

171 of 191 DOCUMENTS

[\*Summary] COPYRIGHT 1990 SEC ONLINE, INC.

10-K

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INTL MOBILE MACHINES CORP  
 TICKER-SYMBOL: IMMC EXCHANGE: NMS

2200 RENAISSANCE BOULEVARD  
 KING OF PRUSSIA, PA 19406  
 215-278-7800

**INCORPORATION:** PA**COMPANY-NUMBER:** CUSIP NUMBER: 46002610

COMMISSION FILE NO.: 0-10797

IRS-ID: 23-1882087

**SIC:** SIC-CODES: 3663, 8742

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**INDUSTRY-CLASS:** COMMUNICATIONS EQUIPMENT**FYE:** 12/31**AUDITOR:** ARTHUR ANDERSEN & CO.**STOCK-AGENT:** SECURITY TRUST COMPANY, N.A.**INVESTOR-CONTACT:** MS. MARCIA BEXLEY - MGR SHAREHOLDER RELATIONS

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[\*1] [HARDCOPY PAGE 1]

SECURITIES AND EXCHANGE COMMISSION  
 WASHINGTON, D.C. 20549  
 FORM 10-K  
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D)  
 OF THE SECURITIES EXCHANGE ACT OF 1934

INTERNATIONAL MOBILE MACHINES CORPORATION  
 2200 RENAISSANCE BOULEVARD  
 KING OF PRUSSIA, PA 19406  
 (215) 278-7800

FOR FISCAL YEAR ENDED: 12/31/90  
 COMMISSION FILE NUMBER: 0-10797

STATE OF INCORPORATION: PA  
 IRS EMPLOYER I.D.: 23-1882087

## SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

NAME OF EACH EXCHANGE	TITLE OF EACH CLASS	ON WHICH REGISTERED
-----------------------	---------------------	---------------------

NONE	NONE	
------	------	--

## SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

NAME OF EACH EXCHANGE	TITLE OF EACH CLASS	ON WHICH REGISTERED
-----------------------	---------------------	---------------------

COMMON STOCK, PAR VALUE		
\$ .01 PER SHARE		

\$2.50 CUMULATIVE		
CONVERTIBLE PREFERRED STOCK,		
PAR VALUE \$ .10 PER SHARE		

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 SUCH FILING REQUIREMENTS FOR THE PAST 90 DAYS.

YES . NO .

On March 22, 1991, the aggregate market value of the Registrant's Common Stock, \$ .01 par value, held by non-affiliates of the Registrant was approximately \$155,371,574.

On March 22, 1991, there were 19,852,689 shares of the Registrant's Common Stock, \$ .01 par value, outstanding.

[\*2] [HARDCOPY PAGE 2]

## PART I

## ITEM 1. Business

## Background

International Mobile Machines Corporation (the "Company") is engaged in three related lines of business. The primary business unit is engaged in the marketing and sale of the Ultraphone Wireless Digital Loop Carrier(R) (the "Ultraphone(R)" or "Ultraphone 100(R)" system, a digital radio-telephone system for local telephone service. The main initial application of the Ultraphone is to provide cost-effective basic

telephone service in areas where the cost of installing, upgrading or maintaining conventional wireline telephone service is high. The Company believes that the main potential for this application is in non-metropolitan telephone markets, both domestically and internationally, where growth, upgrade from party lines and replacement of existing wireline telephone systems present increasingly severe cost problems and it is marketing the Ultraphone 100 to telephone operating companies serving such areas.

The second business unit of the Company performs certain engineering and marketing services respecting digital cellular technology for Hughes Network Systems, Inc., a subsidiary of GM Hughes Electronics, Inc. ("HNS").

The third business unit involves the protection and exploitation of the Company's intellectual property. In 1990, the Company granted HNS a royalty bearing non-exclusive license to use the Company's patents in the field of digital cellular radio.

The Company was incorporated in 1972. As of December 31, 1990, its accumulated deficit was \$104,735,587 and there can be no assurance that the Company will achieve a profitable level of operations. Management believes that sufficient funds will be available to sustain its operations through 1991. See "Management Discussion and Analysis of Financial Condition and Results of Operations."

#### The Ultraphone System

##### General

The digital Ultraphone project was begun in 1981, and the Company engaged M/A-COM, Inc. ("M/A-COM") in that year as an independent contractor to commence development of a spectrum-efficient digital mobile radio system. Field trials commenced in September 1986 with the delivery of Ultraphone 100 Beta equipment to the Mountain States Telephone and Telegraph Company in Glendo, Wyoming. Over 60 Ultraphone 100 systems have

[\*3] [HARDCOPY PAGE 3]

been installed and are being operated by customers, including Regional Bell Holding Companies, independent telephone companies and the U.S. Department of Defense.

The Ultraphone 100 system is designed to provide a wireless digital local telecommunications capability, with a central network station serving subscribers omni-directionally at distances up to 37.5 miles from the network station (depending upon terrain). The network station provides interconnection to the worldwide public switched telephone

network.

The Company's Time Division Multiple Access technology ("TDMA") utilizes advanced digital communications techniques to multiplex (transmit simultaneously) four telephone quality full-duplex conversations in each radio channel, compared to only one conversation per channel for conventional analog radio telephone system (including cellular radio). Full duplex conversations are those in which parties may transmit and receive simultaneously. The Company believes that no other company has demonstrated a digital system with as high a degree of spectrum efficiency (i.e., the number of communications that can be transmitted over a given set of frequencies) for local telephone service. The spectrum efficiency of the Company's system allows lower system operating costs because the cost of each radio channel at the network station can be shared by up to four times more subscribers (which allows the same user population to be served with only 25% of the network station equipment) than conventional analog systems. Spectrum efficiency also offers a potential solution to the increasingly serious problem of radio frequency congestion.

While the Company believes that the Ultraphone 100 system has advantages over conventional wireline telephone systems for the provision of local telephone service in nonmetropolitan areas, there can be no assurances that a radio based system such as the Ultraphone 100 will obtain widespread approval and acceptance by telephone companies and their customers for basic telephone service or that the Ultraphone system will achieve market success over any competing telephone system.

#### Product Description

The Ultraphone 100 system consists of an advanced digital radio network station and individual subscriber stations. The radio network station consists of a remote radio terminal and a telephone central office interface capability to provide interconnection to the local telephone central office and the public switched telephone network.

The Ultraphone 100 circuit is transparent to the subscriber, and any type of standard telephone instrument can be used with the Ultraphone 100. The Ultraphone 100 is also transparent to the central office, and it is not necessary to modify or replace

[\*4] [HARDCOPY PAGE 4]

existing switching equipment. Transparency in this context means that there is no discernible difference to a subscriber or the central office between a wireline system connection and an Ultraphone 100 system.

The network station is configured in a standard cabinet with rack-mounted digital cards, and is modularly expandable through the

addition of new radio channel elements. It is designed for automatic, unattended operation with low maintenance and is capable of serving (on a cost-effective basis) up to 564 subscribers, depending upon terrain, channel availability and other factors. Each channel element supports four simultaneous full-duplex telephone conversations multiplexed in a standard 25 KHz radio channel.

The Ultraphone 100 subscriber station, which includes a radio, power amplifier, digital circuit card assembly and other components, is installed on or near the subscriber's premises. Standard telephone instruments (including multiple extension phones and ancillary instruments such as answering machines, facsimile transmission machines and data terminals) plug in by means of ordinary house telephone wiring. A small antenna establishes the radio link. The unit is powered from standard AC electric power, with a battery back-up for power outages.

Currently, the list price for a basic Ultraphone 100 subscriber unit in the United States is \$3,000, and a basic Ultraphone 100 network station for 100 subscribers in the United States has a list price of \$245,000. Base station and subscriber installation costs depend on the number of subscribers, the configuration of the system and the terrain of the area.

#### Marketing

In North America the telephone operating companies are the primary initial target market for the Ultraphone system. The telephone industry in the United States is highly concentrated, with the seven Regional Bell Holding Companies and ten large independent telephone companies accounting for substantially all of the total market. The Canadian market is also dominated by a few large companies. Internationally, the government operated Post, Telegraph and Telephone operations (PTT's) are the target market.

The Company believes that the potential demand for the Ultraphone 100 system in the United States is based on growth of the subscriber base (i.e., new subscribers), upgrade to single-party service of party lines and replacement of existing wireline plant due to wear and tear. The Company believes that the Ultraphone 100 has the capability to address effectively the market for party line upgrades and replacement of existing wireline plant in rural areas and may also be able to compete in special situations in other markets where flexible, rapid deployment and/or

[\*5] [HARDCOPY PAGE 5]

digital capability is necessary. The Ultraphone 100, as a radio based system, may also have a competitive advantage over wire and cable installations because it can serve subscribers in any direction from the

central office, whereas wire and cable can only serve subscribers along the line where the wire or cable is installed. Potential demand internationally is based upon the need to both establish and improve telecommunications.

The Company's principal strategy for the development of the United States market has been to commence customer evaluation trials with major telephone companies, including the Regional Bell Holding Companies and major independent telephone companies from whom purchases are dependent upon the successful completion of standardization and approval processes.

In September 1988, the Ultraphone 100 system was accepted for use on telephone systems of Rural Electrification Association ("REA") borrowers. The REA, an agency of the United States Department of Agriculture, provides low interest loans to 1,037 independent telephone companies to finance REA accepted capital equipment purchases. The Company has been advised that Pacific Telecom, Inc., S & A Telephone Company, Inc., Hardy Telephone Co., Dell Telephone Cooperative, Inc. and Somerset Telephone Co. have used REA funding for their Ultraphone system purchases.

In April 1989, Contel Service Corporation classified the Company's Ultraphone 100 system as "Acceptable" constituting approval for the purchase and use of the Company's Ultraphone 100 system by Contel's operating telephone companies. In 1989, Ultraphone 100 systems were purchased by three Contel operating telephone companies.

In June 1989, Bell Communications Research ("Bellcore") completed evaluation of the Ultraphone system in response to a request by certain regional Bell operating companies. The Company has signed basic ordering agreements with Bell South Services, Inc., Pacific Telecom, Inc., GTE Supply (a subsidiary of GTE Corporation) and Southwestern Bell Telephone Company, which set forth the parties' obligations respecting the purchase, delivery, installation, payment, warranty, documentary and other customary commercial terms relating to the deployment of Ultraphone 100 systems with such companies. The parties have no obligation under the agreements to purchase any Ultraphone 100 systems and they have the right to terminate such agreements at any time.

The Company has sold an Ultraphone system to each of the following: New York Telephone, Somerset Telephone Co.; Ronan Telephone Co.; The Dubois Telephone Exchange in DuBois, Wyoming; CP National Corporation for the Navajo Communications Company in Chinle, Arizona; Chesapeake and Potomac Telephone Company (a subsidiary of Bell Atlantic Corporation); Citizens Utilities Company of California, Hardy Telephone Co. in Hardy, West Virginia, Mountain Bell (a subsidiary of U.S. West Inc.); S & A Telephone

[\*6] [HARDCOPY PAGE 6]

Company, Inc. in Allen, Kansas; and the California Edison Company for use at its San Onofre Nuclear Generating Station in San Clemente, California. The Company has sold two Ultraphone systems to Dell Telephone Cooperative.

In July 1989, the Company and HNS agreed, for a term of seven years, to market jointly the Ultraphone 100, either alone or together with HNS products, outside of the United States. Specific compensation or profit-sharing arrangements between the parties for such marketing efforts will be negotiated in the future. HNS will be the Company's preferred competitive source to manufacture at least 50% of the Company's requirements for Ultraphone 100 subscriber units (in excess of current production agreements) until July 1995, and for engineering services for five years in major programs in areas where it has established expertise.

Internationally, the Company markets the Ultraphone system through distributors and independent marketing or sales representatives. The arrangements are both exclusive and non-exclusive, and the Company has distribution, marketing or sales representative agreements in 17 countries. The Company believes that neither HNS, the distributors nor the independent marketing or sales representatives currently sell products competitive with the Ultraphone 100. The key obstacles to selling Ultraphone systems in international markets are the allocation of sufficient radio frequency and the difficulty of the potential customers obtaining financing. It has been the Company's policy to require that a letter of credit for the full amount of the sale be in place at the time of shipment of non-domestic orders.

In April 1990, the Company executed a Basic Ordering Agreement with Rolm Telecomunicaciones S.A. de C.V. ("Rolm"). The non-exclusive agreement has a term of one year and provides that purchases shall be secured by a letter of credit. Rolm is not required to place orders for the purchase of a minimum amount of products from IMM. On April 20, 1990, the Ultraphone System obtained type acceptance from Telefonos de Mexico. In August, 1990, the Mexican Secretariat of Communications and Transports approved the use of radio frequencies for Ultraphone Systems in Mexico. During 1990, Telefonos de Mexico was the Company's largest customer, with purchases of \$6,759,112, or 36.4% of the Company's revenues for the year. In March, 1991 additional purchase orders totalling approximately \$2,940,000 were received from Telefonos de Mexico, and such equipment is scheduled to be shipped through June 1991. Sales of Ultraphone equipment in Mexico are anticipated to continue to constitute a significant portion of the Company's future business, and the Company believes, based upon advice from Telefonos de Mexico, that Telefonos de Mexico expects to order \$15 million or more of Ultraphone products during 1991 (including the March 1991 orders). The failure to receive these orders and significant additional orders from Telefonos de Mexico

could have a materially adverse effect on the Company.

