

SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 10-K

Annual Report Pursuant to Section 13 or 15 (d)  
of the Securities Exchange Act of 1934

For the fiscal year ended  
December 31, 1997

Commission File No. 0-19437

CELLULAR TECHNICAL SERVICES COMPANY, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

11-2962080

(State or Other Jurisdiction of  
Incorporation or Organization)

(IRS Employer Identification No.)

2401 Fourth Avenue, Seattle, Washington 98121

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (206) 443-6400

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$.001 par value

(Title of Class)

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

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

As of March 16, 1998, there were 22,815,092 shares of Common Stock, \$.001 par value outstanding. As of March 16, 1998, the aggregate market value of the Company's Common Stock, \$.001 par value, held by non-affiliates was approximately \$42 million. The aggregate market value of the Company's stock was calculated using the average of the high (\$1.938) and low (\$1.813) sale price for its Common Stock on March 16, 1998 on NASDAQ as reported by the National Quotation Bureau.

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PART I

Item 1. Business

The Company

The Company's mission is to be the premier provider of real-time information processing and information management solutions for the global wireless communications industry. Over the past nine years, the Company has used its extensive experience with real-time technology to create advanced solutions for this industry. Today, the Company develops both software and hardware for sale as part of its integrated systems solutions in the areas of "user/device authentication" and "service metering."

"User/device authentication" primarily involves various forms of "pre-call" verification to ensure that the use of a wireless communications device (e.g., a cellular telephone) is legitimate before the device is allowed to connect to a wireless communications network. In this area, the Company is a leading provider of radio frequency ("RF") based solutions for the prevention of "cloning fraud," with its Blackbird-Registered Trademark-Platform, PreTect-TM- fraud prevention application, and No Clone Zone-SM-roaming fraud prevention service. "Cloning fraud" is the term used by the cellular industry to describe the illegal activity of using a cellular telephone that has had its electronic serial number and telephone number altered to match those of a legitimate subscriber's telephone. The Cellular Telecommunications Industry Association ("CTIA") has estimated that in 1997 cellular fraud, the majority of which is believed to be cloning fraud, has resulted in more than \$500 million in costs and lost revenues to the United States cellular industry, down from an estimated \$1 billion in 1996. The Company believes that in 1998 cloning fraud will continue to decline. The Company's Blackbird Platform provides the underlying technology for the Company's application products for user/device authentication. The Company's PreTect application product, the first application product on the Blackbird Platform, is designed to proactively prevent cloning fraud in real-time. The Company's No Clone Zone service is designed to effectively prevent roaming-based cloning fraud in real-time between markets using the Blackbird Platform and PreTect application product. See "The Blackbird Platform" below.

"Service metering" primarily involves the collection of various forms of "post-call" information (within minutes after the end of the call) to ensure that a wireless communications carrier's subscriber has proper account status to make additional calls. The Company's Hotwatch-Registered Trademark- Platform provides the underlying technology for post-call application products and services for credit management and prepaid billing ("Hotwatch Products"). See "The Hotwatch Platform" below.

The Company's current activities are primarily focused on the further development, marketing, and deployment of the Blackbird Platform, the PreTect fraud prevention application product, the No Clone Zone roaming fraud prevention service, and other products and services that may be developed on the Blackbird Platform (the "Blackbird Products"). During 1997, the Company added new agreements with SNET Mobility ("SNET") and GTE Mobilnet Service Corp. ("GTE Corp.") to its existing agreements with AirTouch Cellular ("AirTouch"), Bell Atlantic Mobile ("BAM" - formerly known as Bell Atlantic NYNEX Mobile), Ameritech Mobile Communications, Inc. ("Ameritech"), and GTE Mobilnet of California Limited Partnership ("GTE-California") establishing terms for the provision of the Blackbird Products for use in over 2,000 cell sites throughout the United States.

The Company's products and services currently are used exclusively for analog cellular networks. The Company believes that, as of the end of 1997, there were approximately 30,000 domestic cell sites of analog cellular networks in which the Company's products and services currently can be used. Additionally, the Company believes that the number of international cell sites of analog cellular networks to which its products are either currently adaptable or could be adaptable may be equal to or greater than the number of domestic cell sites. The

Company also believes that its platform and its application products and services may be adaptable for use in other wireless communications networks.

#### Recent Developments

The Company has incurred significant operating losses during 1996 and 1997 in its initial years of deployment of the Blackbird Products. In January 1998, the Company began implementation of a strategic plan that has included, among other initiatives, streamlining the Company's operations to better balance expenses and revenues, and directing additional development efforts and resources toward new products that can generate new sources of revenue. By the end of the second quarter of 1998, the Company's workforce will be reduced by approximately 40 percent from December 31, 1997 levels. As of March 25, 1998, the majority of the reduction has already been accomplished. In addition, in late 1997 and early 1998, the Company completed the consolidation of certain hardware assembly and integration operations through the selected acquisition of assets, assumption of leases, and hiring of employees from two former suppliers.

On March 2, 1998, the Company and U.S. Wireless Corporation ("US Wireless") announced the signing of a letter of intent which provides for the potential combination of the two companies. If the proposed transaction is completed on the terms contemplated, which includes stockholder approval for both companies and as to which no assurance can be given, the stockholders of the Company and US Wireless will each own 50 percent of the shares of the resulting company, and the board of directors of the resulting company will be controlled by the stockholders of US Wireless. The companies have commenced a due diligence and final agreement negotiation process. In connection with this transaction, the letter of intent calls for the companies to seek no less than \$15 million in new financing. US Wireless develops and manufactures products designed to provide value-added services and features for the wireless communications industry, including caller-location and tracking, autonomous network management, and other applications. Its RadioCamera-TM- caller-location and tracking product is designed to meet the emergency 911 requirements of the Federal Communications Commission ("FCC"). In June 1996, the FCC issued a Report and Order requiring wireless carriers to be able to identify the location of wireless callers to emergency 911 systems. This mandate requires that products designed to meet this need must be operational and accurate to within 125 meters of the wireless caller not less than 67% of the time by October 2001. Industry analysts have estimated that the market for wireless caller-location and tracking technology could reach \$8 billion in revenues worldwide.

#### The Wireless Communications Industry

From inception, wireless communications service has been one of the fastest growing segments of the telecommunications industry. The CTIA has estimated that the number of cellular subscribers in the United States increased from approximately 340,000 subscribers in December 1985 to approximately 50 million subscribers in December 1997. The Company believes the worldwide wireless communications market exceeds 150 million subscribers at the end of 1997. The Company expects significant growth in wireless communications to continue in the United States as a result of the increased demand for cellular service and the emergence of personal communications service ("PCS") as a new form of wireless communications service. The Company also expects that significant growth will also occur in international markets. The Company believes that the number of cellular and PCS subscribers may grow to in excess of 90 million in the United States and more than 300 million worldwide by the end of 2001. The Company also believes that the demand for its current products and services may increase as the Company adapts its products and creates new products to service an expanded wireless communications industry.

The FCC regulates the wireless communications industry in the United States and is responsible for granting the licenses required to operate wireless communications systems. The FCC has divided the United States into a number of service (license) areas or markets. In the near term, wireless communications services are expected to be dominated by cellular services, PCS and, to a lesser extent, enhanced specialized mobile radio ("ESMR"). The introduction of PCS and ESMR has added new service providers in many cellular markets creating increased

competition, additional service features, and a greater number of choices for wireless communications subscribers.

Currently, cellular service dominates wireless communication services in the United States. At year end 1997, there were approximately 50 million cellular subscribers in the United States. The Company believes that approximately 80% of cellular service currently is provided in an analog mode but that the industry is undertaking a shift to digital mode in the major markets due to certain systems advantages in the digital mode, including expanded capacity, greater privacy, and enhanced security (such as, for example, use of A-Key cryptographic authentication). Cellular subscribers are serviced by two carriers in each market (commonly referred to as "A Band" and "B Band" carriers). The markets are defined as Metropolitan Service Areas ("MSAs"), of which there are 306, and Rural Service Areas ("RSAs"), of which there are 428. Service is available on a nationwide basis and the major providers, through adherence to industry standards, offer interoperability to markets that they do not own. The 10 largest cellular carriers own or operate 180 of the largest 200 MSAs.

PCS systems are digital wireless communications networks, operating on a higher frequency band than cellular, which compete directly with existing cellular telephone, paging, and specialized mobile radio services. The Company believes that PCS providers are the first direct wireless competitors to cellular providers and the first to offer mass market all-digital wireless communications networks. In addition, PCS providers may be the first to offer mass market wireless local loop applications in competition with wired local communications services. The FCC has auctioned PCS licenses to the public. Service resulting from these licenses is currently providing the primary competition to cellular service. The service areas for PCS differ from those of cellular. The PCS licenses are based on Major Trading Areas ("MTAs"), of which there are 51, and Basic Trading Areas ("BTAs"), of which there are 493. BTAs are a subset of MTAs and are wholly contained within the MTA boundaries. As with cellular, ownership of the PCS licenses is concentrated. Sprint Telecommunications Venture, AT&T Wireless and PCS PrimeCo (owned by AirTouch Communications, Inc., and Bell Atlantic) account for the majority of coverage of the PCS licenses in the United States.

ESMR service in the United States is dominated by one carrier, Nextel Corporation, which the Company believes will be focusing its attention on commercial, rather than consumer, uses of wireless solutions.

#### Operation of Wireless Communications Networks

#### Operation of Analog and Digital Networks

The service areas of a wireless communications network, whether cellular or PCS, are divided into multiple cells. Because cellular networks operate at lower frequencies, their cells generally cover a wider area than PCS cells. However, cell size may be determined by the required system channel capacity rather than the physical limits of Radio Frequency ("RF") propagation. In both cellular and PCS networks, each cell contains a base station comprised of transmitting, receiving, and signaling equipment located at a cell site which is connected by microwave or landline telephone lines to a Mobile Switching Center ("MSC") that controls the operation of the cellular communications network for the entire service area. The MSC controls the transfer of calls from cell to cell as a subscriber's telephone travels, coordinates calls to and from telephones, allocates calls among the cells within the network and connects calls to the local landline telephone network or to a long distance telephone carrier. Wireless communications carriers establish interconnection agreements with local exchange carriers and interexchange (long distance) carriers, thereby integrating their network with the existing landline communications network.

A major component of any wireless communications network is the switching equipment, commonly known as a "Switch," located in the carrier's MSC. The Switch, which is owned and/or operated by the carrier, manages the provision of service, the interconnection of subscribers' telephones with the public telephone network, and the hand-off from cell site to cell site within a network. The Switch maintains a database of the carrier's subscriber

information, such as phone and electronic serial numbers, and call option features. The Switch tracks the progress of calls made to or from such subscribers and records call detail for billing purposes.

While analog and digital cellular networks and PCS digital networks utilize similar conceptual technologies and hardware, they operate on different frequencies and may use different technical and network standards. Analog cellular phones are functionally compatible with cellular networks in the United States, Canada, and a number of other international markets. Cellular carriers typically agree to provide service to subscribers from other cellular markets, commonly known as "roamers," who are temporarily located in or traveling through their service areas. Agreements among cellular carriers provide that the carrier in the home market of the subscriber pays the serving carrier (roaming market) at rates prescribed by the serving carrier. As a result, analog cellular phones generally can be used wherever a subscriber is located, as long as a cellular network is operational in the area.

PCS networks are operating under one of three principal digital signal transmission technologies: Global System for Mobile ("GSM"), Code Division Multiple Access ("CDMA") or Time Division Multiple Access ("TDMA"). In the United States, digital cellular and PCS networks are operating under primarily the TDMA or CDMA standards, with the CDMA standard expected to be the more widely adopted. Outside of the United States, GSM is the most prevalent digital wireless technology, with approximately 250 systems operating in over 100 countries serving over 70 million subscribers. The TDMA and CDMA-based PCS standards are higher frequency versions of the digital cellular standard currently in use by cellular carriers in the United States. PCS networks are believed to offer greater capacity, call quality, and hand-off advantages than analog or digital cellular networks. PCS networks have initially offered the same features and services offered by digital cellular networks.

GSM and TDMA are both variations of "time division multiplexing" standards that are not currently compatible with each other or with CDMA. Thus, a subscriber of a wireless network that utilizes GSM, TDMA, or CDMA technology currently will be unable to use a GSM, TDMA, or CDMA phone when traveling in an area not served by the same digital technology, unless the subscriber is in a market with compatible technology or carries a multi-mode phone that permits the subscriber to use the digital technology in another frequency or defaults to the analog cellular network in that area. Such multi-mode phones are commercially available today and are currently required for digital phones to effectively roam nationally, as roaming footprints for all digital technologies are presently limited. The Personal Communications Industry Association ("PCIA") has projected that the first digital technology to achieve a footprint that covers all major metropolitan areas in the United States will be CDMA by the year 2000. At that time it is projected that GSM will cover 80% to 85% and TDMA will cover 35% to 45% of the major metropolitan areas. The Company believes that carriers will maintain an underlying analog cellular network as they expand their operations to include digital networks, thereby allowing a continued use of analog cellular networks. See also "Cloning Fraud When Roaming" below.

#### Emergence of A-Key Authentication

The Company's Blackbird Products currently are used exclusively for analog cellular networks, although the Company believes that its future Blackbird Products may be adaptable for use in digital networks such as digital cellular and PCS digital networks. The technology used in these analog and digital networks currently enable wireless carriers to incorporate various forms of user/device authentication to combat cloning fraud, including RF fingerprinting (See "--PreTect Application" below) and cryptographic authentication. One form of cryptographic authentication, commonly known as "A-Key authentication," uses a complex algorithm derived from a mathematical cryptographic process containing a secret key (number) shared only by the phone and the carrier's network. Almost all digital and analog phones currently being distributed into the wireless communications system are now equipped with the A-Key capability. When a person places or receives a call, the network asks the phone to "prove" its identity through a challenge-response process, which minimally delays the time it takes to connect a legitimate call. A-Key authentication is expected to be the most widely adopted cryptographic authentication by wireless carriers in the United States. A-Key technology in the digital mode (and to a lesser, but still significant extent in an analog mode) is now in extensive use by several major cellular

carriers in most major domestic markets. Through the American National Standards Institute inter-switch signaling standard ANSI-41, A-Key authentication can now provide roaming protection between like-equipped vendors. The Company believes that such cryptographic authentication has been effective and could become increasingly effective in reducing cloning fraud, provided that it is not compromised

#### Cloning Fraud When Roaming

Both Analog and digital phones will continue to be susceptible to cloning fraud when they roam on an analog cellular network which does not use A-Key authentication. In the roaming environment, a subscriber of a GSM, TDMA, or CDMA-based digital network currently will be unable to use a GSM, TDMA, or CDMA phone when traveling in an area not served by a compatible digital technology, unless the subscriber carries a multi-mode phone that permits the subscriber to default to the analog cellular network in that area. A-Key authentication is capable of combating cloning fraud in digital phones while roaming in an analog mode; however, for such authentication technology to be implemented, it currently must comply with the ANSI-41 network service standard. The Company believes that full deployment of A-Key authentication compliant with the ANSI-41 standard could take a number of years to complete. The Company believes that extensive efforts and cooperation among the large market carriers, small market carriers, wireless industry associations, and wireless technology providers is required to implement a fully-functional A-Key authentication system. Given such factors, the Company believes that subscribers of digital wireless networks will continue to be susceptible to cloning fraud while roaming in the analog mode.

#### Business Strategy

##### Deployment of Blackbird Products

The Company's immediate strategy is to achieve market penetration and deployment of the Blackbird Products. To accomplish this, the Company will continue its domestic and international sales and marketing efforts. After it achieves widespread deployment of the Blackbird Products, the Company believes that it will be able to leverage its relationships with carriers and its position at the carriers' cell sites, as well as its underlying platform technology, to offer additional products and services. The Company plans to continue its research and development efforts to enhance its existing products and services and to develop new value-added products for the Blackbird Platform. These new products may include fraud prevention products which can be sold in connection with PreTect or non-fraud prevention products integrated onto the Blackbird Platform.

##### Leverage Core Competencies

Through the development and deployment of the Blackbird and Hotwatch Platforms, the Company has developed several core competencies. The Company believes that these core competencies may facilitate its development of products and services which complement its existing technology and add value to its current and potential customer base.

Real-time distributed computing. The Company believes that it has developed unique expertise in the area of distributed real-time computing. This capability allows the Company to acquire data and perform information processing in the highly distributed environment encountered in wireless infrastructures. The Company's Blackbird Platform uses messaging methods running on TCP/IP (Transmission Control Protocol/Internet Protocol) networks to allow communications and data exchange between distributed information processing elements with real-time response rates. For example, the Company's expertise in this area allowed the creation of the No Clone Zone service which processes RF "fingerprinting" information at call set-up time in a nationwide network.

- Ability to interface with carriers' cell sites and switches. The Company's proprietary software and hardware products collect and utilize information resident at the carrier's cell site and/or switch. This expertise may facilitate the development of future products and services in both an analog and digital environment.
- Real-time database expertise. The Company has developed the ability to optimize database performance which enables systems to reach transaction decisions in very short time frames. For example, PreTect can determine whether or not to connect a call within a few seconds of call origination.
- Real-time rating expertise. The Company has developed the ability to combine streams of telephone billing information, such as toll charges, discounts, promotions, and surcharges to mimic a carrier's billing system on a real-time basis, within minutes after the end of the call, rather than in a batch process for monthly customer billing. This currently allows the Company to determine account authorization for future telephone calls. The Company believes this expertise may be applicable to other systems that involve real-time charges.
- Ability to interface with billing systems. The Company has developed the ability to interface with the systems infrastructures of major billing service companies in the wireless communications industry. As these companies expand their customer base beyond telephone carriers the Company believes it can apply its knowledge to provide its value-added service metering technologies to this expanded customer base.
- Real-time system monitoring. The Company has developed, within the Blackbird Platform, the ability to monitor the performance of its fraud prevention network to provide real-time notification of condition exceptions and performance degradations. The Company believes this technology is adaptable to monitor other devices on a distributed network.

#### System Design and Architecture

The Company's products incorporate software designs that use the UNIX operating system and TCP/IP networking, which provides customers with significant flexibility in their choice of computer equipment and is widely used in the telecommunications industry. In addition, the Company uses database and advanced messaging technology which allows for flexibility in platform and database portability, particularly as the underlying computer infrastructure continues to evolve. The Company's products also incorporate industry standard hardware, using the UNIX operating system, for the central system and application processing functions for both the Blackbird and Hotwatch Platforms. While the Cell Site Systems deployed with the Blackbird Platform contain industry standard computer components, the Company designs and contracts manufacturing for certain proprietary printed circuit boards and other subassemblies. The standard components and custom manufactured subassemblies are then integrated by the Company for delivery to its customers.

#### The Blackbird Platform

The Blackbird Platform provides real-time data collection, distribution, storage, and reporting of key information regarding pre-call activity. The Blackbird Platform was designed to deliver centralized control and efficiencies of operation based on industry standards, open systems, and real-time distributed messaging. This platform approach makes it possible for the Company to deliver a range of applications in a unique, modular fashion. Enhancement of the Blackbird Platform product line is expected to continue during 1998 and beyond. Additionally, the Company is researching other applications using the pre-call data that is collected by the Blackbird Platform for potential future release.

#### PreTect Application

The PreTect application product employs patented RF "fingerprinting" technology to proactively prevent cloning fraud in real-time. PreTect accomplishes this by building RF fingerprints of legitimate subscribers' cellular

phones using the pre-call data collected by the Blackbird Platform. An RF fingerprint is the cellular phone's unique electromagnetic signal waveform characteristics contained in each phone, with no two RF fingerprints being the same. PreTect compares RF fingerprints of incoming call requests to its database of RF fingerprints for validated legitimate subscriber phones and also examines usage characteristics to assist in verifying authenticity. It then directs automatic call "tear-down" or interdiction of a fraudulent call before connection is completed. With PreTect, the Company offers its customers a graphical user interface ("GUI") that is unique to RF user/device authentication systems. The GUI makes PreTect easy to learn and use, automates most operations, and enables fraud department personnel and customer service representatives to become productive in using Blackbird Products in a more effective and efficient manner.

PreTect enables proactive pre-call fraud prevention rather than post-call fraud detection. In 1996, the Company recorded its first commercial sales from the Blackbird Products in over a dozen major markets under agreements with AirTouch and BAM. In 1997, a number of additional markets were covered under agreements with Ameritech, GTE-California and SNET, as well as additional markets with AirTouch and BAM. Currently, the Blackbird Products are operational and/or being deployed in over forty of the largest markets throughout the United States with AirTouch, BAM, GTE-California, Ameritech and SNET, including Los Angeles, San Francisco, San Diego, New York, Northern New Jersey, Detroit, Chicago, Boston, Atlanta, Milwaukee, Philadelphia, Pittsburgh, Baltimore, and Washington D.C.

