

COMTECH TELECOMMUNICATIONS CORP.



2000  
ANNUAL REPORT





About the Company



Comtech Telecommunications Corp. ([www.comtechtel.com](http://www.comtechtel.com)) is an innovative player in the domestic and global high technology markets. Comtech specializes in the design and manufacture of technologically advanced products and networks that are used for transmission of voice, data and video in communications networks using satellite, over-the-horizon microwave, terrestrial line-of-sight or other wireless communications systems. Comtech also provides satellite and internet-based packet data communications and services for the land transportation, remote sensing, utility and aviation markets.

The Company operates primarily in three interrelated business segments: Telecommunications Transmission, RF Microwave Amplifiers, and Mobile Data Communications Services. Each business segment is composed of autonomous operating units that rely on local technological and managerial talent supported by centralized corporate assets. In each of these business segments growth is driven by the increasing demand for telecommunications infrastructure and network and messaging services.

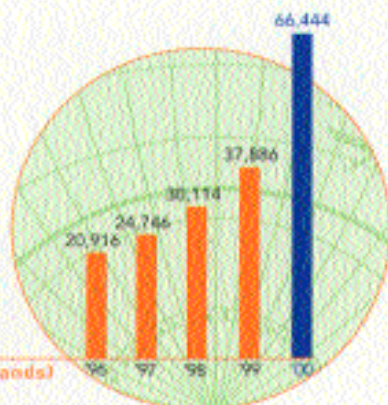
Today, Comtech products are in service in more than 100 countries. Comtech offers 275 unique products that are designed, manufactured and marketed to customers such as telecommunications and network providers; telephone companies; oil and gas companies; broadcast networks; cable television operators; utilities; local, state and federal governments; transportation companies; and system integrators.



## 2000 Financial Highlights

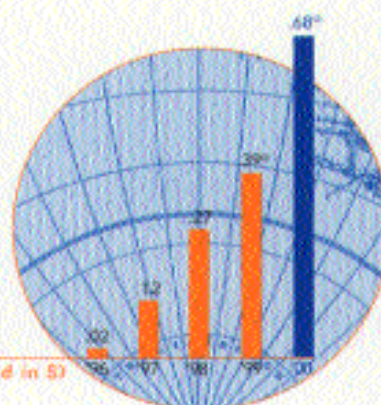
### Sales

(\$ in thousands)



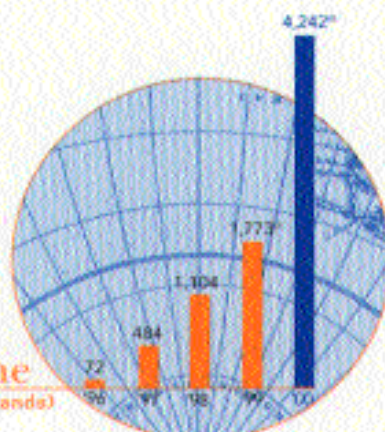
### EPS

(Diluted and in \$)



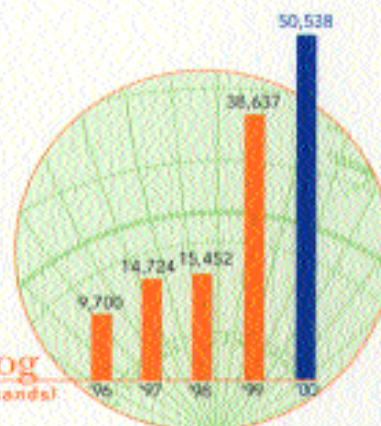
### Income

(\$ in thousands)



### Backlog

(\$ in thousands)



