

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of report (Date of earliest event reported) November 7, 2005

Mercury Computer Systems, Inc.

(Exact Name of Registrant as Specified in Charter)

Massachusetts
(State or Other
Jurisdiction of Incorporation)

000-23599
(Commission
File Number)

04-2741391
(IRS Employer
Identification No.)

199 Riverneck Road, Chelmsford, Massachusetts
(Address of Principal Executive Offices)

01824
(Zip Code)

Registrant's telephone number, including area code (978) 256-1300

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01 Regulation FD Disclosure.

The management of Mercury Computer Systems, Inc. ("Mercury") will present an overview of Mercury's business on Monday, November 7, 2005 at the AeA Classic Financial Conference. Attached as Exhibit 99.1 to this Current Report on Form 8-K (the "Report") is a copy of the slide presentation to be made by Mercury at the conference.

This information is being furnished pursuant to Item 7.01 of this Report and shall not be deemed to be "filed" for the purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section and will not be incorporated by reference into any registration statement filed by Mercury under the Securities Act of 1933, as amended, unless specifically identified as being incorporated therein by reference. This Report will not be deemed an admission as to the materiality of any information in this Report that is being disclosed pursuant to Regulation FD.

Please refer to page 2 of Exhibit 99.1 for a discussion of certain forward-looking statements included therein and the risks and uncertainties related thereto, as well as the use of non-GAAP financial measures included therein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Presentation Materials dated November 6-9, 2005.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

MERCURY COMPUTER SYSTEMS, INC.

Date: November 7, 2005

By: _____ /s/ ALEX N. BRAVERMAN
Name: _____
Title: **Alex N. Braverman**
Vice President, Controller and
Chief Accounting Officer

EXHIBIT INDEX

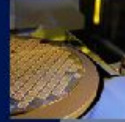
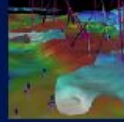
Exhibit No.

Description

Exhibit 99.1

Presentation Materials dated November 6-9, 2005.

Computer Systems, Inc.
MERCURY
Challenges Drive Innovation



AeA Classic Financial Conference November 6-9, 2005

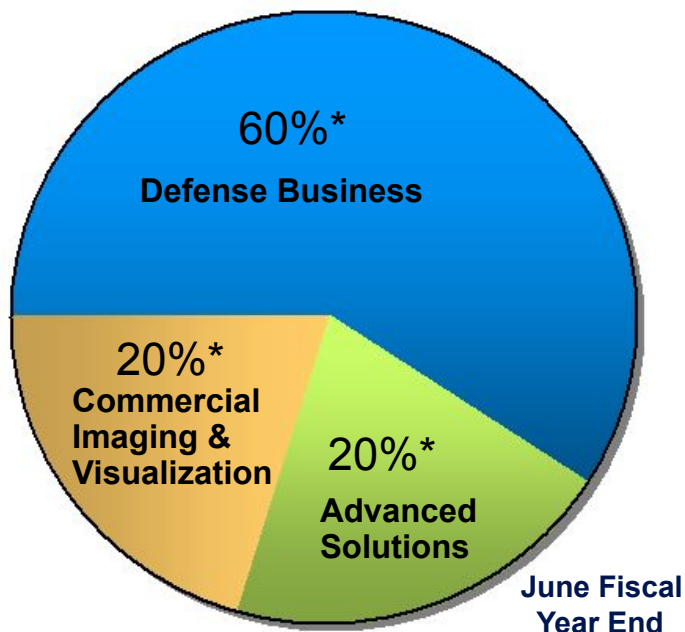
Jay Bertelli, President, CEO & Chairman
Bob Hult, SVP, Operations & Finance, CFO
Marcelo Lima, VP & GM, Commercial Imaging & Visualization

This presentation contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to anticipated fiscal 2006 business performance and beyond. You can identify these statements by our use of the words "may," "will," "should," "plans," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, general economic and business conditions, including unforeseen weakness in the Company's markets, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology, and methods of marketing, delays in completing engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, continued funding of defense programs, the timing of such funding, changes in the U.S. Government's interpretation of federal procurement rules and regulations, market acceptance of the Company's products, shortages in components, production delays due to performance quality issues with outsourced components, and inability to fully realize the expected benefits from acquisitions or delays in realizing such benefits, challenges in integrating acquired businesses, and achieving anticipated synergies, and difficulties in retaining key customers. These risks and uncertainties also include such additional risk factors as are discussed in the Company's recent filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 30, 2005. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made.

