation by LXE. With the acquisition of Akerstroms Trux AB, LXE has expanded its product offerings to include mobile computers for warehouse and production environments that support the Windows XP® operating systems.

Over the past several years, LXE has made a substantial commitment to the use of alternative auto-identification technologies, including imaging, voice recognition, and mobile RFID, in the execution of distribution tasks. Innovations include implementation of voice-directed applications on LXE’s entire Windows CE product line through the use of sophisticated audio controls and noise reduction techniques, development of a standards-based wearable computer to enable hands-free picking and other warehousing functions, and integration of Bluetooth® technology in demanding industrial environments.

In conjunction with several supply chain execution software partners, LXE has also developed concepts for the concurrent use of these technologies, which have the potential to make warehouse activities much more efficient. LXE has been recognized by leading industry analysts for its thought leadership in distribution operations.

Equipment is marketed directly to end-users and through distributors, and integrators (such as value-added resellers who provide inventory management software) that incorporate it with their products and services for sale and delivery to end users.

Products/Services	Key Features/Benefits	Selected Applications	Customers
Handheld Terminals	Small, lightweight and rugged, providing true mobility	Warehousing, Logistics	
Vehicle-Mounted Terminals	Heavier-duty design for use on forklifts, cranes, and other material handling vehicles		Consumer product manufacturers, Third-party logistics providers, Retailers, Container port operators
Wearable Terminals	Very small and lightweight with ergonomic schemes for mounting on operators	Warehouse order picking	
Wireless Networks	Communications link between mobile computers and local network, primarily based on 802.11 standard		
Host connectivity software; accessory products; maintenance services	Industry-standard connectivity to various host computers; enhanced system functionality; extended service on either a contract or pay-as-you-go basis		

***Defense & Space***

D&S principally develops advanced microwave-based RF systems for a broad range of military and defense electronics applications. D&S provides military and defense customers with critical RF systems and subsystems for terrestrial, airborne and space-based communication; radar and electronic warfare systems; and advanced surveillance, electronic counter-measure and secure communications capabilities.

D&S products are also used in a number of commercial and civil ventures. D&S products are sold primarily to space and defense prime contractors or commercial communications systems integrators rather than to end-users, and are deployed on airborne, naval, terrestrial and space platforms.

Defense markets are vital to D&S. Secure communications as well as intelligence and surveillance systems are being developed or significantly upgraded as a part of the U.S. Department of Defense’s initiatives to

transform military communications and to achieve “information dominance” over adversaries. D&S also performs research and development services directly for the U.S. Department of Defense. Our D&S facilities meet requirements for performing on classified military programs, including special access, military programs, and over 250 of our personnel hold Department of Defense security clearances.

Products/Services	Key Features/Benefits	Selected Applications	Programs
Communications-On-The-Move Data Link and Satcom Antenna Systems	Low weight, low profile, low radar signature (stealth), high performance and agile beam antennas, RF electronics, and positioning systems	Military tactical communications (airborne, ship, ground mobile, and soldier)	F-22 Intra-Flight Data Link, High Altitude Long Endurance (HALE) Datalink, Hawklink MH-60 Datalink, WIN-T Army Mobile DataLinks, Navy Airborne Data Links, Panasonic.
		Military and commercial SATCOM communications (airborne, ground mobile, and soldier)	Manpack Portable GBS Suite
Radar Microwave Systems	Low loss, high power ferrite components and electronic systems, and RF front end RADAR panels and conformal millimeter wave radar antenna systems that allow for co-boresighting of laser and EO/IR for tri-mode missile seekers	Defense electronic surveillance and countermeasure and Precision strike air-to-ground missiles	EW - F-16, AQL-211 Radar - Phalanx, JSTARS, TPQ-37 and Joint Air to Ground Missile (JAGM), Small Diameter Bomb II
Space Hardware Systems	Microwave subsystems capable of high-frequency, low noise, high-power and fast switching, facilitating jam-resistant, secure mobile communications	High-rate commercial and secure military communications	Wideband Global SATCOM (WGS), Advanced EHF (AEHF), National Security Programs, W2A, Skynet 5, Hylas 2, Yahsat

Additional information regarding our revenues, earnings and total assets for each of our reportable operating segments, and the revenues and assets for each major geographic area for 2009, 2008 and 2007, is included in Note 5 of our consolidated financial statements included immediately following the signature page to this Annual Report on Form 10-K.

## Acquisitions Completed in 2009

### *Formation*

We acquired Formation, Inc. (“Formation”) of Moorestown, NJ on January 9, 2009. Formation has approximately 110 employees and designs and manufactures equipment and software products and provides related engineering services for the defense, aviation, data communications and transportation industries. Its products include rugged hard disks, advanced integrated recorders, avionics-class servers, and rugged wired and wireless networks. Formation’s fastest-growing products are its rugged servers and cabin Wireless Access Points (“WAP’s”), which enable aircraft broadband systems to extend connectivity to laptops and personal digital assistants (“PDA’s”). Formation’s equipment supports in-flight communications regardless of whether the connectivity is through terrestrial or satellite-based networks. Formation is an approved direct supplier to Airbus and also is a major supplier to Rockwell Collins, Aircell and Panasonic. Formation and other EMS businesses have common supplier relationships and complementary customer bases in the avionics, defense and transportation markets.

Acquiring Formation signalled our continued investment in its aero-connectivity strategy to become a more comprehensive solutions provider. Our goal is to meet the growing demand for aeronautical communications from airlines and business aircraft owners, as well as governments. With Formation, we cover the spectrum of air-connectivity solutions, delivering the platforms and systems that airlines can use across multiple satellite platforms. Since its acquisition, Formation’s financial results have been included in our Communications & Tracking segment. In 2010, its financial results will be included in our newly formed Aviation segment.

### *Satamatics*

Satamatics Global Limited (“Satamatics”) was acquired on February 13, 2009. Satamatics has approximately 50 employees and is a global telematics company, providing customized, end-to-end tracking and monitoring solutions that will work anywhere in the world. Operating with Inmarsat’s IsatM2M satellite service, Satamatics enables land transport, security, maritime and oil and gas organizations to locate, track and communicate with mobile assets, to safeguard fleets, cargo and personnel, and to monitor fixed assets in the world’s most hostile and remote areas. Founded in 2001, Satamatics has an extensive worldwide distribution network of value-added resellers, but also supplies direct to end users complete tracking and monitoring solutions (equipment, airtime and mapping) for land transport, oil and gas, and maritime industries.