[\*7] [HARDCOPY PAGE 7]

Two, four and two customers accounted for approximately 60%, 65% and 54% of the Company's Ultraphone sales in 1990, 1989 and 1988, respectively. Each of these customers accounted for at least 10% of Ultraphone sales.

As of March 29, 1991, the Company's backlog of orders for Ultraphone 100 systems was approximately \$12,343,537, compared to a backlog of approximately \$530,403 as of March 29, 1990.

#### Manufacturing

Pursuant to a production contract executed in February 1987, a M/A-COM subsidiary was to deliver to the Company 6,000 Ultraphone 100 subscriber units, 11 Ultraphone network stations and certain parts and sub-assemblies for 84 additional network stations. In September 1987, the M/A-COM subsidiary was acquired by Hughes Aircraft Corporation and renamed Hughes Network Systems, Inc. Deliveries of this production version of Ultraphone 100 system products commenced in the third quarter of 1987 and approximately 4,000 subscriber units were delivered and paid for. The Company cancelled delivery of the remaining 2,000 subscriber units under this contract in 1989 in connection with scheduled deliveries under an additional production contract executed in December 1987 and discussed below. See Note 5 of Notes to Consolidated Financial Statements. In addition, in 1989 the Company engaged HNS to provide engineering services for enhancements to the Ultraphone 100 on a cost-plus basis for minimum consideration of \$2,000,000 (of which \$1,000,000 was prepaid) during the contract period (which the Company

and HNS are currently negotiating to extend until December 1991). As of December 31, 1990, the Company had received \$418,204 of services from HNS thus reducing the Company's prepaid balance to \$581,796. The Company anticipates that services for the initial \$1,000,000 will be ordered by it within the extended contract period, but that it will not utilize the second \$1,000,000 portion of the contracted services. Accordingly, the Company has accrued as of December 31, 1990 an expense of \$500,000 payable to HNS in accordance with the contract as a result of its decision not to order such additional services.

In December 1987, the Company and HNS executed a production contract pursuant to which HNS agreed to deliver to the Company 54,000 Ultraphone 100 subscriber units (the "1987 Production Agreement"). Deliveries of the subscriber units commenced in the second quarter of 1990. The 1987 Production Agreement provided for deposit payments to be made to HNS in the amount of \$1.75 million, all of which were made as of December 31, 1989. The deposits are being credited against the purchase price of the subscriber units upon delivery and invoicing. See Note 5 of Notes to

### Consolidated Financial Statements.

The Company directly assembles, integrates and tests Ultraphone 100 network stations. In May 1986, the Company and Alcatel Network Systems/Transcom ("Alcatel," formerly a business

[\*8] [HARDCOPY PAGE 8]

unit of ITT Corporation), a subsidiary of Alcatel N.V., contracted for Alcatel to supply and for the Company to purchase the telephone central office interface needed for all Ultraphone 100 network stations sold by the Company to commercial customers in the United States and its possessions through December 31, 1990, and that relationship is informally continuing. In addition, in June 1987, the Company and Marubeni entered into a production contract whereby Marubeni would deliver to the Company 10,000 integrated radios and power amplifiers for incorporation by HNS into the Ultraphone subscriber units being produced pursuant to the February 1987 production agreement. The Company does not expect to take delivery of the remaining 6,000 integrated radios and power amplifiers as a result of deliveries to be made under the 1987 Production Agreement. See Note 5 of the Notes to Consolidated Financial Statements.

### Competition

The Ultraphone 100 competes primarily against conventional wireline telecommunications technology, including wireline multiplexing systems known as "subscriber carrier systems" which increase the capacity of wireline systems by combining more than one conversation on a single telephone wire under certain conditions. One of the primary methods by which the Ultraphone 100 competes with wireline systems is on the cost of the system to the subscriber. With a wireline system, the cost of the system increases with increased distance between the central telephone office and the subscriber, whereas any such increase in distance has no effect on the cost of the Ultraphone 100 system within its service area. In addition, as the potential customer base of the Company continues to become more familiar with the use of wireless radio-based telephone systems for local telephone service, the Company anticipates that it will compete favorably with wireline systems in terms of customer confidence in wireless systems such as the Ultraphone 100.

Although there are other companies involved in developing and marketing radio-telephone equipment (including cellular radio) for use in rural areas in the United States, the Company is not aware of any other company which is selling digital, spectrum-efficient radio telephony products in the United States for basic telephone service. To the Company's knowledge, most competing radio-based telephone systems for use in rural areas cannot support the high subscriber density of the

Ultraphone system, and those that do are not omni-directional systems like the Ultraphone, which can support both mobile and fixed subscribers. Further, compared to older analog systems and cellular radio systems, the Ultraphone offers greater privacy and security in communications. In addition, the Company is not aware of any other radio-based telephone system which operates within the range of frequencies authorized by the FCC for use in providing basic telephone service via radio in rural areas.

[\*9] [HARDCOPY PAGE 9]

A number of companies sell products which compete with the Ultraphone 100. The Rockwell Corporation is marketing a digital radio telephone system for basic telephone service. In addition, SR Telecom, Inc., a Canadian company, has sold two radio telephone systems to provide radio-based telephone service in the United States. The use of such equipment to provide basic telephone service in the U.S. required the telephone companies using such equipment to receive a waiver of FCC rules since the equipment does not operate on the radio frequencies available. There may also be additional companies engaged in wireless telephone development of which the Company is not aware, and other companies involved in telecommunications (including AT&T and Motorola, Inc.) have financial resources greatly in excess of those of the Company. Outside the United States, a number of companies, including SR Telecom, Inc., Ericsson Radio Systems A.B., Nippon Electric Co., Ltd. and Alcatel N.V., sell rural radio systems for basic telephone exchange service, certain of which use digital technology, but such systems do not currently comply with United States standards and regulations. The Company believes that it will be necessary to devote substantial funds and efforts toward continued commercialization of Ultraphone technology in order to obtain and maintain a competitive position.

#### Government Regulation

Federal and state governments, with federal regulation administered by the FCC, regulate the telecommunications industry in the United States. The sale of telecommunications equipment such as the Ultraphone 100 is regulated primarily to ensure compliance with federal technical standards for interconnection, radio emissions and non-interference (type acceptance). The Company has received type acceptance for the Ultraphone 100 system currently being marketed. The need for subsequent approvals will depend on the nature of any subsequent modifications to the equipment. The current Ultraphone 100 system has been certified for use in Canada.

Operators of the Ultraphone 100 system (e.g., the telephone companies) are required to obtain licenses from the FCC to operate any radio system. Approvals by state regulatory commissions are also required under certain circumstances. The Company believes that the customers

for the Ultraphone 100 have not experienced significant difficulties in obtaining such licenses, because telephone companies are routinely granted radio licenses after frequency coordination is done to assure that frequencies are available and that there is no interference. FCC licenses are been obtained by the telephone companies currently using Ultraphone 100 to provide telephone service.

On December 10, 1987, the FCC issued its Report and Order "In the Matter of Basic Exchange Telecommunications Radio Service" ("BETRS"). The BETRS Report and Order made additional spectrum available for telephone companies to provide basic telephone

[\*10] [HARDCOPY PAGE 10]

service via radio in rural areas. It provided for 94 channels to be used to provide BETRS: 26 channels in the 450 MHz band (where Ultraphone 100 operates); 50 channels in the 800 MHz band; and 18 channels in the 150 MHz band. The authorizations are on a co-primary basis, which essentially means that they will be available for use by radio telephone systems unless they are already in use. On December 12, 1988 the FCC issued a Report and Order authorizing cellular licensees to provide BETRS on a secondary basis.

The Ultraphone 200

The Ultraphone 200(TM) is a modular, completely transportable version of the Ultraphone 100. It is designed for fast deployment and high quality telephone communications in emergency and temporary installations.

The Ultraphone 200 has been used in Puerto Rico to restore communications at the U.S. Naval Base after Hurricane Hugo; in Panama during "Operation Just Cause"; in Glen Cove, New York after the crash of Avianca Airlines Flight 52; during a week-long battle against a fire in a remote area of Colorado; and in Kuwait after the Persian Gulf crisis.

Digital Cellular and Personal Communications Applications for Ultraphone Technology

General

The Company's Ultraphone technology and architecture have been designed for mobile (including digital cellular) and portable applications. A limited number of subscriber units have been ordered by Dell Telephone Cooperative for mobile telephone service.

The Company is performing certain engineering and marketing services for HNS on a time and materials basis respecting digital cellular technology. The estimated payments to the Company are expected to be approximately \$4.2 million over the initial two year term of the

engagement (ending August 1, 1992), unless earlier terminated. The Company received \$525,000 from HNS for such services during 1990. The Company has also granted HNS a non-exclusive world-wide license to use the Company's patents in the field of digital cellular telephony and will receive a royalty on the sale of digital cellular equipment by HNS. HNS is developing and marketing a digital cellular system to comply with the North American digital cellular standard. See "Business - Intellectual Property Rights."

#### Competition

The Company believes that the primary competition for the digital cellular product being developed and marketed by HNS using engineering and marketing services provided by the Company will

[\*11] [HARDCOPY PAGE 11]

come from the numerous companies which currently serve the market for mobile telephones and are also engaged in development activities in that area. The market for mobile telephones consists primarily of analog automobile telephones and known generically as "cellular mobile radio".

Other companies (including Motorola, Inc., AT&T, Ericsson Radio Systems A.B., and Northern Telecom, Ltd.) involved in mobile and portable radio-telephony, including cellular radio, have substantial investments in their technology and equipment and financial resources greatly in excess of those of the Company, and are developing digital spectrum-efficient mobile telephone technology. Some of these companies also provide mobile telephony switching equipment to cellular operators, which the Company does not provide. In addition, a digital spectrum efficient prototype using Code Division Multiple Access has been demonstrated by a third party for mobile telephony and personal communications. If mobile and portable products are successfully developed using the Company's technology, there is no assurance that they will be able to compete effectively against such competitors or that the Company's participation therein by royalty payments or otherwise will be significant.

The Company believes that a significant market may exist for the use of Ultraphone technology in a portable product, although there are no assurances in this regard. The Company does not intend to enter this market directly and is seeking strategic partners for the development of a portable product which may be used for personal communications.

#### Intellectual Property Rights

The Company currently holds 46 patents, of which 19 patents relate to digital spectrum-efficient radio telephony technology and expire at various times between 2004 and 2007. The Company has other patents

pending, and claims copyright protection on certain of the software and firmware used in the Ultraphone system. The Company has also obtained patents in 23 foreign countries and has applied for additional patents in foreign countries. Although the Company believes that its patents provide a base for Ultraphone technology, and that its patents cover certain aspects of TDMA spectrally efficient point to multipoint digital radio telephony communications systems, the value of patents in the advanced telecommunications industry is difficult to predict due to rapidly changing technology.

The Company retains ownership to all technology developed in the Ultraphone project, subject to non-exclusive licenses granted to M/A-COM and HNS to exploit the technology developed under the applicable contracts for non-competitive uses outside the areas of mobile, portable or fixed local telecommunications and to the licenses noted below.

**[\*12]** [HARDCOPY PAGE 12]

In May 1990, the Electronic Industry Association ("EIA") and the Telecommunications Industry Association ("TIA") issued the EIA/TIA Interim Standard IS-54 "Cellular System Dual-Mode Mobile Station-Base Station Compatibility Standard" ("IS-54"). IS-54 utilizes TDMA as the recommended access standard for digital cellular systems. The Company's digital cellular technology utilizes TDMA, and the Company believes that licenses for certain of its patents may be required in order for third parties to manufacture and sell digital cellular products in compliance with IS-54. The Company has stated in response to a request by the TIA, that it would be willing to license any of its patents necessary to comply with IS-54 on reasonable terms and conditions free of unfair discrimination, including reasonable royalty rates and license fees.

In October 1990, the Company granted to HNS certain non-exclusive, non-transferable royalty bearing, worldwide licenses to the Company's intellectual property for the field of digital cellular telephony.

In October 1990, the Company granted Alcatel N.V., which is also a subcontractor to HNS respecting digital cellular technology, an option to obtain certain royalty bearing licenses for the use of the Company's patents for digital cellular telephony equipment corresponding to the technical standards established by the European Telecommunications Standards Institute. In March 1991 Alcatel N.V. declined to exercise the option.

Alcatel N.V. and two other European companies have each filed petitions in the German patent office to revoke the issuance of the Company's broad "system" patent which was granted in Germany. Another European company has filed a petition in the Finnish patent office to revoke the issuance of the Company's broad "system" patent which was granted in Finland. If these patents were revoked, the Company's licensing

business opportunities, if any, in Germany, Finland and other European countries could be adversely affected.

The Company owns registered United States trademarks for "IMM," "Ultraphone," "Ultraphone 100," "Wireless Digital Loop Carrier" and "Wireless Digital Access" and other trademarks relating to the Company's business. The Company does not believe that these trademarks are a significant factor in its business.

