



COMTECH TELECOMMUNICATIONS CORP.

Annual Report 1990

About the Company

Comtech Telecommunications Corp., a Delaware corporation, was established in 1967 as Comtech Laboratories, Inc. The Company is engaged in the design, development, manufacture and installation, for commercial and government applications, of high technology communications and laboratory related equipment. Its products are chiefly used in connection with satellite, tropospheric scatter and terrestrial line-of-sight communications systems. The Company's products also have applications in electronic warfare, radar, medical, RFI/EMI instrumentation systems, and command, control and communications systems. The Company sells its products directly to end users, as well as to subcontractors and prime contractors which incorporate such products in a full system installation, and also use the Company's products, along with the products of others, to sell and install entire communications systems on a turnkey basis.

The Company's operating units are Comtech Antenna Systems, Inc., Comtech Microwave Corp., Comtech Systems, Inc. and Power Systems Technology, Inc.

Front Cover Story

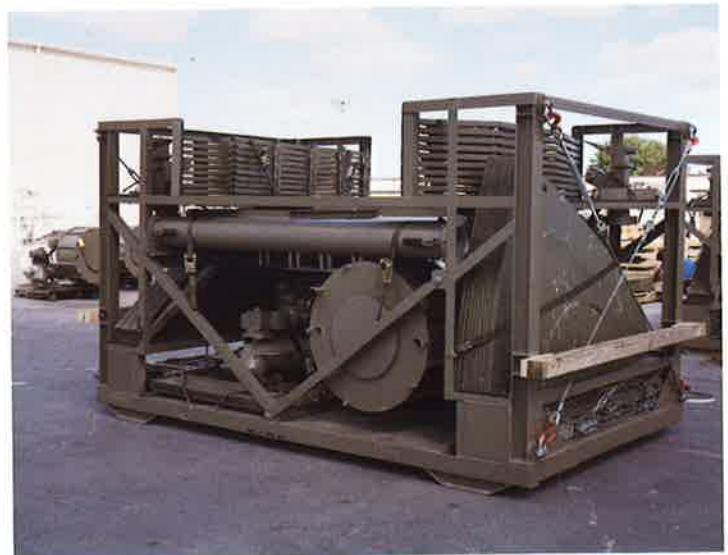
The photograph on our report cover was taken on the test range at our Comtech Antenna Systems, Inc. facility. Shown is a 4.5 meter transportable antenna that was supplied as part of a rapidly deployable adaptive 2 GHz digital tropospheric scatter communication system by Comtech Systems, Inc. for interface with air traffic control radar and communication to remote areas in Brazil. The antenna is pictured here packed for transport.

Four transportable S-280 shelterized systems were delivered, each system containing:

- A quadruple diversity digital radio system manufactured by Comtech Systems, Inc.
- Two 1KW klystron high power amplifiers manufactured by Comtech Microwave Corp.
- Two Comtech Antenna Systems, Inc. transportable antennas as described above.

In addition, for this same customer, the Company supplied a tropospheric scatter computer driven path prediction and performance monitoring system containing:

- One each up link and down link frequency converters manufactured by Comtech Systems, Inc.
- One solid-state 100-watt high power amplifier manufactured by Power Systems Technology, Inc.
- Two 5 meter tropospheric scatter transportable antennas manufactured by Comtech Antenna Systems, Inc.



Financial Highlights

	Year ended July 31,	
	1990	1989
Net Sales	\$18,215,000	\$10,593,000
Net Income (Loss)	784,000	(612,000)
Earnings (Loss) Per Share	.13	(.10)
Long-Term Debt	720,000	1,675,000
Stockholders' Equity	2,185,000	1,400,000
Book Value Per Share	.35	.23
Backlog	11,400,000	16,800,000
Orders Booked	12,815,000	18,098,000
Number of Employees	153	109

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 and Employees

Fiscal 1990 may not have been spectacular, but it was one of the best in recent memory. In fact, looking at the financial measures of revenue and net income from continuing operations, Comtech set 5 year records.

But there was more, as each of our four operations achieved some special goals. Comtech Antenna Systems, Inc. (CASI), expanded its marketplace presence and produced record sales, profits and bookings. Over 800 satellite antenna systems were delivered this year. Power Systems Technology, Inc. (PST), our newest and fastest growing operation, broke through to first-time profitability. PST delivered a set of microprocessor controlled 500-watt high power amplifiers covering 20-100 MHz and 100-500 MHz for use in communications jamming systems application in Turkey. Our customer's enthusiastic response was underscored with a follow-on \$1.5 million production order. Comtech Systems, Inc. (CSI), completed a fixed-price development contract for a very complex adaptive, rapidly deployable, transportable, digital troposcatter communication system to interface with air traffic control radar and to provide communications to remote areas in Brazil. And Comtech Microwave Corp. (CMC), completed the design and installation of nine unique hot air antenna de-icer systems for use with U.S. Government DSCS strategic satellite terminals.

At Corporate, in September 1990, the Company discharged its \$1,372,000 note to Storage Technology Corporation (STC) with the payment of \$708,000 (which included interest) and the reissuance of a warrant expiring September 1995 to purchase 450,000 Comtech shares at \$1.50 a share. This was a very helpful development.

While accomplishments were present, disappointments continued. These included booking delays at CMC and continuing deferrals in the award of several major projects being pursued at CSI. Management has also been devoting ongoing attention to CMC's and CSI's struggle in the marketplace, and their need for additional technological strength to develop new products.

On balance, however, the year's activities helped position us for the challenges and opportunities of the new decade, to which we look forward with renewed enthusiasm and dedication.



Fred Kornberg
Chairman of the Board
and President

October 24, 1990

Comtech Antenna Systems, Inc.



Comtech Antenna Systems, Inc. designs and manufactures antennas, antenna feeds and related components for application in receive-only and receive-transmit satellite communications applications. This subsidiary's 2.4 to 9.0 meter fiberglass and aluminum antennas are used in systems manufactured by Comtech Systems, Inc., and are also sold directly to other prime contractors and distributors serving the satellite and troposcatter communications market. The wide variety of antennas include fixed and remotely controlled satellite, mobile satellite, Inmarsat, and specialized multi-beam satellite antenna systems capable of receiving signals simultaneously from many independent satellites located up to 60 degrees apart, and mobile troposcatter antenna systems designed to operate in a tactical environment.

Antenna Products and Systems for Satellite Earth Stations for Cable Video, Home and Hotel Video, and Radio Broadcast Networks.

- Multiple Beam Antenna Systems For 2 and 3 Satellite Access
- High Surface Tolerance Reflectors — 2.4 to 9.0 Meters
- FCC Licensed Offsat® Antenna For 2° Satellite Spacing
- Unique Fold-Up Design Transportable Antenna Systems
- Antenna Feeds
- Programmable Antenna Orientation Devices and Control Systems
- Fiberglass Radomes and Sheds
- On Premises Antenna Test Range

Comtech Microwave Corp.

