

ISCO INTERNATIONAL INC
Form 10-K
March 28, 2008

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2007

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 001-22302

ISCO INTERNATIONAL, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

36-3688459
(I.R.S. Employer Identification No.)

1001 Cambridge Drive, Elk Grove Village, Illinois
(Address of principal executive offices)

60007
(Zip Code)

Registrant's telephone number, including area code: (847) 391-9400

Securities registered pursuant to Section 12(b) of the Act:
Common Stock, Par Value \$0.001 Per Share
(Title of each class) American Stock Exchange
(Name of each exchange on which registered)

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

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

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of “large accelerated filer”, “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer
Non-accelerated filer Smaller reporting company

(do not check if a Smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes
No

As of June 30, 2007, the aggregate market value of the registrant’s common stock held by non-affiliates of the registrant was approximately \$20 million based on the last sale price of the common stock on such date as reported on the American Stock Exchange. This calculation excludes more than 90 million shares held by directors, executive officers, and two holders of more than 10% of the registrant’s common stock.

As of March 1, 2008, there were approximately 222 million shares of the registrant’s common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

As stated in Part III of this Annual Report on Form 10-K, portions of the registrant’s definitive proxy statement for the registrant’s 2008 Annual Meeting of Stockholders, expected to be held during June 2008, are incorporated by reference in Part III of this Annual Report on Form 10-K.

ISCO INTERNATIONAL, INC.

ANNUAL REPORT ON FORM 10-K FOR
THE YEAR ENDED DECEMBER 31, 2007

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FORWARD- LOOKING STATEMENTS

Because we want to provide investors with more meaningful and useful information, this Annual Report on Form 10-K ("Form 10-K") contains, and incorporates by reference, certain forward-looking statements that reflect our current expectations regarding its future results of operations, performance and achievements. We have tried, wherever possible, to identify these forward-looking statements by using words such as "anticipates," "believes," "estimates," "expects," "designs," "plans," "intends," "looks," "may," and similar expressions. These statements reflect our current beliefs and are based on information currently available to us. Accordingly, these statements are subject to certain risks, uncertainties and contingencies, including the factors set forth under Item 1A, Risk Factors, which could cause our actual results, performance or achievements for 2008 and beyond to differ materially from those expressed in, or implied by, any of these statements. You should not place undue reliance on any forward-looking statements. Except as otherwise required by federal securities laws, we undertake no obligation to release publicly the results of any revisions to any such forward-looking statements that may be made to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect the occurrence of unanticipated events.

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PART I

Item 1. Business

HISTORY

We were founded in 1989 by ARCH Development Corporation, an affiliate of the University of Chicago, to commercialize superconductor technologies initially developed by Argonne National Laboratory. We were incorporated as Illinois Superconductor Corporation in Illinois on October 18, 1989 and reincorporated in Delaware on September 24, 1993. In 2001, we shifted our focus from solely a superconductive filter (high-temperature superconductor product line referred to as “HTS”) provider to a customer-driven provider of more specialized Radio Frequency (“RF”) management solutions, with a particular focus on interference management, changing our name to ISCO International, Inc. We continue to broaden our solutions with an increasingly comprehensive approach toward optimization of the full radio link of a number of diverse wireless networks. Our facilities and principal executive offices are located at 1001 Cambridge Drive, Elk Grove Village, Illinois 60007 and our telephone number is (847) 391-9400. We maintain a website at <http://www.iscointl.com>. The information contained therein is not incorporated into this annual report.

On January 3, 2008, we completed the acquisition of Clarity Communication Systems Inc., a private company based in Aurora, IL (“Clarity”) pursuant to our Agreement and Plan of Merger (the “Merger Agreement”). Clarity is now a wholly-owned subsidiary of our Company. Clarity provides value added mobile device applications, including a proprietary combination of Push-To-Talk and Location-Based Services called Where2Talk. We reference the acquisition of Clarity as a further step in our evolution toward providing value added applications via software, but Clarity was not part of ISCO during the fiscal year ended December 31, 2007 and therefore Clarity’s financial results are not reflected in the financial statements included in this annual report except as described in Note 14 – Subsequent Events, or otherwise as clearly indicated. Clarity maintains a website at <http://www.claritycsi.com>. The information contained therein also is not incorporated into this annual report.

BUSINESS STRATEGY

Our strategic goal is to become the leading supplier of RF management solutions and other value-added functionality to wireless operators. We seek to accomplish our goal by:

- Marketing our products aggressively to leading wireless operators;
- Providing customers comprehensive radio link management infrastructure-based solutions for wireless networks;
- Continuing to build on our strong intellectual property position selectively, emphasizing speed to market; and
- Outsourcing product manufacturing and reducing product cost.

We focus on winning the support of the world’s leading wireless operators for our RF management solutions. We believe that our AIM (Adaptive Interference Management) and RF² (Radio Frequency Fidelity) product families, as well as professional service support and other products, make us a preeminent RF management specialist in the market. We have taken steps to expand into a digital delivery platform for our AIM technologies, evolving what was once an analog platform Adaptive Notch Filter (ANF) to a partially digital version to a fully digital solution, and expect this trend to continue. We believe that the ability to solve interference problems using the delivery size,

capabilities and cost benefits of a digital platform will greatly enhance our addressable market within the field of wireless telecommunications. We currently outsource production of our products. We believe that this model will allow us to maintain or achieve targeted product gross margins, minimize capital needs while reducing product costs, and maintain a very high quality level. We also believe that offering the lowest product cost will further strengthen our ability to achieve our strategic objectives.

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RF MANAGEMENT ISSUES, INCLUDING INTERFERENCE, AND WIRELESS SYSTEMS

RF management issues are a growing problem limiting cell site coverage, capacity and range, as well as mobile transmit power and related battery-life issues. RF Link (or “Link”) problems cause dropped calls, poor call quality, and other service problems that lead to subscriber dissatisfaction and turnover (churn). Interference enters a carrier’s operating frequencies from such sources as: home electronic devices including portable phones, two-way radios used by commercial enterprises and governmental agencies, air-to-ground radio, police, fire and emergency services radio, military radio, wireless data networking systems, television and radio broadcasts, radar and other cellular networks. Interference is also created by electrical sources used to power cellular base station equipment. Interference may begin within a particular frequency or migrate from another frequency. Increased usage of co-location (multiple providers and/or multiple architectures from a single vendor using the same towers), increased sensitivity of non-voice applications, and the continued surge in wireless traffic result in increasing the impact of interference on wireless networks. With the proliferation of data applications and the limitations on tower availability and related budgets, wireless operators are finding that their own preferred technology combinations for their cell sites are creating interference with each other. Wireless operators also create self interference during the planned re-mining of existing spectrum with 3G/4G broadband technologies.

We believe the proliferation of wireless devices and high data rate services will exacerbate the amount of interference bombarding carriers’ operating frequencies. Conventional cellular base station equipment does not effectively cope with interference issues. More importantly, the wireless telecommunications industry is undergoing significant transformation as it attempts to integrate existing infrastructure and technologies with newer 3G equipment. Additionally, recent merger activity is forcing merged companies to integrate disparate technology platforms, sometimes using two and three different architectures in the same site in order to handle planned traffic. We believe this trend will continue. Our products are designed to address this expanding market need.

In the face of expanding subscriber bases, increased minutes of cell phone use, demand for high data rate services, the ease of customer churn (changing providers) due to number portability, restricted capital budgets and intense competition, the provisioning and optimization of wireless system infrastructure is a major challenge for operators. As a result of these industry conditions, wireless equipment manufacturers, including independent wireless technology companies and large original equipment manufacturers (OEM’s) are working intensely to develop technologies that provide operators the tools necessary to monetize the growing demand for wireless services.

Using our solutions to tightly integrate disparate technologies while simultaneously optimizing the radio link, including the mitigation of interference, operators can capture additional capacity and utilization, expand cell site range and coverage, reduce dropped calls, and significantly improve overall call quality. High speed data applications have placed a tremendous additional strain on wireless networks. Higher data rates require much cleaner signals than traditional voice-oriented networks to support the data throughput required for many of the highest average revenue per unit applications (including VoIP, music, television and video). As a result, we believe the value proposition and payback of our solutions are improving with increasing demand for high speed data, which we believe will result in increased demand for our solutions. Network capacity, quality and throughput are today the critical competitive differentiators in commercial wireless networks. All of our products improve one or more of these performance factors.