The Satamatics acquisition complements our existing Iridium- and Inmarsat-based tracking solutions. Acquiring Satamatics extended our satellite capabilities into the growing M2M market using low-cost satellite data terminals, and further strengthened EMS as a market leader in satellite-based applications for tracking people and assets worldwide. We anticipate significant synergies with our current satellite-based helicopter and military-vehicle tracking businesses. In particular, we expect promising growth for security and logistics applications in the road transport market, particularly in South America, Africa and the Middle East. Since its acquisition, Satamatics’ financial results have been included in our Communications & Tracking segment. In 2010, its financial results will be included in our newly formed Global Tracking segment.

With these acquisitions, we believe we have the capabilities to adapt products and technologies from one aero-connectivity application to another, enabling us to get to market faster and more profitably than companies entering the market today.

### **Acquisitions Completed in 2008**

#### *Akerstroms Trux*

We acquired Akerstroms Trux AB (“Trux”) of Bjorbo, Sweden in February 2008. At that time, Trux had approximately 20 employees. Trux was an international company with focus on development, sales and marketing of robust and reliable vehicle-mount computing solutions for warehousing and production environments in the Nordic region. The acquisition of Trux brought us a new, market-ready Windows XP-based product line targeted at customers running advanced wireless applications in demanding warehousing and production environments. Since its acquisition, Trux’s product line, manufacturing process, employees and financial results have been integrated into our LXE operating segment.

#### *Sky Connect*

We acquired Sky Connect, LLC (“Sky Connect”) of Takoma Park, MD in August 2008. Sky Connect has approximately 20 employees and offers a range of satellite-based tracking, text messaging, and telephone systems for airborne, ground-based, and marine applications in both the commercial and government markets. Sky Connect provides automated flight tracking with true worldwide coverage. Aircraft phone systems support headset interfaces plus corded or cordless handsets. Sky Connect uses the Iridium satellite network for complete earth coverage and mission effectiveness.

Sky Connect’s innovative and flexible offering provides 100 percent global coverage on the Iridium satellite network and continues to lead the industry in the development of integrated Machine-to-Machine (“M2M”) and voice applications. Iridium is the platform of choice for tracking of aviation, marine and land-mobile assets on the move, with over 50,000 M2M data units deployed.

Acquiring Sky Connect complemented our aero-connectivity strategy by adding Iridium hardware and a services business targeting the growing general aviation market. In addition, Sky Connect’s efforts with Qantas, Air New Zealand and El Al paralleled our similar expansion into the air transport market. Since its acquisition, Sky Connect’s financial results have been included in our Communications & Tracking segment. In 2010, its financial results will be included in our newly formed Aviation segment.

## **Sales and Marketing**

Communications & Tracking markets its products and services to a variety of customers including major airframe manufacturers, avionics original equipment manufacturers (“OEM”), aircraft operators and owners. It provides products and solutions through key integrators, a network of completion centers that install aeronautical products and value-added resellers.

LXE markets its products and services through distributors, integrators (such as value-added resellers who provide inventory management software) that incorporate it with their products and services for sale and delivery to end users and directly to end users. LXE also markets its products and services across North America and through eight international subsidiaries (seven in Europe) through a direct sales force, all assisted by inside sales and sales support staff, and through independent marketing representatives.

Our D&S unit produces highly technical products that are often co-engineered with the customer. For these products, internal personnel with strong engineering backgrounds conduct significant sales efforts. D&S also utilizes independent marketing representatives, both in the U.S. and internationally, selected for their knowledge of local markets and their ability to provide technical support and on-going, direct contact with current and potential customers. The development of major business opportunities for D&S often involves significant bid-and-proposal effort. This work often requires complex pre-award engineering to determine the technical feasibility and cost-effectiveness of various design approaches.

The markets for space and defense electronics comprise a relatively small number of large customers, which are typically first or second-tier contractors. Our D&S marketing efforts rely on on-going communications with this base of potential customers, to determine customers’ future needs and to inform customers of our capabilities and recent developments. Technical support and service after the sale are also important factors that affect our ability to maintain strong relationships and generate additional sales.

## **Research, Development and Intellectual Property**

We spent \$18.7 million, \$20.1 million and \$18.8 million in 2009, 2008 and 2007, respectively, on company-sponsored research and development. In addition, our work under government and commercial contracts for new wireless communications hardware creates new intellectual property that we own, which often leads to innovations that benefit us on future contracts and product development efforts; most of the costs for this work are included with the overall manufacturing costs for specific orders.

We use both patents and trade-secret procedures to protect our technology and product development efforts. With respect to patents, as of December 31, 2009, we owned 62 currently active U.S. patents, expiring 2011 through 2027, and 28 foreign patents expiring 2012 through 2022. We do not expect that any impending patent expirations to have a material effect on our business. In addition, as of December 31, 2009, we had pending applications for approximately 18 U.S. and 18 foreign patents, covering various technology improvements and other current or potential products. While we expect to continue to expand our patent activities, we also believe that many of our processes and much of our know-how are more efficiently and effectively protected as trade secrets, and we seek to maintain that protection through the use of employee and third-party non-disclosure agreements, physical controls and need-to-know restrictions.

In some cases, we rely on licenses from third parties under patent rights that could otherwise restrict our ability to market significant products. The principal instances of such licenses involve the integration of bar code scanners in certain LXE terminals under license from Motorola, and the development and sale of laser and imager-based products by LXE under license from Intermec Corporation (“Intermec”). In each case, the licenses are non-exclusive, and are noncancelable for the lives of the relevant patents except upon default by us.

## **Backlog**

The backlog of firm orders related to continuing operations as of December 31, 2009, was \$178.2 million, compared with \$185.9 million as of December 31, 2008. We had \$155.7 million of funded backlog and

\$22.5 million of unfunded backlog as of December 31, 2009, as compared with \$137.5 million of funded backlog and \$48.4 million of unfunded backlog as of December 31, 2008.