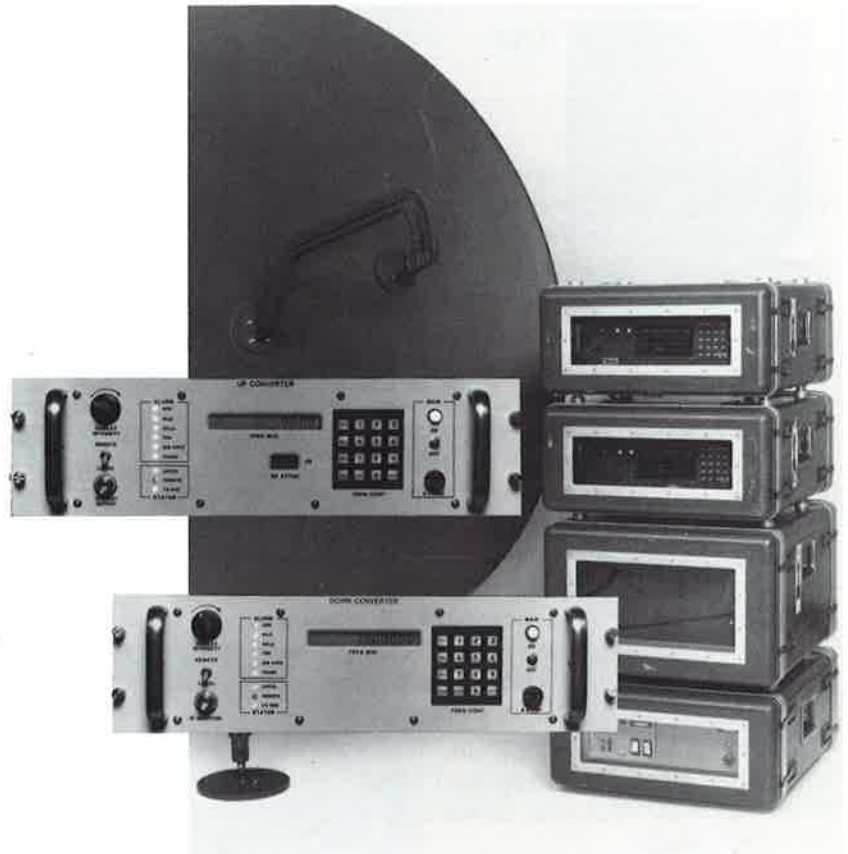
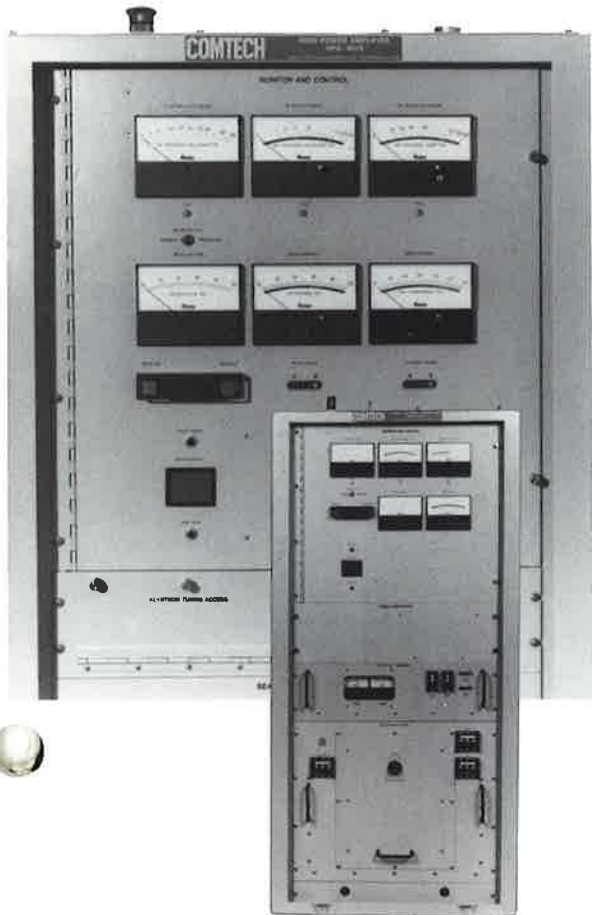


Low noise amplifiers, high power klystron amplifiers and frequency conversion systems have been an important part of the Company's product lines since its formation. These products are in use in more than 120 countries in satellite earth stations carrying millions of telephone, television, and data circuits. The markets for CMC's products include satellite and troposcatter communication systems for commercial and defense applications, earth stations monitoring telemetry data from deep space probing vehicles, electronic intelligence systems, radio astronomy and similar demanding applications where uncompromised high performance is required.

On-going programs include amplifiers for use in Comtech Systems, Inc. troposcatter systems and unique hot air antenna de-icer systems for the U.S. Army. Newly developed products include X-Band microprocessor-controlled Up and Down Frequency Converters.

Low-Noise and Power Amplifier Products and Systems for Satellite, LOS Microwave and Troposcatter Communications.

- Low Noise Parametric Amplifiers
- High Power Klystron Amplifiers
- Microprocessor Controlled Frequency Converters
- Suitcase Mini Satellite Terminals
- Satellite Earth Station Test Instrumentation
- Digital and Analog Simple Data Interface Telephone Devices



Comtech Systems, Inc.



Comtech Systems, Inc. designs and manufactures communication systems and equipment primarily for international and defense applications. This subsidiary also has a turnkey capability that ranges from system and network planning through equipment and system design, system integration and installation, personnel training and operation and maintenance programs. Its products and services are marketed to agencies of the U.S. Department of Defense, NATO, free-world defense commands, industrial users and other prime contractors.

Products of CSI comprise a broad range of receiving and transmitting equipment offering a variety of technical capabilities with respect to both performance and degree of complexity. These include: digital and analog modulators/demodulators (modems), frequency conversion systems, predetection combiners and a variety of station control, monitoring and alarm systems, systems for remote control, positioning and optimization of antennas and complete on board computer driven path prediction and performance monitoring systems.

Systems and Products for Defense and International Communications.

- Troposcatter Systems and Equipment
- Satellite Earth Stations and Equipment
- LOS Microwave Systems and Equipment
- Turnkey Systems Installation, Integration and Test
- Personnel Training
- Pre-Detection Combining Products
- Adaptive and Fade Resistant Communication Modems
- Mini Suitcase Satellite and Troposcatter Terminals
- Transportable Command Car Terminals

Power Systems Technology, Inc.