Fiscal Year Ended July 31,	2000 <sup>(1)</sup>	1999 <sup>(2)</sup>	1998	1997	1996
Net Sales	\$66,444,000	\$37,886,000	\$30,114,000	\$24,746,000	\$20,916,000
Income	4,242,000	1,773,000	1,104,000	484,000	72,000
EBITDA	7,955,000	4,337,000	2,658,000	1,693,000	1,470,000
EPS—Diluted <sup>(3)</sup>	0.68	0.39	0.27	0.12	0.02
Working Capital	65,267,000	10,192,000	8,917,000	7,930,000	7,797,000
Stockholders' Equity	57,782,000	18,357,000	12,093,000	10,878,000	10,301,000
Book Value Per Share <sup>(1)</sup>	7.95	4.18	3.08	2.79	2.65
Backlog	50,538,000	38,637,000	15,452,000	14,724,000	9,700,000
Shares—Diluted <sup>(3)</sup>	6,280,000	4,573,000	4,166,000	3,906,000	3,992,000
Stock Price	14.375	11.875	4.333	2.208	2.375

(1) Reflects a three-for-two stock split effective July 30, 1999 and equity offering of 2,645,000 shares on February 17, 2000.

(2) Excludes a non-recurring tax benefit resulting from a reduction in the Company's valuation allowance against deferred tax assets and a loss from discontinued operations. On a pro-forma basis, excluding the above non-recurring items, diluted EPS on income before discontinued operations, assuming a normal effective tax rate of approximately 35%, would be \$0.39 per share and net income would be \$1,773,000.

(3) Excludes non-recurring items of in-process research and development charge, integration costs related to the Company's acquisition of certain assets and liabilities of EF Data Corp. and a loss from discontinued operations. On a pro-forma basis, excluding the above non-recurring items, operating income would be \$5,805,000 and assuming a normal effective tax rate of approximately 37%, diluted EPS would be \$0.68 per share and net income would be \$4,242,000.

These Financial Highlights should be read in conjunction with the Notes to Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations.



## TO OUR SHAREHOLDERS:

**Momentous, transformative, the next beginning. That's my take on fiscal 2000.**

Our financial results were indeed impressive as we shattered our prior sales, operating income, net income and earnings per share records, excluding non-recurring items. Revenues increased by more than 75% and, excluding non-recurring items, net income surged 139% and earnings per share 74%.

But to me, the real story of fiscal 2000 is told by three defining accomplishments that I believe will shape Comtech's future.

**First**, the successful completion of Comtech's transformation into a product-driven company.

**Second**, the dramatic increase in the size, breadth and reach of our telecommunications transmission segment business through the July 2000 acquisition of the EF Data satellite communications operations of Adaptive Broadband Corporation.

**Third**, the receipt at the end of fiscal 2000, of a \$3.1 million initial order under our June 1999 U.S. Army contract to implement the Army's Movement Tracking System, a contract that has the potential of ultimately reaching over \$400 million in sales to the U.S. government over an eight-year period.

In short, we believe we have moved into a different league, and have begun to take our place as a player.

Our telecommunications transmission segment has been our star performer. Not surprisingly, the EF Data acquisition at year end has significantly heightened our expectations for this core segment of our company. Comtech EF Data Corp., the new identity of our powerhouse combination of Comtech Communications and EF Data, synergistically meshes the people and operations of the technology innovator of frequency up and down converters, high power amplifiers, transceivers and modems,

with those of the premier provider of satellite modems and transceivers, giving systems integrators and network suppliers the one-stop-shop we believe they want and need.

Purchasers of EF Data's satellite modem line, for example, are now able to benefit from our Comtech turbo coder technology, which offers 40 percent more data throughput than competitive technology. Additionally, the newly-acquired target customer base can now be exposed to all of our Comtech Communications products through the strong sales and distribution force EF Data brings to us. Beyond this, customers now will be able to see us as a participant in the high-potential satellite network solutions market.

Our strategic plan for Comtech EF Data contemplates capitalizing on its newly-combined strengths and the energy and enthusiasm of its people, while shaping it into a high-profit contributor. We see it as a key building block in Comtech's future.

Fiscal 2000 also produced a significant milestone for a newer business segment with great growth potential—Comtech Mobile Datacom Corp. At the end of the year we received a modest, but what we consider significant, initial order from the U.S. Army to begin the implementation of its Movement Tracking System.



