



COMTECH
TELECOMMUNICATIONS CORP. 



About the Company

Comtech Telecommunications

Corp. provides a single source solution for the microwave solid-state power amplifier and telecommunications market places with the supply of its superior quality products worldwide for cellular, satellite, over-the-horizon microwave, and other wireless communications applications.

Comtech has become known as the leading innovator, manufacturer and supplier of a broad selection of high performance products and systems including a variety of fiberglass and aluminum parabolic antennas, solid-state high power amplifiers, high performance frequency up and down converters, state-of-the-art VSAT transceivers and modems for domestic and international satellite and regional network communications applications.

The Company's solid-state radio frequency and microwave high power amplifier product line continues to set the standard in the industry for cost-effective advanced performance. **Comtech's** solid-state high power amplifiers are supplied for use in cellular and low earth orbit (LEO) base stations, electromagnetic compatibility and susceptibility testing systems, defense systems, high power testing of electronic components and systems and in various forms of communications systems.

The Company's satellite frequency converter and transceiver products are available in frequencies from 3 GHz to 18 GHz and meet or exceed standards published by Intelsat, Eutelsat, Insat, Asiasat and many worldwide regional satellite networks.

The Company's digital satellite modem products perform signal modulation/demodulation and forward error correction functions and operate at data rates from 2.4 to 2048 kbps. These modems offer versatility to the users for a wide variety of satellite earth station applications.

Through cohesive cooperation of **Comtech's** operating units, the Company continues to be a prime supplier of communications products and systems meeting the needs of the world's leading providers of U.S. domestic, foreign domestic and international telecommunications services. Customers include common carriers and telephone companies, defense contractors, oil companies, wireless network and equipment providers, broadcasters, utilities and government entities.

The ever-increasing worldwide demand for more and better global telecommunications and high power amplification continues to present **Comtech** with challenges and opportunities as emerging economies seek to modernize and as the communications needs in developed countries continue to expand.

Comtech's established reputation for advanced engineering and manufacturing expertise coupled with its diversified product line and customer base, enables the Company to address these worldwide demands for new state-of-the-art, cost-effective telecommunications and amplification products.



To Our Shareholders

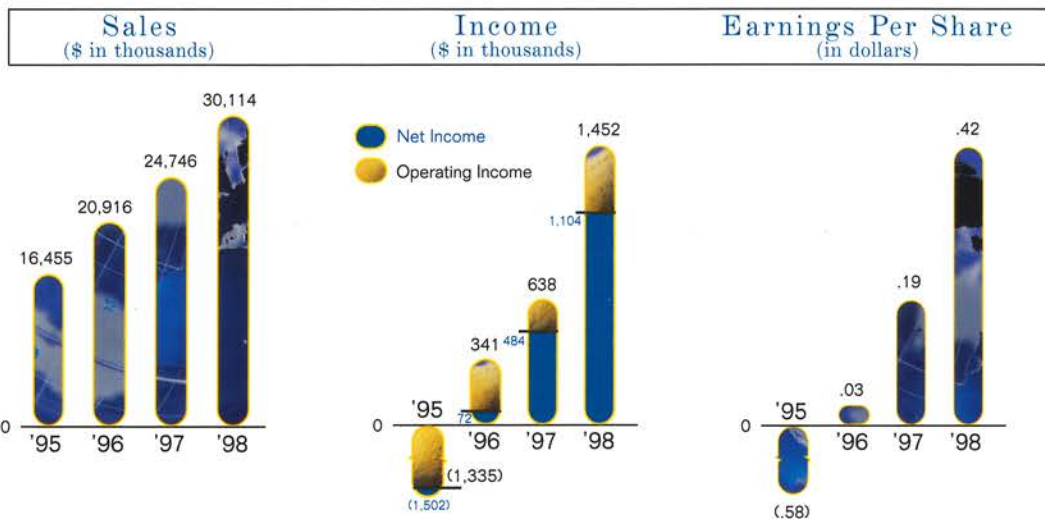


Comtech's pace accelerated in 1998. We moved ahead on sales, earnings, bookings and backlog. We made real progress toward our goal of building and sustaining profitable growth. We reaffirmed my belief that the best is yet to come!