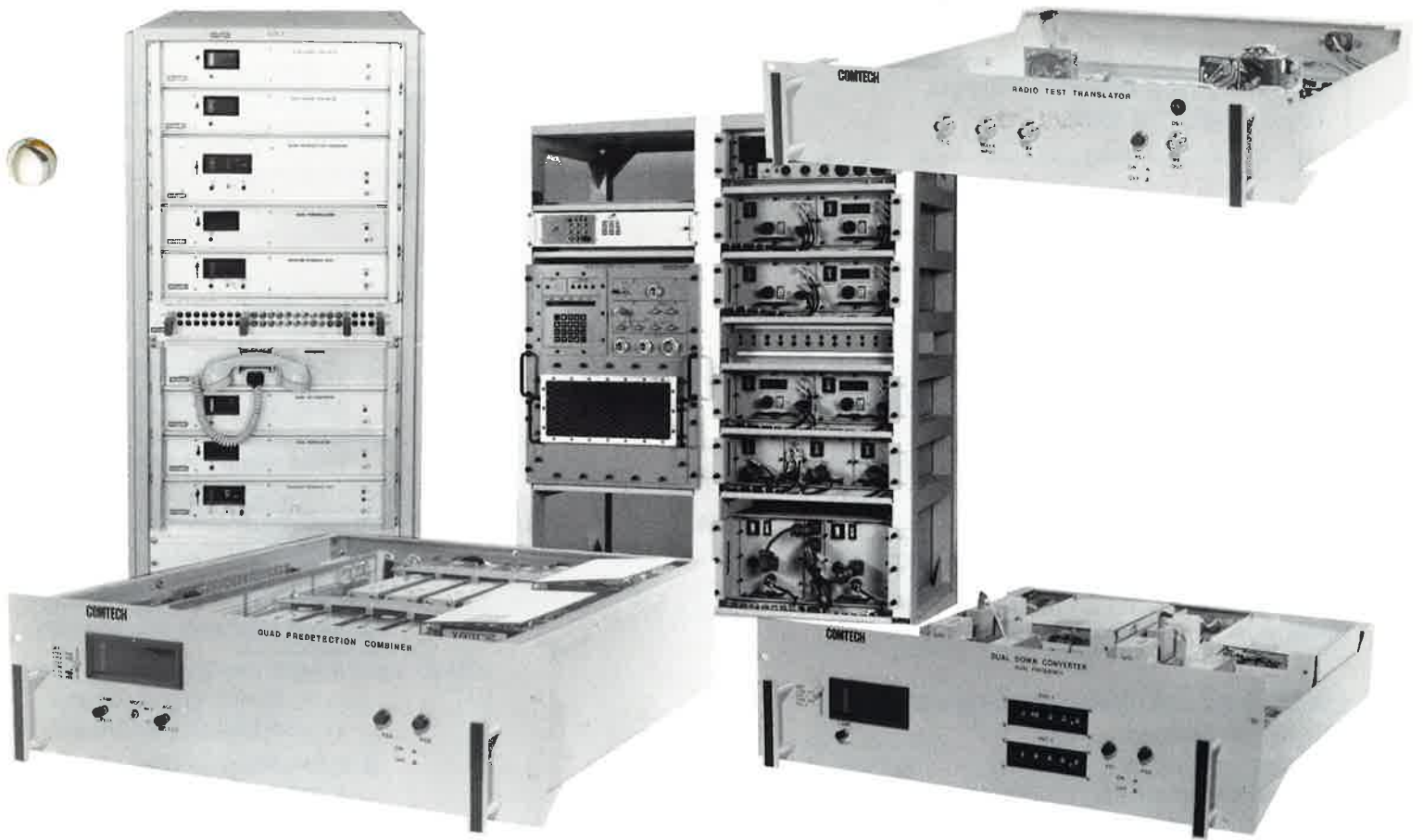


Power Systems Technology, Inc. business consists principally of the design and manufacture of specialized state-of-the-art high power solid-state amplifiers. PST markets its products to the U.S. Government, prime contractors and subcontractors doing business with the U.S. Government, foreign governments, and original equipment manufacturers for systems employing microwave technology in electronic countermeasures, avionics, communications, radar and command, control, communications and intelligence (C³I) applications as well as electromagnetic interference (EMI), radio frequency interference (RFI) and laboratory instrumentation systems for industrial end use.

PST has emerged as an innovative quality supplier of technologically advanced RF solid-state power amplifiers and related power processing equipment which replaces and upgrades equipment utilizing various tube systems. The microprocessor controlled amplifier line spans the frequency range from 1 to 8000 MHz with power output levels from 1 to 10,000 watts.

High Power Solid State RF and Microwave Amplifier Products for Defense, C³I, Instrumentation and Communication System Applications.

- Communication High Power Transmitters
- Radar High Power Pulse Amplifiers
- Electronic Warfare Jammers
- Wideband and TWT Replacement Power Amplifiers
- AM/FM Radio Transmitter Booster Amplifiers
- Instrumentation — Medical, Calibration, RFI/EMI
- High Power Integrated Switching Products



Comtech Telecommunications Corp. and Subsidiaries
Consolidated Balance Sheets
 July 31, 1990 and 1989

ASSETS	<u>1990</u>	<u>1989</u>
Current Assets:		
Cash (including restricted cash of \$1,312,000 and \$1,439,000) (Note 10)	\$ 4,445,000	\$ 1,476,000
Accounts receivable — net (Notes 2 and 9)	2,855,000	2,174,000
Inventories — net (Notes 1, 3 and 9)	2,263,000	2,047,000
Advances to subcontractors	1,104,000	
Prepaid expenses and other	144,000	183,000
Total current assets	<u>10,811,000</u>	<u>5,880,000</u>
Plant and Equipment — net (Notes 1 and 4)	1,403,000	1,663,000
Other Assets (Note 5)	1,348,000	1,261,000
Total (Note 7)	<u>\$13,562,000</u>	<u>\$ 8,804,000</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	\$ 2,464,000	\$ 1,731,000
Accrued expenses and other (Note 6)	4,400,000	819,000
Notes payable to bank (Note 7)	1,200,000	1,700,000
Current maturities of long-term debt (Note 7)	1,465,000	549,000
Total current liabilities	<u>9,529,000</u>	<u>4,799,000</u>
Long-Term Debt (Note 7)	720,000	1,675,000
Other Liabilities (Note 9)	<u>1,128,000</u>	<u>930,000</u>
Commitments and Contingencies (Notes 5 and 10)		
Stockholders' Equity (Note 11):		
Preferred stock, \$.10 par value; shares authorized, 2,000,000; issued — none		
Common stock, \$.10 par value; shares authorized, 20,000,000; shares issued: 1990 — 6,174,221 and 1989 — 6,177,787	617,000	618,000
Additional paid-in capital	14,292,000	14,290,000
Deficit	(12,544,000)	(13,328,000)
	<u>2,365,000</u>	<u>1,580,000</u>
Treasury stock — 75,000 shares — at cost	(180,000)	(180,000)
Stockholders' equity	<u>2,185,000</u>	<u>1,400,000</u>
Total	<u>\$13,562,000</u>	<u>\$ 8,804,000</u>

See Notes to Consolidated Financial Statements.

Comtech Telecommunications Corp. and Subsidiaries
Statements of Consolidated Operations
For the Fiscal Years Ended July 31, 1990, 1989 and 1988

	<u>1990</u>	<u>1989</u>	<u>1988</u>
Continuing Operations:			
Net sales (Notes 1 and 13)	<u>\$18,215,000</u>	<u>\$10,593,000</u>	<u>\$15,770,000</u>
Operating costs and expenses:			
Cost of sales (Notes 1 and 6)	<u>13,516,000</u>	7,591,000	11,487,000
Selling, general and administrative	<u>3,566,000</u>	3,697,000	3,411,000
Research and product development (Note 1)	<u>136,000</u>	323,000	111,000
Total operating costs and expenses	<u>17,218,000</u>	<u>11,611,000</u>	<u>15,009,000</u>
Income (Loss) from Operations	<u>997,000</u>	(1,018,000)	761,000
Other — net (Note 12)	<u>(213,000)</u>	406,000	(184,000)
Income (Loss) from Operations before			
Extraordinary Credit (Note 1)	<u>784,000</u>	(612,000)	577,000
Extraordinary Credit (Note 7)			1,719,000
Net Income (Loss)	<u>\$ 784,000</u>	<u>\$ (612,000)</u>	<u>\$ 2,296,000</u>
Earnings (Loss) Per Share (Note 1):			
Operations	<u>\$.13</u>	\$(.10)	\$.10
Extraordinary credit			.30
Earnings (loss) per share	<u>\$.13</u>	<u>\$(.10)</u>	<u>\$.40</u>
Weighted average number of common shares outstanding	<u>6,100,000</u>	<u>6,098,000</u>	<u>5,747,000</u>

See Notes to Consolidated Financial Statements.