# PROGRESS

Our financial results were indeed impressive.



Comtech's tracking technology uses satellites and ground stations to monitor, track and communicate with, in real time, on a secured and high-speed basis, aircraft, ships, trucks and other mobile units around the world. We see the potential for utilizing our technology in a broad array of applications for industry as well, including transportation and utilities. Our strategic plan for Comtech Mobile Datacom Corp. in the coming years is to complement the Army's deployment of its tracking system, as it develops, with industry opportunities. Our expectation, for example, would be to offer our technology to trucking companies, at an appropriate time, without the need to make significant changes in the product provided to the Army, and without having to add to the infrastructure that is expected to be needed under the Army contract as, and to the extent, it moves forward. An independent study we have seen projects an increase in low data rate mobile terminals from 370,000 in 1998 to over 5 million in 2003.

Our RF microwave segment continues to be an important supplier of broadband high power instrumentation amplifiers to a quality customer base that includes, among others, Ericsson, Motorola and Lucent. While this area of our business has been relatively flat for a while, it recently began to show an increased level of activity.

Supporting Comtech's greatly enlarged operations is a solid financial structure with substantial cash flow. In fiscal 2000 we went to market with a well-received equity offering and raised \$42.5 million. We also added long-term debt of \$40 million, which was used to pay part of the \$52.5 million purchase price for EF Data.

We are intensely focused on aggressively executing our strategic plan, which calls for an expansion of our broad line of telecommunications and amplifier product offerings, and, when appropriate, the further development of our mobile data communications services business. Both internal growth and acquisitions have been sharing the spotlight, and we expect this to continue. We believe we have arrived at a new staging platform, a springboard from which to move into the future.

None of these accomplishments would have been possible, of course, without the dedicated efforts of our employees and the enthusiastic support of our business partners, customers and shareholders, for all of which we are deeply appreciative.

Again, I thank you.



Fred Kornberg  
Chairman, CEO and President

October 19, 2000

## HIGHLIGHTS OF FISCAL YEAR 2000

- Record sales, operating income, net income and earnings per share exclusive of non-recurring items
- Record backlog
- Acquisition of EF Data for \$52.5 million making us the largest provider of satellite modems and giving us entrée to the high growth satellite networks solutions business
- Raised \$42.5 million through a well-received equity offering
- Obtained an initial order of \$3.1 million under our contract to implement the U.S. Army's Movement Tracking System (MTS)
- Obtained a \$10 million contract to provide satellite products for a communications network in the Amazon region of Brazil
- 4,000th satellite frequency converter shipped
- 1,000th satellite modem shipped with our proprietary turbo codec technology
- Obtained over \$3.5 million in contracts to provide Lucent Technologies, Motorola and Ericsson with solid state linear high power amplifiers
- Obtained a \$1.8 million follow-on contract to produce high power amplifiers for the U.S. Army Shortstop Electronic Umbrella Protection System
- Obtained a \$2.5 million follow-on contract with our partner Nortel Networks to expand a new digital over-the-horizon microwave system to provide the Bahamas with cellular infrastructure



# GROWTH

## COMTECH TODAY

We design, develop, produce and market sophisticated wireless telecommunications transmission components and systems and solid state, high-power broadband amplifiers for commercial and government purposes. Our products are used in point-to-point and point-to-multi-point telecommunications transmission and reception applications such as satellite communications, over-the-horizon microwave systems, cellular telephone systems and cable and broadcast television. Our broadband amplifier products are also used in cellular and PCS instrumentation, testing and certain defense systems.

We have expanded our business to offer satellite mobile data communications services. This business recently won a contract from the U.S. Army which, subject to government funding and deployment decisions, provides for the purchase of up to \$418 million in mobile terminal units and global message communications services over an eight-year period. We believe our mobile data communications products and services will afford the company important competitive advantages as we endeavor to expand this business with other government agencies and into commercial markets.