We are pleased, but not satisfied, with Comtech's 1998 financial results, marking the Company's third consecutive year of increased sales and earnings. We were able to accomplish this during an especially challenging year for the communications industry in general — and despite a sharp economic downturn in Asia and a slowdown in Europe and South America. Comtech was not unaffected by these general factors, yet the Company produced in fiscal 1998, a 22% net sales growth to \$30,114,000, a 5% backlog growth to \$15,452,000, a 128% net earnings increase to \$1,104,000 and a 121% improvement to \$.42 in earnings per share. An increase in Comtech PST's high power solid state amplifier market share led the way.

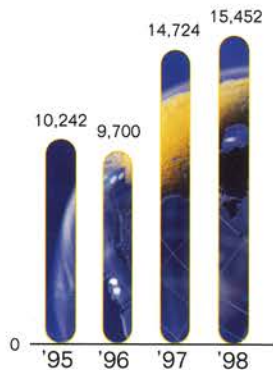
Our cash position at year-end 1998 was \$2,746,000, an increase of 101%, our working capital improved by 13% and product research and development increased by 29%. Long-term debt, consisting only of capitalized leases, was 10% at year-end as a percentage of total capitalization. At year-end, the value of a share of Comtech had increased more than 89% over the prior year's closing price.

Now to build on this stronger foundation!





Backlog
(\$ in thousands)



Expanding our pipeline of products through accelerated internal development and the acquisition of communications companies with high quality management, will continue to be looked to as a significant growth driver — all while we continue to work on and improve results from our existing businesses.

All four of our present operating units are targeting opportunities resulting from the increasing demand for enhanced voice, data and video communications and the increasing need for telecommunications infrastructure and network services. By finding and filling those niches we believe are right for us, we plan to make progress through selective growth toward our ever-present goal of enhancing shareholder value — believing, as we do, that we are in the right place — **communications** — at the right time!

There is growing excitement at Comtech, part enthusiasm, part passion. Enthusiasm to reach ever-higher goals. Passion to be the “Best of Class.” In short, we are pleased, but far from satisfied. **We** know we can do better — and **you** know we will be trying.

Fred Kornberg
Chairman of the Board

October 12, 1998

Comtech Antenna Systems, Inc. (CASI)

Services/Applications

CASI is a leading design innovator, manufacturer, and supplier of a variety of fiberglass and aluminum parabolic antenna systems for applications in satellite and over-the-horizon microwave communications. CASI designs antenna systems for specific types of communications applications and also offers standardized catalog antenna products to independent distributors, prime contractors and end users. End users include: TV and radio broadcasters, cable companies, teleports, university and corporate private satellite networks, oil and gas producers and government entities.

Products/Markets

- Satellite and Over-The-Horizon Microwave Antenna Systems—0.9 To 9.0 Meter
- Quick Deployable and Fly Away Antenna Systems—1.2, 1.8 and 2.4 Meter
- Inclined Orbit Tracking Antenna Systems—3.8, 5.0 and 7.3 Meter
- Offsat™ and Multi-Beam Antennas
- Trailerized Antenna Systems—Low Over-The-Road Profile

Two new antenna systems developed at CASI answer the needs of the news gathering and sports television broadcast industries. Pictured are a 1.2-meter Quick Deployable Antenna System and a 2.4-meter "Fly Away" Antenna System which when packed in their respective aircraft cargo and baggage checkable transit cases are perfect for quick deployment and rapid response to points around the globe.

The 1.2-meter system operates with Ku-Band satellites. The 2.4-meter system operates with C-, X- and Ku-Band satellites. Both systems can transmit and receive video, voice and data transmissions and be deployed in less than one hour. All necessary tools and hardware are included with each system.



Comtech Communications Corp. (CCC)

Services/Applications

CCC designs and manufactures a broad range of high-performance, high-quality products, available in discrete frequency bands from 3 to 18 GHz, for a multitude of satellite communications applications for the domestic and international marketplace. These products include Satellite Transceivers, Frequency Up and Down Converters, Modems and Solid-State Power Amplifiers. CCC holds a patent on its "Daisy-Chain" 1:N Redundancy Switching System for its frequency converter subsystems and offers complete redundancy systems for all its products. All CCC products meet the performance standards published for Intelsat, Eutelsat, Insat, Asiasat and other worldwide and regional satellite networks. All CCC products carry the European Union CE certification.