Backlog is very important for our D&S segment due to the long delivery cycles for its projects. The backlog for D&S as of December 31, 2009 was \$89.6 million compared with \$114.9 million as of December 31, 2008. Many customers of our LXE segment typically require short delivery cycles. As a result, LXE usually converts orders into revenues within a few weeks, and it generally does not build up a significant order backlog that extends substantially beyond one fiscal quarter except for annual or multi-year maintenance service agreements. Our Communications & Tracking segment has projects with both short delivery cycles, and delivery cycles that extend beyond the next twelve months. Of the orders in backlog as of December 31, 2009, the following are expected to be filled in 2010: Communications & Tracking — 70%; LXE — 80%; and D&S — 50%. LXE's backlog as of December 31, 2009 was nearly double that of December 31, 2008 mainly due to a shortage of certain component parts from LXE's suppliers which caused a delay in the fulfillment of LXE's orders received late in 2009. LXE is working closely with suppliers to identify and implement ways to resolve the sourcing issues. LXE is expecting to increase critical parts inventories in 2010 to avoid further delays.

## **Manufacturing**

We have manufacturing operations in five facilities; four in the U.S., and one in Canada. We manufacture certain of our products in our manufacturing facilities, and for others, we source components from foreign and domestic suppliers, and primarily perform final assembly and test functions. For our defense applications, we perform extensive manufacturing operations, including the production of advanced integrated electronic circuitry, the formulation and fabrication of unique ferrite-based ceramic materials, and precision machining. Our manufacturing strategy is:

- to perform those functions for which we have special capabilities and that are most critical to quality and timely performance;
- to equip ourselves with the modern tools we need to perform our manufacturing functions efficiently;
- to use outside sources for functions requiring special skills that we do not have, or that do not offer attractive potential returns, or to perform standard tasks at a competitive price leaving our internal resources to focus on providing quicker response for tasks that require special needs and skills; and
- to further improve the cost-effectiveness and time-to-market of our manufacturing operations.

All of our production activities have been ISO 9001:2000 certified, and are AS9100 certified where applicable. Our facilities, equipment and processes enable us to meet all quality and process requirements applicable to our products under demanding military and space hardware standards, and we are also certified by the U.S. Federal Aviation Administration and Transport Canada to manufacture equipment for installation on commercial aircraft.

## **Materials**

We believe we have adequate sources for the supply of raw materials and components for our manufacturing and service needs. Electronic components and other raw materials used in the manufacture of our products are generally available from several suppliers. However, LXE systems include barcode scanners in almost all orders, and a significant number of the scanners are purchased from an LXE competitor, Motorola. There are alternative suppliers that manufacture and sell barcode scanners, either independently or under license agreements with Motorola. We believe that many of LXE's competitors also rely on scanning equipment purchased from or licensed by Motorola. In addition, LXE has a license agreement with Motorola that allows us to utilize Motorola's patented integrated scanning technology in certain products.

Our advanced technology products often require sophisticated subsystems supplied or cooperatively developed by third parties having specialized expertise, production skills and economies of scale. Important examples include critical specialized components and subsystems required for successful completion of certain D&S

programs, and application-specific integrated circuitry and computers incorporated into LXE products. In such cases, the performance, reliability and timely delivery of our products can be heavily dependent on the effectiveness of those third parties.

Materials used in D&S products consist of magnetic microwave ferrites, metals such as aluminum and brass, permanent magnet materials and electronic components. Most of the raw materials for the formulation of magnetic microwave ferrite materials are purchased from two suppliers, while permanent magnet materials and space-qualified electronic components are purchased from a limited number of suppliers. Other electronic components and metals are available from a larger number of suppliers and manufacturers.

We believe that the loss of any supplier or subassembly manufacturer would not have a material adverse effect on our business as a whole. Generally, shortages of supplies and delays in the receipt of necessary components have not had a material adverse effect on shipments of our established products, although in 2009 we did encounter delays in supplies of certain component parts needed to fill pending orders at LXE, a situation that we believe reflected temporary capacity reductions in response to the slow economy rather than a longer-term capacity reductions. In addition, from time to time the rollout of new standard products and our performance on certain programs at our D&S and Communications & Tracking segments have been adversely affected by quality and scheduling problems with developers/suppliers of critical subsystems. In some cases, these problems have resulted in significant additional costs to us and in difficulties with our customers. Such problems could have a material adverse effect on us if they recur in the future.

### **Competition**

We believe that each of our reportable segments is an important supplier in our principal markets. However, these markets are highly competitive, and some of our competitors have substantial resources that exceed ours. We also compete against smaller, specialized firms.

In Communications & Tracking's markets, our competitors include Thrane & Thrane, Chelton, Ltd., Tecom, Qualcomm, and VP Miltope. LXE's principal competitors include Intermec, Motorola, and Psion Teklogix. D&S competes with specialized divisions of large U.S. industrial concerns, such as Boeing, Lockheed Martin, L3 Communications, DRS Technologies, Inc., Northrop Grumman, Harris Corporation and BAE, as well as with companies outside the U.S., such as COMDEV. Some of these companies, as well as others, are both potential competitors for certain contracts and potential customers on other contracts. In addition, D&S occasionally experiences competition from existing or potential customers when these customers choose to develop and manufacture products internally rather than purchasing them from us.

We believe that the key competitive factors in all of our reportable segments are product performance (including quality and reliability), technical expertise and on-going support to customers, time-to-market, time-to-ship and adherence to delivery schedules and price.

### **Employees**

As of December 31, 2009, we had approximately 1,300 employees. Approximately 55% of our personnel are directly involved in engineering or manufacturing activities. No employees are represented by a labor union. Management believes that our relationship with our employees is good.

### **Regulatory Matters**

Certain of our products are subject to regulation by various agencies in the U.S. and abroad. Our airborne satellite communications products used in civil aviation applications are subject to continued compliance with applicable regulatory requirements. Our airborne products sold in the U.S. are required to comply with Federal Aviation Administration regulations, and similar agencies in other countries in which those systems are sold that govern production and quality systems, airworthiness and installation approvals, repair procedures and continuing operational safety. Some of our products, such as radio frequency transmitters and receivers, must also comply with U.S. Federal Communications Commission regulations governing authorization and operational approval of telecommunications equipment.

Our products used in defense applications are subject to a variety of federal regulations. Our contract costs and accounting practices are audited periodically by the Defense Contract Audit Agency. Audits and investigations are conducted from time to time to determine if the performance and administration of our U.S. Government contracts are compliant with applicable contractual terms, including federal procurement regulations and statutes which include, in many cases, security requirements related to classified military programs.