#### The No Clone Zone Service

The Company has developed a roaming fraud prevention service, known as the No Clone Zone service, which provides seamless, RF-based roaming fraud prevention. The No Clone Zone service proactively and transparently prevents roaming cloning fraud in markets which utilize the Blackbird Platform and PreTect. The service delivers the same high performance interdictions of fraudulent calls in roaming markets as PreTect does in the home market. The service leverages the underlying power of existing Blackbird Platform deployments, and the Blackbird Platform's real-time distributed messaging performance, to quickly and seamlessly link participating carrier systems nationwide, into a private, high-speed network. The service also leverages the PreTect GUI, delivering real-time, system-wide data visibility with PreTect's superior usability, reporting, and query capabilities. This service is currently operational in the majority of the domestic markets where the Company's Blackbird Platform and PreTect application are deployed.

#### Traveler Service

The Traveler service, which is being readied for release in 1998, will be a service-bureau type offering designed to make RF fingerprinting protection available to roaming small market cellular subscribers and PCS subscribers. PCS subscribers who roam outside of their networks and default to analog mode become vulnerable to cloning fraud. With Traveler, the PCS or small cellular carrier leases the Traveler roaming protection service on a monthly basis for its roaming subscribers. The Company will install, monitor, and maintain the Traveler system for the wireless carrier, providing custom reports for analysis on a scheduled basis.

#### Other Potential Applications for the Blackbird Platform

Existing and prospective customers have indicated an interest in potential future applications, either provided by the Company or by third parties, being integrated with the Company's Blackbird Platform. Potential applications such as E911, RF Engineering Applications, and 411 Information Services have been identified. E911 is an FCC mandated subscriber service requiring carriers to phase in the ability to identify the physical location of a wireless 911 caller to within 125 meters of the exact location by the year 2001. RF Engineering Applications leverages the Company's expertise in RF technology to provide system engineering, diagnostic and network performance analysis capabilities. New information services for subscribers has been of interest to carriers in their effort to maintain customer loyalty and prevent churning. One possible service, 411, would allow carriers

to activate call centers staffed with service personnel who could, for instance, provide driving directions based on the caller's current geolocation position. The Company is evaluating the market potential for such products and the feasibility of integration into the Blackbird Platform. See "Recent Events".

#### The Hotwatch Platform

The Hotwatch Platform provides technological solutions primarily in the "service metering" area, which involves various forms of "post-call" verification to ensure that a wireless communications subscriber has proper account status to make additional calls. The Company's Hotwatch Products provide prepaid real-time credit limit monitoring and solutions for real-time usage metering. These real-time "post-call" products support call data acquisition and rating features for the purpose of "service metering." Real-time "rating" means the ability to calculate, on a real-time basis, local and long distance toll charges and cellular air time charges for each call made on a cellular telephone system. The Company's real-time rating supports multiple long distance rating and multiple airtime price plans. The Company believes that real-time data acquisition and rating on a call by call basis will enable carriers and resellers to improve cash flow, more effectively manage their credit, collection, and billing functions, and increase their subscriber base by allowing them to provide service to certain subscribers who might otherwise be deemed unacceptable credit risks. The Company no longer actively markets the Hotwatch Products and, accordingly, revenues from the Hotwatch Products have declined over the past two years and are expected to continue to decline in future years.

#### Major Customer Agreements

##### AirTouch Cellular Agreements

In March 1996, the Company signed an agreement with AirTouch under which the parties agreed that the Company will be the exclusive provider of cellular fraud prevention systems using RF technology to AirTouch and its affiliates. AirTouch's cellular licenses include both A Band and B Band markets. The Company and AirTouch have installed or have agreed to install the Company's Blackbird Products under this agreement in AirTouch's Atlanta, Michigan and Ohio (A Band) markets, as well as its Los Angeles, San Diego, and Sacramento (B Band) markets. In addition, AirTouch's Bay Area Cellular Telephone Company affiliate has installed the Blackbird Products under this agreement in its San Francisco and San Jose (A Band) markets. The five year agreement, which establishes terms for the purchase of the Company's products in at least 1,000 cell sites, scheduled minimum deployment in a majority of those cell sites during 1996 and 1997. Concurrently, agreements were signed for the Company's support, maintenance, and No Clone Zone services. Approximately \$6.0 million of revenues were recognized in 1997 from the AirTouch agreements.

##### BAM Agreements

In October 1996, the Company signed an agreement with BAM to provide Blackbird Products for use in BAM's cellular markets. Deployment in BAM's New York, Northern New Jersey and Philadelphia B Band markets began in 1996. Additional deployments of Blackbird Products in these markets as well as deployments in BAM's Washington, D.C., Baltimore, Boston and Pittsburgh B Band markets continued during 1997. Concurrently, agreements were signed for support, maintenance, and No Clone Zone services. System and service revenues recognized from the BAM agreements in 1997 totaled approximately \$5.7 million.

##### Ameritech Agreements

In October 1996, the Company signed an agreement with Ameritech to provide Blackbird Products for use in Ameritech's A Band and B Band cellular markets. Deployment in Ameritech's Illinois, Michigan, Ohio, and Wisconsin (B Band) and Missouri (A Band) markets began in late 1996 and continued throughout 1997. Concurrently, agreements were signed for the Company's support, maintenance, and No Clone Zone services were also signed. There were no revenues recognized in 1996 for the deployment of the Company's Blackbird

Products in Ameritech's markets. Systems and service revenues from the Ameritech agreements totaled approximately \$9.4 million in 1997.

#### GTE Mobilnet Agreements

In September 1996, the Company signed an agreement with GTE-California to provide Blackbird Products for use in GTE-California's B Band markets in California. Concurrently, agreements were signed for the Company's support, maintenance and No Clone Zone services. Deployment of the Company's Blackbird Products began in late 1996 in GTE-California's San Francisco and San Jose markets. There were no revenues recognized in 1996 for the deployment of the Company's Blackbird Products in GTE-California's markets. In April 1997, the Company and GTE-Corp. signed an agreement establishing terms under which certain GTE Corp. affiliates can purchase Blackbird Products. Concurrently, GTE Corp.'s Virginia B Band affiliate signed an agreement to install the Company's Blackbird Products. Following the installation in the Virginia market, GTE Corp. elected to transfer the units to its California market, where cloning fraud was more prevalent. System and service revenues from the GTE agreements totaled approximately \$6.0 million in 1997.

#### SNET Mobility Agreements

In June 1997, the Company signed an agreement with SNET to provide Blackbird Products for use in SNET's Northeast B Band markets. Concurrently, agreements were signed for the Company's support, maintenance and No Clone Zone services. Deployment began during the last half of 1997.

#### Hotwatch Products Agreements

Revenues in 1997 were also recognized from Hotwatch Products agreements with various customers. These agreements were with AT&T Wireless Services, Inc. ("AWS"), 360(Degree) Communications Company ("360(Degree)CC"), Ameritech, and Houston Cellular Telephone Company ("Houston Cellular"), an entity owned by AWS and BellSouth Cellular. Previously, Houston Cellular had been referred to as part of the LIN/ACC entities (LIN Broadcasting Company ("LIN") and American Cellular Communications ("ACC"), subsidiaries of AWS and BellSouth Cellular. The Hotwatch Products are no longer being actively marketed by the Company and revenues from these customers in 1997 were less than 5% of total revenues. The source of revenues originates primarily from maintenance and software enhancements from 360(Degree)CC, Ameritech and Houston Cellular and also from source code license fees generated under the Company's Axys Agreements with AWS. The Company does not expect revenues from Hotwatch Products to be significant in future years.

#### Revenue Generation

##### Overview

Revenues, derived primarily from the Company's Blackbird Products are from: system sales, which primarily include the license of software and the sale of hardware products; and service fees, which primarily include maintenance, software subscription services, roaming fraud prevention services, and system monitoring services. Prior to 1996 the Company's revenues had been derived primarily from initial license fees, fixed or variable monthly software license fees and, to a lesser extent, non-recurring computer equipment sales for its Hotwatch Platform and related products.

Revenue recognition for the Company's systems vary by customer and/or by product. The significant factors used in determining revenue recognition generally include physical hardware and software delivery, definitions of system delivery, and customer acceptance. For those contracts which provide for payment based upon meeting actual performance criteria, the Company may record a portion of the systems revenues and the majority of the system costs at shipment or during the early stages of a system deployment. In certain cases no systems revenues or systems costs may be recorded at time of shipment, while certain operating costs may be recorded

during the deployment process. Accordingly, revenues and direct margins recorded by the Company can be expected to be lower in earlier periods of deployment and inconsistent from quarter to quarter, especially during the initial market deployments under new agreements. The resulting deferral of revenue is recognized in subsequent periods upon meeting the performance criteria specified in the applicable agreement. Amounts billed and received on sales contracts before revenue is recognized are recorded as customer deposits. The Company does not operate with a significant revenue backlog.

Revenue recognition for the Company's services are recognized ratably over the period that maintenance coverage is provided, whether bundled with the system sale or contracted for separately. Prepaid or allocated maintenance and services are recorded as deferred revenues.

During the three years ended December 31, 1997, six customers and their affiliates accounted for substantially all of the Company's revenues. Such customers are AirTouch, BAM, Ameritech, the GTE affiliated companies, 360CC and the AWS and LIN/ACC affiliated companies, where such entities share common ownership in some of the markets in which the Company's products have been deployed. Each of these customers accounted for 10% or more of the Company's revenues during one or more of the three years ended December 31, 1997 (none accounted for more than 10% in all three years). The high percentage of revenues derived from a limited number of customers is principally attributable to the Company's relatively small number of customers during these periods and the fact that certain of these customers made significant non-recurring purchases of computer equipment. The Company's targeted customer base is limited due to the concentrated nature of ownership and/or operational control of the most populated wireless communications markets in the United States and limited to a lesser extent in the international markets. The Company expects that certain of its cellular carrier customers operating in multiple cellular markets will continue to account for a relatively high percentage of the Company's total revenues.

#### Recurring Hardware and Software Support Services

Hardware maintenance, software maintenance, software subscription services (for software upgrades and new releases), the No Clone Zone service, and system monitoring are the primary recurring services provided by the Company to its customers. Support personnel diagnose and resolve problems, dispatch third party hardware vendors, forward enhancement requests to the Company's research and development staff, and coordinate with customers on software upgrades and new releases. Software troubleshooting, maintenance, and upgrades are conducted either via the Company's public data network or via modem over a standard telephone line. An on-line customer management system tracks problems and resolutions. Support is available 24 hours per day, seven days per week. Engineering research and development personnel assist in software support activities to the extent required.

#### Installation

Currently, the Company arranges to receive certain third-party vendor system equipment at its facilities where it integrates its proprietary software with such equipment and performs preliminary testing prior to shipment to the customer. Typically, the Company, its third-party vendors, and/or the customer jointly perform installation services, with each bearing responsibility for different aspects of installation. The installation process, which commences upon execution of a customer's order, generally is completed within 30 to 90 days depending upon the deployment schedule agreed upon between the Company and the customer. The costs of installation may be separately charged or included with system pricing.

#### Training and Documentation.

The Company's personnel provide system training on-site or at the Company's facilities in Seattle. The training programs consist primarily of presentation materials, hands-on exercises, and group demonstrations. All of these training costs are factored into system pricing. Refresher training subsequent to completion of the initial training is provided at negotiated fees. User manuals relating to the Company's products and other materials and

documentation produced by the Company are provided to training participants and supervisory personnel. Third party computer equipment documentation typically is provided by the computer equipment vendor.

#### Custom Programming

The Company offers custom software development work upon customer request. Customers are charged hourly rates for such services or may contract with the Company for fixed fees where appropriate.

#### Professional Services

The Company provides system project planning, configuration, implementation, and other professional services in connection with sales of its products. Customers are charged hourly rates for such services or may contract with the Company for fixed fees where appropriate.

#### Marketing

To date, the Company has primarily focused its marketing efforts on cellular carriers operating domestically in the most heavily populated MSAs. To a lesser extent, but increasingly so in the past two years, the Company has also focused its efforts in developing international interest in its products. The Company will continue its efforts to further penetrate significant wireless communications markets, both domestic and international. The Company's sales force markets its products directly to cellular carriers through proposals and presentations. International sales activities are performed through agents, distributors, and/or the Company's direct sales force. The Company also participates at targeted trade shows, conferences and industry events and selectively advertises and uses direct marketing. The Company also meets with its current and prospective customers to gather product feedback that assists the Company in determining product direction. Achieving wide-spread market acceptance and penetration of the Company's products will require, in addition to enhancing and improving such products, increased marketing efforts and the expenditure of significant funds to increase customer awareness of the Company and to inform potential customers of the benefits of the Company's products. At March 18, 1998, the Company employed 10 sales, sales support, and marketing personnel.

#### Proprietary Rights

The Company's success will depend in part on its ability to protect its technology, processes, trade secrets and other proprietary rights from unauthorized disclosure and use and to operate without infringing the proprietary rights of third parties. The Company's strategy is to protect its technology and other proprietary rights through patents, copyrights, trademarks, nondisclosure agreements, license agreements, and other forms of protection. The Company has been active in pursuing patent protection for technology and processes involving its Hotwatch Products and Blackbird Products that it believes to be proprietary and that offer a potential competitive advantage for the Company's products and services. To date, the Company has been granted patents on certain features of the Hotwatch Products and Blackbird Products and has patents pending in the United States and in selected foreign countries for certain features of the Blackbird Products. In addition, the Company has also licensed patents from third parties in an effort to maintain flexibility in the development and use of its technology, including exclusive and non-exclusive rights to use patents in connection with the Blackbird Products.

Despite these efforts, there can be no assurance that any pending or future patent application of the Company or its licensors will result in issuance of a patent, that the scope of protection of any patent of the Company or its licensors will be held valid if subsequently challenged, or that third parties will not claim rights in or ownership of the products and other proprietary rights held by the Company or its licensors. In addition, the laws of certain foreign countries do not protect the Company's intellectual property rights to the same extent as the laws of the United States.

Although the Company believes that its technology has been independently developed and that its products do not infringe patents known to be valid or violate other proprietary rights of third parties, it is possible that such infringement of existing or future patents or violation of proprietary rights may occur. There can be no assurance that third parties will not assert infringement claims in the future with respect to the Company's current or future products or that any such claims will not result in litigation or regulatory proceedings or require the Company to modify its products or enter into licensing arrangements, regardless of the merits of such claims. See "Legal Proceedings". No assurance can be given that any necessary licenses can be obtained in a timely manner, upon commercially reasonable terms, or at all, and no assurance can be given that third parties will not assert infringement claims with respect to any current licensing arrangements.

In addition to the foregoing methods of protection, the Company employs various physical security measures to protect its software source codes, technology and other proprietary rights. However, such measures may not afford complete protection and there can be no assurance that others will not independently develop similar source codes, technology or other proprietary rights or obtain access to the Company's software codes, technology, or other proprietary rights. Furthermore, although the Company has and expects to continue to have agreements with its employees and third parties which contain restrictions on disclosure, use and transfer of proprietary information, there can be no assurance that such arrangements will adequately protect the Company's proprietary rights or that the Company's proprietary rights will not become known to third parties in such a manner that the Company has no practical recourse.

#### Research and Development

For the years ended December 31, 1997, 1996, and 1995, the Company incurred gross research and development expenditures of \$9.8 million, \$7.0 million, and \$5.8 million, respectively, prior to capitalization of software development costs during each period in the amounts of \$1.8 million, \$1.4 million, and \$1.7 million, respectively. The Company's research and development efforts are focused on new hardware and software products, enhancing and improving existing hardware and software products, including developing new software applications and additional computer equipment interfaces, principally associated with the Hotwatch and Blackbird Platforms. These enhancements and/or new products may, when and if developed, enable the Company to expand the use of its existing products and perform a broad variety of services and functions not presently being offered by the Company. Costs included in the Company's gross research and development expenditures include costs for research, design, development, tests, preparation of training and user documentation, and fixing and refining new and existing features (i.e., software and hardware maintenance) for inclusion in its product line. At March 18, 1998, the Company employed 56 full-time research and development personnel and, from time to time, contracts with various independent contractors engaged in research and development activities. The Company anticipates that development expenditures will continue to be substantial in 1998 and beyond in response to increased market demand for new and enhanced products as technology in the telecommunications industry moves forward at a rapid pace.

#### Competition

The market for the Company's products and services is highly competitive and subject to rapid change. A number of companies currently offer one or more similar products and services offered by the Company. In addition, many wireless communications carriers are providing or can provide, in-house, certain of the Hotwatch Products that the Company offers. Trends in the wireless communications industry, including greater consolidation and technological or other developments that make it simpler or more cost-effective for wireless communications carriers to provide certain services themselves, could affect demand for the Company's products and services and could make it more difficult for the Company to offer a cost-effective alternative to a wireless communications carrier's own capabilities. Current and potential competitors have established or may in the future establish collaborative relationships among themselves or with third parties, including third parties with whom the Company has a relationship, to increase the visibility and utility of their products and services. Accordingly, it is possible that new competitors or alliances may emerge and rapidly acquire significant market

share. In addition, the Company anticipates continued growth in the wireless communications industry and, consequently, the entrance of new competitors in the future. An increase in competition could result in price reductions and loss of market share and could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company believes that the principal competitive factors in the markets in which the Company competes include factors such as product effectiveness and quality, ease of use, technical support, customer service, price, the availability of real-time information, and the financial stability of the vendor. An additional factor in the user/device authentication arena is the compatibility with user/device authentication products used by the carrier in other geographic markets and by the carrier's roaming partners. The Company believes that carriers that purchase user/device authentication products tend to purchase products from the vendor that supplies user/device authentication products to other carriers with whom the purchasing carrier has roaming arrangements. Thus, the Company believes it will be more difficult to market its Blackbird Products to a carrier if the carrier's roaming partners are using user/device authentication products supplied by a competitor.

The Company is aware of various competitors, such as Corsair Communications, Inc. ("Corsair"), Signal Sciences (a subsidiary of Allen Telecom Inc.), Authentix Network, Inc., Brite Voice Systems, T-Netix, Inc., GTE Telecommunications Services, Inc. and the providers of A-Key authentication technology, which currently or are expected to compete directly with the Company in the user/device authentication area. The A-Key authentication technology is provided by the combination of the telephone switch manufacturers (e.g., Lucent, Ericsson, and Motorola), the wireless telephone manufacturers (e.g., Nokia, Motorola, and Ericsson), the authentication center providers (e.g., Synacom Technology, Inc.) or through IS-41C software component and service providers (e.g., Intellinet Technologies and Trillium Digital Systems, Inc.). One competitor, Corsair, competes directly with the Company's RF-based fingerprinting user/device authentication products and services. The Company believes that, to date, it has installed fewer user/device authentication products in domestic and international markets than Corsair. In addition, a significant factor for the Company's competitive environment has been the adoption of A-key cryptographic authentication technology by many major wireless carriers. See "--Emergence of A-Key Authentication". Also, there are numerous companies, including wireless communications carriers, hardware and software development companies and others that have developed or may develop the expertise which would encourage them to attempt to develop and market products that could render the Company's products obsolete or less marketable.

The Company is aware of competitors which have indicated that they have developed, marketed and installed commercially available products with respect to post-call real-time software technology. These companies include, among others, IBM, I-NET, Inc., GTE Telecommunications Services, Inc., Boston Communications Group, EDS Personal Communications Corporation, Cincinnati Bell Information Systems, Inc., Lightbridge, Inc., Subscriber Computing, Inc., CSC Intellicom, and Systems/Link Corporation as well as cellular carriers' proprietary systems operating in some of the most populated cellular markets.

To remain competitive, the Company will need to continue to invest in research and development, sales and marketing, customer service, manufacturing activities and administrative systems. There can be no assurance that the Company will have sufficient resources to make such investments or that the Company will be able to make the technological advances necessary to remain competitive. Many of the Company's current and potential competitors have significantly greater financial, marketing, technical and other competitive resources, as well as greater name recognition, than the Company. As a result, the Company's competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements or may be able to devote greater resources to the promotion and sale of their products and services. There can be no assurance that the Company will be able to compete successfully with its existing competitors or with new competitors.