Use of Non-GAAP (Generally Accepted Accounting Principles) Financial Measures

In addition to reporting financial results in accordance with generally accepted accounting principles, or GAAP, the Company provides non-GAAP financial measures adjusted to exclude certain non-cash and other specified charges, which the Company believes are useful to help investors better understand its past financial performance and prospects for the future. However, the presentation of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for financial information provided in accordance with GAAP. Management believes these non-GAAP financial measures assist in providing a more complete understanding of the Company's underlying operational results and trends, and management uses these measures to manage the Company's business, to evaluate its performance compared to prior periods and the marketplace, and to establish operational goals. A reconciliation of GAAP to non-GAAP financial results discussed in this presentation is contained in the company's First Quarter Fiscal 2006 earnings release, which can be found on our website at www.mc.com/mediacenter/pr/.

FY05 Revenues: \$250 M

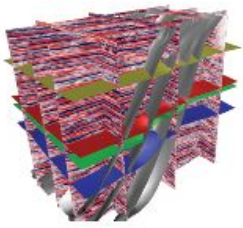


*Approximate FY05 revenue composition

- **Founded in 1981**
- **Leading provider of innovative, engineered computing solutions for compute-intensive applications**
- **Office locations in U.S., UK, France, Germany and Japan; R&D centers in U.S., France, and Germany**
- **880 employees worldwide; 320 engineers**
- **Investment in knowledge of customer applications**

- **Customers are attracted to Mercury based on our common interest in making a difference through technology**
- **We help our customers to make a positive impact on critical issues that affect our lives**
 - Improving international security
 - Advancing health care
 - Increasing the world's oil supply
 -And more
- **We deliver a comprehensive portfolio of computing products, services, and expertise that solve the toughest computing challenges**

Visualization & Rendering



Seismic



Ray Tracing

Image Storage & Retrieval



Special-Purpose Computing & I/O



Image Processing



Mobile C-Arm
(Digital X-Ray)



Wafer Inspection

RF & A/D



Echotek Series 3000T and 5000T

Signal Processing



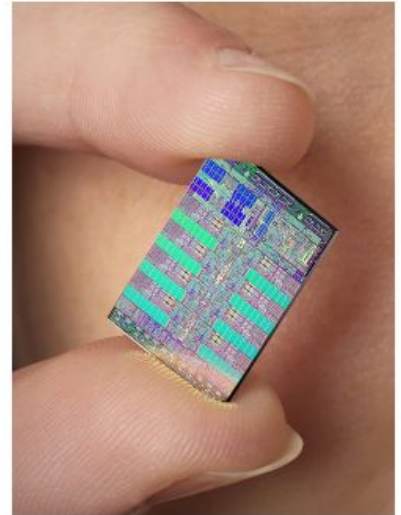
J-STARS Aircraft
RADAR

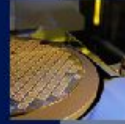
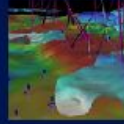


Wireless Communications
Base Stations

- **Committed to driving innovation**
 - Average R&D y/y is approximately 20% of revenues
- **Focused on continually enhancing our expertise to maintain our leading edge**
 - Internal development
 - Cross-pollinating commercial technologies/expertise with defense applications to provide cost-effective solutions
 - Extending our offerings from hardware to software to services
 - External innovation
 - IBM partnership/Cell processor, strategic alliances with NVIDIA Corporation, Ziehm Imaging, Massachusetts General Hospital (MGH)
 - Select acquisitions to complement and strengthen our organic growth
 - Echotek, SoHard AG, Momentum Computer, TGS, ARC
- **Dedicated to helping customers solve problems and win business**
 - Broader offerings – Defense Professional Services
 - Innovative business arrangements –JCM