#### Other Activities

In March 1990, pursuant to a lottery conducted by the FCC, the Company was awarded a construction permit for one of the two cellular radio systems licensed to operate in a six county portion in Indiana identified by the FCC as market number 406, Indiana 4. On March 15, 1991 the Company sold the construction permit to Century Indiana Cellular Corp., a wholly owned subsidiary of Century Cellular Corp. ("Century"), the holder of the Company's

[\*13] [HARDCOPY PAGE 13]

convertible subordinated promissory note in the principal amount of \$7.5 million ("Subordinated Note"). Of the negotiated purchase price of \$8.5 million plus accrued interest on the Subordinated Note from and after December 1, 1990 until March 15, 1991, \$1,000,000 was paid in cash on contract execution and the remainder was paid by the cancellation of the \$7,500,000 principal amount of the Subordinated Note and the cancellation of the interest accrued on the Subordinated Note from December 1, 1990 through March 15, 1991. Interest on the Subordinated from December 4, 1989, the date of issuance, through December 1, 1990 was paid by the issuance to Century of 5 year warrants to purchase 900,000 shares of the Company's common stock at an exercise price of \$4.00 per share. In March 1991, the Company recognized a gain of approximately \$8.1 million on the sale of the construction permit. See s 2 and 8 of Notes to Consolidated Financial Statements.

In years prior to 1990, the Company conducted telecommunications training for the U.S. Army through International Mobile Machines Institute, Inc. ("IMMI," a wholly-owned subsidiary), provided consulting services with respect to a private trans-Atlantic fiber-optic cable system and engaged in the development, production and marketing of computer security products.

The Company is currently considering engaging in the ownership of small rural telephone companies whose operations can be upgraded with the Ultraphone 100 system, and has agreed to acquire a 50% interest in such company for \$100,000.

#### Research and Development Expenses

For the years ended December 31, 1990, 1989 and 1988, the Company's research and development expenses were \$1,599,845, \$3,846,814, and \$3,353,994, respectively.

#### Employees

As of March 29, 1991, the Company had 102 full-time employees. In addition, the services of consultants and part-time employees are utilized.

#### Executive Officers of the Company

The executive officers of the Company are:

Name	Position	Age
Sherwin I. Seligsohn	Chairman Emeritus	55
William J. Hilsman	Chairman of the Board and Chief Executive Officer	59

[\*14] [HARDCOPY PAGE 14]

(CONT'D)

Richard W. Pryor	President and Chief Operating Officer	58
D. Ridgely Bolgiano	Vice President - Research and Chief Scientist	58
G. James Bracknell	Executive Vice President	49
Dr. George Calhoun	Senior Vice President	38
Gilbert E. LaVeau	Senior Vice President	57
Richard G. Saunders	Senior Vice President	56
Richard A. Guttendorf, Jr.	Senior Vice President - Chief Financial Officer and Treasurer	49
William A. Doyle	Vice President, General Counsel and Secretary	41
Steven V. Abramson	Executive Vice President	39
Brian G. Kiernan	Vice President - Commercial	44



G. James Bracknell joined the Company in August 1989 as Director - Sales and Marketing and was named Executive Vice President - Sales and Marketing in December 1989. Prior to that time, he was Vice President - Domestic Operations for EDS Communications Corporation, a telecommunications subsidiary of EDS Corporation and previously served as its Managing Director of Pacific and Latin-American regions. From 1984 to 1986, he was employed by Honeywell, Inc. as Vice President - Industry Marketing for its Communications and Networks Division, and from 1974 to 1984 he worked for NCR, Inc. in a number of positions, most recently as President of NCR Telecommunications Services, Inc., a wholly owned subsidiary which provides telecommunication services.

George Calhoun was elected Senior Vice President in May 1985. He served as Vice President-Planning from February 1983 until May 1985 and as the Company's director of planning since December 1981.

Richard G. Saunders was elected Senior Vice President in May 1985. He served as Vice President-Development from April 1984 until May 1985 and as Vice President-Ultraphone Development from September 1983 until April 1984.

Richard A. Guttendorf, Jr. was elected Senior Vice President, Chief Financial Officer and Treasurer in September 1990. From May 1982 until September 1990, he served as Executive Vice President and Chief Financial Officer of Atlantic Financial Federal Savings and Loan Association ("Atlantic Financial"), a savings and loan association based in Bala Cynwyd, Pennsylvania which was intervened by the Resolution Trust Corporation on January 11, 1990. Mr. Guttendorf is presently a defendant in a class action suit against certain former officers and directors of Atlantic Financial.

Gilbert E. LaVeau was elected Senior Vice President for Networks and Cellular in August 1988. From 1986 to 1988, Mr.

[\*16] [HARDCOPY PAGE 16]

LaVeau served as Group Vice President for Information Systems at Networks Corporation where he had engineering and program management responsibility for the company's C-3 sector. From December 1984 to March 1986 he served as President and Chief Executive Officer of United Digital Networks, Inc. From December 1983 to December 1984 he was Vice President-Engineering for Company.

William A. Doyle was elected Vice President, General Counsel and Secretary of the Company in March 1991. From October 1987 to March 1991, Mr. Doyle served as Vice President, General Counsel and Secretary of Environmental Control Group, Inc., a publicly traded company involved in the environmental industry. Mr. Doyle was Associate General Counsel of Martin Marietta Corporation from 1986 to 1987 and was Assistant

General Counsel of Colonial Penn Group, Inc., an insurance holding company, from 1982 to 1986.

Steven V. Abramson was elected Executive Vice President and General Manager of the Company's technology licensing division in March 1991. Prior to that time, Mr. Abramson served as Senior Vice President - Licensing of the Company since June 1989, as Vice President since March 1985, as Secretary since February 1983 and as General Counsel since December 1982.

Brian G. Kiernan was elected Vice President - Commercial Systems of the Company in February 1989. Prior to that he served as Director of Engineering of the Company from February 1984 to February 1989 and was Senior Member, Technical Staff, GTE Systems from December 1983 to February 1984.

Mr. Langley became the Chief Executive Officer of Universal Service Telephone Corporation ("USTC"), a wholly-owned subsidiary of the Company through which the Company currently conducts its Ultraphone business, in January 1991. Mr. Langley served as President of General Telephone Company of Kentucky from July 1974 to July 1978, President of General Telephone of the Southeast from July 1978 to August 1981 and President of General Telephone Company of the Southwest (now GTE Southwest) from August 1981 to September 1989. Since that time and until January 1991, he engaged in consulting activities for telecommunications, economic development and legislative matters.

The Company has obtained and is the beneficiary under "key-man" life insurance policies in the amount of \$2,000,000 on each of Mr. Hilsman and Mr. Seligsohn.

The Company's executive officers are elected to the offices set forth above to hold office until their successors are duly elected and have qualified.

[\*17] [HARDCOPY PAGE 17]

## ITEM 2. Properties

The Company leases an aggregate of approximately 34,249 square feet of office space and assembly facilities in Gulph Mills, Pennsylvania for terms expiring on May 30, 2000 at an aggregate yearly rent of \$513,028, excluding operating expenses of \$79,644. The Company believes its facilities are sufficient for its operations for the foreseeable future. See Note 9 of the Notes to the Company's Consolidated Financial Statements.

## ITEM 3. Legal Proceedings

There are no material pending legal proceedings against the Company.

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

None.

[\*18] [HARDCOPY PAGE 18]

PART II

ITEM 5. Market for Company's Common Equity and Related Stockholder Matters

The following table sets forth the range of the high and low closing sales prices of the Company's Common Stock as reported by NASDAQ. The Company's Common Stock is traded on the NASDAQ National Market System.

1990	Closing Sales Prices	
	High	Low
First Quarter	7 1/2	3 1/2
Second Quarter	7 1/4	4 5/8
Third Quarter	6 5/8	3 3/4
Fourth Quarter	5 1/8	3 5/8
1989		
First Quarter	10 7/8	8 5/8
Second Quarter	10 7/8	8
Third Quarter	10	7 3/4
Fourth Quarter	8 1/4	5 3/4

As of March 22, 1991, there were 2,987 holders of record of the Company's Common Stock.

The Company has not paid cash dividends on its Common Stock since inception. It is anticipated that, in the foreseeable future, no cash dividends will be paid on the Common Stock and any cash otherwise available for such dividends will be reinvested in the Company's business. The payment of cash dividends will depend on the earnings of the Company, the prior dividend requirements on its two series of Preferred Stock and other Preferred Stock which may be issued in the future, the Company's capital requirements, restrictions in loan agreements and other factors considered relevant by the Board of

Directors of the Company.

[\*19] [HARDCOPY PAGE 19]

ITEM 6. Selected Financial Data

Year Ended December 31(1)  
1990      1989      1988

Operating Data:

Net revenues	\$18,570,224	\$ 4,471,037	\$ 4,329,982
Net loss before preferred dividends(2)	(11,951,960)	(19,073,550)	(21,444,878)
Net loss applicable to common shareholders	(13,455,865)	(21,975,748)	(23,544,878)
Net loss per common share	(.81)	(1.55)	(1.96)
Weighted average number of common stock outstanding	16,654,713	14,180,122	12,189,780

(TABLE CONTINUED)

Year Ended December 31(1)  
1987      1986

Operating Data:

Net revenues	\$ 2,396,548	\$1,619,789
Net loss before preferred dividends(2)	(10,780,942)	(9,595,086)
Net loss applicable to common shareholders	(12,201,870)	(9,832,326)
Net loss per common share	(1.06)	(.95)
Weighted average number of common stock outstanding	11,464,601	10,389,089

Year Ended December 31(1)  
1990      1989      1988

Balance Sheet Data:

Working capital	\$ 2,227,828	\$ 6,189,809	\$ 457,336
Total assets	20,582,637	24,690,097	25,256,069
Long-term liabilities	14,688,015	14,868,014	7,344,790
Shareholders' equity (deficit)	(3,179,516)	2,430,272	4,103,970

(TABLE CONTINUED)

Year Ended December 31(1)  
1987      1986

## Balance Sheet Data:

Working capital	\$16,515,763	\$ 6,817,797
Total assets	34,266,783	16,298,416
Long-term liabilities	7,971,011	5,841,503
Shareholders' equity (deficit)	20,970,327	8,794,299

(1) Prior to 1987, the Company reported as a development stage company.

(2) The Company has incurred significant losses during the last five years, and, as of December 31, 1990, its accumulated deficit was \$104,735,587.

[\*20] [HARDCOPY PAGE 20]

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

## Results of Operations

## Losses

The Company's net loss in 1990 was \$11,951,960 compared to \$19,073,550 and \$21,444,878 in 1989 and 1988, respectively. The Company's net losses in 1990, 1989 and 1988 resulted primarily from costs associated with operations, development, production, marketing, selling and support of the Ultraphone system and other related costs.

The Company has experienced substantial losses since inception and, as of December 31, 1990, its accumulated deficit was \$104,735,587.

Additional funds will be required by the Company to continue to produce and market the Ultraphone, continue product development and maintain and exploit its patent position and technology. There is no assurance that such funds and any additional financing will be available when needed, that the products, patents or technology of the Company will receive a sufficient level of commercial acceptance, or that the Company will achieve a profitable level of operations. Notwithstanding the foregoing, the Company believes that sufficient funds will be available through operating revenues to sustain its operations through 1991.

## Revenues

Revenues in 1990 were \$18,570,224 compared to \$4,471,037 and \$4,329,982 in 1989 and 1988, respectively. Ultraphone sales in 1990 were \$15,834,391 compared to \$3,519,912 and \$2,776,466 in 1989 and 1988, respectively. Increases in Ultraphone sales were due principally to increased shipments of the Ultraphone 100 system.

During 1990, the Company focused its selling efforts for the Ultraphone 100 toward foreign as well as traditional domestic markets. Non-domestic sales accounted for \$6,904,015 or 37.2% of total revenues in 1990, as compared to \$54,865 or 1.2% in 1989. All of the export sales in 1990 and 1989 were made to customers in Mexico who are unaffiliated with the Company. While the Company offers its products for sale to customers in foreign countries, the Company has never maintained any assets or conducted any operations outside the United States.

It is anticipated that non-domestic sales will represent an increasingly greater proportion of Ultraphone sales for the remainder of 1991 and future years. It is management's policy to require that a letter of credit for the full amount of the sale be in place at the time of shipment of non-domestic orders. The Company's non-domestic sales are, however, subject to certain risks attendant to doing business outside the United States, including

[\*21] [HARDCOPY PAGE 21]

trade and tariff policies of the foreign country in which customers are located and international monetary conditions.

The Company had contract revenue from certain digital cellular telephony research, development, and marketing efforts of \$2,735,833 in 1990, and none in 1989 or 1988. The Company expects such revenue to continue in 1991.

In 1989, \$951,125 of the Company's revenues were earned under a contract awarded in February 1986 to IMMI to conduct training for the U.S. Army compared to \$1,465,833 in 1988. On September 30, 1989, the U.S. Army did not exercise its option to extend the contract, and all of IMMI's operations have, therefore, been discontinued. No revenues were earned under this contract in 1990. The costs associated with the termination of the contract were billed to the U.S. Army pursuant to the contract. See "Business - Other Activities."

#### Cost of Sales

The cost of Ultraphone sales was \$12,997,333 in 1990, \$3,005,078 in 1989 and \$3,887,457 in 1988. In 1988 the cost of Ultraphone sales exceeded revenues therefrom due to higher costs associated with the initial

installations and pricing of the Ultraphone. In 1990, the cost of Ultraphone sales decreased from approximately 85% of Ultraphone sales in 1989 to 82% in 1990. This decrease is due to higher sales prices in 1989 for Ultraphone equipment, offset by distributor commissions and tariffs on non-domestic sales.