Comtech Telecommunications Corp. and Subsidiaries
Consolidated Statements of Cash Flows
 For the Fiscal Years Ended July 31, 1990, 1989 and 1988

	<u>1990</u>	<u>1989</u>	<u>1988</u>
Operating Activities:			
Net income (loss)	\$ 784,000	\$ (612,000)	\$ 2,296,000
Adjustments to reconcile net income (loss) to cash generated (used) by operating activities:			
Depreciation and amortization	340,000	399,000	623,000
Other non-cash charges	127,000		214,000
Gain on settlement of debt			(1,719,000)
Reversals of reserves and accruals no longer considered necessary		(1,100,000)	
Total	<u>1,251,000</u>	<u>(1,313,000)</u>	<u>1,414,000</u>
Asset and liability management:			
Accounts receivable	(681,000)	493,000	(306,000)
Inventories	(230,000)	(913,000)	(454,000)
Advances to subcontractors	(1,104,000)		(129,000)
Prepaid expenses and other current assets	39,000	48,000	(129,000)
Other assets	(2,000)	(119,000)	355,000
Accounts payable	733,000	(815,000)	1,661,000
Accrued expenses	3,581,000	(531,000)	(1,531,000)
Cash Provided (Used) by Operating Activities	<u>3,587,000</u>	<u>(3,150,000)</u>	<u>1,010,000</u>
Investing Activities:			
Purchases of equipment	(98,000)	(190,000)	(138,000)
Sale of property and equipment	18,000	570,000	
Cash Provided (Used) by Investing Activities	<u>(80,000)</u>	<u>380,000</u>	<u>(138,000)</u>
Financing Activities:			
Borrowings — net	(539,000)	1,559,000	(7,475,000)
Issuance of common stock	1,000	4,000	6,000
Cash Provided (Used) by Financing Activities	<u>(538,000)</u>	<u>1,563,000</u>	<u>(7,469,000)</u>
Increase (Decrease) in Cash	<u>\$ 2,969,000</u>	<u>\$(1,207,000)</u>	<u>\$(6,597,000)</u>
Supplemental Information:			
Interest paid	<u>\$ 332,000</u>	<u>\$ 293,000</u>	<u>\$ 1,254,000</u>

See Notes to Consolidated Financial Statements.

Statements of Stockholders' Equity

For the Fiscal Years Ended July 31, 1990, 1989 and 1988

	Common Stock		Additional Paid-In Capital	Deficit	Treasury Stock	Stockholders' Equity (Deficiency)
	Shares Issued	Dollar Amount				
Balance, August 1, 1987	5,061,787	\$506,000	\$13,292,000	\$(15,012,000)	\$(180,000)	\$(1,394,000)
Shares issued in connection with stock option, warrant, purchase and employment agreements (Note 11)	9,400	1,000	5,000			6,000
Shares issued in exchange for outstanding 13% Subordinated Notes (Note 7)	1,100,000	110,000	990,000			1,100,000
Net income				2,296,000		2,296,000
Balance, July 31, 1988	6,171,187	617,000	14,287,000	(12,716,000)	(180,000)	2,008,000
Shares issued in connection with stock purchase agreement (Note 11)	6,600	1,000	3,000			4,000
Net loss				(612,000)		(612,000)
Balance, July 31, 1989	6,177,787	618,000	14,290,000	(13,328,000)	(180,000)	1,400,000
Shares issued in connection with stock purchase agreement (Note 11)	3,100		2,000			2,000
Shares repurchased and retired	(6,666)	(1,000)				(1,000)
Net Income				784,000		784,000
Balance, July 31, 1990	6,174,221	\$617,000	\$14,292,000	\$(12,544,000)	\$(180,000)	\$ 2,185,000

See Notes to Consolidated Financial Statements.

Comtech Telecommunications Corp. and Subsidiaries
Notes to Consolidated Financial Statements

1. SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

A summary of significant accounting and reporting policies follows:

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Comtech Telecommunications Corp. and its subsidiaries ("Comtech" or the "Company"), all of which are wholly owned. All significant intercompany balances and transactions have been eliminated.

Sales Recognition

Sales made under long-term contracts for large programs requiring significant start-up time and costs are accounted for under the percentage-of-completion method of accounting. Retainages and estimated earnings in excess of amounts billed on such multi-year programs are reported as unbilled receivables. Other long-term contracts are accounted for under the unit-of-delivery method of accounting.

Sales not associated with long-term contracts are generally recognized upon shipment or title transfer.

Costs and Expenses

Cost of sales is based on actual manufacturing costs incurred and, in the case of partially completed long-term contracts, estimated final contract costs. Contract costs include material, direct labor, manufacturing overhead and other direct costs (including sales commissions).

Since contracts may extend over periods in excess of one year, revisions in costs and earnings estimates during the course of contract performance are reflected in the accounting period in which the facts giving rise to the revision become known. When current estimates indicate a future loss on a contract is probable, a provision for the full amount thereof is charged to current operations. To the extent that the charge for the estimated loss exceeds the inventory balance related to the "loss" contract, the excess is credited to an allowance for estimated losses on contracts.

Inventories

Raw materials and components and work-in-process associated with short-term contracts and purchase orders are stated at the lower of cost (using the first-in, first-out cost flow assumption) or market. Work-in-process associated with long-term contracts accounted for under the unit-of-delivery method is valued at the total material, direct labor, manufacturing overhead and other direct costs (including sales commissions and consulting fees) incurred under each contract, less amounts charged to cost of sales pursuant to the application of the unit-of-delivery method of revenue recognition.

Plant and Equipment

Plant and equipment are recorded at cost. Annual depreciation is provided utilizing the straight-line method over the estimated useful service lives of the related assets (building and improvements — 40 years, equipment — three to eight years). Leasehold improvements are amortized over the remaining fixed terms of the leases or the useful lives of the improvements, whichever is less.

Research and Product Development Costs

The Company charges research and product development costs to operations as incurred, except in those cases in which such costs are reimbursable under customer-funded contracts.

Income Taxes

The Company has adopted Statement of Financial Accounting Standards No. 96 *Accounting for Income Taxes* for financial reporting purposes. Where appropriate, the Company provides deferred income taxes for the tax effects of transactions which are reported in different periods for financial reporting purposes than for income tax purposes (see Note 8). At July 31, 1990 and 1989, no deferred taxes are recorded because of the existence of net operating loss carryforwards. Benefit for such carryforwards is recorded when utilized and is accounted for as a reduction of the provision for income taxes.

Earnings (Loss) Per Share

Earnings (loss) per share are calculated based on the weighted average number of common shares outstanding. No impact was given to the assumed exercise of warrants or options because the impact of such assumed exercise would be antidilutive in all years presented.

Reclassifications

Certain amounts relating to fiscal 1989 and 1988 have been reclassified to conform with the fiscal 1990 presentation.

2. ACCOUNTS RECEIVABLE

Accounts receivable consist of the following at July 31, 1990 and 1989:

	1990	1989
Amounts receivable from the United States Government and its agencies	\$ 434,000	\$ 560,000
Unbilled receivables (including retainages) on contracts-in-progress	903,000	59,000
Accounts receivable from commercial customers and other	<u>1,541,000</u>	<u>1,587,000</u>
Total	<u>2,878,000</u>	<u>2,206,000</u>
Less — Allowance for doubtful accounts (see Note 9)	<u>23,000</u>	<u>26,000</u>
Accounts receivable — net	<u>\$2,855,000</u>	<u>\$2,174,000</u>

INVENTORIES

Inventories consist of the following at July 31, 1990 and 1989:

	1990	1989
Raw materials and components	\$ 593,000	\$ 517,000
Work-in-process	2,250,000	2,545,000
Gross inventories	2,843,000	3,062,000
Less:		
Progress payments	73,000	522,000
Inventory reserves (see Note 9)	507,000	493,000
Inventories — net	<u>\$2,263,000</u>	<u>\$2,047,000</u>

Work-in-process includes inventory with a net carrying value of \$240,000 at July 31, 1990 and \$543,000 at July 31, 1989 associated with a contract for which a foreign customer was unable to obtain financing. In addition, there are open purchase orders with vendors aggregating \$105,000 at July 31, 1990 relating to this contract. The Company believes that this inventory may be used on future orders.