We estimate the economic payback to operators as a result of the use of our solutions should typically occur in less than one year, sometimes well under one year, depending on traffic levels and overall link quality. We believe our solutions often present the best overall value of all alternatives available in many applications.

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Target Market

We believe demand for our products will be primarily driven by the following factors:

1. Existing networks are straining under heavy traffic. According to many sources, the annual growth rate in wireless telecommunications remains substantial on many fronts. Roughly one billion handsets are sold annually, worldwide, and the variety of devices, networks and applications continues to expand.
2. The ongoing transition from predominantly voice based networks to data based networks will continue to drive demand for infrastructure enhancements to achieve data and error rates required to support near real time data applications (including VoIP, music, television and video).
3. Interference and coverage issues are primary causes of poor call quality, dropped calls and poor data throughput. We believe that as a result of increasing use of devices such as cellular phones, wireless data networking equipment, and wireless consumer appliances, wireless network operators are coming to view interference and coverage management technologies as necessary to protect against their customer bases “churning” to other carriers, especially since the full implementation of number portability (the ability to retain one’s phone number when changing wireless operators - historically a barrier to changing providers).
4. We believe that newer, data-driven wireless networks and expansion into higher frequencies will require smaller operating cells and more base stations than existing cellular networks in order to cover the same geographic area. This is based, in part, on the requirement for a higher quality radio link in order to enable full 3G throughputs required by the most popular applications, as well as inherent limitation of RF transmissions in higher frequencies. High frequency RF signals require more transmission points for equivalent coverage than signals of lower frequency. Since most 3G technologies are deployed at high frequencies, an operator has to add a significant number of additional cells to match coverage and in-building penetration capabilities they achieved with their 2G deployments. To minimize the capital investment and maximize the performance and customer satisfaction of their data-driven networks, operators are compelled to look at technology options to overcome these inherent obstacles.
5. The wireless telecommunications industry is undergoing significant transformation due to industry consolidation. The primary competitive driver is to reduce the cost bases, both capital and recurring costs, mostly achieved by reducing the number of cells required to support the combined customer base and to increase penetration such as by providing better in-building coverage. This creates demanding requirements to integrate disparate technologies, frequency spectrums, and legacy platforms while at the same time enabling the integrations of advanced technologies and services. Our products enable this integration while simultaneously optimizing the RF performance of the overall system.

In summary, we believe we have differentiated technologies in radio link management and optimization and are customer-driven to closely align our solutions to their specific needs thereby maximizing our value-add to our customers. Our goal is to continue to position ourselves as a leader in this segment of the wireless industry.

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TECHNOLOGY OVERVIEW

Our core expertise is the application of technology and experience to RF systems, and we are beginning to implement RF solutions utilizing digital technologies. The components in the receiver front-end are designed to acquire the desired information-bearing signal and pass it through to the digital portion of the system, where it is processed digitally and the user information is extracted. Typically, a portion of the signal is lost as it passes through the RF components. Further, undesired interference (in band and out of band) also leaks into the system due to imperfections in the characteristics of the RF devices.

The use of our solutions for wireless RF systems is based on creating RF systems which block or mitigate the impact of interference, optimize signal processing within the radio path while introducing very little signal loss or degradation.

Our two current primary product families are: (i) Adaptive Interference Management (AIM), including our Adaptive Notch Filter (ANF™) technology, dynamically and adaptively identifying and eliminating direct in-band interference in the radio link of a wide-band system such as CDMA or UMTS; (ii) Radio Link Radio Frequency Fidelity (RF²™), which includes ultra linear low-noise amplifier receivers, multi-couplers, filters and duplexers that enable full and integrated upgrades of legacy systems to 3G technologies resulting in a significant overall improvement in system performance, such as both a reduction in dropped calls and increased data throughput. These products are designed for efficient production, emphasizing solid-state electronics over mechanical devices with moving parts.

RF² (Radio link Radio Frequency Fidelity)

We introduced our RF² products in September 2003, we began to add new products to our RF² family in 2004, and added a significant number of products in 2005 and 2006. The RF² product family is comprised of solutions that focus on optimizing RF handling in order to improve system performance, integrate the disparate technologies utilized by operators, and enable next generation 3G upgrades. The RF² product family is designed to improve capacity and coverage in cellular base stations through state of the art low noise RF amplification, filtering, and combining and integration technologies.

The basic RF² product is a radio link solution designed and priced for network-wide deployment, improving system coverage integrity, in-building penetration, and voice/data capacity. This leads to improvement in wireless user perception of quality by reducing failed connection attempts and dropped calls, and improving handset battery life.

Our RF² products are easy to install, maintenance-free, and often present a performance benefit over alternative solutions in terms of tighter integration into/with existing equipment, continued ability to utilize diagnostics and monitoring equipment, and higher performance. Additionally, our RF² solutions have been shown to deliver results generally comparable to HTS-based solutions without a cryogenic cooler or other moving parts, and with a tighter integration and much lower cost. We believe that the ease of integration and higher value compete strongly with other solutions.

RF² Competition

OEM competition includes solutions such as adding a carrier to the cell sites (to increase capacity), cell splitting, or even adding an entirely new base station so as to add capacity and coverage. After-market competition includes repeaters, TMA's (tower-mounted amplifiers), GMA's (ground-mounted amplifiers) and HTS receiver front ends, as well as duplexers and other non-integrated solutions. We believe these products may generally improve the coverage of the network, but lack the value of our fully integrated link management solutions.

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Adaptive Interference Management (“AIM” which is based on the Adaptive Notch Filter, ANF, platform)

Our patented AIM platform identifies and suppresses in-band interference in the radio link of a wide-band system such as CDMA or UMTS. If interference is not eliminated, the radio link of the system may be reduced, possibly to the point of not allowing any calls on the entire channel. The AIM solution continuously monitors the power spectral density across the carriers (channels) in use and identifies narrow-band interference. The severity of multiple in-band interferers is prioritized, and through software control, the AIM solution dynamically inserts a highly selective filter to eliminate multiple interferers with minimal impact on the desired broadband signal. The objective of the AIM system is for operators to realize significant gains in performance in coverage, capacity and data throughput. An entire network of AIM hardware can be managed via the web-based management software that supports the hardware. We believe our patented AIM technology is the only in-band dynamically controlled interference management solution commercially available to the marketplace today.

Our products, including projected expansions and improvements of product lines, are focused on CDMA and other wide-band spread spectrum systems (W-CDMA), including, for example, upgrades of GSM systems to UMTS and similar 3G technology. During 2006 we launched our first ANF solution that protects PCS (1900 MHz). We expanded this and other ANF platforms with a digital front end and modular design for easy adaptation to customer requirements. This new platform has significantly expanded our addressable market and will also serve as an enabler to a larger suite of dynamically adaptable RF multiplexer solutions.

We have also developed a network-wide, web-based network management tool (web monitor), allowing our customers to perform management functions for all AIM units throughout the system. This tool with a graphical user interface allows the service provider to control, configure, and monitor the AIM units remotely from the network management center. This includes:

- Remote configuration of parameters within all AIM units;
- Remote monitoring of alarm status for all AIM units;
- Observation of interference and notch activity from all AIM units; and
- The ability to view on-line event data and reports based on measured performance data.

We have industry leading expertise in the optimization of networks. To facilitate rapid penetration of AIM, we offer professional services to the service providers’ engineering teams to identify and quantify interference, and, its effects on network performance. We have developed several custom software and hardware tools to perform interference analysis and interference audit. iSMART (Interference from System Metric Analysis Rules Tool) is a software tool that enables a service provider to identify potential AIM candidate sectors/cell sites by analyzing the system performance metrics data generated in their network. Automated Test Equipment, ANF-on-wheels and AIM Web Monitor is a software/hardware system that allows us to perform interference audits at cell sites of service providers regardless of the frequency band of operation. This service helps quantify interference and identify new markets (frequency bands) with high interference.

We recently added a digital front-end to our AIM products, and then extended into a fully digital version for 2008. We believe a fully digital AIM solution would integrate well into operator plans and provide the economics to allow far greater penetration into customer networks, as well as access to wireless applications outside of traditional cellular (e.g., WiFi and WiMax architectures), as well as mobile devices such as handsets.