#### Expenses

Selling and marketing expenses of \$3,964,862, \$4,391,766 and \$3,696,445 for 1990, 1989 and 1988, respectively, represent the expenses related primarily to the domestic and international marketing of the Ultraphone system. In 1990, the decrease in selling and marketing expenses primarily resulted from staff reductions and cost containment measures implemented by the Company in the first half of 1990. The increase in 1989 over 1988 is due to increased selling and marketing efforts related to the Ultraphone system.

Research and development expenses were \$1,599,845, \$3,846,814 and \$3,353,994 for 1990, 1989 and 1988, respectively. Included in the 1989 and 1988 expenditures were \$1,818,324 and \$1,092,549, respectively, related to research and development for digital cellular radio technology. In 1990, the Company's digital cellular research and development expenditures of \$1,620,411 were included in digital cellular contract costs, as such expenditures were specifically incurred on revenue-generating contracts. The balance of the research and development expenditures related to other Ultraphone technology development activities.

[\*22] [HARDCOPY PAGE 22]

General and administrative expenses in 1990 were \$6,101,039 compared to \$9,304,099 and \$12,192,167 in 1989 and 1988, respectively. The decrease in these expenses in 1990 resulted primarily from staff reductions and cost containment measures implemented by the Company and in the first half of 1990. In addition, certain excess production costs, which were included in general and administrative expenses in prior years, have been absorbed in the cost of Ultraphone sales due to increased sales levels in 1990. In 1990, general and administrative expenses included a \$500,000 charge for the expected cancellation of an engineering services contract with HNS (see Note 5 of the Notes to the Consolidated Financial Statements) and included an increase of \$537,000 in patent amortization over 1989. Also included in general and administrative expenses for 1990, 1989 and 1988 were charges of \$545,000, \$1,344,406 and \$2,311,000, respectively, for write-downs of Ultraphone 100 inventory cost. Included in these expenses for 1988 is an accrual of \$2,200,000 relating to certain costs which were incurred by the Company in cancelling a portion of certain Ultraphone 100 production contracts.

To supplement the remaining workforce and to accomplish designated

developmental and other projects, the Company has engaged consultants under agreements having remaining terms as of December 31, 1990 ranging from one to twelve months. Each of these contracts is being evaluated upon renewal. During 1990, the cost of consultant services other than for installation contractors amounted to \$970,576. Depending upon the nature of the services provided, these costs have been included as cost of goods sold, research and development, selling and marketing, or general and administrative expenses.

The amortization of the Company's deferred product costs was \$1,829,181 in each of 1990, 1989 and 1988. Substantially all of the deferred product costs represent that portion of the costs incurred under a Commercialization Agreement with M/A-COM, executed in January 1986, subsequent to the establishment of the preproduction prototype of the Ultraphone 100 system. See Note 5 of the Notes to the Company's Consolidated Financial Statements.

In June 1990, the Company relocated its corporate headquarters to a site in the suburbs of Philadelphia adjacent to its production facilities, which were relocated in December 1989. The Company believes that the move will result in management and administrative efficiencies as well as ongoing savings in occupancy and other operating expenses.

Interest expense for 1990 was \$2,367,501 compared to \$793,864 in 1989 and \$108,779 in 1988. The increase is due primarily to the accrual of interest on amounts due to HNS, M/A-COM and Century. Interest on portions of the amounts due to HNS began on December 22, 1989 and July 1, 1990 at an interest rate of 15%. The amounts due to M/A-COM have since been converted into Common Stock, and the amounts due to Century since been cancelled in connection with the

[\*23] [HARDCOPY PAGE 23]

sale of the Indiana 4 construction permit. See Notes 2, 5 and 8 of the s to the Company's Consolidated Financial Statements.

#### Financial Position, Liquidity and Capital Requirements

The Company has incurred losses since inception, and at December 31, 1990, the Company had unrestricted cash resources of approximately \$3,643,000.

The Company has historically experienced liquidity problems due to its lack of significant revenues, and it has addressed such problems primarily by public and private offerings of its securities. In 1990, the Company received gross proceeds of \$2,069,250 from the private sale of restricted common stock and warrants. In 1990, the Company began to obtain increased revenues from product sales and contract services which helped to address its liquidity problems. During 1989, the Company

received gross proceeds of \$8,721,322 from the sale of restricted Common Stock and the exercise of stock options and warrants, \$10,000,000 (of which \$4,810,618 was applied to the Company's payables to HNS) from the sale to HNS of the Company's 1989 Cumulative Convertible Preferred Stock ("1989 Convertible Preferred Stock") and Common Stock Purchase Warrants and \$7,500,000 from the issuance of the Subordinated Note to Century. There is no assurance that the Company will obtain significant revenues in the future. However, management believes that sufficient funds will be available through operating revenues to sustain its operations through 1991.

The Company's working capital was \$2,227,828 at December 31, 1990 compared to \$6,189,809 at December 31, 1989. This decrease is due primarily to a reduction in cash and an increase in amounts due to HNS resulting from accrued interest and increased inventory purchases. During 1990, the Company's net cash used for operations was \$2,491,391 compared to \$21,520,857 for 1989 and \$14,167,045 for 1988. The significant decrease in 1990 reflects the reduced net loss and significant payments made to HNS in 1989. The increase in 1989 over 1988 was mainly due to the payments to HNS. Inventories decreased to \$3,344,899 at December 31, 1990, also having decreased to \$4,445,706 as of December 31, 1989 from \$6,656,038 as of December 31, 1988. The decrease in 1990 was due mainly to shipments of Ultraphone equipment in late December 1990, while in 1989, the decrease was due mainly to the sale of Ultraphone systems during the year and an addition to the inventory reserve in the amount of \$1,344,406. Deposits on inventory purchase commitments decreased to \$1,711,140 based upon credits applied to the purchases of subscriber units from HNS under the 1987 Production Agreement.

Short term borrowings decreased to \$1,000,000 as of December 31, 1990 compared to \$2,000,000 in 1989. See Note 6 of the Notes to the Company's Consolidated Financial Statements.

[\*24] [HARDCOPY PAGE 24]

The cash payments for dividends on the Company's \$2.50 Cumulative Convertible Preferred Stock ("Convertible Preferred Stock") were \$166,382 in 1990, \$1,810,642 in 1989 and \$1,265,560 in 1988. The decrease in 1990 is due to the conversion of the Convertible Preferred Stock into Common Stock, as discussed below. In 1989, the increase is due to the payment of an increased portion of the dividends in cash on the Convertible Preferred Stock as required by the holders thereof.

The Company elected to temporarily reduce the conversion price on the Convertible Preferred Stock from \$12.00 per share of Common Stock to \$8.93 per share for the period from May 11, 1990 to June 1, 1990. During this period, preferred stockholders holding 878,438 shares of Convertible Preferred Stock converted these shares into 2,459,628 shares

of Common Stock. In addition, the Company did not declare its June 1, 1990 dividend on the Convertible Preferred Stock. On December 1, 1990, the Company paid dividends of \$303,905 (including the \$151,953 not declared in June 1990) on the Convertible Preferred Stock in \$166,382 cash and 29,049 shares of Common Stock.

The 1989 Convertible Preferred Stock is subordinate to the Convertible Preferred Stock with respect to dividend payments. As no dividends were declared on the Convertible Preferred Stock payable in June 1990, no dividends were declared on the 1989 Convertible Preferred Stock payable in June 1990. Dividends are payable on the 1989 Convertible Preferred Stock in Common Stock until December 1991. On December 1, 1990, the Company paid dividends of \$1,200,000 (including the \$600,000 not declared in June 1990) on the 1989 Convertible Preferred Stock in 256,000 shares of Common Stock.

In January 1986, the Company issued a \$7,700,000 convertible promissory note (the "M/A-COM Principal Note") to M/A-COM. See Notes 2 and 5 of s to the Company's Consolidated Financial Statements. In July 1990, M/A-COM and the Company agreed that M/A-COM would convert the M/A-COM Principal Note into shares of Common Stock upon the occurrence of certain events which would enable the Common Stock to be received by M/A-COM upon conversion of the M/A-COM Principal Note to be publicly saleable, and the conversion price of the M/A-COM Principal Note was reduced from \$14.50 to \$5.49. The Company also issued a \$707,886 convertible promissory note (the "M/A-COM Interest Note") to M/A-COM to cover all interest due and owing under the M/A-COM Principal Note through June 30, 1990. In addition, the Company made a payment of \$200,000 to M/A-COM for accrued interest. On December 21, 1990, M/A-COM converted \$4,000,003 of the principal amount of the M/A-COM Principal into 728,598 shares of Common Stock. On February 14, 1991, a registration statement under the Securities Act of 1933 relating to the shares of Common Stock issuable upon conversion of the M/A-COM Notes became effective, and in February and March 1991, M/A-COM converted all outstanding principal and accrued interest

[\*25] [HARDCOPY PAGE 25]

(\$4,929,158) under the M/A-COM Principal Note and the M/A-COM Interest into 897,843 shares of Common Stock.

Although the Company had a working capital deficit at March 29, 1991 and its unrestricted cash resources have been substantially reduced since December 31, 1990, the Company believes that sufficient funds will be available through operating revenues to sustain its operations through 1991. However, the Company will require additional funds to develop and commercialize other applications of Ultraphone technology, to protect and exploit its intellectual property rights and for other corporate purposes in the future. The amount of funds needed for such purposes may be offset, in whole or in part, by revenues, as to the timing and

amount of which there can be no assurances. Management believes that additional financing sources for the Company include private and public financings, long-term and short-term borrowings, and financing provided by strategic business relationships, such as its joint ventures, licensing arrangements and partnership or distribution arrangements. The Company is not currently engaged in negotiations involving any such financing sources, and has not made any arrangements involving such financing sources, which would provide additional funds during 1991, except for current negotiations respecting a working capital bank line of credit. There can be no assurances that such financings and arrangements will be completed if needed.

The Company believes that its profitability depends on the successful commercialization of its Ultraphone technology. In spite of its history of losses, the Company believes that its investment in inventories and related deposits, prepaid engineering and non-current assets are stated on its December 31, 1990 balance sheet at realizable values. The inventories and related deposits are recorded at realizable values based on the expected selling prices in 1991. The prepaid engineering will be realized through services rendered or to be rendered to the Company in 1991. Property and equipment are currently being utilized in the Company's on-going business activities, and the Company believes that no write-downs are required at this time due to lack of use or technical obsolescence. With respect to other assets, the Company believes that its investment in deferred product costs, which relate to the Ultraphone 100, is realizable through future sales of Ultraphone 100 systems and that the value of its patents is at least equal to the value included in the December 31, 1990 balance sheet.

[\*26] [HARDCOPY PAGE 26]

#### ITEM 8. Financial Statements and Supplement Data

The Index to Financial Statements and Schedules and the Financial Statements begin on page F-1.

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

None.

### PART III

#### ITEM 10. Directors and Executive Officers of the Company

Information concerning directors, appearing under the caption "Election

of Directors" in the Company's Proxy Statement (the "Proxy Statement") to be filed with the Securities and Exchange Commission in connection with the Annual Meeting of Shareholders to be held on June 7, 1991, and information concerning executive officers, appearing under the caption "Item 1. Business - Executive Officers of The Company" in Part I of this Form 10-K, are incorporated herein by reference in response to this item.

#### ITEM 11. Executive Compensation

The information contained in the section titled "Executive Compensation" in the Proxy Statement, with respect to executive compensation, and the information contained in the sections entitled "Committees and Meetings of the Board of Directors", "Stock Option Plans" and "Proposed Amendments to the Company's Non-Qualified Stock Option Plan" in the Proxy Statement, with respect to the Company's Incentive Stock Option Plan and Non-Qualified Stock Option Plan and with respect to director compensation, are incorporated herein by reference in response to this item.

During 1990, the following executive officers of the Company were granted options under the Non-Qualified Stock Option Plan: Mr. Bolgiano, options to purchase 3,000 shares of Common Stock at \$5.25 per share; Mr. Hilsman, options to purchase 110,000 shares of Common Stock at \$5.25 per share; and Mr. Kiernan, options to purchase 3,000 shares of Common Stock at \$6.125 per share. No executive officer exercised any options under the Non-Qualified Stock Option Plan during 1990.

#### ITEM 12. Security Ownership of Certain Beneficial Owners and Management

The information contained in the section titled "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement, with respect to security ownership of certain beneficial

[\*27] [HARDCOPY PAGE 27]

owners and management, is incorporated herein by reference in response to this item.

#### ITEM 13. Certain Relationships and Related Transactions

The information contained in the section titled "Certain Relationships and Transactions" of the Proxy Statement, with respect to certain relationships and related transactions, is incorporated herein by reference in response to this item.

## PART IV

## ITEM 14. Exhibits, Financial Statements Schedules, and Reports on Form 8-K

(a) The following documents are filed as part of this Form 10-K:

(1) Financial Statements.

(2) All Financial Statement Schedules are omitted because they are inapplicable or the required information is otherwise included in the Consolidated Financial Statements or the notes thereto.

The List of Financial Statements and Schedules and the Financial Statements begin on page F-1.

(3) Exhibits.

(\*3.1 Articles of Incorporation of the Company, as amended. (Exhibit 3.1 to the Company's Registration Statement No. 33-12913 filed on March 26, 1987 [the "1987 Registration Statement"]).