Title to work-in-process is vested in the customer for those Federal Government contracts which provide for progress, partial or advance payments to the extent of such payments received.

4. PLANT AND EQUIPMENT

Changes in plant and equipment were as follows:

Year Ended	Balance at Beginning of Year	Additions at Cost	Transfers, Retirements or Sales	Balance at End of Year
July 31, 1990				
Land	\$ 40,000			\$ 40,000
Buildings and improvements	320,000			320,000
Equipment	6,940,000	\$ 82,000	\$ 27,000	6,995,000
Leasehold improvements	337,000	16,000		353,000
Facility financed by capital lease	915,000			915,000
Total	<u>\$8,552,000</u>	<u>\$ 98,000</u>	<u>\$ 27,000</u>	<u>\$8,623,000</u>
July 31, 1989				
Land	\$ 58,000		\$ 18,000	\$ 40,000
Buildings and improvements	1,170,000		850,000	320,000
Equipment	6,799,000	\$ 190,000	49,000	6,940,000
Leasehold improvements	337,000			337,000
Facility financed by capital lease		915,000		915,000
Total	<u>\$8,364,000</u>	<u>\$1,105,000</u>	<u>\$917,000</u>	<u>\$8,552,000</u>
July 31, 1988				
Land	\$ 58,000			\$ 58,000
Buildings and improvements	1,170,000			1,170,000
Equipment	6,414,000	\$ 135,000	\$250,000(a)	6,799,000
Leasehold improvements	334,000	3,000		337,000
Total	<u>\$7,976,000</u>	<u>\$ 138,000</u>	<u>\$250,000</u>	<u>\$8,364,000</u>

(a) Transferred to or from other accounts.

Changes in accumulated depreciation of plant and equipment were as follows:

Year ended	Balance at Beginning of Year	Charged to Profit and Loss	Transfers, Retirements or Sales	Balance at End of Year
July 31, 1990				
Buildings and improvements	\$ 159,000	\$ 21,000		\$ 180,000
Equipment	6,410,000	183,000	\$ 9,000	6,584,000
Leasehold improvements	244,000	45,000		289,000
Facility financed by capital lease	76,000	91,000		167,000
Total	<u>\$6,889,000</u>	<u>\$340,000</u>	<u>\$ 9,000</u>	<u>\$7,220,000</u>
July 31, 1989				
Buildings and improvements	\$ 335,000	\$ 21,000	\$197,000	\$ 159,000
Equipment	6,144,000	266,000		6,410,000
Leasehold improvements	208,000	36,000		244,000
Facility financed by capital lease		76,000		76,000
Total	<u>\$6,687,000</u>	<u>\$399,000</u>	<u>\$197,000</u>	<u>\$6,889,000</u>
July 31, 1988				
Buildings and improvements	\$ 264,000	\$ 71,000		\$ 335,000
Equipment	5,710,000	434,000		6,144,000
Leasehold improvements	176,000	32,000		208,000
Total	<u>\$6,150,000</u>	<u>\$537,000</u>		<u>\$6,687,000</u>

In September 1988 the Company sold and simultaneously leased back its land and building in St. Cloud, Florida. The buyer/lessor is a partnership in which one of the Company's former officers is a general partner. The transaction did not result in a gain or loss to the Company.

5. OTHER ASSETS

Other assets consist of the following at July 31, 1990 and 1989:

	1990	1989
8-1/2% note receivable, plus accrued interest thereon, arising from the sale of the net assets of the Premier Microwave Division	<u>\$1,170,000</u>	\$1,085,000
Note receivable arising from sale of the St. Cloud, Florida facility due in semi-annual installments through September 1993 (Note 4)	75,000	105,000
Other	103,000	71,000
Total	<u>\$1,348,000</u>	<u>\$1,261,000</u>

The 8-1/2% note receivable arising from the sale of the net assets of the Premier Microwave Division ("Premier") has a due date of July 31, 1994. In April 1988 the issuer commenced a lawsuit against Comtech seeking damages in an unstated amount and alleging, among other things, that there were misrepresentations in the sales agreement. The Company denies the allegations and intends to defend vigorously against such action.

6. ACCRUED EXPENSES AND OTHER

Accrued expenses and other consist of the following at July 31, 1990 and 1989:

	1990	1989
Customer advances and deposits	<u>\$2,859,000</u>	\$227,000
Accrued wages and benefits	418,000	329,000
Accrued warranty	423,000	
Other	<u>700,000</u>	263,000
Total	<u>\$4,400,000</u>	<u>\$819,000</u>

During fiscal 1989, the Company reversed reserves and accruals aggregating \$1,100,000 because Management believed that such amounts were no longer necessary based on the status of certain contracts and disputes. Of such amount, \$400,000 was credited to other income and the remainder was credited to cost of sales.

7. LONG-TERM DEBT AND NOTES PAYABLE TO BANK

Long-term debt consists of the following at July 31, 1990 and 1989:

	1990	1989
Promissory note payable to Storage Technology Corporation ("STC")	<u>\$1,372,000</u>	\$1,372,000
Obligations under capital leases	<u>813,000</u>	852,000
Total long-term debt	<u>2,185,000</u>	2,224,000
Less — current maturities	<u>1,465,000</u>	549,000
Long-term portion	<u>\$ 720,000</u>	<u>\$1,675,000</u>

Promissory Note Payable to STC

The promissory note to STC was payable in quarterly payments of \$125,000, including interest at the prime rate through July 1991, at which date the remaining balance was due. The Company pledged the common stock and assets of its wholly-owned subsidiary, Comtech Microwave Corp., to collateralize this note.

Subsequent to July 31, 1990, STC agreed to accept a cash payment of \$686,000 (plus interest of \$22,000) in full satisfaction of the outstanding indebtedness. As part of the settlement, the Company agreed to reissue a warrant which will entitle STC to purchase 450,000 shares of the Company's common stock for \$1.50 per share. The warrant expires on September 26, 1995 (see Note 11). The Company will recognize an extraordinary gain on the settlement of debt in fiscal 1991.

Capital Leases

The obligations under capital lease relate to the St. Cloud, Florida facility, as well as certain equipment, the net carrying value of which was \$841,000 at July 31, 1990.

Debt Maturities

Scheduled maturities of long-term debt are \$1,465,000 in 1991, \$92,000 in 1992, \$92,000 in 1993, \$83,000 in 1994, \$92,000 in 1995 and \$361,000 thereafter.

Notes Payable to Bank

The notes payable to bank bear interest at 2-1/2 percentage points above the bank's prime lending rate (such prime being 10 percent at July 31, 1990) and are collateralized by all of the Company's assets (excluding real property) not pledged for other purposes. The Company issued a warrant to the bank in connection with such borrowings which entitles the bank to receive 250,000 shares of the Company's common stock in the event of a default, as defined, by the Company. For financial reporting purposes, no value was ascribed to this warrant at issuance. The notes payable were originally issued under a \$2,000,000 line of credit which has expired. Subsequent to July 31, 1990 the outstanding loan balance was repaid. The Company is negotiating with the bank to obtain a new working capital facility.