## Suppliers

The Company has been and will continue to be dependent on third-party vendors for the computer equipment, electronic components, manufacturing services, and certain software that is incorporated in its products. While these are generally available from multiple sources, the Company currently obtains or licenses certain equipment, electronic components, manufacturing services, and software from a limited number of suppliers. The Company's software programs were specifically designed to adhere to the UNIX operating systems standard which can operate on standard computer equipment sold by numerous manufacturers and vendors. The Company currently purchases hardware from Hewlett-Packard ("HP"), its primary system hardware supplier, under a Channel Partner Program ("CPP"). As an HP value added reseller ("VAR") within the CPP program, the Company qualifies for a number of services under HP's marketing, support and financial programs. The Company also maintains relationships with other hardware vendors. The Company currently purchases hardware components from its vendors at discounts from list prices. These hardware components then become a cost component as the Company's systems are generally priced as bundled turnkey products (system, components, installation and training). The Company also currently maintains various software license arrangements with several suppliers. All of these licenses allow the Company's customers to use the software in perpetuity, with the result that the loss of a particular source would not affect any product already in use.

The Company manufactures its proprietary Blackbird Cell Site System which operates in connection with the system hardware described above. While certain parts and components of this system are industry standard and generally available from many suppliers, the Company designs and contracts manufacturing for certain proprietary printed circuit boards and other subassemblies. These standard components and custom manufactured subassemblies are then integrated and tested by the Company for delivery to the Company's customers.

## Employees

As of March 18, 1998, the Company had 138 full-time employees. Of such employees, 25 are in corporate, administrative, and information systems positions, 10 are in sales, marketing, and related support functions, 47 are in customer support, field operations, and manufacturing functions, and 56 are engaged in research and development. As a result of a recent reorganization intended to balance expense levels with anticipated revenues (See "Recent Events"), the Company's full time employees will be reduced to approximately 120 during the second quarter. From time to time, the Company contracts with consultants and other independent contractors on its development projects. None of the Company's employees are covered by a collective bargaining agreement. The Company believes that its relations with its employees are good.

## Item 2. Properties

The Company leases approximately 45,000 square feet of general office space at 2401 Fourth Avenue, Seattle, Washington for its corporate offices and approximately 1,200 square feet of space at 2001 Sixth Avenue, Seattle, Washington, which it uses for computer operations. Both of these spaces are under five year non-cancelable operating lease arrangements that expire in September and May 2000, respectively. Both leases contain five year renewal options and provide for the pass-through to the Company of increases in operating and other costs. The Company also leases approximately 1,500 square feet of executive office space in Valley Stream, New York with a term expiring in August 1999. The Company recently entered into a short term sub-lease for space in Mukilteo, Washington for its assembly and testing operations. The sublease expires in September 1998 and the Company is currently negotiating a multi-year term for the premises. The annual aggregate rental expense under the current leases is approximately \$0.8 million. As a result of recent streamlining efforts that began in early 1998, the Company is currently initiating plans to sublease or return approximately 17,000 square feet of its general office space in Seattle, Washington.

Item 3. Legal Proceedings

In July 1996, Reon Corporation and Reon International Corporation filed an action against the Company in the Superior Court of King County, Washington, in which the plaintiffs alleged breach of contract, misappropriation of trade secrets, and breach of other obligations by the Company. On December 22, 1997, the parties to the action entered into a settlement agreement, pursuant to which the action was dismissed by the court with prejudice without any admission of liability or wrongdoing by any party.

Between July 1997 and September 1997, eight separate lawsuits were filed against the Company, its Chairman of the Board and Chief Executive Officer, and its former President and Chief Operating Officer. The lawsuits were filed in the United States District Court for the Western District of Washington at Seattle, and have now been consolidated. A revised consolidated complaint was filed by plaintiffs on February 17, 1998. The complaint purports to assert claims on behalf of the class of persons, other than defendants and their affiliates, who purchased the Company's common stock or call options on the Company's common stock, or who sold put options on the Company's stock, during the period March 6, 1996 through July 30, 1997, inclusive (the "Class Period"). The complaint alleges that the defendants made false or misleading statements and failed to disclose material facts during the Class Period in violation of the federal securities laws. The plaintiffs in this lawsuit seek damages in an unspecified amount. The Company believes this lawsuit is without merit and is vigorously defending against it.

On January 13, 1998, Communications Information Services, Inc. filed an action against the Company and AirTouch Communications, Inc. for alleged infringement of United States Patent No. 5,329,591 ("the `591 patent") in the United States District Court for the Northern District of Georgia at Atlanta. The complaint asserts that the plaintiff is the exclusive licensee of all rights under the `591 patent. The complaint alleges that the Company's cellular telephone fraud prevention technology infringes the `591 patent, and seeks damages in unspecified amounts. The Company believes this lawsuit is without merit and is vigorously defending against it.

Although no estimate of any outcome of the above lawsuits can currently be made, an unfavorable resolution of such suits could materially affect the Company's financial position, liquidity or results of operations. The Company is also a party to other legal proceedings which arise from time to time in the ordinary course of business and/or which management believes will be resolved without a material adverse effect on the Company's financial position, liquidity or results of operations.

Item 4. Submission of Matters to a Vote of Security Holders

There were no matters submitted to a vote of security holders of the Company, through solicitation of proxies or otherwise, during the fourth quarter of the fiscal year covered by this Report.

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The following table sets forth, for each quarter during fiscal 1996 and 1997 and for the period from January 1, 1998 through March 16, 1998, the reported high and low sales prices of the Company's Common Stock on the Nasdaq National Market (Symbol: "CTSC").

	Sales Price	
	High -----	Low ---
1996		
First Quarter	\$15.25	\$10.56
Second Quarter	20.13	13.50
Third Quarter	21.25	11.25
Fourth Quarter	22.13	15.88
1997		
First Quarter	19.63	8.88
Second Quarter	15.75	8.81
Third Quarter	8.06	3.56
Fourth Quarter	6.31	1.44
1998		
First Quarter through March 16, 1998	3.38	1.69

As of March 9, 1998 the number of holders of record of the Company's Common Stock was 211, and the number of beneficial shareholders was estimated to be in excess of 5,000.

There were no dividends paid or other distributions made by the Company with respect to its Common Stock during 1997 or 1996.

Prices of the Company's common stock have been retroactively adjusted to give effect to the two-for-one stock split in 1996.

Item 6. Selected Financial Data

Statement of Operations Data(1):

Year Ended December 31,  
(in 000's, except per share amounts)

	1997	1996	1995	1994	1993
	----	----	----	----	----
Revenues	\$ 30,255	\$ 20,902	\$ 12,109	\$ 9,732	\$ 5,091
Gross Research & Development Expenditures(2)	9,814	7,010	5,819	4,088	2,019
Net Income (Loss)	(5,046)	(7,350)	63	1,550	(1,206)
Basic Earnings (Loss) Per Share(3)	(0.22)	(0.33)	0.00	0.08	(0.07)
Diluted Earnings (Loss) Per Share(3)	(0.22)	(0.33)	0.00	0.07	(0.07)
Weighted-Average Shares Outstanding:					
Basic	22,728	21,999	20,398	19,091	17,364
Diluted	22,728	21,999	22,775	21,937	17,364
Cash Dividends Declared	0	0	0	0	0

Balance Sheet Data:

December 31,  
(in 000's)

	1997	1996	1995	1994	1993
	----	----	----	----	----
Working Capital	\$ 6,535	\$ 11,409	\$ 11,094	\$ 9,783	\$ 6,578
Cash	3,448	4,854	9,448	9,042	5,158
Capitalized Software Development Costs, net	3,391	3,599	3,347	2,606	1,431
Total Assets	20,721	32,352	18,371	15,477	9,863
Long Term Obligations	0	0	0	0	0
Total Stockholders' Equity	13,890	18,185	16,734	13,727	9,053

(1) Certain reclassifications have been made to the prior year financial statements to conform to current period's presentation.

(2) Gross research and development expenditures presented in this Statement of Operations Data are higher than research and development costs and expenses disclosed in the Statements of Operations due to the inclusion of capitalized software development costs and contract design and development services costs which are disclosed elsewhere in the financial statements. See "Management's Discussion and Analysis of Financial Condition and Results of Operations".

(3) Per common share amounts and weighted average shares outstanding have been retroactively adjusted to give effect to the two for one stock splits in 1994 and 1996. In addition, the Company adopted Statement of Financial Accounting Standards ("SFAS") No. 128, "Earnings per Share" in 1997 and restated all prior periods presented as required under the SFAS. In years where the Company incurred a net loss, common equivalent shares were not used in calculating Diluted EPS as the effect would be antidilutive. - See Notes B and J of Notes to Financial Statements

## Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis provides information which management believes is relevant to an assessment and understanding of the Company's results of operations and financial condition. The discussion should be read in conjunction with the financial statements and notes thereto.

### Special Note Regarding Forward-Looking Statements

A number of statements contained in this report are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied in the applicable statements. These risks and uncertainties are more fully discussed in the "Business Risks" section of this discussion and analysis and in the Company's other filings with the Securities and Exchange Commission.

### Overview

The Company has developed the Blackbird(R) Platform and related application products and services ("Blackbird Products") to address the wireless communications industry's need to more effectively combat cloning fraud, a major industry problem. The Blackbird Platform has been engineered with an open architecture design to allow the Company and others to develop application products which could run on or exchange information with it. Prior to 1996, the Company's revenues had been primarily derived from the Company's Hotwatch(R) Platform and related application products and services ("Hotwatch Products"), which the Company no longer actively markets. Revenues from sales of Hotwatch Products have declined over the past two years, and are expected to continue to decline in future years.

Since 1996, the Company has signed agreements with AirTouch Cellular and certain affiliates ("AirTouch"), Bell Atlantic Mobile ("BAM" - formerly known as Bell Atlantic NYNEX Mobile), GTE Mobilnet of California Limited Partnership ("GTE-California"), GTE Mobilnet Service Corp. ("GTE Corp."), Ameritech Mobile Communications, Inc. ("Ameritech") and SNET Mobility ("SNET") to deploy and support the Blackbird Products. During the last half of 1996, the Company recorded its first substantive Blackbird Product revenues from AirTouch and BAM. During 1997, the Company has recorded revenues from all of the customers noted above. From time-to-time, the Company participates in trials of its products with the goal of gaining contracts with new customers. In this connection, the Company is currently involved in a trial agreement in the Asia Pacific Region to test its products. The ultimate outcome of this trial is not currently determinable.

Revenue recognition for the Company's systems vary by customer and/or by product. The significant factors used in determining revenue recognition generally include physical hardware and software delivery, definitions of system delivery, and customer acceptance. For those contracts which provide for payment based upon meeting actual performance criteria, the Company may record a portion of the systems revenues and the majority of the system costs at shipment or during the early stages of a system deployment. In certain cases no systems revenues or systems costs may be recorded at time of shipment, while certain operating costs may be recorded during the deployment process. Accordingly, revenues and direct margins recorded by the Company can be expected to be lower in earlier periods of deployment and inconsistent from quarter to quarter, especially during the initial market deployments under new agreements. The resulting deferral of revenue is recognized in subsequent periods upon meeting the performance criteria specified in the applicable agreement. The Company does not operate with a significant revenue backlog.

In addition, the Company incurs substantial operating expenses during the system deployment process, primarily in the areas of sales and marketing, installation, customer support, and in research and development. The Company expects that its costs and expenses will be lower in 1998 as compared to 1997, but will continue to be substantial in the future, due to a continual need to: (i) make investments in research and development; (ii) enhance its sales and marketing activities; (iii) enhance its manufacturing processes; (iv) enhance its customer

support capabilities needed to service the anticipated product deployments in both domestic and international markets; and (v) enhance its general and administrative activities to support the anticipated expansion of the Company's business. In addition, the Company has incurred, and anticipates it will continue to incur, increased legal fees in connection with pending litigation.

#### Recent Developments

##### 1998 Strategic Plan

The Company has incurred significant operating losses during 1996 and 1997 in its initial years of deployment of the Blackbird Products. In January 1998, the Company began implementation of a strategic plan that has included, among other initiatives, streamlining the Company's operations to better balance expenses and revenues, and directing additional development efforts and resources toward new products that can generate new sources of revenue. By the end of the second quarter of 1998, the Company's workforce will be reduced by approximately 40 percent from December 31, 1997. As of March 25, 1998, the majority of the reduction has already been accomplished. In addition, in late 1997 and early 1998, the Company completed the consolidation of certain hardware assembly and integration operations through the selected acquisition of assets, assumptions of leases, and hiring of employees from two former suppliers.

##### US Wireless

On March 2, 1998, the Company and U.S. Wireless Corporation ("US Wireless") announced the signing of a letter of intent which provides for the potential combination of the two companies. If the proposed transaction is completed on the terms contemplated, which includes stockholder approval for both companies and as to which no assurance can be given, the stockholders of the Company and US Wireless will each own 50 percent of the shares of the resulting company, and the board of directors of the resulting company will be controlled by the stockholders of US Wireless. The companies have commenced a due diligence and final agreement negotiation process. In connection with this transaction, the letter of intent calls for the companies to seek no less than \$15 million in new financing. US Wireless develops and manufactures products designed to provide value-added services and features for the wireless communications industry, including caller-location and tracking, autonomous network management, and other applications. Its RadioCamera(TM) caller-location and tracking product is designed to meet the emergency 911 requirements of the Federal Communications Commission ("FCC"). In June 1996, the FCC issued a Report and Order requiring wireless carriers to be able to identify the location of wireless callers to emergency 911 systems. This mandate requires that products designed to meet this need must be operational and accurate to within 125 meters of the wireless caller not less than 67% of the time by October 2001. Industry analysts have estimated that the market for wireless caller-location and tracking technology could reach \$8 billion in revenues worldwide.

##### 1997 compared to 1996

Total revenues increased 45% to \$30.3 million in 1997 from \$20.9 million in 1996 and the Company generated net losses of \$5.0 million, or \$0.22 per share in 1997 compared to net losses of \$7.4 million, or \$0.33 per share in 1996. In light of the increased revenues in 1997 as compared to 1996, the adverse operating results in 1997 are primarily attributed to the Company's: (i) delays in gaining new orders and acceptances beginning in the latter part of the Company's second quarter and continuing through the remainder of 1997; and (ii) an unbalanced cost structure in relation to the 1997 revenues. Revenues and operating results have also been inconsistent since the beginning of the Company's introduction of the Blackbird Products. Revenues for the six month periods ending June 30, 1996, December 31, 1996, June 30, 1997 and December 31, 1997 were \$3.7 million, \$17.2 million, \$24.1 million, and \$6.2 million respectively. Operating results for those same periods were losses of (\$4.5) million, (\$2.9) million, profits of \$3.4 million and losses of (\$8.5 million), respectively.

The Company attributed the slowdown to: (i) slower than anticipated roll-out of Blackbird Platform systems to existing customers and the continued uneven sales cycle with potential new domestic and international customers; and (ii) delays in the release and acceptance of a new version of its Blackbird Platform/PreTect application software during the second quarter of 1997. Beginning in the fourth quarter of 1997, issues surrounding the delayed release and acceptance of the Company's software were resolved, additional customer acceptances were received for systems shipped in previous quarters, and a small number of reorders were made. However, the Company has not been able to generate a substantial number of new orders for its systems that would result in profitability in the immediate future.

Systems revenues are generated from licensing and sales of the Company's proprietary software and hardware products, from the sale of third party equipment sold in support of the proprietary systems, and to a lesser extent, fees earned associated with the installation and deployment of such systems. Systems revenues increased 30% to \$25.8 million in 1997 from \$19.8 million in 1996 and represent revenues primarily from Blackbird Products from its customers described above. System revenues from Hotwatch Products decreased 58% to \$1.3 million in 1997 from \$3.1 million in 1996 and originate from agreements with AT&T Wireless Services, Inc. ("AWS"), and 360 (Degree) Communications Company ("360(degree)CC"). The decrease in system revenues from Hotwatch Products is primarily due to lower non-recurring revenues from the AWS and 360(Degree)CC agreements. Revenues in 1998 from Hotwatch Products are expected to decrease from those recorded in 1997, as the Company no longer actively markets these products.

Service revenues are derived primarily from hardware and software maintenance, software upgrades and releases, No Clone ZoneSM roaming fraud protection services, system monitoring, and related professional services provided in support of the Company's currently deployed product base. These revenues increased 307% to \$4.5 million in 1997 from \$1.1 million in 1996 with approximately 89% and 16% of the 1997 and 1996 revenues, respectively, being derived from the Blackbird Products. This increase is directly attributable to growing service revenues originating from Blackbird Product deployments in late 1996 and during 1997. The Company anticipates that total service revenues during 1998 and beyond will continue to increase as a result of the anticipated continued deployment of the Company's Blackbird Products.

Costs of systems and services, the majority of which relate to the Company's Blackbird Products, increased 16% to \$19.2 million in 1997 from \$16.6 million in 1996. Costs of systems and services are primarily comprised of the costs of: (i) equipment, which primarily includes both proprietary and third party hardware, and to a lesser extent, manufacturing overhead, and related expenses; (ii) amortization of capitalized software development; (iii) system integration and installation, (iv) royalty fees related to the licensing of intellectual property rights from others; (v) customer support; and (vi) activities associated with the evaluation, rework and testing of replacement inventory parts returned from the field in connection with the Company's ongoing hardware maintenance service activities.

Costs of systems and services, as a percent of total revenues, were 63% and 79% for the 1997 and 1996 periods, respectively. The improvement in 1997 is primarily attributable to: (i) an increased value of system sales that carried higher direct variable margins; (ii) leveraging fixed overhead costs relating to manufacturing, installation and system integration; and (iii) increased service revenues that benefited from leveraging fixed customer support operating expenses. However, the results were negatively impacted by, (i) an increase in the amortization of capitalized software costs of products being replaced earlier than anticipated in conjunction with the expected commercial release of new software in early 1998 (amortization of capitalized software was \$2.0 million in 1997 as compared to \$1.1 million in 1996. As a result of analysis of sales projections and future product releases, the lives used for amortization were reduced effective January 1, 1998 from four years to two years, which will result in increased amortization in future years.); and (ii) an increase in the provision of obsolete and excess inventory from \$.4 million in 1996 to \$1.8 million in 1997 for

the Company's resale and service parts inventories. The reserves were required to address excess and obsolete items resulting from changes in technology of the Company's cloning fraud interdiction methods and from lower than expected sales of its Blackbird Products in 1997. The Company believes that increased sales volumes and/or an increase in the number of acceptances of previously shipped systems during the last half of 1997 would have provided higher margins by achieving even greater leverage of its fixed overhead costs in the manufacturing, installation and customer support operations.

Sales and marketing expenses increased 10% to \$3.8 million in 1997 from \$3.4 million in 1996 while total revenues increased 45% as explained above. Sales and marketing expenses, as a percent of revenues, decreased to 12% in 1997 from 16% in 1996 and reflect the leveraging of its fixed expenses coupled with slightly lower variable sales incentive compensation.

General and administrative expenses increased 51% to \$4.5 million in 1997 from \$3.0 million in 1996. The amounts for 1997 reflect : (i) increased legal and related expenses of \$0.7 million in 1997 for costs primarily associated with legal proceedings during the period; and (ii) a bad debt expense in 1997 of \$0.4 million attributable to the sale to a distributor of certain parts which were planned to be used for a prospective customer in the Pacific Rim region. Subsequent to the sale date, certain governmental bidding requirements changed, thus rendering these parts previously sold as obsolete. The Company chose to write off the value of this receivable. In 1996, the Company incurred \$0.4 million of non-recurring expenses related to the Company's proposed public offering which was subsequently withdrawn due to unfavorable stock market conditions. Without the increased legal and related expenses and bad debt expense in 1997 and the non-recurring expenses associated with the proposed public offering in 1996, general and administrative expenses would have been \$3.4 million in 1997 as compared to \$2.6 million in 1996, a 31% increase. The increase was principally due to increased personnel and related costs associated with the anticipated expansion of the Company's business.

Research and development expenditures include the costs for research, design, development, testing, preparation of training and user documentation, and fixing and refining features for the software and hardware components included in the Company's current and future product lines. Research and development costs increased 46% to \$8.1 million in 1997 from \$5.5 million in 1996. The increase in expenditures was primarily attributable to the enhancement of the Company's cloning fraud detection and prevention products, while some initial research was undertaken for the investigation of additional application products for the Blackbird Platform, such as technology to provide enhanced 911 services that have been mandated by the FCC for implementation by wireless carriers by October 2001. Software development costs of \$1.8 million were capitalized in 1997, a 29% increase over the \$1.4 million that were capitalized during 1996, and relate to the development and enhancement of the Blackbird Products. The percentage increase in capitalized development costs was lower than the percentage increase for research and development costs since a greater portion of the expenditures were for non-capitalizable research and design of potential new or enhanced products, and for maintenance activities associated with the Blackbird Products. A significant portion of the Blackbird Product enhancements are being commercially installed during the first quarter of 1998 while the balance are scheduled for commercial deployment at a later date. Including capitalized software development costs, and \$0.2 million of contract design and development costs recorded as costs of services in both 1997 and 1996, gross research and development expenditures increased 40% to \$9.8 million in 1997 from \$7.0 million in 1996, with the increase in expenditures being attributable to the factors discussed above.