Products/Markets

- Satellite Transceivers—C-, X- and Ku-Bands, 2 To 100 watts
- Frequency Up and Down Converters—C-, X- and Ku-Bands
- Satellite Modems for VSAT, DAMA and SCPC/MCPC Networks—Up To 2048 Kb/S
- Solid-State Power Amplifiers—C-, X- and Ku-Bands, 5 To 350 watts
- "Daisy-Chain" 1:N Redundancy Self Contained Switching Systems

Two of CCC's Satellite Earth Station building blocks are shown. The photo shows the 25 Watt version of CCC's Model CSAT-5060 Satellite Transceiver. The Transceiver, packaged in a compact, rugged, weatherized outdoor unit, is ideally suited for direct antenna mounting. Its integral monitor and control capability can be driven by any Comtech Modem for a complete, standalone installation. Models are available with output power levels from 2 Watts to 100 Watts.

The Model CDM-550 Digital Satellite Modem, also shown, occupies only one unit of rack space and can be used as a building block as part of a satellite earth station. The modem not only performs the modulator/demodulator duties but also provides local and remote monitor and control functions for the Model CSAT-5060 Transceiver. The Model CDM-550 Modem offers data rates from 2.4 to 2048 kbps and its versatility makes it applicable for use in a wide variety of satellite earth stations, particularly all VSAT oriented applications.



Comtech PST Corp. (CPST)

Services/Applications

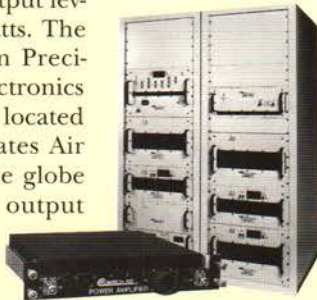
CPST designs and manufactures solid-state, high power, broadband amplifiers for use in a broad spectrum of applications including cellular and wireless base stations and high power test systems, defense systems, electromagnetic compatibility and susceptibility (EMC) instrumentation, and satellite communications.

Products/Markets

- Solid-State High Power Amplifiers—To 10 KW CW
- Wireless Communications Base Station Amplifiers—Cellular, LEO
- Communications Amplifiers—Video, Radio, DAB, Satellite, Over-The-Horizon Microwave
- Instrumentation Amplifiers—EMC, Wireless, Cellular, PCN/PCS, Calibration
- Broadband Solid-State Replacement of TWT Amplifiers
- Defense Amplifiers—Radar, Jamming, Simulation, Communication

CPST designed, manufactured and delivered high power solid-state amplifiers, designated Model CPHC128148-1000, for international applications within a man-portable battlefield deployed acquisition radar system that detects, tracks, classifies and identifies airborne targets. The amplifiers provide 1000 watts of peak RF power in a 220 cubic inch enclosure that weighs less than nine pounds. The amplifiers provide the RF power for pulsed doppler radar systems that operate over a band of frequencies from 1200 to 1400 MHz and are powered by battery.

Also shown is a two cabinet Solid-State High Power Amplifier Subsystem supplied to the United States Air Force for use in accurate calibration of RF power sensing equipment. A total of 32 subsystems were delivered ranging in frequency from 10 to 1000 MHz with RF power output levels from 10 to 1000 watts. The subsystems are used in Precision Measurement Electronics Laboratories which are located at strategic United States Air Force Bases around the globe for calibration of RF output power of certain air defense products.



Comtech Systems, Inc. (CSI)

Services/Applications

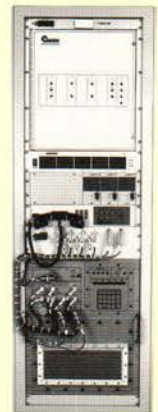
CSI provides a single source solution for telecommunications products and systems employing digital troposcatter for reliable over-the-horizon use, digital satellite for long distance national and international communications and digital microwave radio for commercial and foreign defense communications applications. CSI's customers include international oil and gas producers and domestic and foreign prime contractors serving a wide variety of user telecommunications needs.