(\*3.2 Resolutions designating the Rights and Preferences of the \$2.50 Cumulative Convertible Preferred Stock (Exhibit 4.1 to the 1987 Registration Statement).

(\*3.3 Statement Affecting Class or Series of Shares of the Company filed with the Pennsylvania Department of State on July 24, 1989. (Exhibit 3.3 to the Company's Registration Statement No. 33-32888 filed on January 8, 1990 [the "1990 Registration Statement"]).

(\*3.4 By-Laws of the Company, as amended (Exhibit 3.2 to the Company's Registration Statement No. 2-92867 filed on August 20, 1984).

(\*3.5 Amendments to By-Laws of the Company, effective July 18, 1990 (Exhibit 3.4 to the Company's

**[\*28]** [HARDCOPY PAGE 28]

(CONT'D)

Registration Statement No. 33-38247 filed on December

- 18, 1990 [the "December 1990 Registration Statement"].
- 3.6 Amendments to By-Laws of the Company, effective February 20, 1991.
- (\*10.1 Letter Agreement between the Company and D.H. Blair & Co., Inc. ("Blair"). (Exhibit 4.4 to the Company's Registration Statement No. 2-9867 filed on June 7, 1985 [the "1985 Registration Statement"]).
- (\*10.2 Warrant sold to Butcher & Singer Inc. in 1986 public offering (Exhibit 4.7 to the Company's Registration Statement No. 33-4570 filed on April 4, 1986 [the "1986 Registration Statement"]).
- (\*10.3 Warrant Agreement dated May 29, 1987 between the Company and Drexel Burnham Lambert Incorporated (Exhibit 4.7 to the Company's Annual Report on Form 10-K for the year ended December 31, 1987 [the "1987 Form 10-K"]).
- (\*10.4 Form of Amendment to Common Stock Purchase Warrant Agreement dated July 7, 1988 (Exhibit 4.7 to the Company's Post-Effective Amendment No. 1 to Registration Statement No. 33-15931 filed on May 13, 1988 [the "1988 Registration Statement"]).
- (\*10.5 Incentive Stock Option Plan, as amended (Exhibit 10.1 to the 1988 Registration Statement).
- (\*10.6 Non-Qualified Stock Option Plan, as amended (Exhibit 10.2 to the 1988 Registration Statement).
- (\*10.7 Amended and Restated Lease, dated December 20, 1983 and First Amendment to the Restated Lease, dated December 8, 1986 (Exhibit 10.4 to the 1987 Registration Statement).
- (\*10.8 Cross Technology License Agreement effective as of October 31, 1984 among the Company, T.A.C.T. Technology, Inc. and ComputerSentry Partners, Ltd. (Exhibit 10.11 to the Company's Post-Effective Amendment No. 1 to the 1987 Registration Statement).
- (\*10.9 Purchase Agreement and Option Agreement dated March 28, 1985 between the Company and W.W. Keen Butcher (Exhibit 10.31 to the 1985 Registration Statement).
- (\*10.10 Option Agreement dated September 11, 1985 between the Company and Great Circle Traders, Ltd. Bda.

(CONT'D)

(Exhibit 10.39 to the Company's Registration Statement No. 33-301 filed on September 16, 1985 [the "September 1985 Registration Statement"]).

- (\*)10.11 Commercialization Phase and Beta Equipment Agreement made as of January 23, 1986 between the Company and M/A-COM Linkabit, Inc. (with financial exhibits included) and form of Purchase Money Promissory Note, dated January 23, 1986, in the principal amount of \$7,700,000. (Exhibit 10.32 to the Company's Annual Report on Form 10-K for the year ended December 31, 1985 [the "1985 Form 10-K]).
- (\*)10.12 Warrant Agreement dated February 12, 1986 between the Company and W.W. Keen Butcher. (Pursuant to instruction 2 to Item 601 of Regulation S-K, the Warrant Agreements, which are substantially identical in all material respects except as to the parties thereto, between the Company and the following individuals are not being filed: Lyman C. Hamilton, Jr., Peter F. Erb and Robert B. Liepold.) (Exhibit 10.33 to 1985 Form 10-K).
- (\*)10.13 Original Equipment Manufacturer Agreement between the Company and ITT Telecom Products Corporation. (Exhibit 10.37 to the 1986 Registration Statement).
- (\*)10.14 Amendment No. 1 to Commercialization and Beta Equipment Agreement, dated September 5, 1986, between the Company and M/A-COM Government Systems, Inc. (not including technical exhibits). (Exhibit 10.38 to the Company's Registration Statement No. 33-9355 filed on October 8, 1986 [the "October 1986 Registration Statement"]).
- 10.15 Employment Agreement dated October 14, 1987 between the Company and William J. Hilsman, as amended.
- (\*)10.16 Note and mortgage dated November 1, 1987 of William J. and Emily J. Hilsman. (Exhibit 10.33 to the 1987 Form 10-K).
- (\*)10.17 Letter Agreement between the Company and William J. Hilsman dated February 8, 1989. (Exhibit 10.26 to the Company's Annual Report on Form 10-K for the year ended December 31, 1988 [the "1988 Form 10-K"]).
- (\*)10.18 Agreement of Lease between MSK Associates and the

Company dated June 26, 1986 (Exhibit 10.34 to the 1987 Form 10-K).

[\*30] [HARDCOPY PAGE 30]

(CONT'D)

- (\*)10.19 Warrant dated November 19, 1987 issued to W.W. Keen Butcher (Exhibit 10.35 to the 1987 Form 10-K).
- (\*)10.20 Warrant dated September 8, 1987 issued to W.W. Keen Butcher (Exhibit 10.36 to the 1987 Form 10-K).
- (\*)10.21 Agreement in Principle dated July 23, 1986 between the Company and Marubeni Corporation (Exhibit 10.31 to the 1987 Registration Statement).
- (\*)10.22 Production Agreement dated January 26, 1988 between the Company and Hughes Network Systems, Inc. (not including exhibits).
- (\*)10.23 General Purchase Agreement dated September 23, 1988 between the Company and BellSouth Services, Inc. (not including exhibits). (Exhibit 10.33 to the 1988 Form 10-K).
- (\*)10.24 Original Equipment Manufacturer (OEM) Agreement - ITT Telecom Products Corporation and International Mobile Machines Corporation dated May 8, 1986 (not including exhibits) (Exhibit 10.35 to the Company's Registration Statement No. 33-28253 filed on April 19, 1989 [the "1989 Registration Statement"]).
- (\*)10.25 Consulting Agreement between the Company and W.W. Keen Butcher dated September 8, 1987 (Exhibit 10.37 to the 1989 Registration Statement).
- (\*)10.26 Basic Ordering Agreement dated April 13, 1989 between the Company and Consorcio Industrial Electronico S.A. de C.V., not including certain exhibits (Exhibit 10.38 to the 1989 Registration Statement).
- (\*)10.27 Basic Ordering Agreement dated May 8, 1989 between the Company and Pacific Telecom, Inc., not including certain exhibits (Exhibit 10.39 to the 1989 Registration Statement).
- (\*)10.28 Employment Agreement dated May 24, 1989 between the Company and Richard W. Pryor (Exhibit 10.40 to the 1989

Registration Statement).

- (\*)10.29 Intellectual Property License Agreement between the Company and Hughes Network Systems, Inc. (Exhibit 10.34 to the 1990 Registration Statement).
- (\*)10.30 Engineering Services and Development Agreement between the Company and Hughes Network Systems, Inc. (Exhibit 10.35 to the 1990 Registration Statement).

[\*31] [HARDCOPY PAGE 31]

(CONT'D)

- (\*)10.31 Market Development Agreement between the Company and Hughes Network Systems, Inc. (Exhibit 10.36 to the 1990 Registration Statement).
- (\*)10.32 1989 Cumulative Convertible Preferred Stock and Warrant Purchase Agreement between the Company and Hughes Network Systems, Inc. (Exhibit 10.37 to the 1990 Registration Statement).
- (\*)10.33 Warrant Certificates representing warrants to purchase 200,000 shares of Company's convertible preferred stock issued to Hughes Network Systems, Inc. (Exhibit 10.38 to the 1990 Registration Statement).
- (\*)10.34 Loan Agreement dated December 4, 1989 between the Company and Century Cellular Corp. (Exhibit 10.1 to the Company's Form 8-K dated December 5, 1989 ("December 1989 Form 8-K").
- (\*)10.35 Security Agreement dated December 4, 1989 between the Company and Century Cellular Corp. (Exhibit 10.2 to the December 1989 Form 8-K).
- (\*)10.36 Agreement of Lease for Building A between Swedeland Road Corporation and the Company dated October 25, 1989. (Exhibit 10.47 to the Company's Annual Report on Form 10-K for the year ended December 31, 1989 [the "1989 Form 10-K"]).
- (\*)10.37 Agreement of Lease for Building F between Swedeland Road Corporation and the Company dated October 25, 1989 (Exhibit 10.48 to the 1989 Form 10-K).
- (\*)10.38 Warrant Agreement dated December 1, 1989 between the Company and W. W. Keen Butcher. (Pursuant to

instruction 2 to Item 601 of Regulation S-K, the Warrant Agreements between the Company and each of D. Ridgely Bolgiano, William J. Hilsman, V. Louise McCarren and Robert B. Liepold, which are substantially identical in all material respects except as to the parties thereto, were not filed) (Exhibit 10.49 to the 1989 10-K).

(\*10.39 Letter Agreement dated June 27, 1990 between the Company and M/A-COM, Inc. (Exhibit 10.50 to the Company's Quarterly Report on Form 10-Q for the three months ended September 30, 1990).

(\*10.40 Subcontract Agreement dated as of August 1, 1990 between the Company and Hughes Network Systems, Inc. (Exhibit 10.36 to the December 1990 Registration Statement).

[\*32] [HARDCOPY PAGE 32]

(CONT'D)

(\*10.41 RSA Asset Purchase Agreement dated December 6, 1990 between the Company and Century Indiana Cellular, Inc. (Exhibit 10.37 to the December 1990 Registration Statement).

(\*10.42 Basic Ordering Agreement dated April 16, 1990 between the Company and Rolm Telecomunicaciones S.A. de C.V. (Exhibit 10.38 to the December 1990 Registration Statement).

10.43 Employment Agreement effective as of January 1, 1991 by and between the Company and E. L. Langley.

10.44 Employment Agreement effective as of January 1, 1991 by and between the Company and Richard W. Pryor.

22 Subsidiaries of the Company.

(\* Incorporated by reference.

(b) Reports filed on Form 8-K during the last quarter of 1990:

During the last quarter of 1990, the Company filed one Current Report on Form 8-K dated December 21, 1990 containing an adjusted Balance Sheet of the Company at September 30, 1990. Such adjustments were made in order to reflect the conversion, on December 21, 1990 of \$4,000,003 of the principal amount of the M/A-COM Principal Note into 728,598 shares of the Company's common stock.

[\*33] [HARDCOPY PAGE 33]

INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

LIST OF FINANCIAL STATEMENTS AND SCHEDULES

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FINANCIAL STATEMENTS:

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SCHEDULES:

All schedules are omitted because they are not required, are not applicable or equivalent information has been included in the financial statements and notes thereto.

[\*34] [HARDCOPY PAGE F-2]

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To International Mobile Machines Corporation:

We have audited the accompanying consolidated balance sheets of International Mobile Machines Corporation (a Pennsylvania corporation) and subsidiaries as of December 31, 1990 and 1989, and the related consolidated statements of operations, shareholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 1990. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of International Mobile Machines Corporation and subsidiaries as of December 31, 1990 and 1989, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1990, in conformity with generally accepted accounting principles.

Arthur Andersen & Co.