AIM competition

We believe our patented AIM technology is the only in-band dynamically controlled interference management solution commercially available to the marketplace today. We hold proprietary technology on AIM, particularly the underlying ANF platform. We do, however, face competition as described below.

Direct Competition — After-Market Vendors

Fixed-frequency notch filters are the main form of direct competition. However, these will only work in a static interference environment, and hence do not satisfy the need for dynamic interference detection and elimination as observed in a vast majority of in-band interference scenarios. Smart antennas were also developed with the intent of in-band interference mitigation. However, we believe these solutions have limited applicability and effectiveness in eliminating in-band interference, particularly in a CDMA-based network, and are typically substantially more expensive (in addition to being less effective) than our AIM solution. We have also seen startup companies attempt to provide somewhat similar types of solutions in the wireless space. Typically these entities have little or no revenue and often are focused on beginning in the OEM channel, a path to market we believe is difficult prior to making the case for the solution with the end customer operator.

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Direct Competition — OEMs

Digital-signal-processing based solutions may be under development by the various OEMs. Even if the manufacturers do develop such a solution for in-band interference, we believe that they would have limited dynamic range and hence would only be able to mitigate low-power interference. Most importantly they would likely not be available for deployment on the hundreds of thousands of legacy cell sites currently in service.

Indirect Competition — OEMs

Indirect competition does not directly address the problem of in-band interference, but could be viewed as a method for circumventing the problem. Examples include adding a carrier (channel) to a cell site (to increase capacity), cell splitting, or even adding an entirely new base station. These methods seek to overcome the effects of the interference by a brute force of added capacity and higher signal-to-noise in a problematic location. However, we believe these solutions to be relatively costly and do not guarantee adequate increased performance due to absolute limiting effects of in-band interference in certain situations.

Indirect Competition — After-Market Vendors

Other forms of indirect competition include repeaters and TMA's. As with the OEM-based solutions, we do not believe these directly address the problem of in-band interference. There are several entities attempting to develop and market digital solutions that address part of the problem that our AIM solutions address, but we believe they operate in a very different fashion and will not achieve the same benefits. Additionally, they are typically entities without significant current revenue streams or operator access. We have the benefit of an existing customer base and the ability to work with our customers in tightly matching next generation solutions with their needs.

Product Benefits

Our products are designed to address the high performance RF needs of domestic and international commercial wireless telecommunication systems by providing the following advantages:

Enable Deployment of Data Networks. Beginning in 2005, our solutions have been utilized with data network deployments. These deployments require upgrades and changes to existing infrastructure. Our products have proven effective in helping customers in this area. It is generally expected that data networks will continue to be widely deployed both in the United States and internationally.

Technology Integration due to Expansion or Consolidation. The wireless telecommunications industry is undergoing significant transformation due to industry consolidation. The primary competitive driver is to reduce the cost bases, both capital and reoccurring costs, mostly achieved by reducing the number of cells required to support the combined customer base. This creates demanding requirements to integrate disparate technologies, frequency spectrums, and legacy platforms while at the same time enabling the integrations of advanced technologies and services. Our products enable this integration while simultaneously optimizing the RF performance of the overall system.

Greater Network Capacity and Utilization. Our solutions can increase capacity and utilization by up to 70% or more. In some cases, capacity increases because channels which were previously unusable due to interference are recovered. In other cases, system utilization increases because of lower levels of blocked or dropped calls, and increases in the ability of the system to permit weak signals to be processed with acceptable call quality.

Improved Base Station Range. Our RF systems have been shown to extend the radio link range of a wireless system by up to 50%. Greater range can reduce a service operator's capital expenditure per customer in lower density areas by

filling in coverage gaps in existing systems or by reducing the number of required cell sites for new system deployments.

Improved Flexibility in Locating Base Stations. Our RF products can allow wireless telecommunications service providers to co-locate base stations near other RF transmitters. Our products allow the cell site radio to better tolerate RF interference while reducing out-of band signals that could interfere with other nearby wireless telecommunication operators.

Improved Call Quality - Fewer Dropped Calls and Failed Connection Attempts. Our products improve call quality by reducing dropped and blocked calls. During commercial installations, our RF products have demonstrated drastic reduction in dropped calls, by as much as 50% or more. Our products similarly reduce the number of ineffective connection attempts and dead zones within networks.

Reduced Mobile Transmit Power. By improving the radio link, reducing the system's noise floor and mitigating the destructive impact of interference, our solutions greatly reduce required mobile transmit power. This improves battery life, among other benefits.

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CLARITY BUSINESS

History

Clarity was founded in 1998 by its former President and Chief Executive Officer, James Fuentes. Mr. Fuentes acquired licenses to technology assets from Lucent Technologies (now Alcatel-Lucent Technologies) and built a company on providing highly effective, low cost handset applications for mobile devices in the wireless telecommunications sector. Building on success in creating over the air functionality applications for mobile devices, Clarity leveraged its proprietary product and development methodologies into new applications, including Push-To-Talk (PTT) and Location-Based Services (LBS). Today Clarity offers a unique product that combines both technologies into a single application – Where2Talk. Clarity’s facilities are located at 2640 White Oak Circle, Aurora, IL 60502. The website is <http://www.claritycsi.com> .. The information contained therein is not incorporated into this report.

Business Strategy and Technology Summary

Our strategic goal is to become a leader in creating mobile device applications for the wireless telecommunications industry. We have platform assets in the very young fields of PTT and LBS, but the core competency lies in the methodology for developing and delivering applications in this environment. The Clarity Application Server Suite (CLASS) is a product foundation of both hardware and middleware for developing high availability applications that meet the exacting standards of the telecommunications industry. CLASS offers a reusable platform for many of the elements of a completed product. In addition, the Rapid Application Deployment in Client Languages (RADiCL) is a foundation for mobile device applications themselves. This open architecture supports third party plug-in applications as needed in the development process, and isolates device hardware from the execution environment, thus enabling more rapid application development and easier porting between devices.

We expect to leverage these design assets to quickly allow for new application development, and thus able to quickly adapt to changing technologies, environments, and customer requirements. We believe that it can deliver highly valuable solutions to both OEMs and operators.

As our Clarity business primarily sells software (excluding very limited hardware support in the form of preconfigured network servers as needed), we have little current need for extensive manufacturing capabilities. Instead, our Clarity products are preloaded on handsets or provided via download. As such, the Clarity business does not typically carry any meaningful amount of inventory, nor has the business been forced to invest in significant manufacturing assets.

Industry Demands and Clarity Solutions

The demand for faster, more robust applications within mobile devices has been growing substantially, and is expected to continue for the foreseeable future. Mobile devices offer tremendous convenience in delivering value added applications. The number of mobile devices shipped annually has been quoted by industry experts to exceed one billion units per year, and the growth of various technologies for delivering services to such devices (traditional wireless such as cellular and including next generation data application architectures such as WCDMA, WiFi, WiMax, and others) has created a very large and dynamic industry.

With the proliferation of data applications, consumers grow increasingly reliant on their mobile devices for a variety of tasks. From child protection to fleet tracking, LBS services can improve our lives, safety and efficiency. We therefore offer the Whereabouts application, which allows real time tracking of devices that are set up on the system. Until now, customers have been forced to choose between carrying around an additional GPS (global

positioning system) device and paying an additional cost or accepting limited features being offered through less robust offerings. Today we offer the capability of using the GPS device imbedded in the mobile device with the connection and reporting tools already imbedded in that device as an optional service. We believe this convenience will provide substantial value to customers.

Despite Nextel's previous success (Nextel is now part of Sprint) with respect to PTT features, the market has been slow to provide substantial PTT features through mobile devices in any scale. We believe that a limitation of deploying PTT more broadly is less an issue of competition among rival companies offering PTT applications than an issue of operator acceptance and end user demand, particularly a concern about potential costs to overall operator networks. In response to our perception that end user demand is unsatisfied, we offer the InTouch solution. The InTouch platform interfaces with the existing packet data network, without requiring a costly overhaul, and thus allows PTT to be added at little cost and with limited maintenance requirements.