Interest income decreased 23% to \$0.2 million in 1997 from \$0.26 million in 1996. The decrease was attributable to lower average cash balances invested at lower average interest rates during 1997 as compared to 1996.

1996 compared to 1995

Total revenues increased 73% to \$20.9 million in 1996 from \$12.1 million in 1995 and the Company incurred a net loss of \$7.4 million, or \$0.33 per share in 1996 compared to net income of \$0.1 million, or \$.00 per share in

1995. While the increase in revenues is directly attributable to the Company's initial deployment of its Blackbird Products, the decline in operating results was primarily the result of: (i) development of an expanded operating structure, which impacted most functions within the Company, that is designed to support a higher volume of sales, (ii) unrecognized revenues attributable to systems shipped in 1996 where some, but not all revenues associated with those shipments were recorded, (iii) unrecognized revenues attributable to systems shipped in 1996 with no revenues recorded but where substantial sales, customer support, installation and research and development operating expenses were incurred, and (iv) lower initial average sales prices from the Company's initial contracts for the Blackbird Products.

System revenues increased 108% to \$19.8 million in 1996 from \$9.54 million in 1995. System revenues from Blackbird Products amounted to \$16.7 million for 1996 and were derived exclusively from sales under the agreements with BAM and AirTouch. There were no corresponding revenues during 1995. System revenues from Hotwatch Products decreased 64% to \$3.1 million in 1996 from \$8.6 million in 1995 and were principally from AWS and 360(degree)CC.

Service revenues decreased 58% to \$1.1 million in 1996 from \$2.6 million in 1995 and were primarily derived from Hotwatch Products. This decrease is primarily due to \$1.2 million of non-recurring Hotwatch programming services associated with the AWS Axys agreement and initial Blackbird Product evaluation revenues from an international customer recorded during the 1995 period. Service revenues from Blackbird Products were minimal in 1996.

Costs of systems and services increased 255% to \$16.7 million in 1996 from \$4.7 million in 1995. Costs of systems and services, as a percent of total revenues, were 79% and 39% for the 1996 and 1995 periods, respectively. The increase in 1996 is attributable to: (i) the higher hardware component costs of system sales for Blackbird Products as compared to Hotwatch Products, (ii) lower initial average sales prices from systems deployed to the Company's first Blackbird Products customers, and (iii) unrecognized revenues attributable to systems where some, but not all, revenues were recorded in 1996 and which were recognized in future periods in accordance with the Company's revenue recognition practices discussed in the overview section above.

Sales and marketing expenses increased 62% to \$3.4 million in 1996 from \$2.1 million in 1995. This increase is primarily attributable to personnel and related costs incurred in connection with the Company's increased efforts to generate demand for its products and the costs incurred during both pre- and post-sales Blackbird contract activities. To a lesser extent, variable sales incentive compensation contributed to the 1996 increased expenses.

General and administrative expenses increased 43% to \$3.0 million in 1996 from \$2.1 million in 1995 principally due to increased personnel related costs associated with the continued expansion of the Company's business and also due to the non-recurring public offering expenses incurred in 1996 as discussed above.

Research and development expenditures increased 56% to \$5.5 million in 1996 from \$3.5 million in 1995. Software development costs of \$1.3 million and \$1.7 million were capitalized during 1996 and 1995, respectively, and related primarily to the development of the Blackbird Products. In addition, costs of \$0.2 million and \$0.6 million, related to design and development services under the AWS and other Hotwatch customers agreements were expensed in 1996 and 1995, respectively, as costs of services. Capitalized development costs declined in 1996 primarily due to an increase in non-capitalizable research, design, and maintenance activities associated with the Blackbird Products. Including capitalized software development costs, and contract design and development costs recorded as costs of services, gross research and development expenditures increased 23% to \$7.0 million in 1996 from \$5.7 million in 1995, primarily due to expanded investment in the Blackbird Products.

Interest income decreased 40% to \$.3 million in 1996 from \$.5 million. The decrease was attributable to lower average cash balances invested at lower average interest rates during 1996 as compared to 1995.

## Liquidity and Capital Resources

The Company's capital requirements have consisted primarily of funding software and hardware research and development, property and equipment requirements, working capital and the Company's operating losses. The Company has historically funded these requirements through issuance of Common Stock (including proceeds from the exercise of warrants and options) and from operating profits in certain periods. On December 31, 1997 the Company's cash balance was \$3.4 million as compared to \$4.9 million on December 31, 1996. The Company's working capital decreased to \$6.5 million at December 31, 1997 from \$11.4 million at December 31, 1996.

Cash provided by operating activities amounted to \$1.6 million in 1997, as compared to cash used by operating activities of \$10.3 million in 1996 and cash provided by operating activities of \$0.8 million in 1995. The major factors contributing to the Company's improved cash flow from operating activities in 1997 are: (i) the \$2.3 million lower loss that was recorded in 1997 as compared to 1996; (ii) an increase of \$1.2 million in non-cash depreciation and amortization expenses, which were primarily attributable to (a) increased investments in software development and property and equipment as discussed below, and (b) increased amortization of capitalized software as discussed above; and (iii) the significant benefit from the net changes in the balances of the major working capital components affecting cash flow from operating activities that included:

- (a) accounts receivable, which decreased as a result of: (I) collection of older 1996 receivables during the first half of 1997 originating from the initial deployments of the Blackbird Products; and (II) more favorable payment terms on 1997 system shipments as compared to the payment terms for the initial 1996 system shipments
- (b) inventories, which decreased due to: (I) the Company's inventory balancing efforts undertaken after the significant inventory build-up during the fourth quarter of 1996 (notwithstanding these inventory balancing efforts, at December 31, 1997, the Company had received more than \$1.6 million of inventory on more than \$2.0 million of purchase orders for anticipated sales to prospective international customers during 1998); and (II) inventory reserves of \$1.8 million were recorded in 1997 as a provision for excess and obsolete inventory, primarily resulting from delayed sales as discussed above and to technology changes in the Company's cloning fraud interdiction methods;
- (c) accounts payable, which decreased primarily due to 1997 payments made for fourth quarter 1996 inventory purchases;
- (d) customer deposits, which decreased primarily due to the application of payments received in 1996 (that originated from 1996 shipments) against related revenues recorded in 1997 in accordance with contract acceptance and payment terms.
- (e) deferred revenue, which increased primarily as a result of the growth of prepaid maintenance and service contracts related to system sales of the Blackbird Products; and

Cash utilized by investing activities totaled \$3.8 million, \$3.1 million and \$3.3 million in 1997, 1996, and 1995 respectively. The Company's capital requirements during such periods were for: (i) purchase of property and equipment, primarily for furniture, leaseholds, and equipment associated with expanding the Company's business; and (ii) capitalization of software development of the Blackbird Products. These expenditure levels are expected to be at a lower rate during 1998 due to the recent streamlining of operations that was undertaken to better balance expenses and revenues of the Company (see "Overview"). At December 31, 1997, the Company had no significant commitments for capital expenditures. The Company, as part of its growth strategy, would consider the cost/benefit of purchasing software and/or hardware technology in the event that an attractive opportunity arises.

Cash provided by financing activities totaled \$0.8 million, \$8.8 million and \$2.9 million during 1997, 1996, and 1995, respectively. Exercise of stock options by the Company's directors, officers and employees totaled \$0.8 million, \$2.4 million and \$2.9 million during 1997, 1996 and 1995 respectively. Also contributing to available cash for use in 1997 was the November 1996 sale of 400,000 shares of common stock to investors in a private placement with proceeds to the Company approximating \$6.4 million net of expenses. A registration statement for the resale of such shares was declared effective by the Securities and Exchange Commission in April 1997. Also in November 1996, the Company obtained a \$5.0 million line of credit from a major bank. The line, which is secured by all personal property of the Company, bears interest at the prime rate plus .75%, and is scheduled to expire on June 30, 1998. Borrowing under the line of credit is subject to the bank's receipt and continuing satisfaction with current financial information. No funds have been drawn on the line of credit as of this date, as the Company's current financial condition may impair its ability to borrow under the line. The proceeds from the stock sale have been used, and the line of credit, if available, would be used, to provide additional working capital and fund the Company's growth.

Historically, the Company has experienced uneven cash flow and operating results, and, during the past two years, significant operating losses. Cash provided from (used in) operating activities was \$1.1 million, \$3.4 million (\$3.4) million, and \$.6 million in the first through fourth quarters of 1997, respectively, while the net income (loss) for each of the same quarters was \$4.4 million, (\$1.0) million, (\$4.7) million and (\$3.7) million, respectively. These uneven cash flows and operating results originate primarily from: (i) uneven quarterly sales; (ii) cash receipts associated with deferred revenue recognition; (iii) varying payment terms contained in customer agreements; and (iv) operating losses resulting from a combination of lower than expected revenues and an unbalanced cost structure in relation to those revenues. Delays in achieving profitability, failure to convert existing inventory into cash and/or significant sales growth requiring working capital beyond current amounts, and/or other changes in the Company's operating activities will require additional financing during the next twelve months. See "--Business Risks" below.

#### Business Risks

**Need for Additional Financing.** Historically, the Company has experienced uneven cash flow and operating results, and, during the past two years, significant operating losses. Continued delays in achieving profitability, failure to convert existing inventory into cash, and/or other events requiring working capital beyond current amounts will require additional financing during the next twelve months. In addition, if the funds currently available to the Company prove to be insufficient to fund operations, the Company may be required to seek additional financing sooner than currently anticipated or may be required to curtail its activities. The Company has a \$5.0 million line of credit, which is subject to continuing satisfaction with current financial information furnished to the bank. The line of credit is scheduled to expire on June 30, 1998, and all outstanding balances under the line must be repaid for a consecutive 30-day period before such expiration date. While no funds have been drawn on the line of credit as of this date, the Company's current financial condition may impair its ability to borrow under the line. On March 2, 1998, the Company and US Wireless announced the signing of a letter of intent which provides for the potential combination of the two companies. (See "--Overview"). The letter of intent calls for the companies to seek no less than \$15 million in new financing in connection with this transaction. There can be no assurance that the potential financing described above, or any additional financing, will be available on acceptable terms, or at all, or that the proposed transaction with US Wireless will be consummated. Failure to obtain additional financing as needed would have a material adverse effect on the Company's business, financial condition and results of operations.

**Dependence on Analog Cellular Networks; Industry and Technological Change.** The Company's future success will depend on the continued and expanded use of its existing products and services, its ability to develop new products and services to meet the needs of the wireless communications industry, and its ability to adapt existing products and services to keep pace with changes in the wireless communications industry. The Company's

Blackbird Products currently are used exclusively for analog cellular networks, although the Company believes that its Blackbird Products may be adaptable for use in digital networks. The Company believes that over 80% of domestic wireless telephone service currently is provided in the analog mode, but that the industry is undertaking a shift to digital mode in the major markets due to certain advantages of the digital mode, including expanded capacity, greater privacy and enhanced security. Technological changes or developments in the cellular industry, such as encryption technology for enhanced privacy, cryptographic authentication (commonly known as "A-Key authentication") for enhanced security against cloning fraud, improved switching technologies, and/or further industry consolidation, could reduce or eliminate demand for the Company's Blackbird Products. Industry analysts project that the number of analog cellular telephones will decline in the future. This shift away from the use of analog cellular telephones in favor of digital cellular telephones utilizing A-Key authentication or to other digital wireless services, such as Personal Communications Services ("PCS") or Enhanced Specialized Mobile Radio ("ESMR"), could affect demand for the Company's Blackbird Products and could require the Company to develop modified or alternative user/device authentication products. There can be no assurance that the Company will be successful in modifying or developing its existing or future products in a timely manner, or at all, to respond to changing market, customer or technological requirements. If the Company is unable, due to resource, technological or other constraints, to adequately anticipate or respond to changing market, customer or technological requirements, the Company's business, financial condition and results of operations will be materially adversely affected. Further, there can be no assurance that products or services developed by others will not render the Company's products and services non-competitive or obsolete.

Dependence on Blackbird Products; Uncertainty of Widespread Market Demand. The Company's revenues have been and can be expected to continue to be derived from a limited number of products and services. In 1997, revenues from Blackbird Products represented 94 percent of the Company's total revenues, and the Company anticipates that revenues from Blackbird Products will continue to represent substantially all of the Company's total revenue in 1998. Thus, the Company's future operating results will depend primarily on the continued demand for and market acceptance of the Blackbird Products. Currently, a majority of the cellular carriers in the largest markets in the United States are using user/device authentication products to some extent, and the Company anticipates that the growth rate of demand for user/device authentication products in the United States will slow and demand may potentially decline over the next few years. If not offset by growth in international markets, this trend would have a material adverse effect on sales of Blackbird Products. The Company anticipates that this trend could also occur in international markets over time. Although the Company believes that the Blackbird Products present growth opportunities for its business, there can be no assurance that the Blackbird Products will achieve widespread market penetration or that the Company will derive significant revenues from the sale of such products.

Dependence New Product Development and Product Enhancements. The Company's future success will depend, in part, on its ability to timely develop, introduce and gain acceptance of new products and enhancements to existing products to meet the needs of the wireless communications industry. The Company is continually seeking to enhance its existing products and to develop new products, including other application products utilizing the Blackbird and Hotwatch platforms. However, the Company remains subject to all of the risks inherent in product development, including unanticipated technical or other development problems which could result in material delays in product introduction and acceptance or significantly increased costs. There can be no assurance that the Company will be able to successfully enhance existing products or develop new products, or to timely introduce and gain acceptance of such enhancements and new products in the marketplace.

Uncertainty of Product Performance. It is common for hardware and software as complex and sophisticated as that incorporated in the Company's products to experience errors or "bugs" both during development and subsequent to commercial deployment. In particular, the Company has encountered certain software and hardware errors in its Blackbird Products and to date corrected the majority, but not all, of such errors identified to date. There can be no assurance that any errors in the Company's existing or future products will be identified, and if identified, corrected. Any such errors could delay additional installations of products and require modifications in products that have already been installed. Remedying such errors has been and may continue to

be costly and time consuming. Delays in remedying any such errors could materially adversely affect the Company's competitive position with respect to existing or new products offered by its competitors. In particular, delays in remedying existing or future errors in the Company's Blackbird Products could materially adversely affect the Company's ability to achieve significant market penetration prior to widespread use of A-Key authentication or other user/device authentication products. Once the Company's products are installed, they are subject to compliance with certain contractual requirements, including acceptance testing to ensure that they are properly installed and performing in accordance with contractual specifications. While the Company has achieved acceptance in nearly all markets for the majority of products shipped to date, there can be no assurance that current or future installations of the Company's products will satisfy all contractual requirements. In addition, software and hardware warranties are generally included as part of the Company's contractual obligations. To the extent that the software and hardware maintenance fees from its products are not adequate to cover the costs of making any necessary modifications or meeting the Company's warranty obligations, the Company could be required to make significant additional expenditures, which could have a material adverse effect on the Company.

**Risk of Hardware Manufacturing Activities.** For the most part, the Company's engineering resources historically have been devoted to software design and development. As a result, only a limited number of such resources were initially used in the design and prototype production of the Company's proprietary hardware. In 1997, the Company added significantly to its hardware design and development process; however, the Company continues to utilize subcontractors for hardware design, engineering, manufacturing and integration of certain proprietary printed circuit boards, radio equipment and other subassemblies which are components of the Company's Blackbird Products. The Company's future success will continue to depend on enhancing and expanding its manufacturing activities with respect to the design and engineering of hardware, improving its inventory control systems, maintaining effective quality control, procuring component parts and maintaining subcontractor relationships. Failure to achieve any of these factors could have a material adverse effect on the Company's business, financial condition and results of operations.

**Dependence on Key Personnel.** The Company's future success depends in large part on the continued services of its key management, sales, engineering, research and development, customer support and operational personnel and on its ability to continue to attract, motivate and retain highly qualified personnel in those areas. Competition for such personnel is intense and there can be no assurance that the Company will be successful in attracting, motivating and retaining key personnel. The Company also believes stock options are a critical component for motivating and retaining its key employees. The decline in the Company's stock price during 1997 has made stock options previously granted with higher exercise prices less valuable to the Company's current employees and has consequently made it more difficult for the Company to retain its key employees. The inability to hire and retain qualified personnel or the loss of the services of key personnel could have a material adverse effect upon the Company's business, financial condition and results of operations. The Company has entered into employment agreements with six officers and other employees, four of whom have terms expiring in 1998 and two of whom have terms expiring in 1999. There can be no assurance that any of these contracts will be renewed. The Company does not maintain any key-man life insurance policies on any of its employees.

**Ability to Manage Changing Business Conditions.** The Company's future operating results will depend, among other things, on its ability to manage changing business conditions and to continue to improve its operational and financial control and reporting systems. If the Company's management is unable to effectively manage changing business conditions, its business, financial condition and results of operations could be materially adversely affected. The Company's ability to manage future growth, should it occur, depends in part upon the Company's ability to attract, train and retain a sufficient number of qualified personnel commensurate with the needs of the Company. During 1997, the Company experienced an employee turnover rate in excess of 30%. In January 1998, the Company began implementation of a strategic plan that included, among other initiatives, streamlining its operations to better balance expenses and revenues, and directing additional development efforts and resources toward new products that can generate new sources of revenue. By the end of the second quarter of 1998, the Company's workforce will be reduced by approximately 40 percent from December 31, 1997 levels. As of

March 25, 1998, the majority of the reduction has already been accomplished. Failure to reduce the turnover rate experienced in 1997 among the Company's employees would increase the Company's recruiting and training costs, and if the Company were unable to recruit and retain a sufficient number of qualified personnel, it could be forced to limit its growth or possibly curtail its operations. There can be no assurance that the Company will be successful in attracting, training and retaining the required number of qualified personnel to support the Company's business in the future. Failure to manage the Company's operations with the reduced staffing discussed above, may further strain the Company's management, financial and other resources, and could have a material adverse effect on the Company's business, financial condition and results of operations.

Limited Customer Base; Reliance on Significant Customers. The Company's potential customer base is relatively limited due to the significant concentration of ownership and/or operational control of wireless communication markets. Currently, the Company markets its products and services only to wireless communications carriers that operate analog cellular networks. Of these carriers, there are approximately 25 in the United States and approximately 150 in international markets. See "--International Operations." Revenues attributable to a relatively small number of customers historically have represented and are likely for the foreseeable future to continue to represent a significant percentage, in any given period, of the Company's total revenues. Sales to customers aggregating 10% or more, either individually or combined as affiliates due to common ownership, were concentrated as follows: four customers with sales of 31%, 20%, 20% and 19% in 1997, three customers with sales of 42%, 38%, and 15% in 1996, and two customers with sales of 70% and 15% in 1995. The aggregate sales to these customers (none accounted for more than 10% in all three years) represented 90%, 95%, and 85%, of the Company's total system and service revenues in 1997, 1996 and 1995, respectively. There can be no assurance that such customers will continue to maintain business relationships with the Company. Accordingly, the loss of one or more major customers could have a material adverse effect on the Company's business, financial condition and results of operations.

Competition. The market for the Company's products and services is highly competitive and subject to rapid change. A number of companies currently offer one or more similar products and services offered by the Company. In addition, many wireless communications carriers are providing or can provide, in-house, certain of the Hotwatch Products that the Company offers. Trends in the wireless communications industry, including greater consolidation and technological or other developments that make it simpler or more cost-effective for wireless communications carriers to provide certain services themselves, could affect demand for the Company's products and services and could make it more difficult for the Company to offer a cost-effective alternative to a wireless communications carrier's own capabilities. Current and potential competitors have established or may in the future establish collaborative relationships among themselves or with third parties, including third parties with whom the Company has a relationship, to increase the visibility and utility of their products and services. Accordingly, it is possible that new competitors or alliances may emerge and rapidly acquire significant market share. In addition, the Company anticipates continued growth in the wireless communications industry and, consequently, the entrance of new competitors in the future. An increase in competition could result in price reductions and loss of market share and could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company believes that the principal competitive factors in the markets in which the Company competes include factors such as product effectiveness and quality, ease of use, technical support, customer service, price, the availability of real-time information, and the financial stability of the vendor. An additional factor in the user/device authentication arena is the compatibility with user/device authentication products used by the carrier in other geographic markets and by the carrier's roaming partners. The Company believes that carriers that purchase user/device authentication products tend to purchase products from the vendor that supplies user/device authentication products to other carriers with whom the purchasing carrier has roaming arrangements. Thus, the Company believes it will be more difficult to market its Blackbird Products to a carrier if the carrier's roaming partners are using user/device authentication products supplied by a competitor.

