

## What's New in the World of Superconductivity (July)

### Power

#### Intermagnetics General Corporation (July 15, 2004)

Intermagnetics General Corporation announced its financial results for the fourth quarter of fiscal 2004, ending May 30, 2004. Net income increased by more than 33% to US \$5.8 million, compared to \$4.4 million for the same period in the previous fiscal year. Net sales for the quarter increased by 57% to \$59.1 million, compared to \$37.7 million for the same quarter in the previous fiscal year. The increase was mainly due to a full quarter of on-target performance from the recently acquired Invivo Corporation. The company's net income for fiscal 2004 was \$15.6 million, compared with \$15.9 million for fiscal 2003 and excluding one-time items. The reported net income for fiscal 2004 was \$14.8 million, compared with \$14.9 million in fiscal 2003. The first quarter of fiscal 2004 was affected by a planned reduction in magnet system deliveries to accommodate a strategic enhancement to the company's exclusive supply agreement with its major OEM customer. Commented Glenn H. Epstein, chairman and chief executive officer of Intermagnetics General Corporation, "Results in the fourth quarter were the strongest of the year, as originally projected, including a continued ramp-up in MRI magnet systems & components sales and robust growth from our Instrumentation segment. Both of these businesses are well positioned for additional growth during fiscal 2005." The Energy Technology sector reported \$1.9 million in fourth-quarter revenue, up from \$482,000 for the same period in the previous fiscal year, and \$6.5 million for the year overall, well over triple the amount of \$1.8 million for the previous fiscal year.

In a second press release issued on the same day, the company announced that its board of directors has declared a three-for-two split of its common stock. The split, to be completed in the form of a 50% stock dividend, will be payable as of August 17, 2004, to shareholders on record as of July 23, 2004. Epstein commented, "We believe that increasing the number of shares available will benefit shareholders in the longer term by enhancing the liquidity of the stock and making it more attractive to both institutional and individual investors."

Sources:

"Intermagnetics Reports Q4 Sales of \$59.1 Million; EPS Climbs 31% to Record \$0.34"

Intermagnetics General Corporation press release (July 15, 2004)

<http://ir.thomsonfn.com/InvestorRelations/PubNewsStory.aspx?partner=10215&storyId=117268>

"Intermagnetics Declares 3-For-2 Stock Split"

Intermagnetics General Corporation press release (July 15, 2004)

<http://ir.thomsonfn.com/InvestorRelations/PubNewsStory.aspx?partner=10215&storyId=117269>

#### American Superconductor Corporation (July 27, 2004)

American Superconductor Corporation (AMSC) announced that it has reached a significant manufacturing development benchmark for its very high performance, second-generation HTS wire. The company reported end-to-end electric currents in the range of 160 – 185 Amps for standard one-centimeter wide wires. The new results are for lengths of wire greater than 30 meters long – more than triple the length of previously reported results. David Garman, Acting

Under Secretary for Energy, Science and Environment at the U.S. Department of Energy (DOE), noted that, "These results are a significant milestone on the pathway to creating more secure power networks and to increasing the electrical efficiency of large-scale electric equipment." The announcement, which was made at DOE Peer Review Meeting, was accompanied by word that the company expects to initiate a planned, two-staged scale-up in manufacturing, based on these latest results. David Paratore, AMSC's president and chief operating officer, explained "First we'll finalize the conversion of our current 2G development facility into a pre-pilot production line by the spring of 2005 to produce and ship more than 10,000 meters of 2G wire during the fiscal year ending March 2006. Second, we plan to scale-up to full pilot production in order to achieve an annual production capacity of approximately 300,000 meters of high performance 2G HTS wire by the end of calendar 2007." AMSC presently has orders for more than 550,000 meters of its present commercial first generation (1G) HTS wire, which it will manufacture and ship in its current fiscal year ending March 2005. The company expects to scale-up to the production of 1,000-meter lengths of 2G HTS wire by the end of calendar 2007, which should signal the beginning of the market transition from first- to second-generation HTS wire.

The new wire performance results are documented in a white paper available at [http://www.amsuper.com/products/htsWire/documents/2GWhitePaper-July04\\_000.pdf](http://www.amsuper.com/products/htsWire/documents/2GWhitePaper-July04_000.pdf).

Source:

"American Superconductor Achieves Key Manufacturing Development Benchmarks for its High Performance Second Generation Wire"

American Superconductor Corporation press release (July 27, 2004)

[http://phx.corporate-ir.net/phoenix.zhtml?c=86422&p=irol-newsArticle\\_Print&ID=596743&highlight](http://phx.corporate-ir.net/phoenix.zhtml?c=86422&p=irol-newsArticle_Print&ID=596743&highlight)

## MRI and Other Medical Applications

### Intermagnetics General Corporation (July 12, 2004)

Intermagnetics General Corporation announced that it has received regulatory clearance from the US Department of Justice to complete the acquisition of privately held MRI Devices Corporation (MRIDC), a leading manufacturer of RF coils for MRI systems, for a \$45 million cash payment, a three-year \$5 million promissory note, and about \$50 million in Intermagnetics' common stock. The company also reaffirmed its earlier projections that the acquisition would increase fiscal 2005 revenues to nearly \$300 million, about an 80% increase compared to the prior year. Commented Glenn H. Epstein, chairman and chief executive officer of Intermagnetics General Corporation, "With MRIDC now formally becoming a part of Intermagnetics, we see even greater potential for our overall operations... The MRIDC acquisition, coupled with the Invivo acquisition earlier this year, continues the expansion of Intermagnetics into additional diagnostic applications within medical devices, broadening our customer base and expanding our markets."