- **The Cell Broadband Engine processor is 5-100x faster than conventional microprocessors**
- **Mercury is the 1st non-gaming company to integrate Cell into its products**
 - High-volume gaming market is transforming the technology industry
- **Targeting applications in existing and new markets with optimized Cell-based products**
 - Medical imaging, inspection, defense, geosciences, telecommunications, etc.
- **Mercury is uniquely capable**
 - Cell is designed to solve the same types of problems Mercury has been solving for many years





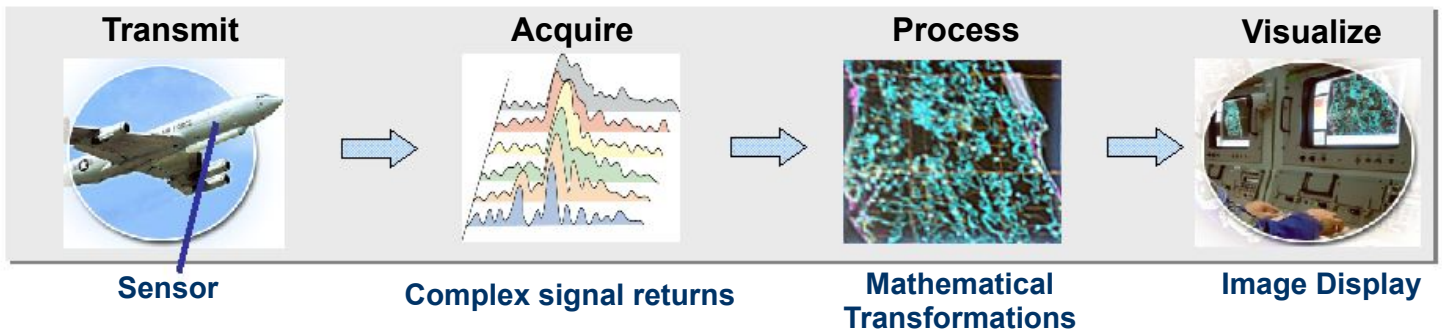
Defense Business

- **60% of FY05 revenues**
- **Market focus**
 - Radar
 - Signals intelligence (SIGINT)
 - Defense technologies
- **Technology leadership**
 - Strong COTS model
 - Aboard demanding platforms in air, on land, under sea
 - Full life-cycle support
- **Growth**
 - Transformation
 - CISR
 - Smart weapons
 - Cell-based technology



Representative

Real-time signal and image processing applications



- **Sensor streaming**
- **Scalable**
- **Real time**
- **Embedded (real estate, environmental, cooling constraints)**



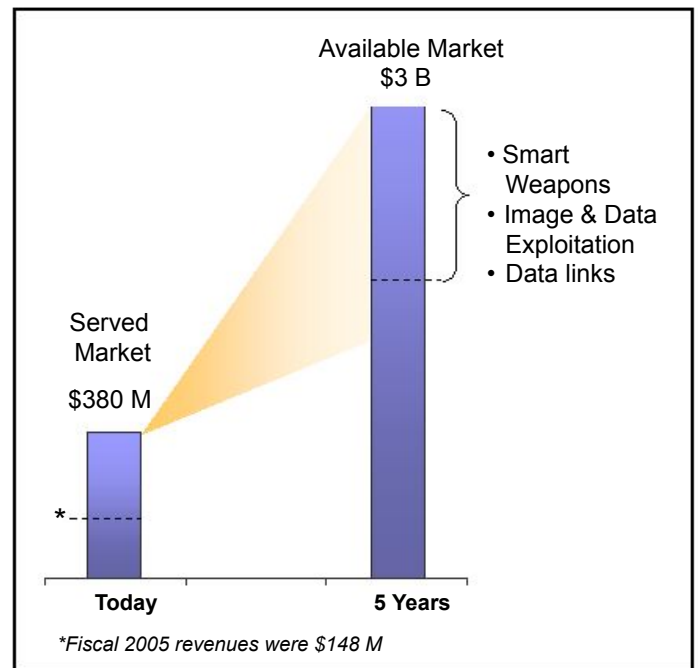
Raytheon

BAE SYSTEMS

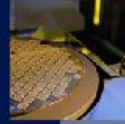
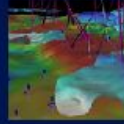