We have also expanded our telecommunications transmission segment with the acquisition of the business of EF Data, the satellite communications division of Adaptive Broadband Corporation for approximately \$52.5 million. The operations of EF Data were combined with our Comtech Communications Corp. subsidiary and renamed Comtech EF Data Corp. This significantly enlarged business expands our growing telecommunications capabilities and enhances Comtech's product offerings, distribution reach and market presence. Additionally this acquisition gives us a position and entry into the growing satellite networks solution business.

We manage our business with the following principal corporate strategies:

- Operate on a decentralized basis to maximize responsiveness to our customers
- Continue product innovation through investment in research and development

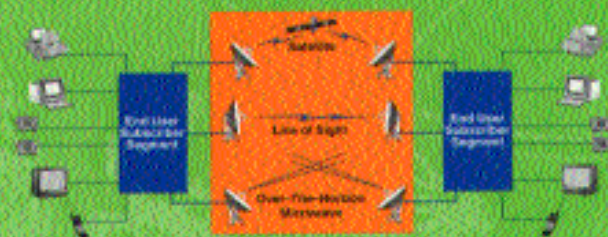
- Capitalize on synergies among our business segments and operating units to secure larger contracts
- Pursue acquisitions and investments in complementary businesses, technologies, products and services

Comtech is made up of three business segments. These segments are distinct and decentralized, but are mutually supportive and complementary.

Within our three market segments, each of our operating units conducts its own sales and marketing efforts. In some instances, our operating units may integrate other units' products. Sales and marketing strategies vary with particular markets served and include direct sales through sales, marketing and engineering personnel, sales through independent representatives, value-added resellers or a combination of the foregoing. Our operating units enter into sales distribution agreements for certain products with distributors. Unlike sales representatives, who merely find customers on a commission basis, some of our distributors purchase products from us for resale. We intend to continue to expand domestic and international marketing efforts through independent sales representatives, distributors and value-added resellers.

### Telecommunications Transmission Segment

The overall telecommunications market, as shown in the Telecommunication Modes diagram, can be divided into three broad categories: end user or subscriber on-premises equipment, local network and switching, and long distance transmission of voice, data, facsimile and video. Comtech's Telecommunications Transmission business segment provides sophisticated products and systems for information transmission in satellite, over-the-horizon microwave and wireless line-of-sight telecommunications systems.



Comtech EF Data Corp. This significantly enlarged business expands our growing telecommunications capabilities.



- **Wireless and line-of-sight microwave communications systems**, generally used for point-to-point communications, employ signals with extremely short wavelengths which travel only in line-of-sight paths over relatively short distances, generally under 30 miles, can be quickly and easily installed, require relatively low initial capital investment and can be upgraded and expanded over time.
- **Over-the-horizon microwave communications systems** transmit signals over distances from 30 to 600 miles by reflection of the transmitted signals off the troposphere, an atmospheric layer located approximately seven miles above the earth's surface. Such systems offer a high level of reliability and security.
- **Satellite communications systems have grown and diversified in response to demand** for efficient and accurate long distance voice and video communications and digital information exchange. In a satellite communications system, information is relayed to and from microwave transmitting and receiving stations on the ground by means of low earth orbit (LEO), medium earth orbit (MEO), or geostationary earth orbit (GEO) satellites, which are generally placed in an orbit from 600 to 22,300 miles above the earth's equator. Satellite communications systems are particularly useful where long-range, high capacity and high quality point-to-point or point-to-multi-point communication is desirable. These systems, which use microwave technology, are well suited for rapid introduction of service in remote areas or where communications alternatives are unavailable, such as mobile, shipboard or defense applications.

**Turbo codec modem product line. This forward error correction solution offers significantly improved power and bandwidth performance over traditional systems.**

The demand for telecommunications is increasing worldwide as emerging economies seek to modernize their infrastructure and as increasingly information-intensive markets introduce new telecommunications services. The telecommunications industry has expanded rapidly during the past decade due to both technological advances and deregulation. Advances in technology have lowered per-unit communications costs, increased product reliability and encouraged a proliferation of new and enhanced communications products and services.