The Company is aware of various competitors, such as Corsair Communications, Inc. ("Corsair"), Signal Sciences (a subsidiary of Allen Telecom Inc.), Authentix Network, Inc., Brite Voice Systems, T-Netix, Inc., GTE Telecommunications Services, Inc. and the providers of A-Key authentication technology, which currently or are expected to compete directly with the Company in the user/device authentication area. The A-Key authentication technology is provided by the combination of the telephone switch manufacturers (e.g., Lucent, Ericsson, and Motorola), the wireless telephone manufacturers (e.g., Nokia, Motorola, and Ericsson), the authentication center providers (e.g., Synacom Technology, Inc.) or through ANSI-41 software component and service providers (e.g., Intellinet Technologies and Trillium Digital Systems, Inc.). One competitor, Corsair, competes directly with the Company's RF-based fingerprinting user/device authentication products and services. The Company believes that, to date, it has installed fewer user/device authentication products in domestic and international markets than Corsair. In addition, a significant factor for the Company's competitive environment has been the adoption of A-key cryptographic authentication technology by many major wireless carriers. -- See "--Emergence of A-Key Authentication". Also, there are numerous companies, including wireless communications carriers, hardware and software development companies and others that have developed or may develop the expertise which would encourage them to attempt to develop and market products that could render the Company's products obsolete or less marketable.

The Company is aware of competitors which have indicated that they have developed, marketed and installed commercially available products with respect to post-call real-time software technology. These companies include, among others, IBM, I-NET, Inc., GTE Telecommunications, Services, Inc., Boston Communications Group, EDS Personal Communications Corporation, Cincinnati Bell Information Systems, Inc., Lightbridge, Inc., Subscriber Computing, Inc., CSC Intellicom, and Systems/Link Corporation as well as cellular carriers' proprietary systems operating in some of the most populated cellular markets.

To remain competitive, the Company will need to continue to invest in research and development, sales and marketing, customer service, manufacturing activities and administrative systems. There can be no assurance that the Company will have sufficient resources to make such investments or that the Company will be able to make the technological advances necessary to remain competitive. Many of the Company's current and potential competitors have significantly greater financial, marketing, technical and other competitive resources, as well as greater name recognition, than the Company. As a result, the Company's competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements or may be able to devote greater resources to the promotion and sale of their products and services. There can be no assurance that the Company will be able to compete successfully with its existing competitors or with new competitors.

**International Operations.** The Company is marketing its products and services in international markets. In pursuing such opportunities, the Company is and will remain subject to all the risks inherent in international transactions, such as changes in export, import, tariff and other trade regulations, currency exchange rates, foreign tax laws, and other legal, economic, and political conditions. There can be no assurance that changes in any of the foregoing will not have a material adverse effect on the Company's business, financial condition and results of operations. Further, the laws of certain foreign countries do not protect the Company's intellectual property to the same extent as the laws of the United States. See "-- Uncertainty Regarding Proprietary Rights". In certain international markets, the Company will need to modify its products or develop new or additional products to adapt to the different wireless technologies or network standards utilized by the carriers in such markets. There can be no assurance that the Company's marketing efforts and technological enhancements will result in successful commercialization or market acceptance or penetration in such international markets. If the Company is unable to adequately anticipate and respond to marketing or technological requirements in the international marketplace, the Company's business, financial condition and results of operation could be materially adversely affected.

**Fluctuations in Quarterly Performance.** The Company has experienced fluctuations in its quarterly operating results and anticipates that such fluctuations will continue and could intensify. The Company's quarterly operating results may vary significantly depending on a number of factors, such as the level and timing of revenues associated with the Blackbird Products; the timing of the introduction or acceptance of product

enhancements and new products and services offered by the Company and its competitors; the size, product mix and timing of significant orders; long sales cycles; competition and pricing in the markets in which the Company competes; product performance problems; disruption in sources of supply; the timing of payments by customers; changes in regulations affecting the wireless industry; technological changes or developments in the wireless industry; changes in the Company's operating expenses; uneven revenue streams; and general economic conditions. Revenue recognition for the Company's systems is based upon performance criteria which vary by customer and/or by product. The significant factors used in determining revenue recognition generally include physical hardware and software delivery, definitions of system delivery, and customer acceptance. As a result of such performance criteria, the Company may record a portion of the systems revenues and the majority of the system costs at shipment or during the early stages of a system deployment. In certain cases no systems revenues or systems costs may be recorded at time of shipment, while certain operating costs may be recorded during the deployment process. Accordingly, revenues and direct margins recorded by the Company can be expected to be lower in earlier periods of deployment and inconsistent from quarter to quarter, especially during the initial market deployments under new agreements. The resulting deferral of revenue is recognized in subsequent periods upon meeting the performance criteria specified in the applicable agreement. There can be no assurance that the Company's levels of profitability will not vary significantly among quarterly periods or that in future quarterly periods the Company's results of operations will not be below prior results or the expectations of public market analysts and investors.

**Volatility of Stock Price.** The market for the Company's common stock is highly volatile. The trading price of the Company's common stock has been and could continue to be subject to wide fluctuations in response to quarterly variations in operating and financial results, announcements of technological innovations or new products by the Company or its competitors, changes in prices of the Company's or its competitors' products and services, changes in the Company's revenue and revenue growth rates, as well as other events or factors. See "--Fluctuations in Quarterly Performance". Statements or changes in opinions, ratings, or earnings estimates made by brokerage firms or industry analysts relating to the markets in which the Company competes have resulted, and could in the future result, in an adverse effect on the market price of the Company's common stock. In addition, the stock market has from time to time experienced extreme price and volume fluctuations which have particularly affected the market price for the securities of many high technology companies and which often have been unrelated to the operating performance of these companies. These broad market fluctuations may adversely affect the market price of the Company's common stock.

**History of Net Losses; Accumulated Deficit.** The Company had net losses of \$5.0 million and \$7.4 million for the years ended December 31, 1997 and 1996, respectively, and, at December 31, 1997, had an accumulated deficit of \$16.0 million. The Company currently estimates that its first quarter 1998 operating results will be a loss, however, it is expected to be lower than the \$4.7 million and \$3.7 million losses recorded during the third and fourth quarters respectively of 1997. In addition, in the event that the Company is not successful in generating sufficient future product revenues, the carrying value of capitalized software development costs, inventories and other assets could be significantly impaired. There can be no assurance that the Company's operations will be profitable in the future.

**Dependence on Third-Party Vendors.** The Company has been and will continue to be dependent on third-party vendors for computer equipment, network services, component parts, manufacturing, systems integration and certain software all of which are incorporated in its products and services. While available from multiple sources, some of such equipment and software is obtained from a single supplier or a limited number of sources. Although the Company believes that there are currently available substitute sources for all such equipment and software, the Company could be required to redesign affected products to accommodate substitutes for certain of such equipment and software. The Company's reliance on third-party suppliers generally, and a sole or a limited number of sources in particular, involves several risks, including a potential inability to obtain an adequate supply of required components and reduced control over quality, pricing and timing of delivery of components. There can be no assurance that the Company will be able to procure necessary equipment and software on a satisfactory and timely basis. For example, from time to time the electronic computer component parts industry has experienced parts allocation restrictions. Any failure or delay in obtaining necessary equipment, component

parts or software, or if necessary, establishing alternative procurement arrangements, could cause delays in product commercialization and could require product redesign or modification. There can be no assurance that the Company could complete any necessary modifications in a timely manner or that modified or redesigned products would maintain current functionality or performance features or could be successfully commercialized. Any inability or delay in establishing necessary procurement arrangements or successfully modifying products could have a material adverse effect on the Company's business, financial condition and results of operations.

**Uncertainty Regarding Proprietary Rights.** The Company's success will depend in part on its ability to protect its technology, processes, trade secrets and other proprietary rights from unauthorized disclosure and use and to operate without infringing the proprietary rights of third parties. The Company's strategy is to protect its technology and other proprietary rights through patents, copyrights, trademarks, nondisclosure agreements, license agreements, and other forms of protection. The Company has been active in pursuing patent protection for technology and processes involving its Hotwatch Products and Blackbird Products that it believes to be proprietary and that offer a potential competitive advantage for the Company's products and services. To date, the Company has been granted patents on certain features of the Hotwatch Products and Blackbird Products and has patents pending for certain features of the Blackbird Products. In addition, the Company has also licensed patents from third parties in an effort to maintain flexibility in the development and use of its technology, including exclusive and non-exclusive rights to use patents in connection with the Blackbird Products. There can be no assurance, however, that any pending or future patent application of the Company or its licensors will result in issuance of a patent, that the scope of protection of any patent of the Company or its licensors will be held valid if subsequently challenged, or that third parties will not claim rights in or ownership of the products and other proprietary rights held by the Company or its licensors. In addition, the laws of certain foreign countries do not protect the Company's intellectual property rights to the same extent as the laws of the United States.

Litigation or regulatory proceedings, which could result in substantial cost and uncertainty to the Company, may also be necessary to enforce patent or other proprietary rights of the Company or to determine the scope and validity of a third party's proprietary rights. Although the Company believes that its technology has been independently developed and that its products do not infringe patents known to be valid or violate other proprietary rights of third parties, it is possible that such infringement of existing or future patents or violation of proprietary rights may occur or be alleged. There can be no assurance that third parties will not assert infringement claims with respect to the Company's current or future products or that any such claims will not result in litigation or regulatory proceedings or require the Company to modify its products or enter into licensing arrangements, regardless of the merits of such claims. No assurance can be given that any necessary licenses can be obtained in a timely manner, upon commercially reasonable terms, or at all, and no assurance can be given that third parties will not assert infringement claims with respect to any current licensing arrangements. See "--Risk of Litigation". In addition, the Company's failure to successfully enforce its proprietary rights or defend against any other infringement claims brought by third parties could have a material adverse effect upon the Company. There can be no assurance that the Company will have the resources necessary to successfully defend any infringement claim brought by a third party.

In addition to the foregoing methods of protection, the Company employs various physical security measures to protect its software source codes, technology and other proprietary rights. However, such measures may not afford complete protection and there can be no assurance that others will not independently develop similar source codes, technology or other proprietary rights or obtain access to the Company's software codes, technology, or other proprietary rights. Furthermore, although the Company has and expects to continue to have internal nondisclosure agreements with its employees and consultants, and license agreements with customers, which contain restrictions on disclosure, use and transfer of proprietary information, there can be no assurance that such arrangements will adequately protect the Company's proprietary rights or that the Company's proprietary rights will not become known to third parties in such a manner that the Company has no practical recourse.

Risk of Litigation. The Company is subject to the following legal matters:

Between July 1997 and September 1997, eight separate lawsuits were filed against the Company, its Chairman of the Board and Chief Executive Officer, and its former President and Chief Operating Officer. The lawsuits were filed in the United States District Court for the Western District of Washington at Seattle, and have now been consolidated. A revised consolidated complaint was filed by plaintiffs on February 17, 1998. The complaint purports to assert claims on behalf of the class of persons, other than defendants and their affiliates, who purchased the Company's common stock or call options on the Company's common stock, or who sold put options on the Company's stock, during the period March 6, 1996 through July 30, 1997, inclusive (the "Class Period"). The complaint alleges that the defendants made false or misleading statements and failed to disclose material facts during the Class Period in violation of the federal securities laws. The plaintiffs in this lawsuit seek damages in an unspecified amount. The Company believes this lawsuit is without merit and is vigorously defending against it.

On January 13, 1998, Communications Information Services, Inc. filed an action against the Company and AirTouch Communications, Inc. for alleged infringement of United States Patent No. 5,329,591 ("the '591 patent") in the United States District Court for the Northern District of Georgia at Atlanta. The complaint asserts that the plaintiff is the exclusive licensee of all rights under the '591 patent. The complaint alleges that the Company's cellular telephone fraud prevention technology infringes the '591 patent, and seeks damages in unspecified amounts. The Company believes this lawsuit is without merit and is vigorously defending against it.

Although no estimate of any outcome of the above lawsuits can currently be made, an unfavorable resolution of such suits could materially affect the Company's financial position liquidity and results of operations. The Company is also a party to other legal proceedings which arise from time to time in the ordinary course of business and/or which management believes will be resolved without a material adverse effect on the Company's financial position, liquidity or results of operations.

Risk of System Failure or Inadequacy. The Company operates and maintains internal computers and telecommunication equipment for, among other things, monitoring and supporting its products and services, and operating its No Clone Zone roaming fraud prevention service. The Company's operations are dependent upon its ability to maintain such equipment and systems in effective working order and to protect them against damage from fire, natural disaster, power loss, telecommunications failure or similar events. Although the Company provides back-up for substantially all of its systems, these measures will not eliminate the risk to the Company's operations from a system failure. In addition to its own systems, the Company relies on certain equipment, systems and services from third parties that are also subject to risks, including risks of system failure. There can be no assurance that the Company's property and business interruption insurance will be adequate to compensate the Company for any losses that may occur in the event of a system failure. Any damage, failure or delay that causes interruptions in the Company's operations could have a material adverse effect on the Company's business, financial condition and results of operations.

Year 2000 Processing. The Company is currently utilizing internal resources to comprehensively identify and timely resolve the potential impact of the year 2000 and beyond on the processing of date-sensitive information by the Company's Blackbird Products, Hotwatch Products and its computerized information and support systems. The year 2000 problem is the result of software that uses two digits (rather than four) to define the applicable year. Thus any software or hardware that utilizes time-sensitive coding may recognize a date using "00" as the year 1900 rather than the year 2000, which could result in miscalculations or system failures. Based on preliminary information, costs of addressing potential problems are not currently expected to have a material adverse impact on the Company's financial position, results of operations, or cash flows in future periods. If, however, the Company, its customers, or vendors are unable to adequately resolve such processing issues in a timely manner, the Company's operations and financial results may be adversely affected.

911 FCC Mandate. In June 1996, the FCC issued a Report and Order requiring wireless carriers to be able to identify the location of wireless callers to emergency 911 systems. This mandate requires that products designed

to meet this need must be operational and accurate to within 125 meters of the wireless caller not less than 67% of the time by October 2001. The FCC 911 Report and Order is regarded by most wireless communications carriers as a costly and complex prospect with a challenging need to intercommunicate between carriers in a fragmented market. The Company believes that its Blackbird platform technology can be adapted to accommodate and work in concert with third-party suppliers of this location technology. Should the FCC delay or terminate its Report and Order requiring such location technology, demand for the Company's products could be adversely affected. On March 2, 1998, the Company and U.S. Wireless announced the signing of a letter of intent which provides for the potential combination of the two companies. US Wireless develops and manufactures products designed to provide value-added services and features for the wireless communications industry, including caller-location and tracking, autonomous network management, and other applications. Its RadioCamera(TM) caller-location and tracking product is designed to meet and/or exceed the emergency 911 requirements of the FCC described above. See "--Overview".

Government Regulation and Legal Uncertainties. While, for the most part, the Company's operations are not directly regulated, the Company's existing and potential customers are subject to a variety of United States and foreign governmental regulation. Such regulation may inhibit the growth of the wireless telecommunications industry, limit the number of potential customers for the Company's services, and impede the Company's ability to offer competitive services to the wireless communications market or otherwise have a material adverse effect on the Company's business, financial condition and results of operations. Recently enacted federal legislation deregulating the telecommunications industry may cause changes in the industry, including entrance of new competitors or industry consolidation, which could in turn subject the Company to increased pricing pressures, decrease the demand for the Company's services, increase the Company's cost of doing business or otherwise have a material adverse effect on the Company's business, financial condition and results of operations.

#### Item 8. Financial Statements and Supplementary Data

The financial statements and supplementary data required by this item are included in Part IV as indexed at Item 14(a)(1) and (a)(2).

#### Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None

PART III

Item 10. Directors and Executive Officers of the Registrant

Identification of Directors and Executive Officers

The name, age, position with the Company and other information with respect to each of its directors and executive officers is as set forth below.

Name -----	Age ---	Position with Company -----	Year First ----- Elected -----	Term of ----- Office -----
Stephen Katz	54	Chairman of the Board of Directors and Chief Executive Officer	1988	1997
William C. Zollner	51	President, Chief Operating Officer and Director	1997	1998
Lawrence Schoenberg(1)(2)	65	Director	1996	1999
James Porter(1)(2)	62	Director	1997	1998
Michael E. McConnell	47	Vice President and Chief Financial Officer	--	--
Kyle R. Sugamele	35	Vice President, General Counsel and Corporate Secretary	--	--
Stephen F. Elston	40	Vice President, Engineering	--	--
Joyce S. Jones	50	Vice President, Marketing	--	--
Michael N. Joseph	50	Vice President, Support and Service	--	--

Business Experience

Stephen Katz, Chairman of the Board of Directors, was Acting Chief Executive Officer and Acting President from November 1992 until February 1994, at which time he became Chief Executive Officer. Mr. Katz has been Chairman of the Board and a director of the Company since its inception and a member of the Management Committee of the predecessor partnership during the entire period of its existence. From September 1984 until September 1995, Mr. Katz was Chairman of the Board, Chief Executive Officer and until September 1993, President of Nationwide Cellular Service, Inc., which was the Company's majority stockholder until May 1992 and its largest stockholder, owning 34% of its outstanding shares, until September 1995. At that time such shares were distributed to Nationwide's stockholders, immediately prior to Nationwide's merger with MCI Communications Corp. ("MCI"). In May 1996, Mr. Katz was appointed Vice-Chairman of the Board and Chief Executive Officer of Global Payment Technologies, Inc. (formerly Coin Bill Validator, Inc.) whose business is currency and coin authentication.

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(1) Member of the Compensation and Stock Option Committee

(2) Member of the Audit Committee

William C. Zollner was named President and Chief Operating Officer and a Director of the Company in February 1997. From August 1996 to February 1997, Mr. Zollner provided management consulting to software and systems companies. From July 1991 to July 1996, Mr. Zollner served as Chief Operating Officer of Serena Software International, a company specializing in systems and application change management and productivity products. Previously, Mr. Zollner served eight years with Sterling Software, Inc., a company specializing in software applications serving several markets. While with Sterling, he served as Senior Vice President of its Systems Software Marketing Division, and President of its International Division.

Lawrence Schoenberg joined the Company as a Director in September 1996. Mr. Schoenberg founded AGS Computers, Inc. in 1967 and served as Chief Executive Officer until 1991. The company was sold to NYNEX in 1988. The micro-computer segment subsequently became a part of Merisel, Inc. Mr. Schoenberg also serves as Director of Government Technology Services, Inc. (since December 1991), Merisel, Inc. (since November 1989), SunGuard Data Services, Inc. (since October 1991), and Penn America Group, Inc. (since January 1994). Former directorships include Systems Center, Inc., which was sold to Sterling Software, Inc., SoftSwitch, Inc., which was sold to Lotus/IBM Corp., Forecross Corporation (from 1993 to June 1996), and Image Business Systems, Inc. (from January 1992 to August 1994).

James Porter joined the Company as a Director in July 1997. Since February 1997, Mr. Porter has served as Chairman of CCI/Triad Systems Corporation, a provider of information management services and systems with more than 2,000 employees and nearly 15,000 corporate customers worldwide. From September 1985 to February 1997, he was President and Chief Executive Officer of Triad Systems Corp. Mr. Porter is a board member of Silicon Valley Bank, Triad Park, LLC and FirstWave Technologies, all publicly traded companies. He also serves on the Board of Regents of Pepperdine University and is a past member of the board of directors and executive committee of the Information Technology Association of America.

Michael E. McConnell has been Vice President and Chief Financial Officer of the Company since January 1992. Prior to joining the Company, from April 1991 to December 1991, Mr. McConnell engaged in personal investments. From 1986 to March 1991, Mr. McConnell was the Chief Financial Officer of Delphi Information Systems, Inc., a public company engaged in the development of software systems for the insurance field. Mr. McConnell is a certified public accountant.