Our products for use in defense applications and on satellites are subject to the U.S. State Department's International Traffic in Arms Regulations, and as a result we must obtain licenses in order to export these products or to disclose their non-public design features to persons who are not citizens or permanent residents of the United States. We have trained internal personnel to monitor compliance, to educate our personnel on the restrictions and procedures and to process license applications. The licensing process occasionally prevents us from working with suppliers outside the U.S. on European or Asian space programs, and it also affects the extent to which we can involve our engineers from foreign locations on D&S programs, or use D&S engineers and capabilities to assist our non-U.S. operations on their products or programs.

Greenhouse gas emissions have increasingly become the subject of a large amount of international, national, regional, state and local attention. At this time, we do not believe that existing or pending climate change legislation, regulation, or international treaties or accords are reasonably likely to have a material effect in the foreseeable future on our business or markets that we serve or on our results of operations, capital expenditures or financial position. However, the enactment of cap-and-trade proposals would likely increase the cost of energy, including purchases of electricity, and of certain raw materials that we use. In addition, future environmental regulatory developments related to climate change, whether pursuant to future treaty obligations or statutory or regulatory changes, are possible, and could increase our operating, manufacturing and delivery costs.

We believe that our products and business operations are in material compliance with current standards and regulations. However, governmental standards and regulations may affect the design, cost and schedule for new products. In addition, future regulatory changes could require modifications in order to continue to market certain of our products.

#### **AVAILABLE INFORMATION**

EMS Technologies, Inc. makes available free of charge, on or through its website at [www.ems-t.com](http://www.ems-t.com), its annual, quarterly and current reports, and any amendments to those reports, as soon as reasonably practicable after electronically filing such reports with the Securities and Exchange Commission. Information contained on our website is not part of this report.

## EXECUTIVE OFFICERS OF THE REGISTRANT

Information concerning the executive officers of the Company is set forth below:

*John B. Mowell*, age 75, was appointed Executive Director of the Company in December 2009. He has been serving as the Chairman of the Board of the Company since 2001. Mr. Mowell is President of Mowell Financial Group, Inc., Tallahassee, FL, an investment counseling firm, and Director and Chairman of the Board of Entegriion Inc., a privately held medical technologies company. He was formerly Chairman of the Board (1981-1990) and Chief Executive Officer (1985-1989) for Reflectone, Inc., Tampa, FL, a manufacturer of aircraft flight simulators and training systems for commercial and military markets. Mr. Mowell is past Chairman of the Florida State Board of Administration's Investment Advisory Council for the \$100 billion Florida state teacher's retirement fund; and Founding President, past Chairman and Chairman Emeritus of The Economic Club of Florida.

*Neilson A. Mackay*, age 68, became President and Chief Executive Officer of the Company in November 2009. He served as Chief Operating Officer and Executive Vice President from July 2008, and as Executive Vice President - Strategy from December 2007. From March 2007 until December 2007, he held the positions of Vice President - Corporate Development and President of SATCOM, and from 2001 to 2007, he served as Senior Vice President and General Manager of SATCOM. He joined the Company in January 1993, when the Company acquired an Ottawa, Ontario-based space satellite communications business of which he served as President.

*Gary B. Shell*, age 55, was appointed Senior Vice President, Chief Financial Officer and Treasurer of the Company in May 2008. He previously served as Vice President, Finance from November 2007 and as Vice President, Corporate Finance (2004-2007), and in those capacities was the Company's chief accounting officer. He had served as Director, Corporate Finance from 1998 to 2004. He joined the Company in 1983 as Corporate Financial Analyst. Mr. Shell is a certified public accountant, having formerly served on the audit staff of KPMG LLP.

*Timothy C. Reis*, age 52, became Vice President and General Counsel of the Company in August 2005. He is responsible for the legal affairs of the Company and its operating subsidiaries. Mr. Reis first joined the Company in 2001 as Assistant General Counsel. Previously, he was engaged in the private practice of law with King & Spalding and as in-house counsel for United Parcel Service and for Manufacturers Hanover, a New York bank, focusing his practice on intellectual property and technology transactions.

*David M. Sheffield*, age 48, became Vice President, Finance and Chief Accounting Officer of the Company in August 2008. From 2005 until 2008, Mr. Sheffield served as Vice President, Finance and Accounting, for Allied Systems Holdings, Inc., a vehicle-hauling company providing a range of logistics and other support services to the automotive industry. From 2003 to 2005, he served as Vice President and Chief Accounting Officer for Matria Healthcare, Inc. Mr. Sheffield, a certified public accountant, also held senior accounting and finance positions with Rubbermaid, Gulfstream Aerospace and Safety-Kleen, after beginning his career with Deloitte & Touche LLP.

*R. Nim Evatt*, age 68, was appointed Vice President and General Manager of the Company's newly formed Aviation division in January 2010. He joined the Company in January 2009 when the Company acquired Formation, Inc. of which he had served as President and Chief Executive Officer since 1998. From 1991 to 1998 he was President and Chief Executive Officer of Liberty Technologies, a provider of condition-monitoring products and services for energy industries, and he previously led General Electric Power Systems' installation and service engineering business for Europe, Africa and the Middle East.

*Stephen M. Newell*, age 42, was appointed Vice President and General Manager of the Company's LXE division in April 2009. He joined the Company's SATCOM group in January 2003, and since then has been given assignments of increasing responsibilities, including appointment as Director, Military Aeronautical Sales in 2004, Vice President, Military Sales in May 2006, and Vice President, Sales from May 2006 to March 2007 at SATCOM. Prior to joining EMS, Mr. Newell was Manager of Avionics Systems at AIRIA, Inc. from

November 2000 to January 2003, where he was responsible for the development of the Company's Inmarsat-based aeronautical television system.

### **Adoption of Shareholder Rights Plan**

On July 27, 2009, our Board of Directors adopted a Shareholder Rights Plan (the "Plan") to replace a similar plan adopted in 1999 that expired on August 6, 2009. Under the Plan, a dividend distribution of one right for each our outstanding common shares was made to shareholders of record at the close of business on August 7, 2009. Upon the occurrence of certain triggering events, as set forth in the Plan, the rights would become exercisable.