Philadelphia, Pa.,  
March 15, 1991

[\*35] [HARDCOPY PAGE F-3]

#### INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

#### CONSOLIDATED BALANCE SHEETS--DECEMBER 31, 1990 AND 1989

	1990	1989
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents, including restricted cash of \$1,253,554 in 1990 and \$2,000,000 in 1989 (Notes 3 and 6)	\$ 4,896,468	\$ 6,695,112
Accounts receivable, net of allowance for uncollectible accounts of \$79,583 in 1990 and \$16,000 in 1989	2,054,547	1,007,940
Inventories (Notes 3 and 4)	3,344,899	4,445,706
Deposits on inventory purchase commitment (Note 5)	162,050	84,245
Prepaid engineering expense (Note 5)	581,796	931,900
Other current assets	262,206	416,717

## 1990 COPYRIGHT SEC ONLINE, INC., 1, \*35

Total current assets	11,301,966	13,581,620
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## PROPERTY AND EQUIPMENT (Note 3):

Machinery and equipment	1,582,188	1,529,258
Computer equipment	1,937,153	1,561,373
Furniture and fixtures	835,662	770,907
Leasehold improvements	198,906	6,367

	4,553,909	3,867,905
--	-----------	-----------

Less-Accumulated depreciation and amortization	(2,759,835)	(2,132,259)
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Net property and equipment	1,794,074	1,735,646
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## OTHER ASSETS:

Deposits on inventory purchase commitment (Note 5)	1,549,090	1,711,140
Deferred product costs, net of accumulated amortization of \$5,639,974 in 1990 and \$3,810,794 in 1989 (Notes 3 and 5)	3,505,901	5,335,081
Patents, net of accumulated amortization of \$1,139,939 in 1990 and \$413,000 in 1989 (Note 3)	1,892,326	1,805,985
Deferred financing costs, net (Note 2)	539,280	520,625
Total other assets	7,486,597	9,372,831

	\$20,582,637	\$24,690,097
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LIABILITIES AND SHAREHOLDERS' EQUITY  
(DEFICIT)

## CURRENT LIABILITIES:

Short-term borrowings (Note 6)	\$ 1,000,000	\$ 2,000,000
Current portion of long-term debt (Note 7)	198,241	141,691
Current portion of due to M/A-Com, Inc. (Notes 2 and 5)	-	1,022,528
Due to Hughes Network Systems, Inc. (Note 5)	4,053,166	2,181,981
Accounts payable	1,923,761	604,135
Accrued compensation	830,147	825,195
Accrued warranty costs	531,560	189,109
Other accrued expenses	537,263	427,172
Total current liabilities	9,074,138	7,391,811

LONG-TERM DEBT (Note 7)	329,255	228,114
-------------------------	---------	---------

DUE TO M/A-COM, INC. (Notes 2 and 5)	4,872,593	7,139,900
DUE TO CENTURY CELLULAR CORP. (Notes 2 and 8)	9,486,167	7,500,000
COMMITMENTS AND, CONTINGENCIES (Notes 5 and 9)		
SHAREHOLDERS' EQUITY (DEFICIT) (Notes 2, 5, 9, 10, 11 and 12):		
Preferred Stock, \$ .10 par value, 14,398,600 shares authorized-\$2.50 Convertible Preferred, 121,562 shares in 1990 and 1,000,000 shares in 1989 issued and outstanding (liquidation value of \$3,039,050 at December 31, 1990)	12,156	100,000
\$3.00 Convertible Preferred, 400,000 shares issued and outstanding (liquidation value of \$10,000,000 at December 31, 1990)	40,000	40,000
Common Stock, \$ .01 par value, 50,000,000 shares authorized, 18,953,217 shares in 1990 and 14,916,042 shares in 1989 issued and outstanding	189,532	149,160
Additional paid-in capital	101,449,259	93,820,691
Accumulated deficit	(104,735,587)	(91,279,722)
	(3,044,640)	2,830,129
Less-Receivables on common stock sold	(97,199)	(350,861)
Deferred compensation (Note 9)	(37,677)	(48,996)
Total shareholders' equity (deficit)	(3,179,516)	2,430,272
	\$20,582,637	\$24,690,097

The accompanying notes are an integral part of these statements.

[\*36] [HARDCOPY PAGE F-4]

## INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

### CONSOLIDATED STATEMENTS OF OPERATIONS

For the Year Ended December 31  
1990      1989      1988

#### REVENUES:

Ultraphone sales (Note 3)	\$ 15,834,391	\$ 3,519,912	\$ 2,776,466
Digital cellular contract (Note 3)	2,735,833	-	-
U.S. Army contract (Note 14)	-	951,125	1,465,833
Other	-	-	87,683
	18,570,224	4,471,037	4,329,982

## OPERATING EXPENSES

(Notes 3, 5 and 10):

Cost of Ultraphone sales	12,997,333	3,005,078	3,887,457
Digital cellular contract costs	1,918,411	-	-
U.S. Army contract costs	-	786,064	1,273,745
Selling and marketing	3,964,862	4,391,766	3,696,445
Research and development	1,599,845	3,846,814	3,353,994
General and administrative	6,101,039	9,304,099	12,192,167
Amortization of deferred product costs	1,829,181	1,829,181	1,829,181
	28,410,671	23,163,002	26,232,989

Loss from operations (9,840,447) (18,691,965) (21,903,007)

## INTEREST INCOME

(EXPENSE):

Interest income	255,988	412,279	566,908
Interest expense (Notes 5, 6, 7 and 8)	(2,367,501)	(793,864)	(108,779)
	(2,111,513)	(381,585)	458,129

Net loss (11,951,960) (19,073,550) (21,444,878)

## PREFERRED STOCK

DIVIDENDS (1,503,905) (2,902,198) (2,500,000)

## NET LOSS APPLICABLE TO

COMMON SHAREHOLDERS \$ (13,455,865) \$ (21,975,748) \$ (23,944,878)

## NET LOSS PER COMMON

SHARE (Note 3) \$ (.81) \$ (1.55) \$ (1.96)

## WEIGHTED AVERAGE NUMBER

OF COMMON SHARES

OUTSTANDING (Note 3) 16,654,713 14,180,122 12,189,780

The accompanying notes are an integral part of these statements.

[\*37] [HARDCOPY PAGE F-5]

INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIT)

	Convertible Preferred Stock		Additional Common Paid-in Stock Capital	
	\$2.50	\$3.00	Stock	Capital
BALANCE, DECEMBER 31, 1987	\$100,000	\$ -	\$118,292	\$ 66,588,913
Sale of restricted Common Stock	-	-	8,912	4,901,581
Exercise of Common Stock options (Note 11)	-	-	1,994	598,775
Grants of Common Stock below fair market value (Note 9)	-	-	388	229,338
Amortization of deferred compensation (Note 9)	-	-	-	-
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	-	-	1,552	1,232,888
Net loss	-	-	-	-
BALANCE, DECEMBER 31, 1988	100,000	-	131,138	73,551,495
Sale of \$3.00 Preferred Stock, net of expenses (Note 10)	-	40,000	-	9,945,690
Sale of restricted Common Stock	-	-	11,928	7,144,774
Exercise of Common Stock options (Note 11)	-	-	1,343	571,005
Exercise of Common Stock warrants (Note 11)	-	-	3,000	1,077,000
Grants of Common Stock and options below fair market value (Note 9)	-	-	438	440,484

## 1990 COPYRIGHT SEC ONLINE, INC., 1, \*37

Amortization of deferred compensation (Note 9)	-	-	-	-
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	-	-	783	688,575
Dividend of Common Stock and cash to \$3.00 Preferred shareholders (Note 10)	-	-	530	401,668
Net loss	-	-	-	-
BALANCE, DECEMBER 31,				
1989	100,000	40,000	149,160	93,820,691
Sale of restricted Common Stock				
	-	-	5,125	2,064,125
Exercise of Common Stock options (Note 11)				
	-	-	124	29,900
Exercise of Common Stock warrants (Note 11)				
	-	-	350	174,650
Grants of Common Stock and options below fair market value (Note 9)				
	-	-	40	3,013
Amortization of deferred compensation (Note 9)				
	-	-	-	-
Conversion of \$2.50 Preferred Stock into Common Stock (Note 10)				
	(87,844)	-	24,597	63,247
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)				
	-	-	290	137,233
Dividend of Common Stock to \$3.00 Preferred shareholder (Note 10)				
	-	-	2,560	1,197,440
Conversion of amount due to M/A-Com, Inc. into Common Stock, net of expenses (Note 5)				
	-	-	7,286	3,958,960
Net loss	-	-	-	-
BALANCE, DECEMBER 31,				
1990 (Note 2)	\$ 12,156	\$ 40,000	\$ 189,532	\$ 101,449,259

(TABLE CONTINUED)

Receivables

## 1990 COPYRIGHT SEC ONLINE, INC., 1, \*37

	Accumulated Deficit	on Common Stock Sold
BALANCE, DECEMBER 31, 1987	\$ (45,359,096)	\$ (255,633)
Sale of restricted Common Stock	-	-
Exercise of Common Stock options (Note 11)	-	(7,500)
Grants of Common Stock below fair market value (Note 9)	-	-
Amortization of deferred compensation (Note 9)	-	-
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	(2,500,000)	-
Net loss	(21,444,878)	-
BALANCE, DECEMBER 31, 1988	(69,303,974)	(263,133)
Sale of \$3.00 Preferred Stock, net of expenses (Note 10)	-	-
Sale of restricted Common Stock	-	(90,000)
Exercise of Common Stock options (Note 11)	-	2,272
Exercise of Common Stock warrants (Note 11)	-	-
Grants of Common Stock and options below fair market value (Note 9)	-	-
Amortization of deferred compensation (Note 9)	-	-
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	(2,500,000)	-
Dividend of Common Stock and cash to \$3.00 Preferred shareholders (Note 10)	(402,198)	-
Net loss	(19,073,550)	-
BALANCE, DECEMBER 31,		

## 1990 COPYRIGHT SEC ONLINE, INC., 1, \*37

1989	(91,279,722)	(350,861)
Sale of restricted Common Stock	-	90,000
Exercise of Common Stock options (Note 11)	-	163,662
Exercise of Common Stock warrants (Note 11)	-	-
Grants of Common Stock and options below fair market value (Note 9)	-	-
Amortization of deferred compensation (Note 9)	-	-
Conversion of \$2.50 Preferred Stock into Common Stock (Note 10)	-	-
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	(303,905)	-
Dividend of Common Stock to \$3.00 Preferred shareholder (Note 10)	(1,200,000)	-
Conversion of amount due to M/A-Com, Inc. into Common Stock, net of expenses (Note 5)	-	-
Net loss	(11,951,960)	-
 BALANCE, DECEMBER 31, 1990 (Note 2)	 \$ (104,735,587)	 \$ (97,199)

(TABLE CONTINUED)

	Deferred Compensation	Total
BALANCE, DECEMBER 31, 1987	\$ (222,149)	\$ 20,970,327
Sale of restricted Common Stock	-	4,910,493
Exercise of Common Stock options (Note 11)	-	593,269
Grants of Common Stock below fair market value (Note 9)	(104,043)	125,683
Amortization of deferred compensation		

## 1990 COPYRIGHT SEC ONLINE, INC., 1, \*37

(Note 9)	214,636	214,636
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	-	(1,265,560)
Net loss	-	(21,444,878)

BALANCE, DECEMBER 31,  
1988 (111,556) 4,103,970

Sale of \$3.00 Preferred Stock, net of expenses (Note 10)	-	9,985,690
Sale of restricted Common Stock	-	7,066,702
Exercise of Common Stock options (Note 11)	-	574,620
Exercise of Common Stock warrants (Note 11)	-	1,080,000
Grants of Common Stock and options below fair market value (Note 9)	(34,553)	406,369
Amortization of deferred compensation (Note 9)	97,113	97,113
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	-	(1,810,642)
Dividend of Common Stock and cash to \$3.00 Preferred shareholders (Note 10)	-	-
Net loss	-	(19,073,550)

BALANCE, DECEMBER 31,  
1989 (48,996) 2,430,272

Sale of restricted Common Stock	-	2,159,250
Exercise of Common Stock options (Note 11)	-	193,686
Exercise of Common Stock warrants (Note 11)	-	175,000
Grants of Common Stock and options below fair market value (Note 9)	(3,013)	40
Amortization of deferred compensation (Note 9)	14,332	14,332
Conversion of \$2.50 Preferred Stock into		

Common Stock (Note 10)	-	-
Dividend of Common Stock and cash to \$2.50 Preferred shareholders (Note 10)	-	(166,382)
Dividend of Common Stock to \$3.00 Preferred shareholder (Note 10)	-	-
Conversion of amount due to M/A-Com, Inc. into Common Stock, net of expenses (Note 5)	-	3,966,246
Net loss	-	(11,951,960)

BALANCE, DECEMBER 31,  
1990 (Note 2)           \$ (37,677)   \$ (3,179,516)

The accompanying notes are an integral part of these statements.

[\*38] [HARDCOPY PAGE F-6]

#### INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Year Ended December 31  
1990           1989           1988

#### CASH FLOWS FROM

#### OPERATING ACTIVITIES:

Net loss	\$ (11,951,960)	\$ (19,073,550)	\$ (21,444,878)
Adjustments to reconcile net loss to net cash used for operating activities-			
Depreciation and amortization	3,394,487	2,840,152	2,930,265
Compensation on stock issued and stock options granted	151,977	503,439	340,319
Write-down of inventory	545,000	1,344,406	2,311,000
Other	62,579	(589,583)	(410,568)
Decrease (increase) in assets-			
Receivables	(1,046,607)	(86,877)	522,091
Inventories	555,807	865,926	(5,481,498)
Deposits on inventory	84,245	(350,885)	462,500
Prepaid engineering	350,104	(931,900)	-

## 1990 COPYRIGHT SEC ONLINE, INC., 1, \*38

Other current assets	154,511	4,019	109,040
Increase (decrease) in liabilities-			
Due to Hughes Network Systems, Inc.	1,871,185	(5,587,902)	5,682,332
Due to M/A-Com, Inc.	710,168	462,428	-
Accounts payable	1,319,626	(788,831)	338,657
Accrued expenses	386,320	(131,699)	473,695
Due to Century Cellular Corp.	921,167	-	-
Net cash used for operating activities	\$ (2,491,391)	\$ (21,520,857)	\$ (14,167,045)

The accompanying notes are an integral part of these statements.