Kyle R. Sugamele joined the Company in July 1995 as Vice President and General Counsel, and was named Corporate Secretary in June 1996. Prior to joining the Company, Mr. Sugamele was associated with the law firm of Mundt, MacGregor, Happel, Falconer, Zulauf & Hall in Seattle. His practice has involved a wide range of commercial, corporate, banking, and general business matters, with particular emphasis in the protection and licensing of intellectual property and trade secrets, commercial finance, and business transactions.

Stephen F. Elston joined the Company in July 1996 as Vice President of Engineering. From January 1993 until joining the Company, he held several positions with MathSoft, Inc., a software development company. From July 1995 to June 1996, as Senior Director of Product Development in their Data Analysis Products Division, he managed development and releases for two software product lines. From January 1995 to July 1995, he was Acting Director of Product Development. He was also Acting Product Manager from January 1995 to September 1995, and Director of Research from January 1993 to December 1995, in MathSoft's StatSci Division. From June 1990 to January 1993, Mr. Elston was a Research Geophysicist with Mobil Research and Development Company.

Joyce S. Jones joined the Company in February 1998 as Vice President of Marketing. Prior to joining the Company, Ms. Jones was founder and President of Creative Business Solutions, a management consulting firm specializing in software startups. From August 1987 to April 1995, Ms. Jones held several positions with Attachmate Corporation, a manufacturer of enterprise data communication software and hardware. From 1993 to 1995, she was Executive Vice President of Worldwide Products in the Office of the President where she was responsible for product strategy, product management, product development, and product marketing. From 1991

to 1993, Ms. Jones held the position of Vice President of System Engineering. Other positions with the company included Product Marketing, Product Management, and Technical Sales Engineer.

Michael N. Joseph joined the company in July 1996 as Director of Support Services. In January 1998 he was promoted to Vice President of Support and Service. From August 1995 until May 1996 Mr Joseph held the position of Director of Implementation and Operation for AT&T Wireless and was responsible for providing network and server monitoring for five regional network operations centers. From July 1994 until August of 1995, he held the position of Engineering Manager-Global Accounts for Cable & Wireless and was responsible for addressing technical issues with American Express on a global basis. From July 1991 until July 1994 Mr. Joseph held the position of Director M.I.S. for Prime Equipment, a company responsible for renting medium to small pieces of construction equipment and was responsible for designing and implementing a centralized contract rental system for all company locations.

The Company's Board of Directors is divided into three classes. The Board is composed of two Class I directors, Mr. Zollner and Mr. Porter, one Class II director, Mr. Schoenberg, and one Class III director, Mr. Katz. The terms of the Class I, Class II and Class III directors expire on the dates of the 1998, 1999 and 2000 annual meetings, respectively. At each annual meeting, successors to the class of directors whose term expires at that annual meeting are elected for a three-year term. Officers are elected annually at the discretion of the Board of Directors and serve at the discretion of the Board.

Item 11. Executive Compensation

The following table sets forth information concerning annual and long-term compensation, paid or accrued, for the Chief Executive Officer and the four other most highly compensated executive officers of the Company (the "Named Executive Officers") for services in all capacities to the Company during the last three fiscal years.

Summary Compensation Table (1)

Name and Principal Position	Year	Annual Compensation			Other Annual Compensation	Long-Term Compensation	
		Salary	Bonus			Awards	All Other Compensation (2)
					Securities Underlying Options		
Stephen Katz Chairman of the Board of Directors and Chief Executive Officer	1997	\$0	\$0		\$0	0	\$0
	1996	0	100,000		0	0	0
	1995	0	0		0	0	0
William C. Zollner President and Chief Operating Officer	1997	(3) 140,340	0		19,217	300,000	2,790
Michael E. McConnell Vice President and Chief Financial Officer	1997	126,000	0		0	15,000	5,203
	1996	122,500	25,000		0	30,000	5,959
	1995	115,500	0		0	3,820	6,595
Stephen F. Elston, Vice President, Engineering	1997	113,681	0		0	30,000	3,755
	1996	(4) 48,125	0		0	20,000	75
Douglas F. Anderson Vice President, Sales	1997	(5) 170,351	0		0	9,000	4,172
	1996	125,000	50,000		0	50,000	4,438
	1995	115,000	0		0	3,820	1,405

- (1) None of the Named Executive Officers received any Restricted Stock Awards or LTIP Payouts in 1995, 1996 or 1997.
- (2) Primarily represents contributions by the Company to the Named Executive Officers' accounts under a 401K plan, and to a lesser extent, taxable income originating from term life insurance premiums paid on behalf of the Named Executive Officers under the Company's standard employee group benefits plan.
- (3) Represents compensation paid to Mr. Zollner from February 19, 1997, when he began his employment as President and Chief Operating Officer. In connection with his employment, the Company made payments to Mr. Zollner or on his behalf related to his relocation, which were deemed to be compensation in the amount of \$19,217. In addition, the Company made payments to Mr. Zollner or on his behalf related to his relocation which were not deemed to be compensation in the amount of \$45,783. In addition, Mr. Zollner received \$16,526 for management consulting services performed during the month prior to his appointment as President and Chief Operating Officer.

(4) Represents compensation paid to Mr. Elston from July 17, 1996.

(5) Represents compensation paid to Mr. Anderson in 1997 as a non-refundable draw against incentive compensation to be earned based upon achieving certain revenue and margin performance goals. Such incentives were not earned. Mr. Anderson's employment with the Company ceased on January 29, 1998.

Stock Options

The following table sets forth information as to all grants of stock options to the Named Executive Officers during 1996.

Option Grants In 1997 (1)					Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term (3)	
Name	Individual Grants		Exercise Price	Expiration Date	At 5%	At 10%
	Number of Securities Underlying Options Granted (2)	% of Total Options Granted to Employees in 1996				
Stephen Katz.....	0	0.0%	\$ 0	-	\$ 0	\$ 0
William C. Zollner.....	300,000	39.1	11.375	2/18/07	2,146,103	5,438,646
Michael E. McConnell....	15,000	2.0	6.375	7/7/07	60,138	152,402
Stephen F. Elston.....	30,000	3.9	6.375	7/7/07	120,276	304,803
Douglas F. Anderson.....	9,000	1.2	6.375	7/7/07	36,083	91,441

(1) No stock appreciation rights ("SARs") were granted to any of the Named Executive Officers during 1996.

(2) The options become exercisable in cumulative annual installments of 20% per year on each of the first five anniversaries of the grant date. The options are exercisable over a ten-year period.

(3) The dollar amounts set forth under these columns are the result of calculations at the 5% and 10% rates established by the SEC and are not intended to forecast future appreciation of the Company's stock price. The Company did not use an alternative formula for a grant date valuation as it is unaware of any formula which would determine with reasonable accuracy a present value based upon future unknown factors. In order to realize the potential values set forth under the columns headed "At 5%" and "At 10%", the price per share of the Company's Common Stock at the end of the ten-year option term would be \$10.38 and \$16.54, respectively for all officers except Mr. Zollner, whose price per share would be \$18.53 and \$29.50 respectively.

The following table sets forth information with respect to the exercise of stock options during 1997 by the Named Executive Officers and unexercised options held by them on December 31, 1997.

Aggregated Option Exercises In 1997 And December 31, 1997 Option Values (1)

Name	Shares Acquired on Exercise	Value Realized	Number of Securities Underlying Unexercised Options at December 31, 1997 Exercisable/Unexercisable	Value of Unexercised In-the-Money Options at December 31, 1997 Exercisable/ Unexercisable (2)
Stephen Katz	0	\$ 0	542,000/160,000	\$177,210/\$0
William Zollner	0	0	0/300,000	0/0
Michael E. McConnell	0	0	155,528/91,292	94,896/31,131
Stephen Elston	0	0	4,000/46,000	0/0
Douglas F. Anderson	0	0	39,528/79,292	0/0

(1) There were no SAR exercises during 1995 and no SARs were outstanding at December 31, 1996.

(2) The closing price for the Company's Common Stock as reported on the NASDAQ National Market on December 31, 1997 was \$2.97 per share. Value is calculated by multiplying (a) the difference between \$2.97 and the option exercise price by (b) the number of shares of Common Stock underlying the option.

Employment Agreements

Effective February 19, 1997, the Company entered into an employment agreement with William C. Zollner to serve as President and Chief Operating Officer of the Company. The agreement expires on February 19, 1999, subject to a month-to-month continuation provision as set forth in the agreement. Mr. Zollner's annual base salary is currently \$162,000 and he is further eligible to receive an annual bonus in accordance with corporate performance and other criteria specifically identified by the Board of Directors of the Company (or the Compensation and Stock Option Committee thereof). In the event of a termination by the Company in any manner other than expressly permitted under the agreement, or by Mr. Zollner for "Good Reason" as defined in the agreement, then: (A) the Company is required to make a lump sum payment equal to one times the highest annual compensation received by Mr. Zollner from the Company during any of the most recent two years ending on or prior to the date on which the termination occurs; (B) all stock options granted to Mr. Zollner shall become fully vested and exercisable at his election; and (C) all employee benefit plans, practices, policies, and programs applicable to Mr. Zollner under the agreement and in existence prior to termination shall continue for an additional one year after termination. In addition, in the event of a "Change in Control" of the Company, then all stock options granted to Mr. Zollner shall become fully vested and exercisable at his election. A "Change in Control" shall mean and be deemed to exist if any of the following events occur: (i) the occurrence of a change in the "ownership or effective control" or in the "ownership of a substantial portion of the assets" of Company as defined in the agreement; (ii) any "person" as defined in the agreement becomes the beneficial owner of 25% or more of the Company's then outstanding shares of voting common stock or then outstanding voting securities of the Company entitled to vote generally in the election of directors; (iii) the following persons cease for any reason to constitute a majority of the Board of Directors of the Company: (a) individuals who, as of February 19, 1997, constitute the Board of Directors, and (b) individuals who become members of the Board of Directors after February 19, 1997 whose election, or nomination for election by the Company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Board of Directors, subject to certain terms set forth in the agreement; (iv) the approval by the Company's shareholders of any merger, consolidation, or other business combination involving the Company, subject to certain terms set forth in the agreement; (v) the approval by Company's shareholders of any sale, exchange, or other disposition of all or substantially all of the assets of Company, subject to certain terms set forth in the agreement; or (vi) the approval by the shareholders of the Company of any plan or proposal for liquidation or dissolution of the Company.

Effective January 1, 1993, the Company entered into an employment agreement with Michael E. McConnell to serve as Vice President and Chief Financial Officer of the Company. The agreement expires on December 31, 1998. Mr. McConnell's annual base salary is currently \$126,000 and he is further eligible to receive, at the discretion of the Company, an annual bonus in an aggregate amount of up to fifty percent (50%) of his annual base salary based upon the Company meeting certain operating goals and objectives, including financial performance, as established from time to time by the Company. In the event of a "Change of Control" of the Company, Mr. McConnell will be entitled to a lump sum severance payment equal to the sum of (i) his annual base salary and highest annual bonus paid during the term of the agreement and (ii) the sum of his unpaid base salary through the date of termination and a pro rata portion of the highest annual bonus awarded him during the term of the employment agreement. A "Change in Control" is deemed to occur upon (i) the acquisition of 20% or more of the outstanding Common Stock or voting power of the Company (by other than Mr. McConnell or a Company employee benefit plan or pursuant to a purchase directly from the Company), (ii) the Incumbent Directors, as defined, becoming less than a majority of the Board of Directors, or (iii) a reorganization, merger, consolidation, liquidation or dissolution of the Company or a sale of substantially all of its assets unless, among other things, at least 60% of the shares of the successor in said reorganization, merger or consolidation or transferee of such assets are owned by the owners of the Company's Common Stock prior to such transaction.

Effective July 17, 1996, the Company entered into an employment agreement with Stephen Elston to serve as Vice President - Engineering of the Company. The agreement expires on July 17, 1998, subject to a month-to-month continuation provision as set forth in the agreement. Mr. Elston's annual base salary is currently \$126,000 and he is further eligible to receive an annual bonus in accordance with corporate performance and other criteria specifically identified by the Board of Directors of the Company (or the Compensation and Stock Option Committee thereof). In the event of a "Change Of Control" of the Company (or in the event of a termination by the Company in any manner other than expressly permitted under the agreement, or by Mr. Elston for "Good Reason" as defined in the agreement), then under certain circumstances: (A) the Company is required to make a lump sum payment equal to one times the highest annual compensation received by Mr. Elston from the Company during any of the most recent two years ending on or prior to the date on which the termination occurs; (B) all stock options granted to Mr. Elston shall become fully vested and exercisable at his election; and (C) all employee benefit plans, practices, policies, and programs applicable to Mr. Elston under the agreement and in existence prior to termination (or, if applicable, prior to the Change of Control) shall continue for an additional one year after termination (or, if applicable, after the Change of Control). A "Change in Control" shall mean and be deemed to exist if any of the following events occur: (i) the occurrence of a change in the "ownership or effective control" or in the "ownership of a substantial portion of the assets" of Company as defined in the agreement; (ii) any "person" as defined in the agreement becomes the beneficial owner of 25% or more of the Company's then outstanding shares of voting common stock or then outstanding voting securities of the Company entitled to vote generally in the election of directors; (iii) the following persons cease for any reason to constitute a majority of the Board of Directors of the Company: (a) individuals who, as of July 17, 1996, constitute the Board of Directors, and (b) individuals who become members of the Board of Directors after July 17, 1996 whose election, or nomination for election by the Company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Board of Directors, subject to certain terms set forth in the agreement; (iv) the approval by the Company's shareholders of any merger, consolidation, or other business combination involving the Company, subject to certain terms set forth in the agreement; (v) the approval by Company's shareholders of any sale, exchange, or other disposition of all or substantially all of the assets of Company, subject to certain terms set forth in the agreement; or (vi) the approval by the shareholders of the Company of any plan or proposal for liquidation or dissolution of the Company.

#### Compensation Committee Interlocks and Insider Participation

During the fiscal year ended December 31, 1997, the Compensation and Stock Option Committee of the Board of Directors of the Company consisted of Jay Goldberg (who resigned in February 1998 and was replaced by James Porter in March 1998) and Lawrence Schoenberg.

Item 12. Security Ownership of Certain Beneficial Owners and Management

SECURITY OWNERSHIP

The following table sets forth, as of March 16, 1998 (except as otherwise indicated in footnote 3), information with respect to the beneficial ownership of the Company's Common Stock by (i) each person known by the Company to beneficially own more than 5% of the outstanding shares of Common Stock, (ii) each director of the Company, (iii) each of the Named Executive Officers (as such term is herein defined) and (iv) all directors and executive officers of the Company as a group.

Name and Address of Beneficial Owner (1) -----	Amount and Nature of Beneficial Ownership (2,) -----	Percent of Outstanding Shares -----
Harvey and Phyllis Sandler 1050 Lee Wagener Blvd. Suite 301 Fort Lauderdale, FL 33315.....	1,382,616 (3)	6.1%
Stephen Katz.....	1,087,640 (4)	4.8%
William C. Zollner.....	70,000 (5)	*
Lawrence Schoenberg.....	32,000 (6)	*
James Porter.....	8,000	*
Michael E. McConnell.....	158,528 (7)	*
Stephen F. Elston.....	4,000 (8)	*
Kyle R. Sugamele.....	29,828 (9)	*
Joyce S. Jones.....	1,000	*
Michael N. Joseph.....	3,000 (10)	*
All directors and executive officers as a group (9 persons).....	1,393,996 (11)	5.9%

\* Less than 1%

(1) Pursuant to the rules of the Securities and Exchange Commission (the "SEC"), addresses are only given for holders of 5% or more of the outstanding Common Stock of the Company.

(2) Unless otherwise indicated, each person or group has sole voting and investment power with respect to such shares. For purposes of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares which such person or group has the right to acquire within 60 days of March 16, 1998. For purposes of computing the percent of outstanding shares held by each person or group named above as of a given date, any shares which such person or group has the right to so acquire are deemed to be outstanding, but are not deemed to be outstanding for the purpose of computing the percentage owned by any other person or group.

(3) Information based solely on a Schedule 13D dated March 27, 1997, filed with the SEC by Harvey and Phyllis Sandler.

- (4) Includes 542,000 shares subject to currently exercisable options.
- (5) Includes 60,000 shares subject to currently exercisable options.
- (6) Consists of 32,000 shares subject to currently exercisable options.
- (7) Includes 155,528 shares subject to currently exercisable options.
- (8) Consists of 4,000 shares subject to currently exercisable options.
- (9) Includes 29,328 shares subject to currently exercisable options.
- (10) Consists of 3,000 shares subject to currently exercisable options.
- (11) Includes an aggregate of 825,856 shares subject to currently exercisable options. Of such options, only 138,000 are at prices lower than the market price of the Company's Common Stock as of March 16, 1997.

Pursuant to Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), officers, directors and holders of more than 10% of the outstanding shares of the Company's Common Stock are required to file periodic reports of their ownership of, and transactions involving, the Company's Common Stock with the SEC. The Company believes that its reporting persons complied with all Section 16 filing requirements applicable to them with respect to the Company's fiscal year ended December 31, 1997, except that James Porter, a director of the Company, filed an Initial Statement of Beneficial Ownership of Securities on Form 3 dated September 12, 1997 (that was due on August 8, 1997) and filed a Statement of Changes of Beneficial Ownership of Securities for the purchase of 2,000 shares of the Company's Common Stock on Form 4 dated September 12, 1997 (that was due on September 10, 1997).

Item 13. Certain Relationships and Related Transactions

The Company did not engage in any material related party transactions in its 1997 fiscal year.

PART IV

Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

(a) 1. Financial Statements:

The following financial statements of Cellular Technical Services Company, Inc. are included as required to be filed by Item 8.

	Page No.
Report of Ernst & Young LLP, Independent Auditors.....	47
Balance Sheets at December 31, 1997 and 1996.....	48
Statements of Operations for the years ended December 31, 1997, 1996 and 1995.....	49
Statements of Stockholders' Equity for the years ended December 31, 1997, 1996 and 1995..	50
Statements of Cash Flows for the years ended December 31, 1997, 1996 and 1995.....	51
Notes to Financial Statements.....	52
2. Financial Statement Schedules:	
Schedule II - Valuation and Qualifying Accounts.....	65

All other schedules have been omitted because they are inapplicable, not required, or the information is included in the financial statements or notes thereto.

3. Exhibits:

- 3.1 Restated Certificate of Incorporation of the Registrant, as amended (1)
- 3.2 By-Laws of the Registrant (1)
- 3.3 Amendment I to By-Laws of the Registrant, dated October 28, 1993 (3)
- 4.1 Specimen Certificate for Common Stock of Registrant (1)
- 4.2 Stock Purchase Agreement dated as of November 11, 1996 among the Registrant and the investors specified therein (9)
- 7.1 1991 Qualified Stock Option Plan (as amended as of November 30, 1993) (+)(2)
- 7.2 1991 Non-Qualified Stock Option Plan (as amended as of November 30, 1993) (+)(2)
- 7.3 1993 Non-Employee Director Stock Option Plan (+)(3)
- 7.4 1996 Stock Option Plan (+)(8)

- 10.1 Employment Agreement between the Registrant and William C. Zollner dated February 19, 1997 (+)(10)
- 10.2 Employment Agreement between the Registrant and Michael E. McConnell dated January 1, 1993 (+)(3)
- 10.3 Employment Agreement between the Registrant and Stephen F. Elston dated July 17, 1996 (+)(11)
- 10.4 Agreement of Lease dated May 23, 1994 between the Registrant and Martin Selig Properties (5)
- 10.4A Amendment to Lease dated April 7, 1995 between the Registrant and Martin Selig Properties (7)
- 10.5 Technical Services Agreement dated December 1, 1993, between Registrant and McCaw Cellular Communications, Inc.(a)(4)
- 10.6 Source Code License Agreement (CTS Software) dated December 1, 1993, between Registrant and McCaw Cellular Communications, Inc. (a)(4)
- 10.7 Source Code License Agreement (McCaw Software) dated July 15, 1994, between Registrant and McCaw Cellular Communications, Inc. (a)(4)
- 10.8 Master Purchase and License Agreement between the Registrant and AirTouch Cellular dated March 6, 1996 (d)(7) 10.9 Master Purchase and License Agreement between the Registrant and Bell Atlantic NYNEX Mobile dated August 27, 1996 (e)(9)
- 10.10 Master Purchase and License Agreement between the Registrant and GTE Mobilnet of California Limited Partnership dated September 30, 1996 (e)(9)
- 10.11 Master Purchase and License Agreement between the Registrant and Ameritech Mobile Communications, Inc. dated October 14, 1996 (e)(9)
- 10.12 Patent License Agreement between Registrant and The Boeing Company dated April 29, 1994 (c)(5)
- 10.13 Patent Sublicense Agreement between Registrant and Motron Electronics dated May 24, 1995 (b)(6)
- 10.14 Patent License Agreement between Registrant and AirTouch Cellular, dated December 22, 1995 (d)(7)
- 23.1 Consent of Ernst & Young LLP, independent auditors (12)
- 27 Financial Data Schedule (12)

- 
- a Confidential treatment granted pursuant to order of the Secretary of the Securities and Exchange Commission dated December 1, 1994 (File No. 0-19437).
  - b Confidential treatment granted pursuant to order of the Secretary of the Securities and Exchange Commission dated January 25, 1996 (File No. 0-19437).
  - c Confidential treatment granted pursuant to order of the Secretary of the Securities and Exchange Commission dated July 26, 1996 (File No. 0-19437).