Our Comtech EF Data Corp. (CEFD) subsidiary, located in Tempe, Arizona, designs and manufactures equipment used in commercial and defense satellite communications applications. The equipment includes modems, frequency up converters and down converters, solid state power amplifiers and satellite transceivers, which combine our frequency converters and solid state high-power amplifier technology. These products comprise a broad range of receiving and transmitting equipment offering a variety of state-of-the-art technical capabilities with respect

to performance, complexity and value. We recently introduced a turbo codec modem product line. This forward error correction solution offers significantly improved power and bandwidth performance over traditional systems providing up to 40% system cost savings.

Our Comtech Antenna Systems, Inc. (CASI) subsidiary designs, manufactures, and markets a wide variety of fiberglass and aluminum antennas for over-the-horizon microwave and satellite communications applications, including distributed network programming, cable and broadcast television and radio as well as other forms of information and entertainment distribution. Our antennas are designed for specific types of telecommunications systems and, typically, sell products through standard catalogs to independent distributors, prime contractors and end user customers.

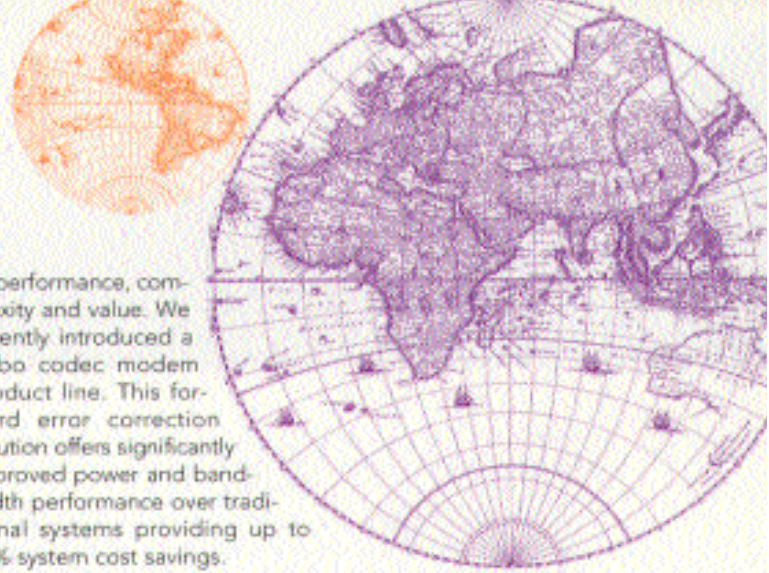
Our Comtech Systems, Inc. (CSI) subsidiary provides high-quality, reliable telecommunications solutions with products and systems utilizing a variety of communications technologies including primarily, digital over-the-horizon microwave, digital satellite and wireless line-of-sight microwave for national and international commercial and defense applications. We market our products and services to oil and gas companies and other commercial users, foreign defense commands and system prime contractors. We believe that our products, which employ 8 MB/S adaptive modem digital transmission technology, offer high-speed data benefits over the traditional analog over-the-horizon microwave products offered by its competition.

Our over-the-horizon microwave radio systems have a proven record worldwide in such applications as off-shore oil and gas production data transmission, in-country communication infrastructure modernization, air-traffic control and defense communications.

#### **RF Microwave Amplifiers Segment**

We believe our Comtech PST Corp. (CPST) subsidiary is a leading independent supplier of broadband high power high performance RF microwave power amplifiers and is one of a small number of companies designing, developing, manufacturing and marketing high power broadband amplifiers for use in a broad spectrum of applications including cellular and wireless base station, high power test systems, defense systems, electromagnetic compatibility instrumentation and satellite communications.