Enabling our customers to win by providing commercial off-the-shelf technology for new applications

- **DoD transformation/ISR initiative**
 - Signals intelligence (SIGINT)
 - Image & data exploitation
- **ISR becoming CISR**
- **Expansion to lower echelons, smaller platforms**
- **Network-centric warfare**
- **Software radio/data links**
- **Smart weapons**



Computer Systems, Inc.
MERCURY
Challenges Drive Innovation



Advanced Solutions Business

Delivering specialized processing solutions for demanding commercial OEM applications

Semiconductor capital equipment market

- Wafer and reticle inspection
 - Systems that process streaming data to find defects
- Mask writing
 - Systems that generate patterns to write to semiconductor and flat-panel masks

Communications computing market

- Wireless infrastructure
 - Next-generation packet and signal processing solutions

Applications

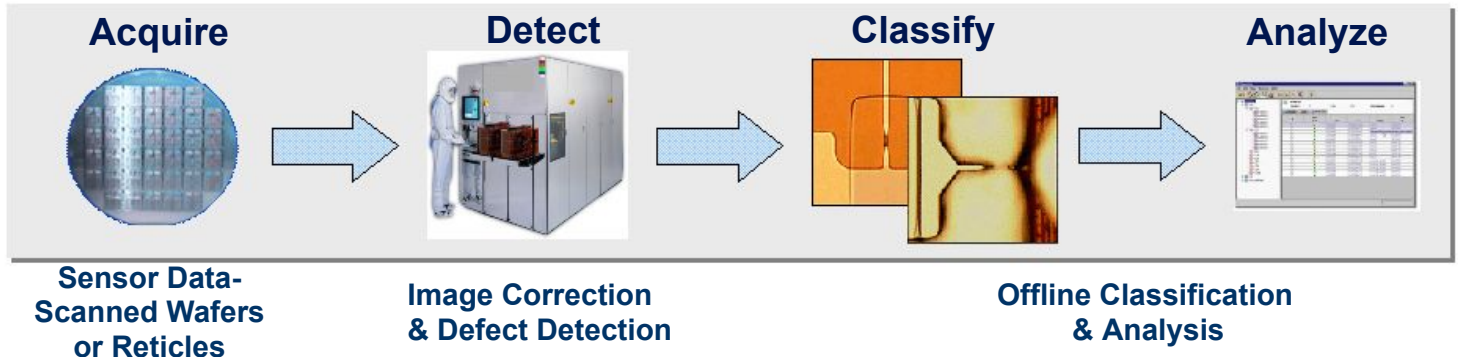
- Wireless base stations
- Radio network controllers
- Video gateways
- Satellite data links
- Software defined radio

Technology

- High-availability middleware
- Component deployment middleware
- RapidIO®
- DSP and FPGA compute nodes
- Interconnect and reconfigurable computing cores
- Analog and digital I/O
- Signal and video processing algorithms



Accelerating customers' advanced algorithms to market



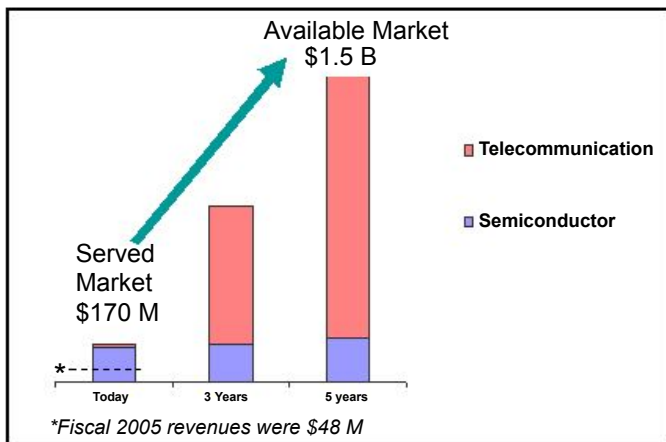
- Searching for defects on silicon wafers or reticles
- Scalable compute, streaming I/O, and interconnect bandwidth
- Enabling customer algorithm performance enhancements
- Software-programmable solutions