### **Item 1A. Risk Factors**

*Our business is subject to certain risks, including the risks described below. This Item 1A does not describe all risks applicable to our business and is intended only as a summary of the most significant factors that affect our operations and the industries in which we operate. More detailed information concerning these and other risks is contained in other sections of this Annual Report on Form 10-K. The risks described below, as well as the other risks that are generally set forth in this Annual Report on Form 10-K, and other risks and uncertainties not presently known to us or that we currently consider immaterial, could materially and adversely affect our business, results of operations and financial condition. Readers of this Annual Report on Form 10-K should take such risks into account in evaluating any investment decision involving our common stock. At any point, the trading price of our common stock could decline, and investors could lose all or a portion of their investment.*

#### ***Risks Related to Our Operations***

In addition to general economic conditions, both domestic and foreign, which can change unexpectedly and generally affect U.S. businesses with worldwide operations, we are subject to a number of risks and uncertainties that are specific to us or the businesses we operate:

***Decisions by our customers about the timing and scope of capital spending, particularly on major programs, can have a significant effect on our net sales and earnings.***

Each of our businesses is dependent on our customers' capital spending decisions, which are affected by numerous factors, such as general economic conditions, end-user demand for their particular products, capital availability, and comparative anticipated returns on their capital investments. In addition, large defense programs are an important source of our current and anticipated future net sales, especially in D&S. Customer decisions as to the nature and timing of their capital spending, and developments affecting these large defense programs, can have a significant effect on us. Our net sales and earnings would decline in the event of general reductions in capital spending by our customers, or delay in the implementation of, or significant reduction in the scope of, any of the current or major anticipated programs in which we participate.

***Unfavorable economic or financial market conditions or other developments may affect the fair value of one or more of our business units and increase the potential for additional asset impairment charges that could adversely affect our earnings.***

As of December 31, 2009, we had approximately \$60.3 million of goodwill and \$49.3 million of other intangible assets on our consolidated balance sheet, collectively representing approximately 29% of our total assets. We test goodwill for impairment on an annual basis in the fourth quarter of the year. We are also required to test goodwill and other long-lived assets on an interim basis if an event occurs or circumstances change which indicate that an asset might be impaired. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include a sustained, significant decline in our share price and market capitalization, a decline in expected future cash flows for one or more of our business units (including our recently acquired businesses), a significant adverse change in legal factors or in the business climate, unanticipated competition and/or slower-than-expected growth rates, among others. We

recognized an impairment loss on the goodwill of \$19.9 million associated with our LXE business in 2009 (refer to Note 3 of the consolidated financial statements for additional information). Our tests in the fourth quarter of 2009 for Formation, Satamatics and Sky Connect did not indicate an impairment. However, the estimated fair values did not exceed the carrying amount by a significant amount. If we are required to recognize an additional impairment loss in the future related to goodwill or long-lived assets, the related charge, although a noncash charge, could materially reduce reported earnings or result in a loss from continuing operations for the period in which the impairment loss is recognized.

***If our commercial customers fail to find adequate funding for major potential programs, or our government customers do not receive necessary funding approvals, our net sales would decline.***

To proceed with major programs, such as upgrades for satellite data-communications systems, our customers typically must obtain substantial amounts of capital, from either governmental or private sources. The availability of this capital is directly affected not only by general economic conditions, but also by political developments and by conditions in the private capital markets, which at times in recent years have been very unstable. If adequate funds are not available to our targeted customers for these programs, our expected net sales may be adversely affected. Large defense programs are often funded in multiple phases, requiring periodic further funding approvals, which may be withheld for a variety of political, budgetary or technical reasons, including the effects of defense budget pressures on near-term spending priorities. Such multi-year programs can also be terminated or modified by the government in ways adverse to us and, in many cases, with limited notice and without penalty. These developments would reduce our net sales below the levels we would otherwise expect.

***We may encounter technical problems or contractual uncertainties, which can cause delays, added costs, lost sales and liability to customers.***

From time to time we have encountered technical difficulties that have caused delays and additional costs in our technology development efforts. We are particularly exposed to this risk in new product development efforts and in fixed-price contracts on technically advanced programs at D&S and Communications & Tracking that require novel approaches and solutions. In these cases, the additional costs that we incur may not be covered by revenue commitments from our customers, and therefore reduce our earnings. In addition, technical difficulties can cause us to miss expected delivery dates for new product offerings, which could cause customer orders to fall short of expectations.

Some of our products perform mission-critical functions in space applications. If we experience technical problems and are unable to adhere to a customer's schedule, the customer could experience costly launch delays or re-procurements from other vendors. The customer may then be contractually entitled to substantial financial damages from us. The customer would also be entitled to cancel future deliveries, which would reduce our future revenues and could make it impossible for us to recover our design, tooling or inventory costs, or our remaining commitments to third-party suppliers.

Due to technological uncertainties in new or unproven applications of technology, our contracts may be broadly defined in their early stages, with a structure to accommodate future changes in the scope of work or contract value as technical development progresses. In such cases, management must evaluate these contract uncertainties and estimate the future expected levels of scope of work and likely contract-value changes to determine the appropriate level of revenue associated with costs incurred. Actual changes may vary from expected changes, resulting in a reduction of net sales and earnings recognized in future periods.

***Our products are subject to a variety of certification requirements of the Federal Aviation Administration (FAA) and the Federal Communications Commission (FCC), including stringent standards for performance, reliability and manufacturing processes. Our failure to meet any of these standards, which may involve complex testing and technical issues, could limit our ability to market these products and thereby reduce our sales and earnings. Our sales and earnings may also be adversely affected by the costs and delays associated with meeting these standards and obtaining the required certifications.***

Products that we sell for installation on aircraft must receive approvals and certifications from the FAA, and generally must be produced in facilities that are themselves FAA-certified. In addition, many of the products we sell require FCC approval or certification before our customers are permitted to use them. The applicable standards are rigorous, can be costly to meet, and must be met on a continuing basis. The approval and certification standards for our aviation products require that we meet standards for performance and reliability, as well as for the appropriateness of products for particular aircraft types, and our facilities must meet standards for consistent and reliable production processes. FCC certification of our products requires that we demonstrate technical performance in accordance with certain required RF characteristics. We have generally been successful in obtaining required product approvals and certifications, and the facilities in which we produce aviation products currently hold all required certifications. However, in the past we have addressed, or we currently are addressing, technical issues raised by the FAA and the FCC with respect to certain products, and such technical issues or changes in applicable standards could affect any of these certifications, or cause us to incur significant expense or delays in marketing our products.

***If we cannot continue to rapidly develop, manufacture and market innovative products and services that meet customer requirements for performance and reliability, we may incur development costs that we cannot recover and our net sales and earnings will suffer.***

The process of developing new wireless communications products is complex and uncertain, and failure to anticipate customers' changing needs and emerging technological trends accurately, or to develop or obtain appropriate intellectual property, could significantly harm our results of operations. In many instances we must make long-term investments and commit significant resources before knowing whether our investments will eventually result in products that the market will accept. If our new products are not accepted by the market, our net sales and earnings will decline.