Our primary market focus includes communications service providers, cellular and PCS telephony system manufacturers and defense contractors. Customers include



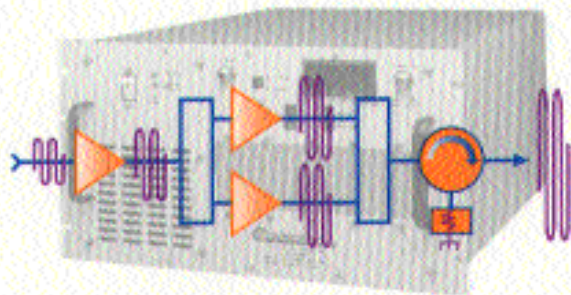


# EXPANSION &

Motorola, Ericsson, Nokia, Lucent, Litton, Raytheon, Lockheed Martin and the U.S. government.

Amplifiers reproduce signals with greater power, current or voltage amplitude. Indispensable in the world of signal processing, amplifiers can be as tiny as a microchip for a hearing aid or as massive as a multi-story building for transmitting radio signals to submerged submarines or to outer space.

Our broadband solid state high-power amplifiers are used to amplify signal energy for radiation from transmitting antennas in satellite or other wireless telecommunications systems. They are also used to amplify signals in defense and airport radar and electronic jamming systems. In the laboratory, solid state, high-power amplifiers are used to test the performance of high power microwave and wireless electronic system components used in cellular and PCS networks.



RF Microwave Amplification

High-power broadband amplifiers are also used in electromagnetic compatibility and susceptibility testing. The proliferation of electronic systems in products such as automobiles, computers, wireless telephones, radios, televisions, medical equipment, sound amplifiers, aircraft and other products has led to increasingly serious problems

with electromagnetic interference. Manufacturers, therefore, test these electronic systems for electromagnetic compatibility and susceptibility using high-power RF microwave amplifiers such as those we manufacture. For example, such testing may be used to determine whether the various electronic systems in a commercial aircraft are likely to be affected by the use of laptop computers, wireless telephones or video games by passengers in flight.

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One of our key areas of expertise is high power combined with broadband technology.

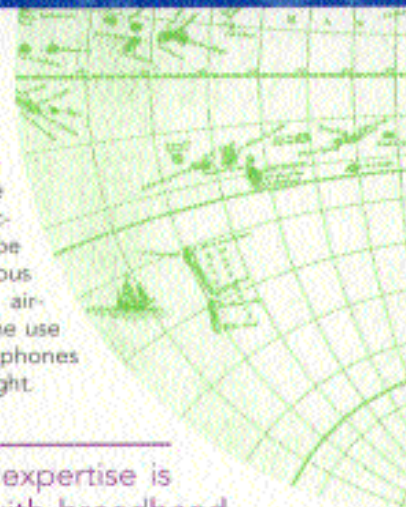
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The Company has established a position of product leadership due to what we believe is our strong engineering capabilities. Our amplifiers achieve their performance at increased levels of amplification while providing very broadband high power levels of amplification.

#### Mobile Data Communications Services Segment

The Company, through its Comtech Mobile Datacom Corp. (CMDC) subsidiary, is a full-service supplier of satellite-based mobile data communications services for the commercial and government land transportation, remote sensing, utility and aviation markets. These web-enabled services are provided through leased satellite capacity, utilizing the company's network, mobile transceivers and the satellite earth station gateway at our Germantown, Maryland facility. Customers can access via the Internet or private line dial up connections.

The demand for mobile data communications services and products has increased dramatically in recent years for both government and commercial applications. This demand has been driven by advances in digital technology coupled with the need to better locate, track,





manage, monitor and communicate with mobile and fixed assets. Recently published third party studies predict in excess of a ten-fold increase in terminals for satellite-based data services in the period from 1999 to 2004.

The demand for mobile data communications services and products has increased dramatically in recent years for both government and commercial applications.

The Company's core technology involves global two-way messaging and GPS-based asset tracking. User access to message and position information is totally wireless, and is achieved either by satellite (for the mobile user) or Internet (for the wired user).