(Continued)

[\*39] [HARDCOPY PAGE F-7]

## INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(Continued)

For the Year Ended December 31  
1990      1989      1988

## CASH FLOWS FROM INVESTING ACTIVITIES:

Additions to property and equipment, net of amounts acquired under capital leases of \$344,106, \$105,867 and \$279,884, respectively	\$ (497,750)	\$ (300,558)	\$ (897,740)
Patents	(813,280)	(650,014)	(587,248)

Net cash used for investing activities      (1,311,030)      (950,572)      (1,484,988)

## CASH FLOWS FROM FINANCING ACTIVITIES:

Net proceeds from sales of Common and Preferred Stock and exercises of

1990 COPYRIGHT SEC ONLINE, INC., 1, \*39

stock options and warrants	2,356,574	18,707,012	5,503,762
Proceeds from (repayments of) short-term borrowings, net	1,000,000	7,500,000	1,887,000
Cash dividends on Preferred Stock	(166,382)	(1,810,642)	(1,265,560)
Payments on long-term debt	(186,415)	(165,137)	(126,599)
Proceeds from amounts due to Century Cellular Corp.	1,000,000	7,500,000	-
Net cash provided by financing activities	2,003,777	24,344,233	5,998,603
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(1,798,644)	1,872,804	(9,653,430)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	6,695,112	4,822,308	14,475,738
CASH AND CASH EQUIVALENTS, END OF YEAR	\$ 4,896,468	\$ 6,695,112	\$ 4,822,308
SUPPLEMENTAL CASH FLOW INFORMATION:			
Interest paid	\$ 405,477	\$ 292,445	\$ 82,770

The accompanying notes are an integral part of these statements.

[\*40] [HARDCOPY PAGE F-8]

INTERNATIONAL MOBILE MACHINES CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 1990

1. BACKGROUND:

International Mobile Machines Corporation (the Company) was incorporated in 1972 and is engaged primarily in the development and commercialization of the Ultraphone Digital Loop Carrier (the Ultraphone), a digital radio-telephone system. The Company sells the Ultraphone primarily to telephone operating companies. The Company also provides certain engineering and marketing services on digital cellular technology, and is involved in the protection and exploitation of its intellectual property. Prior to 1990, the Company was engaged in providing telecommunications training and consulting services (see Note 14).

The Company has experienced significant losses since inception and, as of December 31, 1990, its accumulated deficit was \$104,735,587. Additional funds will be required by the Company to continue to produce and market the Ultraphone, continue product development and maintain and exploit the Company's patent position and technology. Management believes that sufficient funds will be available to sustain its operations through 1991.

## 2. SIGNIFICANT SUBSEQUENT EVENTS:

In February and March 1991, M/A-Com, Inc. converted \$4,929,158 of principal and accrued interest into 897,843 shares of Common Stock (see 5). Also, on March 15, 1991, the Company sold its construction permit for a cellular radio system to Century Cellular Corp. (Century) in exchange for the forgiveness of approximately \$8,800,000 of advances and certain accrued interest. Since the Company had no cost basis in this asset, the Company realized a gain on the sale of approximately \$8,100,000, net of \$700,000 in transaction costs. In addition, Common Stock warrants were issued to Century as payment of the remaining \$900,000 in accrued interest (see Note 8).

If the M/A-Com and Century transactions had occurred on December 31, 1990, the following pro form balances would have resulted:

	December 31, 1990	
	As Reported	Pro Forma
	(unaudited)	
Deferred financing costs, net	\$ 539,280	-
Other accrued expenses	537,263	\$ 737,263
Due to M/A-Com, Inc.	4,872,593	-
Due to Century Cellular Corp.	9,486,167	-
Total shareholders' equity (deficit)	(3,179,516)	10,439,964
Net loss	(11,951,960)	(4,105,073)

[\*41] [HARDCOPY PAGE F-9]

### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

#### Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

#### Cash and Cash Equivalents

The Company considers investments with original maturities of three months or less to be cash equivalents for purposes of the statements of cash flows. The Company invests its excess cash in various short-term investments, which are included in cash and cash equivalents, as follows:

	December 31	
	1990	1989
Commercial paper (Note 6)	\$1,005,000	\$4,400,000
Repurchase agreement	1,000,000	-
Certificates of deposit	253,554	1,080,000
	\$2,258,554	\$5,480,000

The repurchase agreement matured on January 2, 1991 and was fully collateralized by U.S. Government securities.

#### Inventories

Inventories are stated at the lower of cost or market, with cost determined on a first-in, first-out basis and market based on net realizable value.

#### Property and Equipment

Property and equipment are stated at cost. Depreciation and amortization are provided using the straight-line method. The estimated useful lives for machinery and equipment, computer equipment and furniture and fixtures are three to five years. Leasehold improvements are being amortized over their lease term, generally five to ten years.

#### Deferred Product Costs

Deferred product costs are described in Note 5 and are being amortized over five years from December 1987, which was the date revenue was first recognized on Ultraphone product sales.

#### Patents

The costs to obtain certain patents for the Company's Ultraphone technology have been capitalized and are being amortized on a straight-line basis over their estimated useful lives, generally 10 years. Amortization was \$726,939, \$190,000 and \$128,000 in 1990, 1989 and 1988, respectively.

[\*42] [HARDCOPY PAGE F-10]

#### Revenue Recognition

Effective January 1, 1990, the Company began recognizing revenues on Ultraphone sales upon shipment. For the years ended December 31, 1989 and 1988, revenues from such sales were recognized when the system had been installed and accepted by the customer. If this change in accounting policy had been effective on January 1, 1988, the results of operations in 1988 and 1989 would not have been materially different from the reported results.

In 1990, the Company entered into agreements with Hughes Network Systems, Inc. whereby the Company will provide certain marketing and engineering services in the field of digital cellular nodes on a time and material basis. The Company has recorded revenue as earned pursuant to the contract (see Note 5).

#### Major Customers

Two, four and two customers accounted for approximately 60%, 65% and 54% of the Company's Ultraphone sales in 1990, 1989 and 1988, respectively. Each of these customers accounted for at least 10% of Ultraphone sales. In 1990, the Company's largest customer was Telefonos de Mexico, which accounted for approximately 43% of Ultraphone sales.

#### Net Loss Per Common Share

The net loss per common share is based on the weighted average number of shares of Common Stock outstanding during each year.

#### Reclassifications

The financial statements for prior years have been reclassified to conform with the current year presentation.

## 4. INVENTORIES:

	December 31	
	1990	1989
Component parts and work-in-progress	\$2,003,115	\$2,035,683
Finished goods	1,341,784	2,410,023
	\$3,344,899	\$4,445,706

## 5. ULTRAPHONE DEVELOPMENT AND PRODUCTION CONTRACTS:

In January 1986, the Company entered into a commercialization contract with M/A-Com, Inc. and its subsidiaries (M/A-Com) to design, fabricate, test and deliver equipment for the fixed application of the Ultraphone system. The contract was modified in September 1986. The contract, as amended, included five milestones. Milestones 1 and 2 involved further equipment development and installation at the initial beta test site. Milestones 3, 4 and 5 involved installation of a second beta test site, equipment upgrades and enhancements, software development and delivery of documentation. In

[\*43] [HARDCOPY PAGE F-11]

September 1987, the M/A-Com subsidiary, with which the Company had its contractual relationship, was acquired by Hughes Aircraft Corporation and renamed Hughes Network Systems, Inc. (HNS).

The contract price, as amended, was \$15,525,000 and was allocated as follows:

Milestones 1 and 2	\$ 6,786,000
Milestones 3, 4 and 5	8,589,000
Other	150,000
	\$15,525,000

The Company expensed the costs of the first two milestones and, in October 1986, began to capitalize the costs of the remaining milestones. Upon completion of the first two milestones, technological feasibility of the fixed application of the Ultraphone system was established and

the working model and its design had been completed. Also, the completeness of the working model and its consistency with the product design had been confirmed by testing. As of December 31, 1987, the contract costs of Milestones 3, 4 and 5 of \$8,589,000 had been capitalized as deferred product costs, and are being amortized over five years.

In February 1987, the Company entered into a production contract with HNS (formerly a subsidiary of M/A-Com) to manufacture, test and deliver certain Ultraphone products. Included in this contract was approximately \$557,000 of costs related to nonrecurring engineering services which have been capitalized as deferred product costs. As required under the contract, a \$2,000,000 down payment was made in 1987 and was to be credited against inventory purchases over the life of the contract. In 1988, \$200,000 of this deposit was expensed as it was used for additional engineering work performed by HNS related to the contract. In 1989, the Company cancelled a portion of this contract at a cost of \$1,850,000, of which \$1,800,000 was expensed in 1988. The cancellation charge was funded with the application of the remaining \$600,000 of the inventory deposit and \$1,250,000 to be paid in 1991. In June 1990, the Company received a credit from HNS of \$118,410 against the amount due for the value of scrapped material from the contract. As of December 31, 1990, the Company has no future commitments under this contract.

In December 1987, the Company entered into a second production contract with HNS to engineer and manufacture certain Ultraphone products for delivery through July 1992. The Company's purchase commitment is for 54,000 Ultraphone subscriber units. Initial deliveries under this contract began in the second quarter of 1990. The contract required deposits of \$1,750,000, which were made as of December 31, 1989. These deposits will be credited ratably against inventory purchases over the life of the contract. The remaining costs of the contract will be paid upon the delivery and acceptance of Ultraphone products. If the Company were to terminate this contract, it would be liable for termination costs which, under certain circumstances, could be substantial.

In July 1989, the Company engaged HNS to provide engineering services related to enhancements of the Ultraphone for a minimum cost of \$2,000,000, of which \$1,000,000 was prepaid. As of December 31, 1990, HNS had provided \$418,204 in

[\*44] [HARDCOPY PAGE F-12]

engineering services to the Company, and the remaining prepaid balance of \$581,796 will be utilized in 1991. The Company will cancel the remaining portion of the contract and incur a cancellation fee of \$500,000. This fee has been accrued as of December 31, 1990, and is included in "Due to Hughes Network Systems, Inc." on the accompanying

balance sheets.

Also, in July 1989, the Company granted HNS certain nonexclusive, nontransferable licenses to the Company's intellectual property (subject to certain restrictions) for use in HNS products in the United States and certain foreign countries. The Company will be paid a royalty based on sales of HNS products. No royalties were earned as of December 31, 1990.

In December 1986, the Company entered into a purchase commitment with Marubeni Corporation to purchase certain radios utilized in the Ultraphone system. The contract expired in June 1989 and the Company had not purchased its full commitment of radios. The Company believes that no termination charge will be required to be paid for the unfilled purchase commitment.

The amounts due to M/A-Com, Inc. and HNS under the above contracts are as follows:

	December 31	
	1990	1989
Due to Hughes Network Systems, Inc.	\$4,053,166	\$2,181,981
Due to M/A-Com, Inc.	\$4,872,593	\$8,162,428

The HNS balance at December 31, 1990 is due in 1991, with \$2,056,590 of the balance subject to interest at an annual rate of 15%. Interest expense on the amount due to HNS was \$316,559 in 1990.

On December 21, 1990, M/A-Com, Inc. converted \$4,000,003 of the amount then due into 728,598 shares of Common Stock. As discussed in Note 2, the balance at December 31, 1990 plus interest accrued after January 1, 1991 of \$56,565 was converted into 897,843 shares of Common Stock in February and March 1991. Interest expense on the amount due to M/A-Com was \$921,996 in 1990 and \$462,428 in 1989.

#### 6. SHORT-TERM BORROWINGS:

The Company has a \$2,000,000 bank line of credit, with interest at prime. The outstanding balance on the line at December 31, 1990, is fully secured by an assignment of the Company's investment in commercial paper (see Note 3) which is held in trust by the bank. The line of credit expires on July 31, 1991. The interest rate was 10.0%, 10.5% and 10.5% at December 31, 1990, 1989 and 1988, respectively. The average balance outstanding on the line during 1990, 1989 and 1988, was

\$1,402,740, \$1,906,000 and \$1,140,000, at weighted average interest rates of 10.2%, 11.0% and 9.9%, respectively. The maximum balance outstanding on the line during 1990, 1989 and 1988 was \$2,000,000, \$2,000,000 and \$1,887,000, respectively. Interest expense was \$142,397 in 1990, \$209,563 in 1989 and \$71,184 in 1988.

[\*45] [HARDCOPY PAGE F-13]

#### 7. LONG-TERM DEBT:

	December 31			
	1990	1989		
Capital lease obligations	\$514,803	\$342,645	s payable to vendors	12,693 27,160
	527,496	369,805		
Less-Current portion	(198,241)	(141,691)		
	\$329,255	\$228,114		

s payable to vendors and capitalized lease obligations are payable in monthly installments at various interest rates through 1995. As of December 31, 1990, maturities are as follows: \$198,241 in 1991, \$178,138 in 1992, \$93,785 in 1993, \$39,004 in 1994 and \$18,328 in 1995.

#### 8. DUE TO CENTURY CELLULAR CORP.:

The amount due to Century Cellular Corp. (Century) at December 31, 1990 is comprised of the following:

Convertible subordinated note	\$7,500,000
Accrued interest through December 1, 1990	900,000
Accrued interest for December 1990	86,167
Refundable deposit	1,000,000
	\$9,486,167

On December 4, 1989, the Company issued a \$7,500,000 convertible subordinated note (the Note) to Century with interest at 12%. In connection with the issuance of the Note, Century received a warrant to purchase 770,000 shares of Common Stock at \$5.07 per share, as adjusted. The warrant is exercisable until December 4, 1994. The accrued interest

on the Note through December 1, 1990 of \$900,000 was paid by the issuance on March 15, 1991 of a warrant to purchase 900,000 shares of Common Stock at \$4.00 per share. The warrant is exercisable until March 15, 1996.