Gain on Settlement of Debt

On November 30, 1987, Comtech completed an exchange offer with the holders of the 13% Subordinated Notes pursuant to which the Company paid \$6,000,000 in cash together with 1,000,000 shares of its common stock for the entire amount of notes outstanding. Comtech recognized a pretax extraordinary gain of \$1,719,000 (after all expenses) on this transaction in which its financial advisor received a fee of \$100,000, as well as 100,000 shares of the Company's common stock, as compensation for its services relating to the exchange.

8. INCOME TAXES

For financial reporting purposes, the Company has available net operating loss carryforwards of approximately \$14,800,000 at July 31, 1990. It expects that its Federal income tax return for the fiscal year ended July 31, 1990 will include net operating loss carryforwards of approximately \$13,200,000, expiring during the period 1997 to 2004. The difference between these two carryforward amounts is principally a result of certain reserves and provisions established for financial reporting purposes which are not currently deductible for income tax purposes. Its Federal income tax return is also expected to have general business tax credit carryforwards of approximately \$400,000.

The accompanying statements of consolidated operations for 1990 and 1989 do not reflect provisions for income taxes because of the utilization of available loss carryforwards.

9. VALUATION ALLOWANCES AND RESERVES

The following summarizes the activity in the Company's valuation allowances and reserves:

	Balance at Beginning of Year	Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Balance at End of Year
<u>Allowance for doubtful accounts</u>					
1990	\$ 26,000			\$ 3,000	\$ 23,000
1989	26,000	\$ 12,000		12,000	26,000
1988	32,000			6,000	26,000
<u>Inventory reserves</u>					
1990	\$493,000	\$ 14,000			\$ 507,000
1989	424,000		\$69,000		493,000
1988	429,000			\$ 5,000	424,000
<u>Reserve for idle, excess and other impaired assets</u>					
1990	\$930,000	\$113,000	\$85,000		\$1,128,000
1989	950,000			\$20,000	930,000
1988	736,000	214,000			950,000

10. COMMITMENTS AND CONTINGENCIES

United States Government Contracts

Certain of Comtech's contracts are subject to audit by applicable governmental agencies. Until such audits are completed, the ultimate profit on these contracts cannot be determined; however, in the opinion of Management, the final contract settlements will not have a material adverse effect on the Company's financial condition.

Litigation

Comtech is a defendant in various suits and claims arising from the normal course of business. Management believes, based on discussions with counsel, that the ultimate liability to the Company, if any, on these matters would not have a material adverse impact on the Company's financial condition. See Note 5 for a description of a legal matter relating to the sale of the net assets of a division.

Operating Leases

Comtech is obligated under operating lease agreements for equipment and manufacturing and office facilities to pay minimum rentals as follows:

Fiscal Year Ending July 31,	Amount
1991	\$115,000
1992	53,000
1993	24,000
1994	10,000
Total	<u>\$202,000</u>

Rent expense charged to operations was \$151,000 in 1990, \$268,000 in 1989 and \$213,000 in 1988.

Letters of Credit

In connection with the performance of work under certain contracts, the Company is required to establish letters of credit and/or performance guarantees. As of July 31, 1990, the Company is committed under open letters of credit of \$1,993,000, of which \$1,312,000 are collateralized by certificates of deposit and the remaining amounts are collateralized by subcontractor guarantees.

11. STOCKHOLDERS' EQUITY

Option and Warrant Plans and Agreements

The Company has several option and warrant plans and agreements.

1982 Incentive Stock Option Plan — The 1982 Incentive Stock Option and Appreciation Plan provides for the granting to key employees and officers of incentive stock options to purchase up to 800,000 shares of the Company's common stock through 1992 at prices not less than the fair market value of such shares on the date the option is granted.

The Plan also provides that Stock Appreciation Rights ("SARs") may be issued in conjunction with the options. The SARs entitle the holder to receive payment in exchange for the surrender, in whole or in part of the related option, of an amount equal to the excess of the fair market value at the time of surrender over the aggregate option price of such shares. Such payment may be made in shares of common stock of the Company, in cash, or a combination thereof, as determined by the committee administering the plan. For financial reporting purposes, a difference between the aggregate market value and exercise price of outstanding SARs is considered compensation expense to the Company.

No compensation was incurred during any of the three years in the period ended July 31, 1990.

Incentive Warrant Plan — The Company's Incentive Warrant Plan for Directors of the Company who were neither officers nor employees of the Company was terminated; however, warrants to purchase 5,000 shares of stock remain outstanding under the Plan, all of which are exercisable until January 31, 1991.

Directors' Option Plan — In March 1988, the stockholders approved a plan under which options to purchase up to 50,000 shares may be granted at an option price of not less than the fair market price per share at the date of grant. Options become exercisable at the rate of 20 percent per year commencing one year from the date of grant.

Public Warrants — In February 1983, the Company sold 800,000 warrants in connection with the issuance of the 13% Subordinated Notes (see Note 7). Each warrant entitles the holder to purchase one share of the Company's common stock at a price of \$11, subject to adjustment, until January 31, 1991. As of July 31, 1990, none have been exercised.

Warrant Held by STC — STC held a warrant to purchase 450,000 shares of the Company's common stock at an exercise price of \$2 per share through March 8, 1990. Shares purchased through the exercise of this warrant would have contained restrictions on voting and transferability. No portion of this warrant was exercised. Subsequent to July 31, 1990 the warrant was reissued with the exercise price reduced to \$1.50 per share and the expiration date extended to September 26, 1995 (see Note 7).

Warrant Sold to the Purchaser of Premier — As part of the sale of Premier's net assets, Comtech issued a warrant to purchase 500,000 shares of the Company's common stock at a price of \$2.00 per share exercisable through July 1992. Shares purchased through the exercise of this warrant will contain restrictions on voting and transferability. No portion of this warrant has been exercised as of July 31, 1990.

For financial reporting purposes, this warrant was valued at \$50,000.

Option and Warrant Activity

The following table sets forth summarized information concerning the Company's stock options and warrants:

	1990		1989	
	Number	Exercise Price Range	Number	Exercise Price Range
Options/warrants outstanding at the beginning of the fiscal year	2,736,100	\$.50-\$11.00	2,518,200	\$.50-\$11.00
Granted	43,000	.63- .81	365,400	.63- .72
Expired/cancelled	(496,200)(a)	.50- 2.00	(147,500)	.50- 1.59
Options/warrants outstanding at the end of the fiscal year	<u>2,282,900</u>	.50- 11.00	<u>2,736,100</u>	.50- 11.00
Options/warrants exercisable at the end of the fiscal year	<u>1,617,280</u>	.50- 11.00	<u>1,946,760</u>	.50- 11.00
Options/warrants available for grant at the end of the fiscal year	<u>122,100</u>		<u>118,900</u>	

(a) Amount includes the warrant held by STC which was reissued subsequent to July 31, 1990.

Employee Stock Purchase Plan

The Company had an Employee Stock Purchase Plan under which 300,000 shares of the Company's authorized and unissued common stock had been reserved for issuance to eligible employees. Under the plan 3,100, 6,600 and 6,400 shares of the Company's common stock were purchased in fiscal 1990, 1989 and 1988. The Company terminated the plan in fiscal 1990.