***Competing technology could be superior to ours, and could cause customer orders and net sales to decline.***

The markets in which we compete are very sensitive to technological advances. As a result, technological developments by competitors can cause our products to be less desirable to customers, or even to become obsolete. Those developments could cause our customer orders and net sales to decline.

***Our competitors' marketing and pricing strategies could make their products more attractive than ours. This could cause reductions in customer orders or our profits.***

We operate in highly competitive technology markets, and some of our competitors have substantially greater resources and facilities than we do. As a result, our competition may be able to pursue aggressive marketing strategies, such as significant price discounting. These competitive activities could cause our customers to purchase our competitors' products rather than ours, or cause us to increase marketing expenditures or reduce prices, in any such case, causing a reduction of net sales and earnings below expected levels.

***Our transitions to new product offerings can be costly and disruptive, and could adversely affect our net sales or profitability.***

Because our businesses involve constant efforts to improve existing technology, we regularly introduce new generations of products. During these transitions, customers may reduce purchases of older equipment more rapidly than we expect, or may choose not to migrate to our new products, which could result in lower net sales and excessive inventories. In addition, product transitions create uncertainty about both production costs and customer acceptance. These potential problems are generally more severe if our product introduction

schedule is delayed by technical development issues. These problems could cause our net sales or profitability to be less than expected.

***Our products may inadvertently infringe third-party patents, which could create substantial liability to our customers or the third-party patent owners.***

As we regularly develop and introduce new technology, we face risks that our new products or manufacturing techniques may infringe valid patents held, or currently being processed, by others. The earliest that the U.S. Patent Office publishes patents is 18 months after their initial filing, and exceptions exist so that some applications are not published before they issue as patents. Thus, we may be unaware of a pending patent until well after we have introduced an infringing product. In addition, questions of whether a particular product infringes a particular patent can involve significant uncertainty. As a result of these factors, third-party patents may require us to redesign our products and to incur both added expense and delays that interfere with marketing plans. We may also be required to make significant expenditures from time to time to defend or pay damages or royalties on infringement claims, or to respond to customer indemnification claims relating to third-party patents. Such costs could reduce our earnings.

***We may not be successful in protecting our intellectual property.***

Our unique intellectual property is a critical resource in our efforts to produce and market technically advanced products. We primarily seek to protect our intellectual property, including product designs and manufacturing processes, through patents and as trade secrets. If we are unable to obtain enforceable patents on certain technologies, or if information we protect as trade secrets becomes known to our competitors, then competitors may be able to copy or otherwise appropriate our technology, we would lose competitive advantages, and our net sales and operating income could decline. In any event, litigation to enforce our intellectual property rights could result in substantial costs and diversion of resources that could have a material adverse effect on our operations regardless of the outcome of the litigation. We may also enter into transactions in countries where intellectual property laws are not well developed and legal protection of our rights may be ineffective.

***Our success depends on our ability to attract and retain a highly skilled workforce.***

Because our products and programs are technically sophisticated, we must attract and retain employees with advanced technical and program-management skills. Many of our senior management personnel also possess advanced knowledge of the business in which we operate and are otherwise important to our success. Other employers also often recruit persons with these skills, both generally and in focused engineering fields. If we are unable to attract and retain skilled employees and senior management, our performance obligations to our customers could be affected and our net sales could decline.

***We depend on highly skilled suppliers, who may become unavailable or fail to achieve desired levels of technical performance.***

In addition to our requirements for basic materials and electronic components, our advanced technological products often require sophisticated subsystems supplied or cooperatively developed by third parties. To meet those requirements, our suppliers must have specialized expertise, production skills and economies of scale, and in some cases there are only a limited number of qualified potential suppliers. Our ability to perform according to customer contract requirements, or to introduce new products on the desired schedule, can be heavily dependent on our ability to identify and engage appropriate suppliers, and on the effectiveness of those suppliers in meeting our development and delivery objectives. If these highly skilled suppliers are unavailable when needed, or fail to perform as expected, our ability to meet our performance obligations to our customers could be affected and our net sales and earnings could decline.

***Changes in regulations that limit the availability of licenses or otherwise result in increased expenses could cause our net sales or earnings to decline.***

Many of our products are incorporated into wireless communications systems that are regulated in the U.S. by the Federal Communications Commission and internationally by other government agencies. Changes in government regulations could reduce the growth potential of our markets by limiting either the access to or availability of frequency spectrum. In addition, other changes in government regulations could make the competitive environment more difficult by increasing costs or inhibiting our customers' efforts to develop or introduce new technologies and products. Also, changes in government regulations could substantially increase the difficulty and cost of compliance with government regulations for both our customers and us. All of these factors could result in reductions in our net sales and earnings.

***Additional environmental regulation could increase costs and adversely affect our future earnings.***

Greenhouse gas emissions have increasingly become the subject of a large amount of international, national, regional, state and local attention. Any enactment of cap-and-trade proposals would likely increase the cost of energy, including purchases of electricity, and of certain raw materials used by us. In addition, future environmental regulatory developments related to climate change, whether pursuant to future treaty obligations or statutory or regulatory changes, are possible, and could increase our operating, manufacturing and delivery costs.

***The export license process for space products is uncertain, increasing the chance that we may not obtain required export licenses in a timely or cost-effective manner.***

Our products for use on commercial satellites are included on the U.S. Munitions List of the U.S. International Traffic in Arms Regulations and are subject to U.S. State Department licensing requirements. The licensing process for our products for use on commercial satellite and many of our other products is time-consuming, and political considerations can increase the time and difficulty of obtaining licenses for export of technically advanced products. The license process may prevent particular sales, and generally has created schedule uncertainties that encourage foreign customers, such as those in Western Europe, to develop internal or other foreign sources rather than use U.S. suppliers. If we are unable to obtain required export licenses when we expect them or at the costs we expect, our net sales and earnings could be adversely affected.