Key features of the Company's system include:

- Real-time one- and two-way messaging
- Multi-level security features
- Mobile-to-mobile messaging
- Ability to operate over a broad range of geostationary (GEO) and low earth orbit (LEO) satellite systems
- Open network architecture to aid in applications development and interconnection with wireless networks

Using a Palm Pilot™ or laptop PC as a user interface, free-form messages can be sent between an asset operator and user headquarters. The speed of the system permits messages to go from continent to continent, over multiple satellites, in as little as 10 seconds. And the channel is always available, without setup or polling delay. The System Overview diagram shown depicts various industrial, recreational and governmental system asset tracking, sensor, and messaging applications.



Mobile Asset Location and Messaging

The speed, capacity, and security of the system have attracted commercial and government interest, both in this country and overseas. In June 1999 the U.S. Army selected the Company to provide a system to be deployed on a global basis by its Logistics Command, as their movement tracking system (MTS), for use in tracking its mobile assets and communicating by message in near real time with units from fixed and mobile command centers.

The Company is currently operating over the Canadian MSAT-1 satellite for North American service and is planning to move worldwide with other systems. By this time next year, the Company expects to be providing a broad range of data services to government and commercial users, ranging from simple position tracking, to messaging, e-mail, broadcasting of information and meter, gauge, and other sensor monitoring.

INNOVATION



#### COMTECH TELECOMMUNICATIONS CORP.

105 Baylis Road  
Melville, New York 11747  
Phone: (631) 777-8900  
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Web Site: [www.comtechtel.com](http://www.comtechtel.com)

#### BOARD OF DIRECTORS

Fred Komberg<sup>(1)</sup>  
Chairman, Chief Executive Officer and  
President of the Corporation

Dr. George Bugliarello<sup>(2)(4)</sup>  
Chancellor, Polytechnic University

Richard L. Goldberg<sup>(1)(3)</sup>  
Partner, Proskauer Rose LLP

Gerard R. Nocini<sup>(2)(3)</sup>  
Private Investor

Dr. John B. Payne<sup>(2)(3)</sup>  
President and CEO of Nacom, Inc.

Sol S. Weiner<sup>(2)(3)</sup>  
President, Weiner Investments Inc.

- (1) Executive Committee
- (2) Audit Committee
- (3) Executive Compensation Committee
- (4) Nominating Committee

#### CORPORATE OFFICERS & SUBSIDIARY PRINCIPALS

Fred Komberg  
President and Chief Executive Officer

Gail Segal  
Secretary and Treasurer

J. Preston Windus, Jr.  
Sr. Vice President and Chief Financial Officer,  
President of Comtech PST Corp. (CPST)

Richard L. Burt  
Sr. Vice President,  
President of Comtech Systems, Inc. (CSI)

Robert L. McCollum  
Sr. Vice President,  
President of Comtech EFDATA Corp. (CEFD)

Joel Aiper  
President of Comtech Mobile Datacom Corp.  
(CMDC)

Thomas C. Christy  
President of Comtech Antenna Systems, Inc.  
(CASI)

#### REGISTRAR & TRANSFER AGENT

American Stock Transfer and Trust Co.  
59 Maiden Lane  
New York, New York 10007

#### MARKET FOR REGISTRANT'S COMMON STOCK

Comtech Telecommunications Corp.  
Common Stock is traded on the Nasdaq  
National Market®. The symbol is CMTL.