12. OTHER — NET

Other — Net consists of the following for each of the three fiscal years in the period ended July 31, 1990:

	<u>1990</u>	<u>1989</u>	<u>1988</u>
	Income (Expense)		
Reversal of reserves no longer considered necessary (Note 6)		\$400,000	
Interest — net	\$(213,000)	(16,000)	\$(204,000)
Other — net		22,000	20,000
Total	<u>\$(213,000)</u>	<u>\$406,000</u>	<u>\$(184,000)</u>

13. SEGMENT AND PRINCIPAL CUSTOMER INFORMATION

For the purposes of segment reporting, Management considers Comtech to operate in one industry, the communications equipment industry.

During fiscal 1990, 1989 and 1988, sales from a contract-in-progress amounted to \$2,209,000, \$3,904,000 and \$4,261,000 or 12, 37 and 27 percent of consolidated net sales, respectively. Such contract is expected to be completed early in fiscal 1991. Sales to another major customer in fiscal 1990 amounted to \$4,025,000, or 22 percent of consolidated net sales. During the fiscal years ended July 31, 1990, 1989 and 1988, approximately 29, 15 and 21 percent, respectively, of the Company's net sales resulted from contracts with United States Government agencies. In fiscal 1988, the Company completed work under a long-term contract on which it recognized sales revenue of \$2,093,000 (or 13 percent of net sales for that year).

Export sales comprised 42, 42 and 35 percent of consolidated net sales in fiscal 1990, 1989 and 1988.

14. SUPPLEMENTARY INCOME STATEMENT INFORMATION

Certain supplementary income statement information relating to continuing operations is as follows for the fiscal years ended July 31, 1990, 1989 and 1988:

	<u>1990</u>	<u>1989</u>	<u>1988</u>
Maintenance and repairs	\$223,000	\$229,000	\$186,000
Amortization of intangibles and deferred expenses			86,000
Advertising	118,000	181,000	127,000

Royalties and taxes other than income and payroll were not significant during any fiscal year presented.

Opinion of Independent Auditors

To the Board of Directors and Stockholders
of Comtech Telecommunications Corp.:

We have audited the accompanying consolidated balance sheets of Comtech Telecommunications Corp. and subsidiaries as of July 31, 1990 and 1989 and the related consolidated statements of operations, cash flows and stockholders' equity for each of the three years in the period ended July 31, 1990. These consolidated financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Comtech Telecommunications Corp. and its subsidiaries at July 31, 1990 and 1989 and the results of their operations and cash flows for each of the three years in the period ended July 31, 1990 in conformity with generally accepted accounting principles.

Deloitte + Touche

Deloitte & Touche
October 12, 1990
Woodbury, NY

Price Range of Common Stock and Warrants

The Company's Common Stock and Warrants are traded in the over-the-counter market. The Company's Warrants are not listed on any securities exchange or quoted on NASDAQ. Market prices for the Warrants are not available and the Company has been advised that the value of the Warrants is considered negligible.

The following table sets forth representative quotations of the range of high and low closing bids for the Common Stock for the periods indicated as reported on NASDAQ. Such prices do not include retail markups, markdowns or commissions and do not necessarily reflect actual transactions.

	Common Stock	
	High Bid	Low Bid
Fiscal Year Ended 7-31-89		
First Quarter	1	5/8
Second Quarter	3/4	5/8
Third Quarter	3/4	1/2
Fourth Quarter	3/4	1/2
Fiscal Year Ended 7-31-90		
First Quarter	13/16	1/2
Second Quarter	5/8	7/16
Third Quarter	9/16	7/16
Fourth Quarter	3/4	9/16
Fiscal Year Ending 7-31-91		
First Quarter (through September 30, 1990)	17/32	1/2

As of September 30, 1990, the closing bid quotation of the Common Stock was \$.50 per share. The Company has approximately 1,700 holders of record of the Common Stock. No dividends were declared during any of the periods indicated.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Liquidity and Capital Resources

The Company's cash position has improved in fiscal 1990 compared with prior years, because several of the Company's long-term contracts approached completion. These projects required significant cash outlays during their early stages. Although the Company received advance payments on these contracts, the initial deposits were used to collateralize performance bonds since the Company did not have an unsecured letter of credit facility. As the obligations under these contracts are fulfilled, payments for the shipments are received and the deposits referred to above are released to the Company. The Company anticipates that \$1,303,000 of the collateral currently on deposit at July 31, 1990 will become available to it in the first half of fiscal 1991.

As of July 31, 1990, the Company owed \$1,200,000 under a secured short-term bank line of credit of \$2,000,000 with The Bank of New York which expired on April 30, 1989. The borrowings under this credit line, which bear interest at 2-1/2% over prime, are secured by all of the Company's assets (excluding real property) not pledged for other purposes. Subsequent to the year-end, the Company repaid all of the borrowings under the line. Currently, the Company and The Bank of New York are discussing renewal of the line.

Although the Company anticipates an improved cash flow during fiscal 1991, renewal of its credit facility with the bank may be necessary to meet short-term working capital needs that may occur throughout the year.

On September 27, 1990 the Company negotiated an agreement with STC to settle a promissory note with a remaining balance of \$1,372,000 owed by the Company to STC. Originally, the note, was payable in quarterly installments of \$125,000, including interest, from May 1, 1989 through July 31, 1991, at which time the remaining unpaid balance would be due. The Company had made quarterly interest payments through July 31, 1990. The agreement reached on September 27, 1990 provides for a payment of \$686,000, plus interest of \$22,000, on September 28, 1990 in full satisfaction of the obligation and the issuance of a warrant which entitles the holder to purchase 450,000 shares of the Company's common stock at a price of \$1.50 per share.

At July 31, 1990 the Company had letters of credit outstanding, secured by certificates of deposit, in the amount of \$1,993,000 of which \$1,312,000 are collateralized by certificates of deposit and the remaining amounts are collateralized by subcontractor guarantees.

Results of Operations

Fiscal Year 1990 Compared to Fiscal Year 1989

For the year ended July 31, 1990 the Company had net income of \$784,000 on sales of \$18,215,000. For the prior year, the Company had a net loss of \$612,000 on sales of \$10,593,000, after reversing reserves and accruals aggregating \$1,100,000 because Management believed that such amounts were no longer necessary based on the current status of the specific contracts and disputes.

The increase in sales in fiscal 1990 compared with the year ended July 31, 1989 is attributed to the growth of PST, the realization during the year of contract completions which were delayed in 1989 and the shipment of orders booked later in 1989 than anticipated.

The Company's cost of goods sold as a percentage of sales increased from 72% in fiscal 1989 to 74% in fiscal 1990. This increase in fiscal 1990 is attributable to the fiscal 1989 reversal of \$700,000 of reserves (a reduction to cost of sales) which were no longer considered necessary. Cost of sales in fiscal 1989 without the reversals, would have been 78% of sales. The decrease in fiscal 1990 versus 1989 can then be attributed to the larger gross profits realized on certain jobs (see below) and the efficiencies inherent in higher sales volume.

Selling, general and administrative expenses decreased \$131,000 over the prior year, principally as the result of the Company's continued efforts to reduce expenses.

Research and development expenses decreased from \$323,000 or 3% of net sales to \$136,000 or 1% of net sales due to the completion of several new designs at PST.

The Company's profit of \$784,000 for the year as compared to the net operating loss of \$612,000 in fiscal 1989 is attributable to higher sales volume and the higher gross profits recognized on certain contracts in 1990 (including the sale of manufacturing drawings and rights).