***Export controls on space technology restrict our ability to hold technical discussions with foreign customers, suppliers and internal engineering resources, which reduces our ability to obtain sales from foreign customers or to perform contracts with the desired level of efficiency or profitability.***

U.S. export controls severely limit unlicensed technical discussions with any persons who are not U.S. citizens or permanent residents. As a result, we are restricted in our ability to hold technical discussions between U.S. personnel and current or prospective customers or suppliers outside the U.S., between Canadian personnel and current or prospective U.S. customers or suppliers, and between U.S. employees and our other employees outside the U.S. These restrictions reduce our ability to win cross-border space work, to utilize cross-border supply sources, and to deploy technical expertise in the most effective manner.

***Economic or political conditions in other countries could cause our net sales or earnings to decline.***

International sales significantly affect our financial performance. Approximately \$107.2 million, \$132.5 million and \$111.7 million, or 29.8%, 39.6% and 38.8% of our net sales for 2009, 2008, and 2007, respectively, were derived from customers residing outside of the U.S. Adverse economic conditions in our customers' countries, mainly in Western Europe, Latin America and the Pacific Rim, have affected us in the past, and could adversely affect future international revenues in all of our businesses, especially LXE. Unfavorable currency exchange rate movements can adversely affect the marketability of our products by increasing the local-currency cost. In addition to these economic factors directly related to our markets, there are risks and uncertainties inherent in doing business internationally that could have an adverse effect on us, such as potential adverse effects of political instability or changes in governments, changes in foreign income tax laws,

and restrictions on funds transfers by us or our customers, as well as unfavorable changes in laws and regulations governing a broad range of business concerns, including proprietary rights, legal liability, and employee relations. All of these factors could cause significant harm to our net sales or earnings.

***Unfavorable currency exchange rate movements could result in foreign exchange losses and cause our earnings to decline.***

We have international operations, and we use forward currency contracts to reduce the earnings risk from holding certain assets and liabilities denominated in different currencies, but we cannot entirely eliminate those risks. In addition, Canada-based SATCOM derives a major portion of its sales from agreements in U.S. dollars; but its costs are predominately in Canadian dollars; as a result, a stronger Canadian dollar would increase our costs relative to our U.S. net sales, and we are unlikely to recover these increased costs through higher U.S. dollar prices due to competitive conditions. As a result of these factors, our financial results will continue to have an element of risk related to foreign currency exchange rates.

***Our net sales in certain markets depend on the availability and performance of other companies with which we have marketing relationships.***

With respect to some applications, including mobile satellite communications, we seek to develop marketing relationships with other companies that have superior direct customer access from advantages such as specialized software and established customer service systems. For example, the marketing of our line of high-speed commercial airline communications products is dependent on the success of our direct customers in the sale of our products as a complementary offering with their own lines of avionics products. In other markets, such as wireless local-area networks, a major element of our distribution channels is a network of value-added retailers and independent distributors. In foreign markets for many of our products, we are often dependent on successful working relationships with local distributors and other business personnel. If we are unable to identify and structure effective relationships with other companies that are able to market our products, our net sales could fail to grow in the ways we expect.

***Customer orders in backlog may not result in sales.***

Our order backlog represents firm orders for products and services. However, our customers may cancel or defer orders for products and services, in most cases without penalty. Cancellation or deferral of an order in our D&S segment typically involves penalties and termination charges for costs incurred to date, but these termination penalties would still be considerably less than what we would have expected to earn if the order could have been completed. We make management decisions based on our backlog, including hiring of personnel, purchasing of materials, and other matters that may increase our production capabilities and costs whether or not the backlog is converted into revenue. Cancellations, delays or reductions of orders could adversely affect our results of operations and financial condition.

***We are exposed to the credit risk of some of our customers and to credit exposures in weakened markets, which could cause our earnings to decline.***

Most of our sales are on an open credit basis, with typical payment terms of up to 60 days in the U.S. and, because of local customs or conditions, longer in some markets outside the U.S. In the past, certain of our customers have experienced credit problems, up to and including bankruptcy. Although any resulting loss has not been material to date, future losses, if incurred, could harm our business and have an adverse effect on our operating results and financial condition. Additionally, to the degree that the recent turmoil in the credit markets makes it more difficult for some customers to obtain financing, our customers' ability to pay could be adversely impacted, which in turn could have an adverse impact on our business, operating results, and financial condition.

***Our products typically carry warranties, and the costs to us to repair or replace defective products could exceed the amounts we have experienced historically.***

Most of our products carry basic warranties of between one and five years, depending on the type of product. For certain products, customers can purchase warranty coverage for specified additional periods. If our products are returned for repair or replacement under warranty or otherwise under circumstances in which we assume responsibility, particularly if at a higher rate than we expect based on historical experience, we can incur significant costs that may be in excess of the allowances that we have established based on our historical warranty cost levels, which would reduce our earnings.

***Changes in our consolidated effective income tax rate and the related effect on our results can be difficult to predict.***

We earn taxable income in various tax jurisdictions around the world. The rates of income tax that we pay can vary significantly by jurisdiction, due to differing income tax rates and benefits that may be available in some jurisdictions and not in others. In particular, our earnings in Canada are subject to very low income taxes due to research-related tax incentives. As a result, our overall effective income tax rate depends upon the relative annual income that we earn in each of the tax jurisdictions where we do business, and the rate reported in our quarterly financial results depends on our expectations for such relative earnings for the balance of the year. Thus, even though our actual or expected consolidated earnings before taxes could remain unchanged, our income tax expenses and net earnings may still increase or decrease, depending upon changes in the jurisdictions in which we have generated or expect to generate those earnings.

***We may not effectively manage possible future growth, which could result in reduced earnings.***

Historically, we have experienced broad fluctuations in demand for our products and services. These changes in demand have depended on many factors and have been difficult to predict. In recent years, there has also been an increasing complexity in the technologies and applications in certain of our businesses. These changes in our businesses place significant demands on both our management personnel and our management systems for information, planning and control. If we are to achieve further strong growth on a profitable basis, our management must identify and exploit potential market opportunities for our products and technologies, while continuing to manage our current businesses effectively. Furthermore, our management systems must support the changes to our operations resulting from our business growth. If our management and management systems fail to meet these challenges, our business and prospects will be adversely affected.