- d Confidential treatment granted pursuant to order of the Secretary of the Securities and Exchange Commission dated November 8, 1996 (File No. 0-19437).
- e Confidential treatment granted pursuant to order of the Secretary of the Securities and Exchange Commission dated February 28, 1997 (File No. 0-19437).
- (+) Management contract or compensation plan or arrangement required to be noted as provided in Item 14(a)(3).
- (1) Incorporated by reference to Registration Statement on Form S-1 declared effective on August 6, 1991 (File No. 33-41176).
- (2) Incorporated by reference to Registration Statement on Form S-8 filed on March 7, 1994 (File No. 33-76128).
- (3) Incorporated by reference to Annual Report on Form 10-K filed on March 30, 1994 for the year ended December 31, 1993 (File No. 0-19437).
- (4) Incorporated by reference to Quarterly Report on Form 10-Q filed on August 12, 1994 for the quarter ended June 30, 1994 (File No. 0-19437).
- (5) Incorporated by reference to Annual Report on Form 10-K filed on March 28, 1995 for the year ended December 31, 1994 (File No. 0-19437).
- (6) Incorporated by reference to Quarterly Report on Form 10-Q filed on August 8, 1995 for the quarter ended June 30, 1995 (File No. 0-19437).
- (7) Incorporated by reference to Annual Report on Form 10-K filed on March 27, 1996 for the year ended December 31, 1995 (File No. 0-19437).
- (8) Incorporated by reference to Registration Statement on Form S-8 filed on July 12, 1996 (File No. 333-08049).
- (9) Incorporated by reference to Quarterly Report on Form 10-Q filed on November 14, 1996 for the quarter ended September 30, 1996 (File No. 0-19437).
- (10) Incorporated by reference to Current Report on Form 8-K filed on March 6, 1997 (File No. 0-19437).
- (11) Incorporated by reference to Annual Report on Form 10-K filed on March 26, 1997 for the year ended December 31, 1996 (File No. 0-19437).
- (12) Filed herewith.

(b) Reports on Form 8-K

The Registrant did not file any Current Reports on Form 8-K during the quarter ended December 31, 1997.

The Company filed a Current Report on Form 8-K, dated February 19, 1998, under Item 5 of such Report, relating to the Company's legal proceedings and to the Company's implementation of a strategic plan to streamline its operations. No financial statements were included in such Report.

The Company also filed a Current Report on Form 8K, date March 12, 1998, under Item 5 of such Report, reporting that the Company and U.S. Wireless Corporation announced the signing of a Letter of Intent (dated February 25, 1998) calling for the combining of the two companies. No financial statements were included.

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders  
Cellular Technical Services Company, Inc.

We have audited the accompanying balance sheets of Cellular Technical Services Company, Inc. as of December 31, 1997 and 1996, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1997. Our audits also included the financial statement schedule listed in the Index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule 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, the financial statements referred to above present fairly, in all material respects, the financial position of Cellular Technical Services Company, Inc. at December 31, 1997 and 1996, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 1997, in conformity with generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

ERNST & YOUNG LLP

Seattle, Washington  
March 25, 1998

## CELLULAR TECHNICAL SERVICES COMPANY, INC.

## BALANCE SHEETS

(in 000's, except per share amounts)

	December 31,	
	1997	1996
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 3,448	\$ 4,854
Accounts receivable, net of allowances of \$187 in 1997 and \$101 in 1996	3,190	11,616
Inventories, net	6,428	8,275
Prepaid expenses and deposits	300	831
	-----	-----
Total Current Assets	13,366	25,576
PROPERTY AND EQUIPMENT, net	3,964	3,177
SOFTWARE DEVELOPMENT COSTS, net	3,391	3,599
	-----	-----
TOTAL ASSETS	\$ 20,721	\$ 32,352
	-----	-----
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	\$ 2,799	\$ 6,365
Payroll-related liabilities	792	735
Taxes (other than payroll and income)	549	660
Customers' deposits	15	4,626
Deferred revenue	2,676	1,781
	-----	-----
Total Current Liabilities	6,831	14,167
STOCKHOLDERS' EQUITY		
Preferred Stock, \$.01 par value per share, 5,000 shares authorized, none issued and outstanding		
Common Stock, \$.001 par value per share, 30,000 shares authorized, 22,795 shares issued and outstanding in 1997 and 22,636 in 1996	23	23
Additional paid-in capital	29,889	29,138
Accumulated deficit	(16,022)	(10,976)
	-----	-----
Total Stockholders' Equity	13,890	18,185
	-----	-----
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 20,721	\$ 32,352
	-----	-----

The accompanying footnotes are an integral part of these financial statements.

CELLULAR TECHNICAL SERVICES COMPANY, INC.

STATEMENTS OF OPERATIONS

(in 000's, except per share amounts)

	Year Ended December 31,		
	1997	1996	1995
REVENUES			
Systems	\$ 25,768	\$ 19,799	\$ 9,532
Services	4,487	1,103	2,577
Total Revenues	30,255	20,902	12,109
COSTS AND EXPENSES			
Cost of Systems and Services	19,201	16,617	4,722
Sales and marketing	3,755	3,401	2,142
General and administrative	4,481	2,966	2,116
Research and development	8,061	5,523	3,540
Total Costs and Expenses	35,498	28,507	12,520
LOSS FROM OPERATIONS	(5,243)	(7,605)	(411)
INTEREST INCOME	197	255	476
INCOME (LOSS) BEFORE INCOME TAXES	(5,046)	(7,350)	65
PROVISION FOR INCOME TAXES			2
NET INCOME (LOSS)	\$ (5,046)	\$ (7,350)	\$ 63
BASIC AND DILUTED EARNINGS (LOSS) PER SHARE	\$ (0.22)	\$ (0.33)	\$ 0.00
WEIGHTED AVERAGE SHARES OUTSTANDING	22,728	21,999	20,398

The accompanying footnotes are an integral part of these financial statements.

CELLULAR TECHNICAL SERVICES COMPANY, INC.

STATEMENTS OF STOCKHOLDERS' EQUITY

(in 000's)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total
	Shares	Amount			
Balance, January 1, 1995	19,741	\$ 20	\$ 17,396	\$ (3,689)	\$ 13,727
Exercise of stock options	1,862	2	2,942		2,944
Net income				63	63
Balance, December 31, 1995	21,603	22	20,338	(3,626)	16,734
Exercise of stock options	633	1	2,360		2,361
Sale of Common Stock	400		6,440		6,440
Net income				(7,350)	(7,350)
Balance, December 31, 1996	22,636	23	29,138	(10,976)	18,185
Exercise of stock options	159		751		751
Net income				(5,046)	(5,046)
Balance, December 31, 1997	22,795	\$ 23	\$ 29,889	\$ (16,022)	\$ 13,890

The accompanying footnotes are an integral part of these financial statements.

CELLULAR TECHNICAL SERVICES COMPANY, INC.

STATEMENTS OF CASH FLOWS

(in 000's)

	Year Ended December 31,		
	1997	1996	1995
<b>OPERATING ACTIVITIES</b>			
Net income (loss)	\$ (5,046)	\$ (7,350)	\$ 63
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization of property and equipment	1,219	817	609
Amortization of software development costs	1,961	1,123	985
Provision for inventory reserves	1,818	390	180
Changes in operating assets and liabilities:			
(Increase) decrease in accounts receivable	8,426	(11,108)	1,239
(Increase) decrease in inventories	29	(6,718)	(1,672)
(Increase) decrease in prepaid expenses and deposits	531	(3)	(537)
Increase (decrease) in accounts payable	(3,566)	5,211	261
Increase (decrease) in payroll-related liabilities	57	512	(283)
Increase (decrease) in taxes (other than payroll and income)	(111)	462	67
Increase (decrease) in customers' deposits	(4,611)	4,606	(8)
Increase (decrease) in deferred revenue	895	1,739	(151)
<b>NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES</b>	<b>1,602</b>	<b>(10,319)</b>	<b>753</b>
<b>INVESTING ACTIVITIES</b>			
Purchase of property and equipment	(2,006)	(1,701)	(1,565)
Capitalization of software development costs	(1,753)	(1,375)	(1,726)
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>(3,759)</b>	<b>(3,076)</b>	<b>(3,291)</b>
<b>FINANCING ACTIVITIES</b>			
Proceeds from sale of Common Stock		6,440	
Proceeds from exercise of stock options	751	2,361	2,944
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	<b>751</b>	<b>8,801</b>	<b>2,944</b>
<b>NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>(1,406)</b>	<b>(4,594)</b>	<b>406</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>	<b>4,854</b>	<b>9,448</b>	<b>9,042</b>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<b>\$ 3,448</b>	<b>\$ 4,854</b>	<b>\$ 9,448</b>

The accompanying footnotes are an integral part of these financial statements.

CELLULAR TECHNICAL SERVICES COMPANY, INC.  
NOTES TO FINANCIAL STATEMENTS

NOTE A - NATURE OF OPERATIONS AND LIQUIDITY

Nature of Operations and Organization - Cellular Technical Services Company, Inc. (the "Company") is primarily engaged in the design, development, marketing, installation and support of integrated data processing systems for the wireless communications industry. Although the Company's current customer base is comprised of domestic U.S. cellular service providers, management believes that demand for the Company's products extends to worldwide wireless service providers. The Company was incorporated in Delaware on August 19, 1988. Prior to September 14, 1995, the Company's single largest stockholder had been Nationwide Cellular Service, Inc. ("Nationwide").

Liquidity - The Company has incurred operating losses of \$5.0 million and \$7.4 million for the years ended December 31, 1997 and 1996, respectively. Its cash flow from operating activities was \$1.6 million in 1997 while it incurred a negative cash flow of \$10.4 million in 1996. During this period, the Company deployed its initial cloning fraud prevention Blackbird Products and incurred substantial operating expenses during such deployment. As of December 31, 1997, the Company had an accumulated deficit of \$16.0 million, \$12.4 million of which has accumulated during the past two years. As a result of its significant research and development, customer support, sales and marketing, manufacturing operations and general and administrative efforts, the Company has required substantial working capital to fund its operations. To date, the Company has financed its operations principally through the net proceeds from its equity offerings (including proceeds from the exercise of warrants and options). As of December 31, 1997, the Company's working capital was \$6.5 million and its cash and cash equivalents balances were \$3.4 million. Management believes that under its current business plans, its current cash balances and cash flows expected to be generated from operations are sufficient to fund its operations and capital requirements at least through December 1998. Going forward into 1998, the Company has reduced its fixed operating costs and has increased its recurring revenue base from its maintenance and services. The Company is pursuing borrowings under its bank agreement, which may, however, restrict borrowings based on the Company's current financial condition. The Company is also pursuing other possible private sources of additional working capital to meet its future operational requirements. The recently signed letter of intent between the Company and U.S. Wireless Corporation (See "--Note L - Subsequent Events") that contemplates the merger of the two companies, provides for at least \$15 million of financing being sought for the combined companies. There can be no assurance such funds will be available as needed or on terms that are acceptable to the Company. The Company's inability to successfully generate sufficient cash flow from operations, or raise additional financing, through either its bank agreement or private sources, or in connection with the proposed merger, would have a material adverse impact on the Company's financial position, liquidity or results of operations and may require the Company to reduce its expenditures further or curtail certain operations to enable it to continue its operations at least through December 31, 1998.

NOTE B - SIGNIFICANT ACCOUNTING POLICIES:

Cash and Cash Equivalents - The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

Diversification of Credit Risk - The Company is subject to concentrations of credit risk primarily from cash investments and accounts receivable. Credit risk from cash investments is managed by diversification of cash investments among institutions and by the purchase of investment-grade commercial paper securities. The estimated fair values of the securities approximate cost. Credit risk associated with trade receivables is subject to ongoing credit evaluations. The Company does not typically require collateral for receivables. Reserves for potential losses, if any, are maintained where appropriate.

Inventories - Inventories, which primarily consist of raw materials, work in process, and finished components (including data processing and telecommunication equipment), are stated at the lower of cost or market value, with cost determined on a first-in, first-out basis. Inventories are integrated for delivery to customers by either the Company or its third-party integrators. The Company's inventory is monitored for obsolescence and considers factors such as turnover, technical obsolescence, right of return status to suppliers and pricing. Reserves for slow-moving and obsolete inventory, if any, are maintained where appropriate.

Property and Equipment - Property and equipment, including leasehold improvements, are stated at cost, less accumulated depreciation and amortization. Depreciation and amortization commences at the time assets are placed in service and is computed using the straight-line method over the shorter of estimated useful lives of the assets of two to five years or terms of the associated operating leases. The Company capitalizes expenditures

that significantly increase the life of the related assets, while maintenance and repairs are charged to operations. Gain or loss is reflected in results of operations upon the retirement or sale of assets.

Software Development Costs - Software development costs, consisting primarily of internally developed software, have been capitalized in accordance with Financial Accounting Standards Board Statement No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed." Capitalization of software development costs begins upon the establishment of technological feasibility. Capitalization ceases and amortization begins when products are available for general release. The ongoing assessment of the recoverability of these costs considers external factors including, but not limited to, anticipated future net product revenues, estimated economic life and changes in software and hardware technology. Amortization of capitalized software development costs is the greater of the amount computed using (a) the ratio that current gross revenues for a product bear to the total of current and anticipated future gross revenues for that product or (b) the straight-line method over the remaining estimated economic life of the product, generally ranging from two to four years. As a result of analysis of sales projections and future product releases, the lives used for amortization under the straight line method were reduced effective January 1, 1998 to generally not exceed two years, which will result in increased amortization in future years.

Revenue Recognition - In October 1997, the Accounting Standards Executive Committee (AcSEC) of the American Institute of Certified Public Accountants issued Statement of Position (SOP) 97-2, Software Revenue Recognition. The SOP is effective for transactions entered into in fiscal years beginning after December 15, 1997. The effective date of certain provisions of the SOP have been delayed one year. Based upon the currently issued SOP, the Company believes that it is in compliance with its provisions, and its adoption is not expected to have a material impact on the financial position or results of operations of the Company.

System revenues consist primarily of bundled hardware and software products. Revenues are recognized when all of the following conditions are met: persuasive evidence of an arrangement exists, delivery has occurred (contract criteria has been satisfied), the amount is fixed and determinable, and collectability is probable. Non-revenue generating obligations after delivery are not material. Service revenues, consisting primarily of hardware and software maintenance and related support services, are recognized ratably over the period that maintenance coverage is provided, whether bundled with the system sale or contracted for separately. Prepaid or allocated maintenance and services are recorded as deferred revenues. Amounts billed and received on sales contracts before revenue is recognized are recorded as customer deposits.

Income Taxes - The Company follows the deferred method of accounting for income taxes whereby deferred tax assets and liabilities are determined based on differences between financial reporting basis and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. The Company provides a valuation allowance for deferred tax assets that cannot be currently recognized due to the cumulative losses incurred by the Company.

Net Income (Loss) Per Share - In February 1997, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 128, "Earnings per Share." The new standard simplifies the computation of earnings per share ("EPS") and increases comparability to international accounting standards. Under SFAS No. 128, "Primary" EPS is replaced by "Basic" EPS, which excludes dilution and is computed by dividing income available to common shareholders by the weighted-average number of common shares outstanding for the period. "Diluted" EPS, which is computed similarly to the former "Fully Diluted" EPS, reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock. The Company was required to adopt the new standard in its year-end 1997 financial statements and to restate all prior periods presented. There was no material effect of this accounting change on previously reported EPS for the three years ending December 31, 1997.

Stock-Based Compensation - The Company evaluates stock based compensation in accordance with Financial Accounting Standards Board Statement No. 123, "Accounting for Stock-Based Compensation." As provided for by Statement 123, the Company has chosen to measure stock-based compensation cost under the intrinsic-value

method prescribed under Accounting Principles Board Opinion No. 25 and has adopted the disclosure only provisions of Statement 123.

Risks and Uncertainties - Management of the Company believes that the risks and uncertainties discussed below, whether viewed individually or combined, will not result in a significant unfavorable impact to the Company. However, there can be no assurance that any unfavorable outcome of the risks and uncertainties discussed below will not have a material adverse effect on the Company's financial position, results of operations or liquidity.

- a) Competition in selling the Company's products continues to grow as cellular software vendors, cellular carriers and other technology-oriented companies have developed or are developing products that do or will compete against the Company's products. In connection with developing the Company's software products, significant amounts of software development costs have been capitalized. Additionally, the Company has purchased inventories that are intended to support future product sales. In the event the Company is not able, due to resource, technological or other constraints, to sell into its market, to adequately anticipate or respond to changing market, customer or technological requirements, the carrying value of capitalized software, inventories, and other assets could be significantly impaired.
- b) Limited customer base; Reliance on significant customers: The nature of the Company's business is such that a single customer and its affiliates will account for more than 10% of the Company's product and service revenues during a given fiscal year. Sales to customers aggregating 10% or more, either individually or combined as affiliates due to common ownership, were concentrated as follows: four customers with sales of 31%, 20%, 20% and 19% in 1997, three customers with sales of 42%, 38%, and 15% in 1996, and two customers with sales of 70% and 15% in 1995. The aggregate sales to these customers (none accounted for more than 10% in all three years) represented 90%, 95%, and 85%, of the Company's total system and service revenues in 1997, 1996 and 1995, respectively. There can be no assurances that such customers will continue to maintain business relationships with the Company. Accordingly, the loss of one or more major customers could have a material adverse effect on the Company.
- c) Possible need for financing: Historically, the Company has experienced uneven cash flow and operating results, and, during the past two years, significant operating losses. These factors originate primarily from: i) uneven quarterly sales, (ii) cash receipts associated with deferred revenue recognition, (iii) varying payment terms contained in customer agreements, and (iv) operating losses resulting from a combination of lower than expected revenues and an unbalanced cost structure in relation to those revenues. Delays in achieving profitability, failure to convert existing inventory into cash and/or significant sales growth requiring working capital beyond current amounts or other changes in the Company's operating activities will require additional financing during the next twelve months
- d) Dependent on third party vendors: The Company has been and will continue to be dependent on third-party vendors for the computer equipment, electronic components, manufacturing services, and certain software that is incorporated in its products. While these are generally available from multiple sources, the Company currently obtains or licenses certain equipment, electronic components, manufacturing services, and software from a limited number of sources of supply.
- e) Legal proceedings: From time to time, the Company could be subject to involvement with legal actions and claims arising in connection with its business. The following legal matters were resolved in 1997 or are outstanding as of December 31, 1997:

In July 1996, Reon Corporation and Reon International Corporation filed an action against the Company in the Superior Court of King County, Washington, in which the plaintiffs alleged breach of contract, misappropriation of trade secrets, and breach of other obligations by the Company. On December 22, 1997, the parties to the action entered into a settlement agreement, pursuant to which

the action was dismissed by the court with prejudice without any admission of liability or wrongdoing by any party.

Between July 1997 and September 1997, eight separate lawsuits were filed against the Company, its Chairman of the Board and Chief Executive Officer, and its former President and Chief Operating Officer. The lawsuits were filed in the United States District Court for the Western District of Washington at Seattle, and have now been consolidated. A revised consolidated complaint was filed by plaintiffs on February 17, 1998. The complaint purports to assert claims on behalf of the class of persons, other than defendants and their affiliates, who purchased the Company's common stock or call options on the Company's common stock, or who sold put options on the Company's stock, during the period March 6, 1996 through July 30, 1997, inclusive (the "Class Period"). The complaint alleges that the defendants made false or misleading statements and failed to disclose material facts during the Class Period in violation of the federal securities laws. The plaintiffs in this lawsuit seek damages in an unspecified amount. The Company believes this lawsuit is without merit and is vigorously defending against it.