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We realized that the combination of these technologies might be precisely what the market wanted, creating the Where2Talk platform. Combining PTT and LBS technologies, Where2Talk allows for a geographically-based call to be conducted from the handset. This feature allows a person at a console to locate emergency workers in the vicinity of an event using advanced mapping technologies, which then can be quickly connected and organized. The initial deployment of this solution is expected to occur during the second quarter 2008 with the Department of Homeland Security ("DHS"), and we believe this feature has significant application throughout the field of public safety as well as in commercial applications.

Competitive Landscape and Barriers

Push-to-Talk (PTT)

Nextel (now Sprint) proved value in providing PTT to consumers, and the basic technology is broadly available. However, relatively few PTT applications are currently offered to consumers. We view the primary limitation in providing PTT to consumers is from the network operators themselves who would have to support such a system. We offer a solution to this problem by providing a fully hosted service, in which we maintain the network servers required for the applications to function and connect to the mobile devices using VOIP (voice over internet protocol). Larger operators may choose not to allow applications outside of their immediate control and thus may not enable PTT features via this hosted approach.

Location-Based Services (LBS)

The primary suppliers of LBS services are specific devices that are used within the vehicle to provide real time LBS applications (such as maps, directions, and fleet tracking). There have recently been increases in limited mobile device applications offering some form of LBS-based features, but the industry remains relatively young. The primary barrier to providing LBS applications on a mobile device is to prove a need for the application and then prove that the application will not otherwise interfere with the network or device. This can be a time-consuming process, particularly for a small company.

Combined Solution

We do not believe there are significant combinations of the LBS and PTT technologies in the market today. DHS indicated that it selected Clarity for its 2008 trial because DHS could not find another solution in the marketplace that offered this combination of technologies in a single platform. Proving a new technology to the wireless telecommunications industry can be a very long process that may never succeed, particularly for a small company. We believe that we need to parlay success from early adopters and look for opportunities to partner with other entities to maximize the opportunity for this type of platform to be adopted.

COMPANY HIGHLIGHTS

Sales and Marketing

We (ISCO) have historically focused our sales and marketing effort on U.S. wireless service providers for retrofit applications. To date, we have sold our products to many of the largest cellular operators in the United States as well as to mid-size and smaller U.S. wireless operators. Going forward, we expect to continue to serve this customer base but look to aggressively expand our customer base internationally.

We look to expand with international customers, marketing both our existing products and presenting the benefits of our interference-management technology in the design and early stage deployments of new systems. Targeted regions

have included India, China and other parts of the Far East as well as several countries within Latin America and Europe. We have engaged professional representatives in these areas to facilitate entry into the markets and follow-on services. Such representatives typically help by providing customer contacts and relationships, in marketing, field support, and distribution. Recently we have joined with a large telecom equipment supplier in India by bidding in a joint project in that country.

Sales to three customers accounted for 99% and 98% of our total revenues for 2007 and 2006, respectively. During both 2007 and 2006 the top three customers were Verizon Wireless, Alltel Corporation, and Bluegrass Cellular Corporation, respectively. In addition, a significant amount of our technical and managerial resources have been focused on working with these and a limited number of other operators and OEMs.

With respect to Clarity, it has traditionally focused its efforts on the needs of the OEM channel, but during 2007 has expanded into broadening its customer base. Examples of this expansion include providing hosted PTT solutions to several small operators, as well as the enterprise and public safety markets served by W2T and network access benefits. Clarity similarly has significant customer concentration, with nearly 100% of 2006 revenues coming from Alcatel-Lucent Technologies, Autodesk, and Lockheed Martin. Alcatel-Lucent Technologies, Autodesk, and the City of Chicago were the top three customers for 2007, contributing approximately 93% of revenue for the year.

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Manufacturing

We outsource our manufacturing processes in order to provide predictable product yields and easy expansion to meet increased customer demand. Toward that end, we currently produce all of our products through third party manufacturers. We believe there are multiple sources available for manufacturing and foresee no problem continuing to apply our outsourcing strategy. Our internal manufacturing and test capability can be found in Elk Grove Village, IL.

Research and Development

Our R&D efforts have been focused on developing and improving RF products for wireless telecommunications systems. As a result of such efforts, product performance has been improved, product size has been reduced, production costs have been lowered, product functionality has been increased, and product packaging has been streamlined. We are currently developing related products that are synergistic with our core offerings and which utilize our core technical competencies in the radio link management arena, allowing us to deliver our solutions to more customers.

Our total R&D expenses during 2007 and 2006 were approximately \$2,802,000 and \$2,012,000, respectively. These expenses do not include any Clarity R&D expenses.

Intellectual Property and Patents

We regard certain elements of our product design, fabrication technology and manufacturing process as proprietary and protect our rights in them through a combination of patents, trade secrets and non-disclosure agreements. We also have obtained exclusive and non-exclusive licenses for technology developed with or by our research partners, which have included Argonne National Laboratory, Northwestern University and Alcatel-Lucent Technologies. We believe that our success will depend in part upon the protection of our proprietary information, our patents and licenses of key technologies from third parties, and our ability to operate without infringing on the proprietary rights of others.

HTS Technology

We spent many years developing HTS applications, resulting in a number of products, processes and materials related to HTS. This experience has helped us offer our current set of state of the art solid-state solutions, such that the underlying technology is being utilized in the marketplace today and may be even more fully utilized in the future.

There are two ways of designing an HTS component - "thin-film" and "thick-film" techniques. We have technologies in both aspects that may have application to specific, but currently limited markets. We are prepared to address those segments should the opportunity present itself, but currently have chosen to focus on higher value-added, solid state solutions appropriate for the wireless telecommunications application.

Patents

We have applied for patents for inventions developed internally and acquired patents, through assignment of a license from the Canadian government, in connection with the purchase of the Adaptive Notch Filtering business unit of Lockheed Martin Canada. One of our patents is jointly owned with Alcatel-Lucent Technologies. Furthermore, we expect to pursue foreign patent rights on certain inventions and technologies critical to our products, and expand our portfolio of patents and other intellectual property related to the Clarity acquisition. Please refer to Note 2 of our Financial Statements for a discussion of patent useful lives and amortization.

Government Regulations

Although we believe that our wireless telecommunications products themselves are not licensed or governed by approval requirements of the Federal Communications Commission (“FCC”), the operation of base stations is subject to FCC licensing and the radio equipment into which our products would be incorporated is subject to FCC approval. Base stations and the equipment marketed for use therein must meet specified technical standards. Our ability to sell our RF products is dependent on the ability of wireless base station equipment manufacturers and of wireless base station operators to obtain and retain the necessary FCC approvals and licenses. In order to be acceptable to base station equipment manufacturers and to base station operators, the characteristics, quality, and reliability of our base station products must enable them to meet FCC technical standards.

We may use certain hazardous materials in our research, development and any manufacturing operations. As a result, we may be subject to stringent federal, state and local regulations governing the storage, use and disposal of such materials. It is possible that current or future laws and regulations could require us to make substantial expenditures for preventive or remedial action, reduction of chemical exposure, or waste treatment or disposal. We believe we are in material compliance with all environmental regulations and to date we have not had to incur significant expenditures for preventive or remedial action with respect to the use of hazardous materials, nor do we have reason to believe that we should expect to incur such costs in the future.

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Employees

As of January 1, 2008, we had a total of 35 employees, 9 of whom hold advanced degrees. Of the employees, 5 are engaged in manufacturing and production, 15 are engaged in research, development and engineering, 9 are engaged in marketing and sales, and 6 are engaged in finance and administration. We also periodically employ other consultants and independent contractors on an as-needed basis. None of our employees are covered by a collective bargaining agreement. We believe that our relationship with our employees is good.

Following the acquisition of Clarity, we had a total of 73 total employees. Of these, approximately 5 are engaged in manufacturing and production, 46 in research, development and engineering, 13 in marketing and sales, and 9 in finance and administration. Similarly, none of this larger employee set is covered by a collective bargaining agreement and we believe our relationship is good.

Item 1A. Risk Factors

The following factors, in addition to other information contained herein, should be considered carefully in evaluating us and our business.