***We may make acquisitions and investments that could adversely affect our earnings or otherwise fail to perform as expected.***

To support growth, we have made and may continue to make acquisitions of and investments in businesses, products and technologies that could complement or expand our businesses. However, if we should be unable to successfully negotiate with a potential acquisition candidate, finance the acquisition, or effectively integrate the acquired businesses, products or technologies into our existing business and products, our net sales and earnings could be adversely affected. Furthermore, to complete future acquisitions, we may issue equity securities, incur debt, assume contingent liabilities or the risk of unknown liabilities, or we may incur amortization expenses or write-downs of acquired assets as a result of future acquisitions, all of which could cause our earnings or earnings per share to decline. In addition, under newly adopted Statement of Financial Accounting Standards No. 141(R), *Business Combinations*, which is now included in the FASB Accounting Standards Codification™ (“ASC”) Topic 805, effective for us for business combinations completed after January 1, 2009, we are required to record certain acquisition-related costs and other items as current period expenses, reducing our reported earnings in the period in which an acquisition is consummated, and to reflect post-closing changes in the fair value of contingent consideration as a charge (or credit) to reported earnings. We also may acquire businesses that do not perform as we expect, are subject to undisclosed or unanticipated liabilities, or are otherwise dilutive to our earnings.

***We have residual liabilities under the terms of our sales of discontinued businesses.***

We have reserved amounts we believe to be adequate to cover our potential liabilities that we consider probable and estimable on actual claims asserted under warranties and representations that we made in connection with our prior dispositions of discontinued operations. However, payment of such contingent liabilities would decrease our cash, and if the final resolution of such liabilities exceeded our reserves, our results of discontinued operations would also be adversely affected.

**Risks Related to our Common Stock**

In addition to risks and uncertainties related to our operations, there are investment risks that could adversely affect the return to an investor in our common stock and could adversely affect our ability to raise capital for financing future operations.

***Our quarterly results are volatile and difficult to predict. If our quarterly performance results fall short of market expectations, the market value of our shares is likely to decline.***

The quarterly net sales and earnings contributions of some of our segments are heavily dependent on customer orders or product shipments in the final weeks or days of the quarter. Due to some of the risks related to our business discussed above, it can be difficult for us to predict the timing of receipt of major customer orders, and we are unable to control timing decisions made by our customers. This can create volatility in quarterly results, and hinders our ability to determine before the end of each quarter whether quarterly earnings will meet prevailing expectations. The market price for our shares is likely to be adversely affected by quarterly earnings results that are below analyst and market expectations.

***Our share price may fluctuate significantly, and an investor may not be able to sell our shares at a price that would yield a favorable return on investment.***

The market price of our stock will fluctuate in the future, and such fluctuations could be substantial. Price fluctuations may occur in response to a variety of factors, including:

- actual or anticipated operating results;
- the limited average trading volume and public float for our stock, which means that orders from a relatively few investors can significantly impact the price of our stock, independently of our operating results,
- announcements of technological innovations, new products or new contracts by us, our customers, our competitors or our customers' competitors;
- government regulatory action;
- developments with respect to wireless and satellite communications; and
- general market conditions.

In addition, the stock market has from time to time experienced significant price and volume fluctuations that have particularly affected the market prices for the stocks of technology companies, and that have been unrelated to the operating performance of particular companies.

***Future sales of our common stock may cause our stock price to decline.***

Our outstanding shares are freely tradable without restriction or further registration, and shares reserved for issuance upon exercise of stock options will also be freely tradable upon issuance, in each case unless held by affiliates. Sales of substantial amounts of common stock by our shareholders, including those who have acquired a significant number of shares in connection with business acquisitions or private investments, or even the potential for such sales, may depress the market price of our common stock and could impair our ability to raise capital through the sale of our equity securities.

***Provisions in our governing documents and law could prevent or delay a change of control not supported by our Board of Directors.***

Our shareholder rights plan and provisions of our amended and restated articles of incorporation and amended bylaws could make it more difficult for a third party to acquire us. These documents include provisions that:

- allow our shareholders the right to acquire common stock from us at discounted prices in the event a person acquires 20% or more of our common stock, or announces an attempt to do so, without our Board of Directors' prior consent;
- authorize the issuance of up to 10,000,000 shares of "blank check" preferred stock by our Board of Directors without shareholder approval, which stock could have terms that could discourage or thwart a takeover attempt;
- limit who may call a special meeting of shareholders;
- require unanimous written consent for shareholder action without a meeting;
- establish advance notice requirements for nominations for election to the Board of Directors or for proposing matters that can be acted upon at shareholder meetings;
- adopt the fair price requirements and rules regarding business combinations with interested shareholders set forth in Article 11, Parts 2 and 3 of the Georgia Business Corporation Code; and
- require approval by the holders of at least 75% of the outstanding common stock to amend any of the foregoing provisions.

**Item 1B. Unresolved Staff Comments**

None.

**Item 2. Properties**

Our corporate headquarters, and D&S's and LXE's domestic operations are located in four buildings, three of which we own comprising approximately 290,000 square feet of floor space on 21 acres, as well as one that is leased totaling approximately 37,000 square feet (lease expires in 2015), all located in a suburb of Atlanta, Georgia. These facilities include drafting and design facilities, engineering laboratories, assembly and test areas, materials storage and control areas, and offices.

We lease approximately 160,000 square feet of office and manufacturing space for our Communications & Tracking segment, with the majority located in Ottawa, Ontario (lease to expire in 2017), with other facilities located in Moorestown, NJ (lease to expire in 2013), Tewkesbury, UK (lease to expire in 2012), and in Takoma Park, MD (lease to expire in 2011).

We lease several small sites in the U.S., Europe, Singapore, the UAE, and China for LXE sales offices. If any of these leases are terminated, we believe we could arrange for comparable replacement facilities on similar terms.

**Item 3. Legal Proceedings**

Prior to 2007, we disposed of our S&T/Montreal, SatNet, and EMS Wireless divisions. The sales agreements for each of these disposals contained standard indemnification provisions for various contingencies that could not be resolved before the dates of closing and for various representations and warranties provided by us and the purchasers. In 2008, the purchaser of EMS Wireless asserted claims under such representations and warranties. The parties agreed to arbitration, which commenced in the third quarter of 2009. In March 2010, we received an interim decision from the arbitrator on these claims awarding the purchaser a total of approximately \$9.2 million under the warranty provisions of the purchase agreement. As a result, we accrued a liability for the award costs in discontinued operations in 2009. The interim award will not become final until the arbitrator determines awards of costs and attorneys' fees, which the parties will be briefing in the near

future. It is not possible at this time to determine the amount of any additional award, but any such award would be reflected in discontinued operations when it becomes probable and estimable.

We are involved in various other claims and legal actions arising in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

**Item 4. [Reserved]**