On January 13, 1998, Communications Information Services, Inc. filed an action against the Company and AirTouch Communications, Inc. for alleged infringement of United States Patent No. 5,329,591 ("the '591 patent") in the United States District Court for the Northern District of Georgia at Atlanta. The complaint asserts that the plaintiff is the exclusive licensee of all rights under the '591 patent. The complaint alleges that the Company's cellular telephone fraud prevention technology infringes the '591 patent, and seeks damages in unspecified amounts. The Company believes this lawsuit is without merit and is vigorously defending against it.

Although no estimate of any outcome of the above lawsuits can currently be made, an unfavorable resolution of such suits could materially affect the Company's financial position, liquidity or results of operations. The Company is also a party to other legal proceedings which arise from time to time in the ordinary course of business and/or which management believes will be resolved without a material adverse effect on the Company's financial position, liquidity or results of operations.

Estimates and assumptions - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Reclassifications - Certain reclassifications have been made to the prior year financial statements to conform to the current period's presentation.

NOTE C - INVENTORIES:

Inventory consists of the following (in 000's):

	December 31,	
	1997	1996
Raw materials	\$ 2,571	\$ 2,723
Work in process and finished components	5,954	6,014
	8,525	8,737
Less inventory reserves	(2,097)	(462)
	\$ 6,428	\$ 8,275

Finished goods inventories of \$2.7 million at December 31, 1996, were located at customer sites awaiting installation and customer acceptance. Upon achieving performance criteria specified in customer agreements, such inventories were charged to costs of systems and removed from the inventory balance.

NOTE D - PROPERTY AND EQUIPMENT:

Property and equipment consist of the following (in 000's):

	December 31,	
	1997	1996
Computer equipment and software	\$ 5,648	\$ 3,983
Furniture, fixtures and office equipment	1,922	1,764
Leasehold improvements	407	235
	7,977	5,982
Less accumulated depreciation and amortization	(4,013)	(2,805)
	\$ 3,964	\$ 3,177

NOTE E - SOFTWARE DEVELOPMENT COSTS:

Software development costs consist of the following (in 000's):

	December 31,	
	1997	1996
Capitalized software	\$ 9,134	\$ 7,659
Less accumulated amortization	(5,743)	(4,060)
	\$ 3,391	\$ 3,599

NOTE F - LINE OF CREDIT:

In November 1996, the Company obtained a \$5.0 million line of credit from a major bank secured by all property of the Company. Under the terms of the agreement, the Company may borrow against this line of credit through the execution of promissory notes at the rate of prime plus 0.75%. Credit availability is subject to continuing satisfaction with current financial information furnished to the bank. The line of credit had an initial term that ended September 30, 1997 and was renewed through June 30, 1998. All outstanding balances under the line must be repaid for a consecutive 30-day period before the aforementioned expiration date. As of December 31, 1997, there were no borrowings against the credit agreement. However, the Company's financial condition may impair its ability to borrow under the line.

NOTE G - COMMITMENTS AND CONTINGENCIES:

Leases - The Company leases office space under three non-cancelable operating leases with expiration dates from 1999 through 2000, which contain renewal options for additional terms ranging from two and one-half to five years. The Company also leases equipment and telecommunication lines and services under non-cancelable operating leases expiring through 1999. In addition, the Company leases office space, equipment and telecommunication lines and services under various rental agreements with initial terms ranging from one to twelve months. Amounts charged to operations under all lease and rental agreements totaled \$.8 million, \$1.0 million and \$.8 million in 1997, 1996 and 1995, respectively. Future minimum annual lease payments at December 31, 1997, under those agreements with initial terms greater than one year are as follows (in 000's):

1998	\$	950
1999		945
2000		502
		-----
Total	\$	2,397
		-----
		-----

Employment Agreements - At December 31, 1997, the Company has employment agreements with four officers and two senior employees with varying expiration dates extending through 1998.

NOTE H - EMPLOYEE RETIREMENT SAVINGS PLAN:

The Company has adopted an Employee Retirement Savings Plan covering substantially all employees who have been employed for at least six months and meet certain age and eligibility requirements. Each eligible employee may contribute up to 15% of his or her compensation per year, subject to a maximum limit imposed by federal tax law, into various funds. Under current plan provisions, matching contributions are made by the Company equal to two-thirds of the employee's contribution, subject to a maximum of 6% of compensation contribution by the employee. Company contributions charged to costs and expenses totaled \$176,000, \$136,000, and \$97,000 during 1997, 1996 and 1995, respectively.

NOTE I - INCOME TAXES:

At December 31, 1997, the Company had available for federal income tax purposes net operating loss carryforwards of approximately \$44 million and research and development tax credits of approximately \$1 million which begin to expire in 2003. The federal income tax net operating loss carryforwards exceed the retained deficit, primarily due to the differences between financial reporting and tax treatment of software development costs and deductibility of certain amounts on exercise of stock options. A portion of the net operating loss carryforward (approximately \$22 million) is attributed to the stock option deduction, the tax effect of which will be credited to additional paid-in capital when realized. The net operating loss carryforwards of the

Company have been and will continue to be subject to limitations imposed by Section 382 of the Internal Revenue Code because there has been an ownership change of greater than 50% in the Company.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax liabilities and assets are as follows (in 000's):

	December 31,		
	1997	1996	1995
Deferred tax assets:			
Net operating loss carryforwards	\$ 15,024	\$ 14,049	\$ 9,363
Research and development tax credits	996	653	688
Reserves and allowances on financial statements in excess of			
	822	351	98
Total deferred tax assets	16,842	15,053	10,149
Deferred tax liabilities:			
Depreciation on tax returns in excess of financial statements	137	107	54
Capitalized software development costs	1,072	1,434	1,107
Total deferred tax liabilities	1,209	1,541	1,161
Net deferred tax assets	15,633	13,512	8,988
Valuation allowance	(15,633)	(13,512)	(8,988)
Net	\$ --	\$ --	\$ --

The net change in the valuation allowance for deferred tax assets was an increase of approximately \$2.1 million attributable to the net operating losses incurred by the Company during 1997. While management believes that the total deferred income tax asset will be fully realized by future operating results, the operating loss recognized in 1997, losses in recent years, and a desire to be conservative make it appropriate to record a valuation reserve. Accordingly, the Company has provided a valuation allowance of 100% of the net deferred income tax asset related to the operating loss carryforward and temporary differences.

The reconciliation of income tax computed at the U.S. federal statutory tax rate to income tax expense is as follows (in 000's):

	Year Ended December 31,		
	1997	1996	1995
Income tax provision (benefit) at statutory rate of 34%	\$ (1,716)	\$ (2,499)	\$ 22
Losses producing no current tax benefit	1,716	2,499	
Utilization of net operating loss carryforward			(22)
Alternative minimum tax - current			2
Provision for income taxes	\$ 0	\$ 0	\$ 2

NOTE J - STOCKHOLDERS' EQUITY:

Stock Split - On June 14, 1996, the Company declared a two-for-one split of its Common Stock, \$.001 par value per share, effected by a 100% stock dividend whereby each holder of Common Stock received one additional share of Common Stock for each share held. The additional shares were distributed on June 27, 1996. All outstanding common shares and per share amounts in the accompanying financial statements have been retroactively adjusted to give effect to the two-for-one stock split.

Nationwide Cellular Service, Inc. - Prior to September 14, 1995, Nationwide owned 6,680,000 shares of the Company's Common Stock and was the holder of an option to purchase an additional 1,280,000 shares. On September 14, 1995, in conjunction with the merger between Nationwide and MCI Communications Corporation, Nationwide exercised its option and distributed the combined total of 7,960,000 shares to its stockholders. As a result of the exercise of the option, the Company received \$1.6 million and issued 1,280,000 shares of Common Stock.

Private Placement - On November 8, 1996, the Company sold 400,000 shares of Common Stock to investors in a private placement. Proceeds to the Company net of estimated expenses of \$.1 million amounted to approximately \$6.4 million. A registration statement for the resale of such shares was declared effective by the Securities and Exchange Commission in April 1997.

Stock Options - In 1991, the Company adopted a Qualified Stock Option Plan and a Non-Qualified Stock Option Plan. Pursuant to the 1991 Qualified Plan, as amended, the Company was authorized to grant options to purchase up to 2,800,000 shares of Common Stock to its officers and key employees, at a price not less than the fair market value per share of Common Stock on the date of grant and have a term of ten years. Pursuant to the 1991 Non-Qualified Plan, as amended, the Company was authorized to grant options to purchase up to 1,200,000 shares of Common Stock to its directors, officers, key employees and others who rendered services to the Company at such price as fixed by the Compensation and Stock Option Committee. Options granted under both the 1991 Qualified Plan and 1991 Non-Qualified Plan generally vest to the respective option holders at the rate of 20% per year commencing on the first anniversary date of the grant.

In December 1993, the Company adopted the 1993 Non-Employee Director Stock Option Plan which allows the Company to grant options to purchase up to 300,000 shares of Common Stock. Pursuant to the 1993 Non-Employee Director Plan, each non-employee director is to be granted options to purchase 20,000 shares of Common Stock upon initial appointment as a director of the Company and an additional 12,000 options, in recurring annual increments, at a price equal to the fair market value per share of Common Stock on the date of grant. Options under the Non-Employee Director Plan vest to the respective option holder after one year and have a term of ten years.

In June 1996, the Company adopted the 1996 Stock Option Plan covering both incentive stock options and non-qualified stock options. Pursuant to action taken by the Company's Board and approved by a majority of the Company's shareholders, no new options will be granted under either the Company's 1991 Qualified Stock Option Plan or under the 1991 Non-Qualified Stock Option Plan. The 1996 Stock Option Plan authorizes the grant of options to purchase a maximum of 1,100,000 shares of the Company's Common Stock to employees (including officers and directors who are employees) of and consultants to the Company. Options granted under the plan may either be incentive stock options ("ISOs"), within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), or non-qualified stock options which do not qualify as ISOs. The exercise price, term and vesting provision of each option grant is fixed by the Compensation and Stock Option Committee with the provision that the exercise price of an ISO may not be less than the fair market value of the Company's Common Stock on the date of grant and the term of an ISO may not exceed ten years.

The Company has also granted options to purchase 920,000 shares of Common Stock at fair market value to certain directors and officers of the Company at exercise prices ranging from \$1.25 to \$6.13 per share. These

options are in addition to those granted under the 1991 Qualified and Non-Qualified Plans, the 1993 Non-Employee Director Plan, the 1996 Stock Option Plan and the options previously granted to and subsequently exercised by Nationwide (as discussed above). The options have terms ranging from five to ten years and vest to the respective option holder over periods ranging from two to five years.

Financial Accounting Standards Board Statement No. 123 - The Company has chosen to measure stock-based compensation cost under the intrinsic-value method of Accounting Principles Board Opinion No. 25, (APB 25) and related interpretations because, as discussed below, the alternative fair value accounting provided for under Statement 123 requires use of option valuation models that were not developed for use in valuing employee stock options. Under APB 25, if the exercise price of the Company's employee stock options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized.

Pro forma information regarding net income and earnings per share is required by Statement 123, and has been determined as if the Company had accounted for its employee stock options under the fair value method of that Statement. In that regard, the fair value for options granted during 1997, 1996, and 1995 was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions for 1997, 1996, and 1995, respectively: risk-free interest rates of 5.7%, 6.1%, and 5.5%; dividend yields of 0.0%, 0.0%, and 0.0%; volatility factors of the expected market price of the Company's common stock of .66%, .55%, and .56%; and a weighted average expected life of the options of 5.1, 5.1, and 5.0 years.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options. The weighted-average fair value of options granted during each of the three years ended December 31, 1997, 1996 and 1995 was \$5.28, \$9.17, and \$5.62, respectively.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting period. The Company's pro forma information follows (in 000's, except per share amounts):

	1997 -----	1996 -----	1995 -----
Net earnings (loss) - as reported	\$ (5,046)	\$ (7,350)	\$ 63
Net earnings (loss) - pro forma	\$ (6,499)	\$ (8,042)	\$ (106)
Earnings (loss) per share - as reported	\$ (0.22)	\$ (0.33)	\$ 0.00
Earnings (loss) per share - pro forma	\$ (0.29)	\$ (0.37)	\$ 0.00

The pro forma effect on net income for 1997, 1996, and 1995 is not representative of the pro forma effect on net income in future years because it does not take into consideration pro forma compensation expense related to grants made prior to 1995.

The following table summarizes information concerning outstanding and exercisable stock options as of December 31, 1997 (in 000's except per share amounts):

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
\$ 1.00 - \$ 6.00	504	5.68	3.06	328	2.65
\$ 6.13 - \$ 6.13	502	6.00	6.13	422	6.13
\$ 6.38 - \$ 7.25	698	8.19	6.83	213	7.24
\$ 8.25 - \$ 11.38	496	8.75	11.11	51	10.94
\$ 12.00 - \$ 19.94	270	8.31	16.18	86	15.30
	-----			-----	
\$ 1.00 - \$ 19.94	2,470	7.36	7.80	1,100	6.25
	=====			=====	

Information with respect to the Company's stock options is as follows (in 000's except per share amounts):

	Shares Under Option		Option Prices	Weighted-Average Exercise Price
Balance, January 1, 1995	4,530	1.00	- 7.25	3.56
Granted	463	7.13	- 12.38	10.37
Exercised	(1,862)	1.00	- 7.25	1.58
Canceled	(117)	1.00	- 8.25	6.16
	-----			
Balance, December 31, 1995	3,014	1.00	- 12.38	5.73
Granted	241	12.00	- 19.94	16.88
Exercised	(633)	1.00	- 10.94	3.73
Canceled	(299)	1.67	- 17.88	7.55
	-----			
Balance, December 31, 1996	2,323	1.00	- 19.94	7.19
Granted	792	2.70	- 18.88	8.78
Exercised	(159)	1.00	- 10.94	4.81
Canceled	(486)	1.67	- 17.88	7.47
	-----			
Balance, December 31, 1997	2,470	1.00	- 19.94	7.80
	=====			
Exercisable at December 31, 1997	1,100	1.00	- 19.94	6.25
	=====			
Available for grant at December 31, 1997	361			
	=====			
Common Stock reserved for future issuance	2,831			
	=====			

Shares exercisable at December 31, 1996 and 1995 were 789 and 845, respectively.

NOTE J - EARNINGS PER SHARE

The computation of earnings per share is as follows (in 000's, except per share amounts):

	Year Ended December 31,		
	1997	1996	1995
Basic and diluted earnings per share:			
Net income (loss) for calculation of earnings per share	\$ (5,046)	\$ (7,350)	\$ 63
Weighted average number of shares outstanding	22,728	21,999	20,398
Basic and diluted (loss) per share	\$ (0.22)	\$ (0.33)	\$ .00

Common stock equivalent shares have not been considered in the calculation for the years ended December 31, 1997 and 1996 because the effect would be antidilutive

NOTE L - SUBSEQUENT EVENTS:

In January 1998, the Company began implementation of a strategic plan that has included, among other initiatives, streamlining the Company's operations to better balance expenses and revenues, and directing additional development efforts and resources toward new products that can generate new sources of revenue. By the end of the second quarter of 1998, the Company's workforce will be reduced by approximately 40 percent from January 1, 1997 levels. As of March 25, 1998, the majority of the reduction has already been accomplished. Severance costs incurred as a result of headcount reductions, estimated losses on the unamortized value of leasehold improvements resulting from relinquishing unneeded rental space to the landlord, and sales of excess furniture and fixtures at less than net book value are expected to approximate in excess of \$0.5 million and are expected to be recorded in the first and second quarters of 1998. In addition, in late 1997 and early 1998, the Company completed the consolidation of certain hardware assembly and integration operations through the selected acquisition of assets, assumptions of leases, and hiring of employees from two former suppliers. The total cost of assets acquired approximated \$0.2 million.

On March 2, 1998, the Company and U.S. Wireless Corporation ("US Wireless") announced the signing of a letter of intent which provides for the potential combination of the two companies. If the proposed transaction is completed on the terms contemplated, which includes stockholder approval for both companies and as to which no assurance can be given, the stockholders of the Company and US Wireless will each own 50 percent of the shares of the resulting company, and the board of directors of the resulting company will be controlled by the

stockholders of US Wireless. The companies have commenced a due diligence and final agreement negotiation process. That process will determine the acquirer and the business combination accounting method to be used, which is currently expected to be "Purchase Accounting". In connection with this transaction, the letter of intent calls for the companies to seek no less than \$15 million in new financing. US Wireless develops and manufactures products designed to provide value-added services and features for the wireless communications industry, including caller-location and tracking, autonomous network management, and other applications. Its RadioCamera-TM- caller-location and tracking product is designed to meet the emergency 911 requirements of the Federal Communications Commission ("FCC"). In June 1996, the FCC issued a Report and Order requiring wireless carriers to be able to identify the location of wireless callers to emergency 911 systems. This mandate requires that products designed to meet this need must be operational and accurate to within 125 meters of the wireless caller not less than 67% of the time by October 2001

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Cellular Technical Services Company, Inc.

By: /s/ Stephen Katz

-----  
Stephen Katz, Chairman of the Board  
of Directors and Chief Executive Officer  
March 30, 1998

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

/s/ Stephen Katz

-----  
Stephen Katz, Chairman of the Board of Directors and  
Chief Executive Officer  
(Principal Executive Officer)  
March 30, 1998

/s/ William C. Zollner

-----  
William C. Zollner, Director, President and  
Chief Operating Officer  
March 30, 1998

/s/ Michael E. McConnell

-----  
Michael E. McConnell  
Vice President and Chief Financial Officer  
(Principal Financial and Accounting Officer)  
March 30, 1998

/s/ James Porter

-----  
James Porter, Director  
March 30, 1998

/s/ Lawrence Schoenberg

-----  
Lawrence Schoenberg, Director  
March 30, 1998

CELLULAR TECHNICAL SERVICES COMPANY, INC.  
 SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

(in 000's)

	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
	-----	-----	-----	-----
<b>INVENTORY RESERVES</b>				
Year ended December 31, 1995	\$ 89	\$ 180	\$ 51	\$ 218
	=====	=====	=====	=====
Year ended December 31, 1996	\$ 218	\$ 390	\$ 146	\$ 462
	=====	=====	=====	=====
Year ended December 31, 1997	\$ 462	\$ 1,818	\$ 183	\$ 2,097
	=====	=====	=====	=====
<b>SALES AND RECEIVABLE ALLOWANCES</b>				
Year ended December 31, 1995	\$ 178	\$ (59)	\$ 49	\$ 70
	=====	=====	=====	=====
Year ended December 31, 1996	\$ 70	\$ 116	\$ 85	\$ 101
	=====	=====	=====	=====
Year ended December 31, 1997	\$ 101	\$ 528	\$ 442	\$ 187
	=====	=====	=====	=====

Exhibit 23.1 Consent of Ernst & Young LLP, Independent Auditors

We consent to the incorporation by reference in the Registration Statements (Form S-8) pertaining to the 1991 Qualified Stock Option Plan, 1991 Nonqualified Stock Option Plan, 1993 Non-Employee Director Stock Option Plan, 1996 Stock Option Plan, and Non-Qualified Stock Option Agreement Between the Registrant and Robert P. Dahut of Cellular Technical Services Company, Inc. of our report dated March 25, 1998, with respect to the financial statements and schedule of Cellular Technical Services Company, Inc. in the Annual Report (Form 10-K) for the year ended December 31, 1997.

/s/ Ernst & Young LLP

Seattle, Washington  
March 31, 1998



THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE ACCOMPANYING FINANCIAL STATEMENTS AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

0000876378  
CELLULAR TECHNICAL SVCS. CO., INC.  
1,000

YEAR		
	DEC-31-1997	
	JAN-01-1997	
	DEC-31-1997	3,448
		0
		3,377
		187
		6,428
	13,366	7,977
	4,013	
	20,721	
6,831		0
0		0
		23
20,721		13,867
		25,768
	30,255	11,866
		35,498
		0
		0
		0
	(5,046)	0
(5,046)		0
		0
		0
	(5,046)	
	(0.22)	
	(0.22)	

STATEMENT OF FINANCIAL ACCOUNTING STANDARDS ("SFAS") NO. 128, "EARNINGS PER SHARE" ("EPS") WAS ADOPTED IN 1997 AND REQUIRES RESTATEMENT OF ALL PRIOR PERIODS. THERE WAS NO MATERIAL EFFECT OF THIS ACCOUNTING CHANGE ON PREVIOUSLY REPORTED EPS FOR THE THREE YEARS ENDING DECEMBER 31, 1997.