In March 1990, pursuant to a lottery conducted by the Federal Communications Commission (FCC), the Company was awarded a construction permit for a cellular radio system to operate in certain areas of Indiana. In December 1990, the Company signed a contract for the sale of the construction permit to a subsidiary of Century. The purchase price for the permit was \$8,500,000 plus accrued interest on the Note from December 1, 1990 until closing. The Company was paid a \$1,000,000 refundable deposit on contract execution. The sale closed on March 15, 1991 and the Note and accrued interest of \$295,833 was forgiven. The Company will record a gain of approximately \$8,100,000, net of \$700,000 in transaction costs, in the first quarter of 1991.

[\*46] [HARDCOPY PAGE F-14]

#### 9. COMMITMENTS:

The Company has entered into various lease agreements, primarily for office and assembly space. Total rent expense was \$929,227, \$1,077,825 and \$862,137 for the years ended December 31, 1990, 1989 and 1988, respectively. Minimum future rental payments for operating leases are as follows:

1991	\$ 565,944
1992	617,185
1993	604,910
1994	616,931
1995	459,800
1996 and thereafter	1,238,917
	\$4,103,687

As of February 28, 1991, the Company had entered into contracts with certain key employees which provide for minimum annual compensation of \$717,500 in 1991, \$771,250 in 1992, \$825,000 in 1993, \$592,250 in 1994 and \$465,750 in 1995. In connection with these contracts and the hiring of certain other employees, restricted shares of Common Stock were issued at prices below fair market value. The aggregate differences between the fair market value of the Common Stock on the dates of issuance and the issue price were \$3,013, \$34,553 and \$104,043 in 1990, 1989 and 1988, respectively, and have been classified as deferred

compensation in the accompanying balance sheets. These amounts are being amortized over the two-year vesting periods. The amortization for the years ended December 31, 1990, 1989 and 1988 was \$14,332, \$97,113 and \$214,636, respectively.

In July 1989, the Company and HNS agreed for seven years to market jointly the Ultraphone system outside the United States. This agreement is exclusive for five years in specified foreign countries. In addition, the Company agreed that HNS will manufacture at least 50% of the Company's subscriber unit requirements (in excess of the production agreement discussed in Note 5) through July 1995.

#### 10. PREFERRED STOCK:

The holders of the \$2.50 Convertible Preferred Stock (\$2.50 Preferred) are entitled to receive, when and as declared by the Company's Board of Directors, cumulative annual dividends of \$2.50 per share payable in cash or Common Stock (as defined) at the election of the Company (subject to a cash election right of the holder), if legally available. Such dividends are payable semiannually on June 1 and December 1. In the event the Company fails to pay two consecutive semiannual dividends within the required time period, certain penalties may be imposed. The \$2.50 Preferred is convertible into Common Stock at any time prior to redemption at a conversion price of \$12 per share (subject to adjustment under certain conditions).

The Company temporarily reduced the conversion price on its \$2.50 Preferred from \$12 per share of Common Stock to \$8.93 per share for the period from May 11, 1990 to June 1, 1990. During this period, 878,438 shares of \$2.50

[\*47] [HARDCOPY PAGE F-15]

Preferred were converted into 2,459,628 shares of Common Stock. The Company did not declare a dividend on June 1, 1990. On December 1, 1990, the Company paid a dividend of \$303,905, including dividends in arrears of \$151,953. The dividend was paid with cash of \$166,382 and 29,049 shares of Common Stock. In 1989 and 1988, dividends were paid with cash of \$1,810,642 and \$1,265,560, respectively, and 78,302 and 155,150 shares of Common Stock, respectively.

On July 31, 1989, HNS purchased 400,000 shares of the Company's \$3.00 Convertible Preferred Stock (the \$3.00 Preferred) for \$9,985,690, net of \$14,310 in expenses. Of this amount, \$4,810,618 was used to repay a portion of the amount due to HNS (see Note 5). In connection with this transaction HNS received a warrant exercisable for four years, commencing July 1, 1990, to purchase 200,000 shares of Common Stock at

\$10.77 per share.

The holder of the \$3.00 Preferred is entitled to receive, when and as declared by the Company's Board of Directors, cumulative annual dividends of \$3.00 per share payable in cash or Common Stock (as defined) at the election of the Company (subject to a cash election right of the holder, commencing December 1, 1991) if legally available. Payment of such dividends is subordinate to the payment of dividends on the \$2.50 Preferred. Such dividends are payable semiannually on December 1 and June 1. In the event the Company fails to pay two consecutive semiannual dividends within the required time period, certain penalties may be imposed. The \$3.00 Preferred is convertible into Common Stock at any time prior to redemption at a conversion price of \$10.34 per share of Common Stock (subject to adjustment under certain conditions). Since no dividends were declared on the \$2.50 Preferred on June 1, 1990, no dividends could be declared on the \$3.00 Preferred. On December 1, 1990, the Company paid a dividend of \$1,200,000 including dividends in arrears of \$600,000. The dividend was paid by issuing 256,000 shares of Common Stock. In 1989, a dividend was paid with 52,990 shares of Common Stock.

Upon any liquidation, dissolution or winding up of the Company, the holders of the \$2.50 and \$3.00 Preferred, in that order of priority, will be entitled to receive, from the Company's assets available for distributions to shareholders, \$25 per share plus all dividends accrued, before any distribution is made to the Common shareholders. After such payment, the holders of the Preferred would not be entitled to any other payments.

The redemption price for each share of \$2.50 Preferred is \$26.75 per share through May 31, 1991, plus all accrued and unpaid dividends. The redemption price of \$26.75 per share will decrease \$ .25 per share for each succeeding 12-month period until the redemption price is fixed at \$25 per share on June 1, 1997, and thereafter. The \$3.00 Preferred is redeemable at the option of the Company at any time. At December 31, 1990, the redemption price for each share of \$3.00 Preferred is \$35.43 per share. The redemption price decreases in installments to \$25 per share on July 31, 1998.

The holders of the \$2.50 Preferred do not have any voting rights except on those amendments to the Articles of Incorporation which would adversely affect their rights, create any class or series of stock ranking senior to or on a parity with the \$2.50 Preferred, as to either dividend or liquidation rights,

[\*48] [HARDCOPY PAGE F-16]

or increase the authorized number of shares of any senior stock. The holder of the \$3.00 Preferred has the right to elect one director of the

Company and has certain other voting rights. In addition, if two or more consecutive semiannual dividends on the \$2.50 or \$3.00 Preferred are not paid by the Company, the holders of the Preferred, separately voting as classes, will be entitled to elect one and two additional directors of the Company, respectively.

#### 11. COMMON STOCK OPTION PLANS, WARRANTS AND OTHER OPTIONS:

##### Common Stock Option Plans

The Company has incentive and nonqualified stock option plans for officers and key employees of the Company and others. Under these plans, options may be granted for the purchase of up to 2,700,000 shares of Common Stock. The number of options to be granted and the option prices are determined by a committee of the Board of Directors in accordance with the terms of the plans. Under the terms of the incentive stock option plan, the option price cannot be less than 100% of the fair market value of the Common Stock at date of grant.

Incentive stock options granted become exercisable at 20% per year beginning one year after date of grant and generally remain exercisable for 10 years. No incentive stock option is exercisable until the employee has been employed by the Company for at least one year. Under the nonqualified option plan, options are exercisable for a period of 10 years from the date of grant and normally vest on the grant date.

Information with respect to stock options under the above plans is summarized as follows:

	Available for Grant	Outstanding Options Number	Price Range
BALANCE AT DECEMBER			
31, 1988	348,391	1,620,691	\$ .01-\$17.625
Granted	(307,814)	307,814	\$ .01-\$10.50
Cancelled	107,159	(107,159)	\$6.625-\$17.625
Exercised	-	(29,328)	\$ .01-\$8.25
BALANCE AT DECEMBER			
31, 1989	147,736	1,792,018	\$ .01-\$17.625
Additional authorized	300,000	-	-
Granted	(234,200)	234,200	\$3.875-\$10.00
Cancelled	161,978	(161,978)	\$5.75-\$16.375
Exercised	-	(12,400)	\$ .01-\$3.00

## BALANCE AT DECEMBER

31, 1990	375,514	1,851,840	\$ .01-\$17.625
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## WEIGHTED AVERAGE EXERCISE

## PRICE AT DECEMBER

31, 1990	\$ 9.29
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## EXERCISABLE AT DECEMBER

31, 1990	1,516,903
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[\*49] [HARDCOPY PAGE F-17]

## Common Stock Warrants and Other Options

As of December 31, 1990 and in addition to the option plans discussed above, the Company has various warrants and options outstanding to purchase 2,189,940 shares of Common Stock at exercise prices ranging from \$2.50 to \$18.125 per share, with a weighted average exercise price of \$9.16 per share. As of December 31, 1990, 2,184,940 of these warrants and options are currently exercisable. These warrants and options expire in various years through 2000. The exercise price and number of shares of Common Stock to be obtained upon exercise of certain of these warrants are subject to adjustment under certain conditions.

## 12. RELATED-PARTY TRANSACTIONS:

All warrants and options granted to related parties, as described below, are included in the number of warrants and options disclosed as outstanding in Note 11.

In 1988, the Company granted a five-year warrant to purchase 25,000 shares of Common Stock to a Director. The exercise price of the warrant is \$11.85 per share.

In 1988, 16,000 shares of restricted Common Stock were granted at \$ .01 per share to certain officers and key employees.

In 1989, the Company granted 10-year warrants to purchase 106,840 shares of Common Stock to certain directors and other persons who made loans to the Company. These loans were repaid in 1989. The exercise price of these warrants is \$8.10 per share.

In 1989, the Company granted a three-year warrant to purchase 25,000 shares of Common Stock to a Director who agreed to serve as Chairman of a Board committee. The exercise price of the warrant is \$11.85 per share.

In 1989, 4,500 shares of restricted Common stock were granted at \$ .01 per share to certain officers and key employees.

In 1990, the Company granted 10-year warrants to purchase a total of 110,000 shares of Common Stock to the members of the Board of Directors. The exercise price of these warrants is \$5.75 per share.

In 1990, 10,000 shares of restricted Common Stock were granted at \$ .01 per share to an officer.

### 13. INCOME TAXES:

The Company files a consolidated Federal income tax return. At December 31, 1990, the Company had net operating loss carryforwards of approximately \$93,000,000 which begin to expire in 1992. The Company also has significant tax credit carryforwards which begin to expire in 1998. Pursuant to the Tax Reform Act of 1986, annual use of the Company's net operating loss and credit

[\*50] [HARDCOPY PAGE F-18]

carryforwards may be limited if a cumulative change in ownership of more than 50% has occurred within a three-year period. The Company believes, however, that such limitation would not have a material impact on the utilization of the carryforwards.

Effective January 1, 1988, the Company adopted the provisions of Statement of Financial Accounting Standards No. 96, "Accounting for Income Taxes." The effect of adopting this statement had no impact on the Company's results of operations or financial position.

### 14. U.S. ARMY CONTRACT:

In February 1986, a subsidiary of the Company was awarded a contract to conduct training for the U.S. Army. Revenue was recognized as the services were performed. In 1989, the contract was not renewed by the U.S. Army and, the subsidiary ceased its operations. All costs related to the discontinuance of the subsidiary's operations were paid by the U.S. Army.

[\*51] [HARDCOPY PAGE S-1]

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 30th day of March, 1991.

## INTERNATIONAL MOBILE MACHINES CORPORATION

BY: WILLIAM J. HILSMAN  
CHIEF EXECUTIVE OFFICER  
CHAIRMAN OF THE BOARD  
PRINCIPAL EXECUTIVE OFFICER

BY: RICHARD A. GUTTENDORF, JR.  
SENIOR VICE PRESIDENT  
CHIEF FINANCIAL OFFICER  
TREASURER  
PRINCIPAL FINANCIAL OFFICER  
PRINCIPAL ACCOUNTING OFFICER

MARCH 30, 1991

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

SHERWIN I. SELIGSOHN  
DIRECTOR  
MARCH 30, 1991

LYMAN C. HAMILTON, JR.  
DIRECTOR  
MARCH 30, 1991

ROBERT B. LIEPOLD  
DIRECTOR  
MARCH 30, 1991

DAVID E. KAPLAN  
DIRECTOR  
MARCH 30, 1991

D. RIDGELY BOLGIANO  
DIRECTOR  
MARCH 30, 1991

[\*52] [HARDCOPY PAGE S-2]

W. W. KEEN BUTCHER  
DIRECTOR  
MARCH 30, 1991

RODNEY L. JOYCE  
DIRECTOR  
MARCH 30, 1991

PETER F. ERB  
DIRECTOR  
MARCH 30, 1991

V. LOUISE MCCARREN  
DIRECTOR  
MARCH 30, 1991

RICHARD W. PRYOR  
DIRECTOR  
MARCH 30, 1991

WILLIAM J. BURNS  
DIRECTOR  
MARCH 30, 1991

[\*53]

SEC ONLINE INC.  
EXHIBIT INDEX

NUMBER	DESCRIPTION	PAGE
22	SUBSIDIARIES OF THE COMPANY	54

[\*54] [HARDCOPY PAGE EXH1]

EXHIBIT 22

Subsidiaries of the Registrant

NAME	STATE OF INCORPORATION
International Mobile Machines Institute	Pennsylvania
Universal Service Telephone Corporation	Nevada

USTC World Trade Corporation  
USTC Supply Corporation

Nevada  
Nevada

**LENGTH:** 24505 words

**LOAD-DATE:** September 13, 1991

**LANGUAGE:** ENGLISH