RISKS RELATED TO THE OPERATIONS AND FINANCING OF THE COMPANY

We have a history of losses that raises doubts about our ability to continue as a going concern

We were founded in October 1989 and through 1996 we were engaged principally in research and development, product testing, manufacturing, marketing and sales activities. Since 1996, we have been actively selling products to the marketplace and we continue to develop new products for sale. We have incurred net losses since inception. As of December 31, 2007, our accumulated deficit was approximately \$171 million. We have only recently begun to generate revenues from the sale of our AIM (ANF) and RF² products, having sold more in the past two years than in the fourteen years of company history prior to 2005. Although we showed a substantial improvement in revenues during the past three years as compared with all prior years of the Company's history, and we have indicated the expectation of continued improvement prospectively, it is nonetheless possible that we may continue to experience net losses, such as the loss incurred during 2007, and cannot be certain if or when we will become profitable. Additionally, we acquired Clarity Communication Systems Inc. (Clarity) during January 2008. While we believe this acquisition will bring additional revenues and substantial synergies, this combination also adds costs to the organization. As a standalone entity, Clarity posted consistent profits until 2007, when it began to change its sales model, and suffered a substantial loss (approximately \$3 million).

These conditions raise substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements have been prepared assuming we will continue as a going concern and do not include any adjustments relating to the recoverability of reported assets or liabilities should we be unable to continue as a going concern.

If we fail to obtain necessary funds for our operations, we may be unable to maintain or improve on our technology position and unable to develop and commercialize our products

To date, we have financed our operations primarily through public and private equity and debt financings, and most recently through several financings with affiliates of our two largest shareholders. Our roughly \$16 million in debt is held by our two largest shareholders, including affiliates, and is due in 2009 and 2010. The ability to either repay or refinance our debt, and to maintain adequate working capital, is necessary for us to continue as a going concern. Additionally, we project increases in working capital requirements in order to pursue significant business

opportunities during 2008 and beyond, and also expect to spend additional financial resources in the expansion of our business and product offering. As such, we will require additional capital during 2008. We intend to look into augmenting our existing capital position by continuing to evaluate potential short-term and long-term sources of capital whether from debt, equity, hybrid, or other methods. The primary covenant in our existing debt arrangement involves the right of the lenders to receive debt repayment from the proceeds of new financing activities. This covenant may restrict our ability to obtain new sources of financing and/or to apply the proceeds of a financing event toward operations until the debt is repaid in full. In addition, in connection with the acquisition of Clarity and related closing costs, we borrowed an additional \$1.5 million from one of these lenders during January 2008.

Our continued existence is therefore dependent upon our continued ability to raise funds through the issuance of our equity securities or borrowings. Our plans in this regard are to obtain other debt and equity financing until such time as profitable operation and positive cash flow are achieved and maintained. Although we believe, based on the fact that we have raised funds through sales of common stock and from borrowings over the past several years, that we will be able to secure suitable additional financing for our operations, there can be no guarantee that such financing will continue to be available on reasonable terms, or at all. The actual amount of future funding requirements will depend on many factors, including: the amount and timing of future revenues, the level of product marketing and sales efforts to support our commercialization plans, our expansion of our international operations, the magnitude of research and product development programs, the ability to improve or maintain product margins, the successful integration into our business as well as any other merger and acquisition activity, and the costs involved in protecting patents or other intellectual property.

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Risks involved in acquisitions, including the risk that we may not successfully integrate the Clarity business or realize the anticipated benefits from the merger, which could adversely affect our business, financial condition and results of operations

In the future, we may pursue acquisitions to obtain products, services and technologies that we believe would complement or enhance our current product or services offerings, such as the recent acquisition of Clarity. There is no assurance that we will be able to successfully integrate the Clarity business, or any future acquired business, into our own. At the present time, no other definitive agreements or similar arrangements exist with respect to any other acquisition. An acquisition, such as the merger with Clarity, may not produce the revenue, earnings or business synergies as anticipated and may attach significant unforeseen liabilities, and an acquired product, service or technology might not perform as expected. Our management could spend a significant amount of time and effort in identifying and completing the acquisition and may be distracted from the operations of the business. In addition, management would probably have to devote a significant amount of resources toward integrating the acquired business with the existing business, and that integration may not be successful. The process is resource intensive, both in time and financial resources, and thus incorporates a cost to the company.

Failure to attract and retain key personnel could have a material adverse effect on our business

Our success depends on our ability to attract and retain the appropriate personnel needed to operate our business. During March 2008, we announced the appointment of Gordon Reichard, Jr. as our new Chief Executive Officer. Additionally, the value of the Clarity acquisition to our stockholders rests in large part on the continuity of the key personnel from the former Clarity organization remaining with us. While we believe we have devised appropriate incentives to retain former Clarity employees, there can be no guarantee that they will choose to remain with our Company. Due to the specialized nature of the Clarity business, it may be difficult to locate and hire qualified personnel. The loss of services of any of our key personnel, including Mr. Reichard, or the failure to attract and retain other key personnel, could have a material adverse effect on our business, operating results and financial condition.

Our Clarity business is dependent on the acceptance of push-to-talk and location-based services and related applications

Increased sales of our Clarity products are dependent on a number of factors, one of which is the acceptance and demand for location-based features coupled with push-to-talk services. Further, the spending patterns of wireless operators and OEMs is beyond management's control and depends on a variety of factors, including access to financing, the status of federal, local and foreign government regulation and deregulation, changing standards for wireless technology, the overall demand for wireless services, competitive pressures and general economic conditions. The expansion of wireless services and applications, and related networks to support them, may take years to complete. The magnitude and timing of capital spending by these operators for constructing, rebuilding or upgrading their systems significantly impacts the demand for Clarity products. Any decrease or delay in capital spending patterns in the wireless telecommunications industry, whether because of a general business slowdown or a reevaluation of the prospective demand for data and other services, would delay the build-out of these networks and may significantly harm our business prospects.

The indemnification obligations under the Merger Agreement are limited, which means we could have unreimbursed liabilities related to the acquisition

Our Company, our officers, directors, employees, stockholders and other related parties, will be entitled to indemnification in the event of losses resulting from, among other things, breaches of Clarity's representations and warranties, failure to perform covenants under the Merger Agreement and Clarity tax obligations solely and exclusively as provided in the Merger Agreement, other than for fraud. Our Company and other indemnified parties

will not be entitled to indemnification until the cumulative amount of all losses exceed \$150,000, after which such party will only be entitled to any amounts that exceed \$150,000. In addition, the length of time in which our Company and other indemnified parties have a right to bring an indemnification claim and the amount to which a party may be indemnified are subject to certain caps as set forth in the Merger Agreement. Further, indemnification may be satisfied by withholding Time-Based Shares of Common Stock issuable in connection with the merger, which would not provide us with any cash to either pay or offset the liability that was the subject of the indemnification claim. Unreimbursed liabilities related to our acquisition of Clarity could have a material adverse effect on our business, operating results and financial condition.

Failure to manage our growth may have a material adverse effect on our business

Growth may cause a significant strain on our management, operational, financial and other resources. The ability to manage growth effectively may require us to implement and improve our operational, financial, manufacturing and management information systems and expand, train, manage and motivate employees. These demands may require the addition of new management personnel and the development of additional expertise by management. Any increase in resources devoted to product development and marketing and sales efforts could have an adverse effect on financial performance in future fiscal quarters. If we were to receive substantial orders, we may have to expand current facilities, which could cause an additional strain on our management personnel and development resources. The failure of the management team to effectively manage growth could have a material adverse effect on our business, operating results and financial condition. In addition, the recent acquisition of Clarity will require substantial attention and resources in order to integrate Clarity's operations into our business and distract management from other areas of our business, and to develop revenue streams that support the costs of the combined organization.

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OTHER BUSINESS RISKS

We have limited experience in manufacturing, sales and marketing, and dependence on third party manufacturers

For us to be financially successful, we must develop a successful blend of direct sale and royalty revenues derived from ISCO's AIM technology as well as Clarity's solutions, and manufacture our other products in substantial quantities, at acceptable costs and on a timely basis. To accomplish this manufacturing objective, we must produce ourselves or enter into outsourcing arrangements with qualified manufacturers that will allow us the same result. Currently, our manufacturing requirements are met by third party contract manufacturers. The efficient operation of our business will depend, in part, on our ability to have these and other companies manufacture our products in a timely manner, cost-effectively and in sufficient volumes while maintaining the required quality. Any manufacturing disruption could impair our ability to fulfill orders and could cause us to lose customers.