Products/Markets

- Digital Over-The-Horizon Microwave Systems and Equipment
- Digital Microwave Radio Equipment and Systems—2 To 38 GHz
- Satellite Systems and Equipment
- Digital Adaptive and Fade Resistant Modems—Up To 8192 Kb/S
- Computer Controlled Radio Performance Monitoring and Power Control Systems
- Path Profile Propagation Analysis
- Air Defense Communications System Integration
- Communications Network Integration

CSI's Digital Over-The-Horizon Quad Diversity Microwave Radio operates in discrete frequency bands from 0.7 to 7.6 GHz. The radio incorporates CSI's world renowned and patented adaptive fade resistant 8.2 megabit digital modem capable of processing up to 4TI or 4EI signals. This radio, when combined with CSI's klystron or solid-state high power amplifiers and antennas, provides systems capable of up to 2000 watts cw output power for over-the-horizon voice, data and video communications over distances up to 300 miles.

CSI's Over-The-Horizon Microwave systems have a proven track record worldwide in such applications as offshore oil and gas production data transmission, in-country communication infrastructure modernization, air traffic control and defense communications.



Comtech... at a glance

- Quality



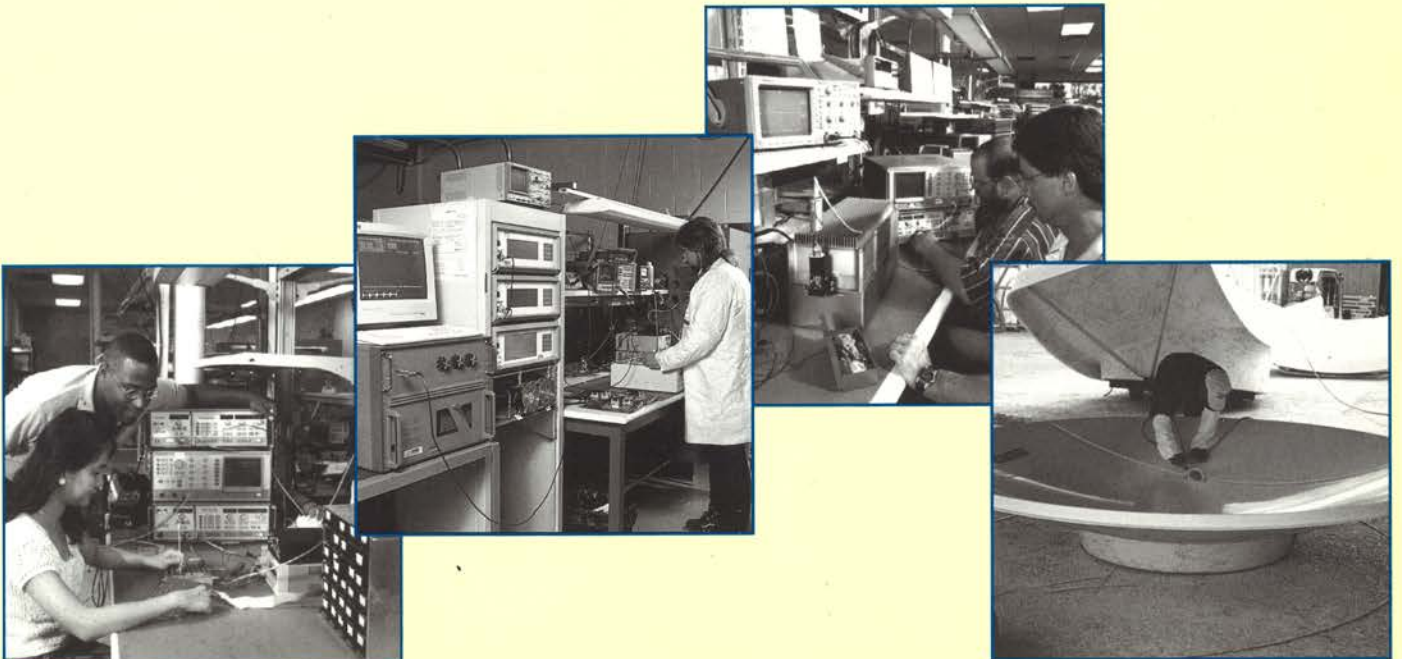
- Performance



- Dependability

- Reliability

Provided to our customers through the technical leadership,
productivity and dedication of the Comtech people.





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