#### INDEPENDENT AUDITORS

KPMG LLP  
1305 Walt Whitman Road  
Melville, New York 11747

#### LEGAL COUNSEL

Proskauer Rose LLP  
1585 Broadway  
New York, New York 10036

#### ANNUAL MEETING

Tuesday, December 12, 2000 at 10:00 a.m.  
Melville Marriott Hotel  
1390 Old Walt Whitman Road  
Melville, New York 11747

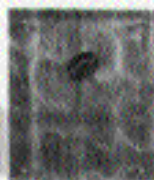
#### FINANCIAL INFORMATION

For financial information  
visit us on the internet at  
<http://www.comtechtel.com>

#### 10-K REPORT

A copy of the Form 10-K Annual Report  
filed with the Securities and Exchange  
Commission and Exhibits for the year ended  
July 31, 2000, are available to shareholders  
for a processing fee of \$25. Requests in  
writing for this report should be sent to:

Investor Relations  
Comtech Telecommunications Corp.  
105 Baylis Road  
Melville, New York 11747



1999



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#### FAST 50

Once again Comtech Telecommunications Corp. has been included in the prestigious "2000 Long Island Technology Fast Fifty," a program that recognizes those 50 public and private companies, headquartered on Long Island, New York, which have had the most significant growth on the basis of revenues over the most recent four-year period. This is the second consecutive year in which Comtech Telecommunications Corp. has been selected for this award.



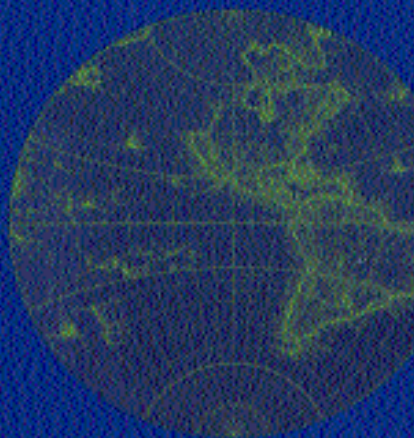
## BUSINESS SEGMENTS

### TELECOMMUNICATIONS TRANSMISSION

**Comtech Antenna Systems, Inc. (CAST)**  
3100 Communications Road  
St. Cloud, FL 34769  
Tel: (407) 892-6111  
Fax: (407) 892-0994  
Web: [www.comtechantenna.com](http://www.comtechantenna.com)

**Comtech EF Data (CEFD)**  
2134 West Seventh Street  
Tempe, AZ 85281  
Tel: (480) 333-2200  
Fax: (480) 333-2161  
Web: [www.comtecheffdata.com](http://www.comtecheffdata.com)

**Comtech Systems Inc. (CSI)**  
2900 Titan Row, Suite 142  
Orlando, FL 32809  
Tel: (407) 854-1950  
Fax: (407) 851-6960  
Web: [www.comtechsystems.com](http://www.comtechsystems.com)

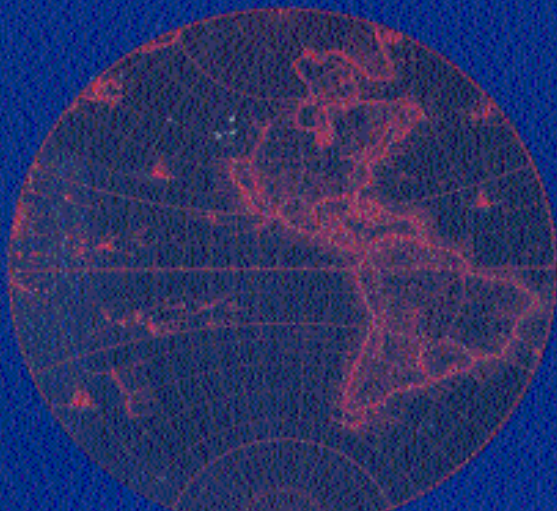


### RF MICROWAVE AMPLIFIERS

**Comtech PST Corp. (CPST)**  
105 Baylis Road  
Melville, NY 11747  
Tel: (631) 777-8900  
Fax: (631) 777-8677  
Web: [www.comtechpst.com](http://www.comtechpst.com)

### MOBILE DATA COMMUNICATIONS SERVICES

**Comtech Mobile Datacom Corp. (CMDC)**  
19540 Amaranth Drive  
Germantown, MD 20875  
Tel: (301) 428-2100  
Fax: (301) 428-1004  
Web: [www.comtechmobile.com](http://www.comtechmobile.com)







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