In the event that we are unable to maintain manufacturing arrangements on acceptable terms with qualified manufacturers then we would have to produce our products in commercial quantities in our own facilities. Although to date we have produced limited quantities of our products for commercial installations and for use in development and customer field trial programs, production of large quantities of our products at competitive costs presents a number of technological and engineering challenges. We may be unable to manufacture such products in sufficient volume. We have limited experience in manufacturing, and substantial costs and expenses may be incurred in connection with attempts to manufacture larger quantities of our products. We may be unable to make the transition to large-scale commercial production successfully.

Our sales and marketing experience to date is very limited. We may be required to further develop our marketing and sales force in order to effectively demonstrate the advantages of our products over other products. We also may elect to enter into arrangements with third parties regarding the commercialization and marketing of our products, and indeed have entered into a limited number of such arrangements. If we enter into such agreements or relationships, we would be substantially dependent upon the efforts of others in deriving commercial benefits from our products. We may be unable to establish adequate sales and distribution capabilities, we may be unable to enter into marketing arrangements or relationships with third parties on financially acceptable terms, and any such third party may not be successful in marketing our products. There is no guarantee that our sales and marketing efforts will be successful.

Dependence on a limited number of customers may have a material adverse effect on our business

Sales to our top three customers accounted for at least 97% of our total revenues for 2007 and 2006. During both years, our top three customers were Verizon Wireless, Alltel Corporation, and Bluegrass Cellular Corporation. In addition, a significant amount of our technical and managerial resources have been focused on working with these and a limited number of other operators and OEMs. The loss of any of these large customers might have a material adverse effect on our business, operating results, and financial condition.

Similarly, Clarity also boasts a heavy customer concentration, with its top three customers accounting for nearly 100% of its revenues for 2006 (Alcatel-Lucent Technologies, Autodesk, and Lockheed Martin) and approximately 93% for 2007 (Alcatel-Lucent Technologies, Autodesk, and the City of Chicago). The loss of any large customer might have a material adverse effect on Clarity's business, operating results, and financial condition, which would impact us as a result of the merger.

We expect that if our products achieve market acceptance, a limited number of wireless service providers and OEMs will account for a substantial portion of revenue during any period. Sales of many of our products depend in significant part upon the decisions of prospective and current customers to adopt and expand their use of these products. Wireless service providers, wireless equipment OEMs and our other customers are significantly larger than

we are, and are able to exert a high degree of influence over us. Customers' orders are affected by a variety of factors such as new product introductions, regulatory approvals, end user demand for wireless services, customer budgeting cycles, inventory levels, customer integration requirements, competitive conditions and general economic conditions. The failure to attract new customers would have a material adverse effect on our business, operating results and financial condition.

We expect that if our Clarity products achieve market acceptance, a limited number of wireless service providers and OEMs will account for a substantial portion of revenue during any period. Sales of many Clarity products depend in significant part upon the decisions of prospective and current customers to adopt and expand their use of these products. Wireless service providers, wireless equipment OEMs and Clarity's other customers are significantly larger than we are, and are able to exert a high degree of influence over us in negotiating customer contracts. Customers' orders are affected by a variety of factors such as new product introductions, regulatory approvals, end user demand for wireless services, customer budgeting cycles, inventory levels, customer integration requirements, competitive conditions and general economic conditions. The loss of any such customer or the failure to attract new customers would have a material adverse effect on our business, operating results and financial condition.

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We have lengthy sales cycles which could make revenues and earnings inconsistent and difficult to trend

Prior to selling products to customers, we may be required to undergo lengthy approval and purchase processes. Technical and business evaluation by potential customers can take up to a year or more for products based on new technologies. The length of the approval process is affected by a number of factors, including, among others, the complexity of the product involved, priorities of the customers, budgets and regulatory issues affecting customers. We may not obtain the necessary approvals or ensuing sales of such products may not occur. The length of customers' approval process or delays could make our quarterly revenues and earnings inconsistent and difficult to trend.

International operations pose additional risks to our business

We are in discussions and have agreements in place with companies in non-U.S. markets to form manufacturing and product development joint ventures and other marketing, distribution or consulting arrangements. We also have agreements with foreign entities for international distribution as well as foreign sources of components to be used in North America. These agreements and relationships help us optimize our competitive position and cost structure. There are many such entities that exist, domestically and internationally, that offer similar capabilities, and thus could reduce risk exposure to the loss of such foreign entities. Recently, we have begun to prioritize opportunities in Europe, Asia and Latin America more aggressively, to complement our domestic business model, which will subject our business, operating results and financial condition to additional risks associated with international operations.

We believe that non-U.S. markets could provide a substantial source of revenue in the future, and indeed will emphasize non-US markets during 2008 more than in prior years. However, there are certain risks applicable to doing business in foreign markets that are not applicable to companies doing business solely in the U.S. For example, we may be subject to risks related to fluctuations in the exchange rate between the U.S. dollar and foreign currencies in countries in which we do business. Further, overseas activities are subject to political and other factors that may adversely affect our ability to do business in certain markets. In addition, we may be subject to the additional laws and regulations of these foreign jurisdictions, some of which might be substantially more restrictive than similar U.S. ones. Foreign jurisdictions may also provide less patent protection than is available in the U.S., and we may be less able to protect our intellectual property from misappropriation and infringement in these foreign markets.

We are dependant on limited sources of supply

Certain parts and components used in our RF products are only available from a limited number of sources. Our reliance on these limited source suppliers exposes us to certain risks and uncertainties, including the possibility of a shortage or discontinuation of certain key components and reduced control over delivery schedules, manufacturing capabilities, quality and costs. Any reduced availability of such parts or components when required could materially impair the ability to manufacture and deliver products on a timely basis and result in the cancellation of orders, which could have a material adverse effect on our business, operating results and financial condition.

In addition, the purchase of certain key components involves long lead times and, in the event of unanticipated increases in demand for our products, we may be unable to manufacture products in quantities sufficient to meet customers' demand in any particular period. We have few guaranteed supply arrangements with our limited source suppliers, do not maintain an extensive inventory of parts or components, and customarily purchase parts and components pursuant to actual or anticipated purchase orders placed from time to time in the ordinary course of business.

Related to this topic, we produce substantially all of our products through third-party contract manufacturers. Like raw materials, the elimination of any of these entities or delays in the fulfillment process, for whatever reason, may impact our ability to fulfill customer orders on a timely basis and may have a material adverse effect on our business, operating results, or financial condition.

To satisfy customer requirements, we may be required to stock certain long lead-time parts and/or finished product in anticipation of future orders, or otherwise commit funds toward future purchase. The failure of such orders to materialize as forecasted could limit resources available for other important purposes or accelerate the requirement for additional funds. In addition, such excess inventory could become obsolete, which would adversely affect financial performance. Business disruption, production shortfalls or financial difficulties of a limited source supplier could materially and adversely affect us by increasing product costs or reducing or eliminating the availability of such parts or components. In such events, the inability to develop alternative sources of supply quickly and on a cost-effective basis could materially impair the ability to manufacture and deliver products on a timely basis and could have a material adverse effect on our business, operating results and financial condition.

Failure of products to perform properly might result in significant warranty expenses

In general, our products carry a warranty of one or two years, limited to replacement of the product or refund of the cost of the product. In addition, we offer our customers extended warranties. Repeated or widespread quality problems could result in significant warranty expenses and/or the loss of customer confidence. The occurrence of such quality problems could have a material adverse effect on our business, operating results and financial condition.

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TECHNOLOGY AND MARKET RISKS

We are dependent on wireless telecommunications

The principal target market for our products is wireless telecommunications. The devotion of substantial resources to the wireless telecommunications market creates vulnerability to adverse changes in this market. Adverse developments in the wireless telecommunications market, which could come from a variety of sources, including future competition, new technologies or regulatory decisions, could affect the competitive position of wireless systems. Any adverse developments in the wireless telecommunications market may have a material adverse effect on our business, operating results and financial condition.