Source:

"Intermagnetics to Complete Acquisition of MRI Devices Corporation"

Intermagnetics General Corporation press release (July 12, 2004)

<http://ir.thomsonfn.com/InvestorRelations/PubNewsStory.aspx?partner=10215&storyId=117058>

## CardioMag Imaging, Inc. (July 27, 2004)

CardioMag Imaging, Inc. announced that the US Food and Drug Administration (FDA) has approved the marketing and sale of CardioMag's magnetocardiograph (MCG) system. Six hospitals are already using the device to study the ability of MCG to detect coronary artery disease. Dr. Peter Smars of the Mayo Clinic predicted, "If the ongoing clinical trial at various luminary sites confirms our expectations, MCG could become standard diagnostic equipment in nearly every hospital in this country." CardioMag has sold MCG systems to hospitals in Europe and Asia, but the FDA's approval will now enable the company to sell its equipment in the largest medical equipment market in the world.

Source:

"CardioMag's Equipment is the First of its Kind Ever to Receive FDA Approval"

CardioMag Imaging, Inc. press release (July 27, 2004)

<http://www.cardiomag.com/about/news.shtml>

## Magnet

### Trithor GmbH (July 5, 2004)

Trithor GmbH announced the commencement of a project to design, manufacture, and test an ultra-high field magnet. The program, which is expected to cost almost 2 million Euro, will be funded in part by the 6th Framework Program of the European Commission. The target magnet induction, as high as 25 Tesla, will be achieved by combining an LTS outer section with and HTS inner section. Trithor will provide the HTS conductor, and Cryogenic Limited will contribute its experience as a producer of superconducting high-field magnets to the project, while Techtra will contribute know-how in the manufacture of the high-strength alloys that will be used as structural materials. The German laboratory IFW-Dresden and the UK laboratory IRC in Superconductivity (University of Cambridge) will provide know-how and counseling during the design stage and hands-on responsibility during the testing of the magnet. The program should be completed in 2006.

Source:

"Trithor Heading 2 M euros Project on the Development of 25 Tesla Magnet"

Trithor GmbH press release (July 5, 2004)

<http://www.trithor.de/pdf/2004-07-05%20Trithor%20HIGINS%20ENG.pdf>

### Florida State University (July 23, 2004)

The National High Magnetic Field Laboratory (NHMFL), funded by the National Science Foundation and the State of Florida, has achieved a world record in magnet development with the successful testing of a 21.1 Tesla, superconducting, ultra-wide bore, NMR magnet. The magnet reached full field on July 21, 2004, and will remain in this condition for as long as decades. The magnet was developed, designed, manufactured, and tested at NHMFL and is the product of a 13-year research and development effort. It is the only magnet in the world that can produce 21.1 Tesla for NMR and MRI applications in a 105 mm warm bore. The ultra-wide bore is one of the unique aspects of this magnet and will enable a wider range of scientific experiments to be performed, compared to that possible with a standard 52 mm bore. The magnet itself is a

concentric assembly of ten niobium-tin (Nb<sub>3</sub>Sn) or niobium-titanium (NbTi) superconducting coils connected in series and operated at 1.7 K. Small adjustments to field homogeneity are achieved via a set of superconducting shim coils, which were developed in cooperation with Intermagnetics General Corporation. NHMFL Director Greg Boebinger commented, "This very powerful and ultra-wide bore magnet was an extremely challenging system to build, and it represents a significant engineering accomplishment. It is the crown jewel of the laboratory's NMR spectroscopy and imaging program." The accomplishment positions NHMFL as an international leader in the development of high field superconducting magnet technology for magnetic resonance applications.

Source:

"New world record magnet for chemical and biomedical research"

Florida State University (July 23, 2004)

[http://www.fsu.edu/%7Eunicomm/pages/releases/2004\\_07/release\\_chrono\\_0407.html](http://www.fsu.edu/%7Eunicomm/pages/releases/2004_07/release_chrono_0407.html)

## Communication

### ISCO International, Inc. (July 27, 2004)

ISCO International, Inc. has reported the expansion of their RF™ platform to include a new product life cycle extension. The extension will directly assist operators to maximize the use of existing infrastructures and allow the migration to newer technology at a pace that suits the operator. The expansion into dedicated life cycle extension is expected to broaden the company's market coverage, and new orders for the solution are expected during the current (third) fiscal quarter.

In a simultaneous announcement, the company reported that its lenders have agreed to let ISCO International draw the remaining US \$1 million on its existing credit line and to increase the size of that credit line by \$ 500,000, drawing the additional amount immediately. The resources will be used to expand the marketplace for the company's products.

Source:

"ISCO International Announces Extension of RF<sup>2</sup> Solution Platform and Financing"

ISCO International, Inc. press release (July 27, 2004)

<http://www.iscointl.com/>

### ISCO International, Inc. (July 29, 2004)

ISCO International, Inc. announced its financial results for the second quarter of fiscal 2004, ending June 30, 2004. Consolidated net revenues amounted to US \$843,000, compared to \$336,000 for the same quarter in the previous fiscal year. The consolidated net loss was \$1,287,000, compared to \$2,113,000 for the same period in the previous fiscal year. This improvement was mainly due to a reduction in legal expenses and to operational efficiencies realized during the past several quarters. Commented Dr. Amr Abdelmonem, CEO of ISCO, "While the second quarter was better than the first, and better than the prior year comparable, conversion of quotes to orders remains one of our critical objectives. By aggressively expanding the depth and breadth of our portfolio of solutions we are positioning ISCO as a valuable ally to wireless operators. The market has responded as more customers have joined with us and we

look to grow those relationships.

Source:

“ISCO INTERNATIONAL REPORTS QUARTERLY RESULTS”

ISCO International, Inc. press release (July 29, 2004)

<http://www.iscointl.com/>

(Akihiko Tsutai, Director, International Affairs Department, ISTECH)

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