Fiscal Year 1989 Compared to Fiscal Year 1988

For the year ended July 31, 1989 the Company had a net loss of \$612,000 on sales of \$10,593,000. For the prior year, the Company had income before extraordinary credit of \$577,000 on sales of \$15,770,000 and net income of \$2,296,000, including an extraordinary credit of \$1,719,000, resulting from the gain on the elimination in November 1987 of \$10,000,000 principal amount of the Company's 13% Subordinated Notes for cash and

stock. During fiscal 1989, the Company reversed reserves and accruals aggregating \$1,100,000 because Management believed that such amounts were no longer necessary based on the current status of contracts and disputes. Of such amount, \$400,000 was credited to other income and the remainder was credited to cost of sales.

For the year ended July 31, 1988 the Company made a significant shipment under its contract with an international customer. This shipment as well as extensive customer requested design changes and modifications during the earlier part of this fiscal year under the same contract, were the principal reasons for the sales decrease of \$5,177,000 for the year. Last year's revenues included approximately \$2,100,000 under a major contract which was completed during that period. Sales at CMC decreased in the current year but sales at PST which began operations in early fiscal year 1988 increased significantly over the prior year.

Cost of sales decreased from the prior year because of the sales decline noted above. As a percentage of sales, however, the gross profit margin was higher in 1989, principally because of lower than normal gross profit recognition on the 1988 shipment noted above.

Selling, general and administrative expenses increased \$286,000, or 8%, over the prior year principally as the result of the growth of PST.

Research and development expenses increased by \$212,000 over last year as a result of the ongoing product development at PST.

Other — Net resulted in \$406,000 income in 1989 as compared to expense of \$184,000 in 1988 principally from the reversal of reserves of \$400,000 as well as a reduction in net interest expense of \$188,000. The interest reduction resulted from the elimination of the \$10,000,000 subordinated debt offset partially by interest expense incurred on amounts outstanding under the Company's \$2,000,000 credit facility.

Comtech Telecommunications Corp. and Subsidiaries
Summary Selected Financial Data
(Dollars in thousands, except for per share amounts)

	Year Ended July 31,				
	1990	1989	1988	1987 (1)	1986 (1)
Selected Income Data:					
Net sales from continuing operations	\$18,215	\$10,593	\$15,770	\$13,533	\$ 8,658
Operating income (loss) from continuing operations	997	(1,018)	761	362	(344)
Income (loss) from continuing operations	784	(612)	577	346	(926)
Net income (loss)	784	(612)	2,296	3,877	(606)
Earnings (loss) per share:					
Income (loss) from continuing operations	.13	(.10)	.10	.07	(.19)
Net income (loss)	.13	(.10)	.40	.79	(.13)
Selected Balance Sheet Data:					
Working capital (deficit)	1,282	1,081	1,171	(2,526)	341
Total assets	13,562	8,804	9,410	15,652	13,211
Long-term debt, excluding current maturities	720	1,675	908	1,361	11,399
Stockholders' equity (deficiency)	2,185	1,400	2,008	(1,394)	(5,673)

(1) Amounts have been restated to reflect Comtech Data Corporation, Comtech Communications Corp. and Premier Microwave as discontinued operations.
No cash dividends have been declared on Comtech's Common Stock during any period presented.

Corporate Data

Board of Directors

Fred Kornberg (1) (4)
Chairman

George Bugliarello (2) (3) (4)
President, Polytechnic University

Sol S. Weiner (2) (3)
*Managing Director,
Stenhouse, Weiner, Sherman, Ltd.*

Joe E. Davis (2) (3) (4)
Private Investor

Richard L. Goldberg (1)
Partner, Proskauer Rose Goetz & Mendelsohn

(1) *Executive Committee*

(2) *Audit Committee*

(3) *Compensation Committee*

(4) *Directors' Stock Option Plan Committee*

Officers

Fred Kornberg
Chief Executive Officer and President

Gerard Nocita
Vice President Finance, Secretary & Treasurer

Michael Javits
*Vice President;
President of Comtech Microwave Corp.*

Annual Meeting

Stockholders are cordially invited to attend and participate in the Annual Meeting of Stockholders scheduled for Tuesday, January 8, 1991 at 10:00 a.m. at:
Marriott's Orlando World Center
Resort & Convention Center
8701 World Center Drive
Orlando, Florida 32821
(407) 239-4200

Legal Counsel

Proskauer Rose Goetz & Mendelsohn
1585 Broadway
New York, New York 10036

Independent Public Accountants

Deloitte & Touche
100 Crossways Park West
Woodbury, New York 11797

It is the policy of Comtech to support and practice the principle of Equal Opportunity Employment and not to discriminate against any employee or applicant for employment because of race, creed, color, religion, sex, national origin, ancestry, age, handicap, or because he or she is a disabled veteran.

Registrar & Transfer Agent

American Stock Transfer and Trust Company
99 Wall Street
New York, New York 10005

Stock Traded — OTC (NASDAQ Symbol — CMTL)

Corporate Headquarters

Comtech Telecommunications Corp.
63 Oser Avenue
Hauppauge, New York 11788
(516) 435-4646

Operating Units

Comtech Antenna Systems, Inc.
3100 Communications Road
St. Cloud, Florida 32769
(407) 892-6111

Comtech Microwave Corp.
63 Oser Avenue
Hauppauge, New York 11788
(516) 435-4646

Comtech Systems, Inc.
3100 Communications Road
St. Cloud, Florida 32769
(407) 892-6111

Power Systems Technology, Inc.
63 Oser Avenue
Hauppauge, New York 11788
(516) 435-8480

Availability of Form 10-K

Stockholders may obtain a copy of Form 10-K, exclusive of exhibits, free of charge by writing to:

Secretary
Comtech Telecommunications Corp.
63 Oser Avenue
Hauppauge, New York 11788

The Company also will furnish exhibits to the Form 10-K to stockholders who request same upon payment to the Company of a \$25 fee.

Significant Accomplishments

Power Systems Technology, Inc. is manufacturing 18 sets of 500 watt remotely controllable high power solid-state amplifiers covering the 20-100 MHz and 100-500 MHz bands for use in an electronic countermeasure communication jamming system application in Turkey.



A grant from the Federal Government's Star Schools program allowed the Missouri School Boards Association Educational Satellite Network to acquire this mobile C-band uplink satellite earth station. The station incorporates a 5.5 x 2.4 meter mobile OFFSAT® antenna produced by Comtech Antenna Systems, Inc. Compatibility with FCC 2° spacing requirements, compactness, quick setup, ruggedness and dependability makes Comtech's OFFSAT® one of the best transportable uplink antenna systems available today.



Comtech Systems, Inc. enhanced its position as a leader in digital troposcatter systems with the design and delivery of these new, innovative, highly mobile digital systems. The systems include the most advanced adaptive modems available, remote control for positioning and optimization of the antenna systems, complete on-board computer driven path prediction and performance monitoring systems as well as the first command car tactical TROPO/LOS communication system. The antenna folds into a very compact package and along with its multiplex and cryptographic facilities fits into the command car which is designed to be deployed by helicopter or under its own power.

The overall effort by the consortium of Comtech subsidiaries resulted in four S-280 shelterized transportable and three command car mobile tropospheric scatter communication systems that were delivered to an international customer. The systems, operating in the 4.4 — 5.0 GHz frequency band, included 2.44 meter transportable antennas from Comtech Antenna Systems, Inc., 1KW klystron high power amplifiers from Comtech Microwave Corp. and quadruple diversity digital radio systems from Comtech Systems, Inc.



COMTECH
TELECOMMUNICATIONS CORP.

**63 Oser Avenue
Hauppauge, New York 11788**