We are dependent on the enhancement of existing networks and the build-out of next-generation networks, and the capital spending patterns of wireless network operators

Increased sales of products are dependent on a number of factors, one of which is the build-out of next generation (3G and 4G) enabled wireless communications networks as well as enhancements of existing infrastructure. Building wireless networks is capital intensive, as is the process of upgrading existing equipment. Further, the capital spending patterns of wireless network operators is beyond management's control and depends on a variety of factors, including access to financing, the status of federal, local and foreign government regulation and deregulation, changing standards for wireless technology, the overall demand for wireless services, competitive pressures and general economic conditions. The build-out of next-generation networks may take years to complete. The magnitude and timing of capital spending by these operators for constructing, rebuilding or upgrading their systems significantly impacts the demand for our products. Any decrease or delay in capital spending patterns in the wireless communication industry, whether because of a general business slowdown or a reevaluation of the prospective demand for data and other services, would delay the build-out of these networks and may significantly harm business prospects.

Our success depends on the market's acceptance of our products

Our RF products have not been sold in very large quantities and a sufficient market may not develop for these products. Similarly, Clarity has derived the majority of its historical revenue from custom product development (contract engineering) and not from product sales to customers. Customers establish demanding specifications for performance, and although we believe we have met or exceeded these specifications to date, there is no guarantee that the wireless service providers will elect to use these solutions to solve their wireless network problems. Although we have enjoyed substantial revenue growth during recent years relative to prior years in company history, there is no assurance that we will continue to receive orders from these customers.

Intense competition, and continued consolidation in the wireless telecommunications industry could create stronger competitors and harm our business

The wireless telecommunications applications market is very competitive. Many of these companies have substantially greater financial resources, larger research and development staffs and greater manufacturing and marketing capabilities than we do. Our products compete directly with products which embody existing and future competing commercial technologies. Other emerging wireless technologies may also provide similar functionality, potentially at lower prices and/or superior performance, and may therefore compete with our products. Failure of our products to improve performance sufficiently, reliably, or at an acceptable price or to achieve commercial acceptance or otherwise compete with existing and new technologies, would have a material adverse effect on our business, operating results and financial condition.

Rapid technological change and future competitive technologies could negatively affect our operations

The field of telecommunications is characterized by rapidly advancing technology. Our success will depend in large part upon our ability to keep pace with advancing our high performance RF technology and efficient, readily available low cost materials technologies as well as our ability to keep pace with advancing our solutions in light of applications and services offered by competitors. Rapid changes have occurred, and are likely to continue to occur, in the development of wireless telecommunications. Development efforts may be rendered obsolete by the adoption of alternative solutions to current wireless operator problems or by technological advances made by others, which could have a material adverse effect on our business, operating results and financial condition.

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RISKS RELATED TO OUR COMMON STOCK AND CHARTER PROVISIONS

Volatility of common stock price

The market price of our common stock, like that of many other high-technology companies, has fluctuated significantly and is likely to continue to fluctuate in the future. Since January 1, 2007 and through March 15, 2008, the price of our common stock has ranged from a low of \$0.13 per share to a high of \$0.35 per share. Announcements by us or others regarding the receipt of customer orders, quarterly variations in operating results, acquisitions or divestitures, additional equity or debt financings, results of customer field trials, scientific discoveries, technological innovations, litigation, product developments, patent or proprietary rights, government regulation and general market conditions may have a significant impact on the market price of our common stock. In addition, fluctuations in the price of our common stock could affect our ability to maintain the listing of our common stock on AMEX.

The issuance of additional shares of common stock will result in dilution to our existing stockholders

If we issue the full number of shares of common stock pursuant to the merger with Clarity and in connection with our June 2007 debt restructuring, we will be issuing up to approximately 79.9 million additional shares of Common Stock, or approximately 36% of the total number of shares currently outstanding as of March 15, 2008. If stockholders approve the issuance of common stock upon conversion of the \$1.5 million in notes issued pursuant to the financing obtained in connection with the merger with Clarity, and if we issue the full number of shares issuable pursuant to this transaction, we will be issuing up to approximately 8.4 million additional shares of common stock, or approximately 4% of the total number of shares currently outstanding as of March 15, 2008. As a result, these issuances will be dilutive to existing stockholders and may have an adverse effect on the market value of our common stock.

Further, as of March 15, 2008, we had outstanding options to purchase 4.9 million shares of common stock at a weighted average exercise price of \$0.41 per share (fewer than 0.1 million of which have not yet vested) issued to employees, directors and consultants pursuant to the 2003 Equity Incentive Plan and its predecessor 1993 Stock Option Plan, as amended, the merger agreement with Spectral Solutions, and individual agreements with management and directors. In addition, on the same date we had 3.6 million unvested shares of restricted stock outstanding. In order to attract and retain key personnel, we may issue additional securities, including grants of restricted shares, in connection with or outside our company employee benefit plans, or may lower the price of existing stock options. The exercise of options and notes for common stock and the issuance of additional shares of common stock, shares of restricted stock and/or rights to purchase common stock at prices below market value would be dilutive to existing stockholders and may have an adverse effect on the market value of our common stock.

As a result of the issuances described above, the sale of a substantial number of shares of our common stock, or the perception that such sales could occur, could adversely affect the market price for our common stock. It could also impair our ability to raise money through the sale of additional shares of common stock or securities convertible into shares of our common stock.

Concentration of our stock ownership

At the time of this filing, officers, directors and principal stockholders (holding greater than 5% of outstanding shares) together control more than 50% of the outstanding voting power on a fully diluted basis. The two largest stockholders, along with their affiliates, are also our lenders, holding all of our outstanding debt instruments. Consequently, these stockholders, if they act together, would be able to exert significant influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. In addition, this concentration of ownership may delay or prevent a change of control of us, even if such a change may be in the best interests of our stockholders. The interests of these stockholders may not always coincide with our interests or the interests of other stockholders. Accordingly, these stockholders could cause us to enter into

transactions or agreements that we would not otherwise consider.

Certain provisions in our charter documents have an anti-takeover effect

There exist certain mechanisms that may delay, defer or prevent such a change of control. For instance, our Certificate of Incorporation and By-Laws provide that (i) our Board of Directors has authority to issue series of our preferred stock with such voting rights and other powers as the Board of Directors may determine and (ii) prior specified notice must be given by a stockholder making nominations to the Board of Directors or raising business matters at stockholders meetings. The effect of the anti-takeover provisions in our charter documents may be to deter business combination transactions not approved by our Board of Directors, including acquisitions that may offer a premium over market price to some or all stockholders.

The reporting requirements of a public company could result in significant cost to us and divert attention from other activities

As a public company, we are required to comply with various reporting obligations. These obligations change from time to time, and currently include compliance with certain provisions of Section 404 of the Sarbanes-Oxley Act for our fiscal year ended December 31, 2007. The process of achieving compliance might involve the commitment of significant resources, including substantial levels of management attention.

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If we fail to comply with the reporting obligations of the Exchange Act and Section 404 of the Sarbanes-Oxley Act, or if we fail to achieve and maintain adequate internal controls over financial reporting, our business, results of operations and financial condition, and investors' confidence in us, could be materially adversely affected. As a public company, we are required to comply with the periodic reporting obligations of the Exchange Act, including preparing annual reports, quarterly reports and current reports. Our failure to prepare and disclose this information in a timely manner could subject us to penalties under federal securities laws, expose us to lawsuits and restrict our ability to access financing. In addition, we are required under applicable law and regulations to integrate our systems of internal controls over financial reporting. We plan to evaluate our existing internal controls with respect to the standards adopted by the Public Company Accounting Oversight Board. During the course of our evaluation, we may identify areas requiring improvement and may be required to design enhanced processes and controls to address issues identified through this review. This could result in significant delays and cost to us and require us to divert substantial resources, including management time, from other activities.

LEGAL RISKS

Intellectual property and patent protection and infringement may be costly

Our success will depend in part on our ability to obtain patent protection for our products and processes, to preserve trade secrets and to operate without infringing upon the patent or other proprietary rights of others and without breaching or otherwise losing rights in the technology licenses upon which any of our products are based. We have applied for patents for inventions developed internally and acquired patent rights in connection with the purchase of the Adaptive Notch Filtering business unit of Lockheed Martin Canada, now demonstrated in our AIM platform. One of the patents is jointly owned with Lucent Technologies, Inc. (now Alcatel-Lucent Technologies). We believe there are a large number of patents and patent applications covering RF products and other products and technologies that we are pursuing. Accordingly, the patent positions of companies using RF technologies, including us, are uncertain and involve complex legal and factual questions. The patent applications filed by us or others may not result in issued patents or the scope and breadth of any claims allowed in any patents issued to us or others may not exclude competitors or provide competitive advantages. In addition, patents issued to us, our subsidiaries or others may not be held valid if subsequently challenged or others may claim rights in the patents and other proprietary technologies owned or licensed by us. Others may have developed, or may in the future develop, similar products or technologies without violating any of our proprietary rights. Furthermore, the loss of any license to technology that we might acquire in the future may have a material adverse effect on our business, operating results and financial condition.

Some of the patents and patent applications owned by us are subject to non-exclusive, royalty-free licenses held by various U.S. governmental units. These licenses permit these U.S. government units to select vendors other than us to produce products for the U.S. Government, which would otherwise infringe our patent rights that are subject to the royalty-free licenses. In addition, the U.S. Government has the right to require us to grant licenses (including exclusive licenses) under such patents and patent applications or other inventions to third parties in certain instances.

Older patent applications in the U.S. are currently maintained in secrecy until patents are issued, though the likelihood of such an issuance impacting us tends to decrease over time. In foreign countries and for newer U.S. patent applications, this secrecy is maintained for a period of time after filing. Accordingly, publication of discoveries in the scientific literature or of patents themselves or laying open of patent applications in foreign countries or for newer U.S. patent applications tends to lag behind actual discoveries and filing of related patent applications. Due to this factor and the large number of patents and patent applications related to RF materials and technologies, and other products and technologies that we are pursuing, comprehensive patent searches and analyses associated with RF technologies and other products and technologies that we are pursuing are often impractical or not cost-effective. As a result, patent and literature searches cannot fully evaluate the patentability of the claims in our patent applications or whether materials or processes used by us for our planned products infringe or will infringe upon existing

technologies described in U.S. patents or may infringe upon claims in patent applications made available in the future. Because of the volume of patents issued and patent applications filed relating to RF technologies and other products and technologies that we are pursuing, we believe there is a significant risk that current and potential competitors and other third-parties have filed or will file patent applications for, or have obtained or will obtain, patents or other proprietary rights relating to materials, products or processes used or proposed to be used by us. In any such case, to avoid infringement, we would have to either license such technologies or design around any such patents. We may be unable to obtain licenses to such technologies or, if obtainable, such licenses may not be available on terms acceptable to us or we may be unable to successfully design around these third-party patents.

Our participation in litigation or patent office proceedings in the U.S. or other countries to enforce patents issued or licensed to us, to defend against infringement claims made by others or to determine the ownership, scope or validity of the proprietary rights of us and others, could result in substantial cost to, and diversion of effort by, us. The parties to such litigation may be larger, better capitalized than we are and better able to support the cost of litigation. An adverse outcome in any such proceedings could subject us to significant liabilities to third parties, require us to seek licenses from third parties and/or require us to cease using certain technologies, any of which could have a material adverse effect on our business, operating results and financial condition.

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Litigation may be costly and divert management's attention

We have no active lawsuits or any pending or threatened to the best of our knowledge. The act of defending against any potential claim may be costly and divert management attention. If we are not successful in defending against whatever claims and charges may be made against us in the future, there may be a material adverse effect on our business, operating results and financial condition.

Government regulations may have a material adverse effect on our business

Although we believe that our wireless telecommunications products themselves are not subject to licensing by, or approval requirements of, the FCC, the operation of base stations, wireless operators, and OEMs are subject to FCC licensing and the radio equipment into which our products would be incorporated is subject to FCC approval. Base stations and the equipment marketed for use therein must meet specified technical standards. The ability to sell our wireless telecommunications products is dependent on the ability of wireless base station equipment manufacturers and wireless base station operators to obtain and retain the necessary FCC approvals and licenses. In order for them to be acceptable to base station equipment manufacturers and to base station operators, the characteristics, quality and reliability of our base station products must enable them to meet FCC technical standards. We may be subject to similar regulations of foreign governments. Any failure to meet such standards or delays by base station equipment manufacturers and wireless base station operators in obtaining the necessary approvals or licenses could have a material adverse effect on our business, operating results and financial condition. In addition, certain RF filters are on the U.S. Department of Commerce's export regulation list. Therefore, exportation of such RF filters to certain countries may be restricted or subject to export licenses.

We are subject to governmental labor, safety and discrimination laws and regulations with substantial penalties for violations. In addition, employees and others may bring suit against us for perceived violations of such laws and regulations. Defending against such complaints could result in significant legal costs for us. Although we endeavor to comply with all applicable laws and regulations, we may be the subject of complaints in the future, which could have a material adverse effect on our business, operating results and financial condition.

Environmental liability may involve substantial expenditures

Certain hazardous materials may be used in research, development and to the extent of any manufacturing operations. As a result, we are subject to stringent federal, state and local regulations governing the storage, use and disposal of such materials. It is possible that current or future laws and regulations could require us to make substantial expenditures for preventive or remedial action, reduction of chemical exposure, or waste treatment or disposal. We believe we are in material compliance with all environmental regulations and to date have not had to incur significant expenditures for preventive or remedial action with respect to the use of hazardous materials.

However, our operations, business or assets could be materially and adversely affected by the interpretation and enforcement of current or future environmental laws and regulations. In addition, although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal regulations, there is the risk of accidental contamination or injury from these materials. In the event of an accident, we could be held liable for any damages that result. Furthermore, the use and disposal of hazardous materials involves the risk that we could incur substantial expenditures for such preventive or remedial actions. The liability in the event of an accident or the costs of such actions could exceed available resources or otherwise have a material adverse effect on the business, results of operations and financial condition. We carry property and worker's compensation insurances in full force and effect through nationally known carriers which include pollution cleanup or removal and medical claims for industrial incidents.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

We maintain our corporate headquarters in a 15,000 square foot building located in Elk Grove Village, Illinois under a lease which expires in October 2014. This facility houses our manufacturing, research, development, engineering, administration and marketing activities. We also maintain a 4,000 square foot facility located in Elk Grove Village, Illinois under a lease which expires in October 2014, which is used for R&D purposes. Additionally, Clarity houses its headquarters in a 14,000 square foot building in Aurora, Illinois under a lease which expires in July 2009. We believe that these facilities are adequate and suitable for our current needs and that additional space would be available on commercial terms as necessary to meet any future needs.

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Item 3. Legal Proceedings

We were not involved in any such proceedings during 2007 nor are we aware of any pending or threatened litigation.

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

On December 27, 2007, the Company held a special meeting of stockholders. At the meeting, the following proposals were approved by the margins indicated:

	Voted For	Number of Shares Against	Abstain
1.To approve the merger of ISCO International, Inc. with Clarity Communication Systems Inc. and the issuance of shares of our common stock to Jim Fuentes and the issuance of shares of our common stock from our 2003 Equity Incentive Plan, as amended to Clarity Rightsholders to satisfy certain employee rights and interests, as described in the Proxy Statement.	104,721,502	3,744,614	144,846
2.To increase the number of authorized shares of common stock permitted by our certificate of incorporation, as described in the Proxy Statement.	103,973,340	4,427,880	209,742
3.To approve the increase in the amount of shares of common stock available under the Plan, as described in the Proxy Statement.	103,662,071	4,635,495	313,396
4.To approve the issuance of shares of common stock upon the conversion of notes issued in accordance with our debt restructuring in June 2007, as described in the Proxy Statement.	104,364,793	3,920,582	325,587

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PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Our common stock has been listed since June 2002 on the American Stock Exchange under the symbol "ISO." Prior to that, and until April 1999, our stock had been listed on the OTC Bulletin Board under the symbol "ISCO." From 1993 until April 1999, our common stock was listed on the NASDAQ National Market. The following table shows, for the periods indicated, the reported high and low sale prices for the common stock. Such prices reflect prices between dealers, without retail mark up, mark down, or commissions and may or may not reflect actual transactions.

	High		Low
FISCAL YEAR ENDED DECEMBER 31, 2006			
First Quarter	\$ 0.43	\$	0.30
Second Quarter	\$ 0.43	\$	0.25
Third Quarter	\$ 0.36		