- **Semiconductor capital equipment solutions**

- Processing needs continue to outpace mainstream computing
- Data rates and algorithm complexity increase
- New applications on the horizon
- Subject to market cyclicality

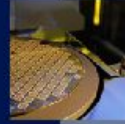
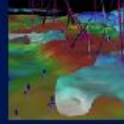
- **New market opportunities in telecommunications**

- Industry emerging from downturn
- Equipment makers rely more on external innovation
- New standards will replace proprietary implementations in data and user plane, e.g., RapidIO



\$1.5 Billion Market Opportunity





Commercial Imaging and Visualization Business

- 20% of FY05 revenues
- Market focus
 - Medical imaging
 - Biotechnology
 - Oil and gas exploration
- Technology leadership
 - Scalable systems
 - High-performance 3D
 - Large data sets
- Growth
 - Organic: New product intros – VisageRT, ExamineRT, Thin Client/Server, Amira 4.0, OpenRT, Open Inventor LDM, XBi series
 - Inorganic: Acquisitions of the TGS Group and SoHard AG



CIV Customers & Targets (not all-inclusive)

Diagnostic medical imaging
including molecular imaging



PHILIPS



SIEMENS



Interventional imaging and
image-guided procedures



ziehmimaging



Medtronic
When Life Depends on Medical Technology

BrainLAB

Biotechnology including drug
discovery and molecular dynamics



FEI COMPANY
TOOLS FOR NANOTECH

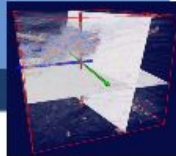


Picture archive and
communication systems (PACS)

Ferrania
Imaging Technologies

DynamicImaging

Geosciences
(Oil & Gas)



Schlumberger

Landmark
A Halliburton Company

WesternGeco



Paradigm
THE GEOSCIENCE KNOWLEDGE COMPANY

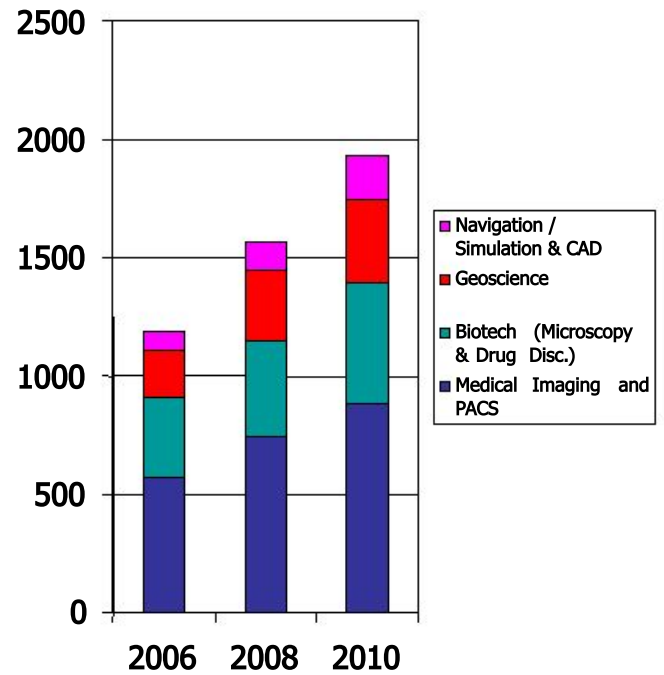


- **Life Sciences**
 - Diagnostic medical imaging modalities
 - Picture Archiving & Communications System (PACS)
- **Biotechnology**
 - Microscopy
 - Structured drug design
- **Geosciences**
 - Oil & gas
- **Other**
 - Computer-aided design, navigation/simulation



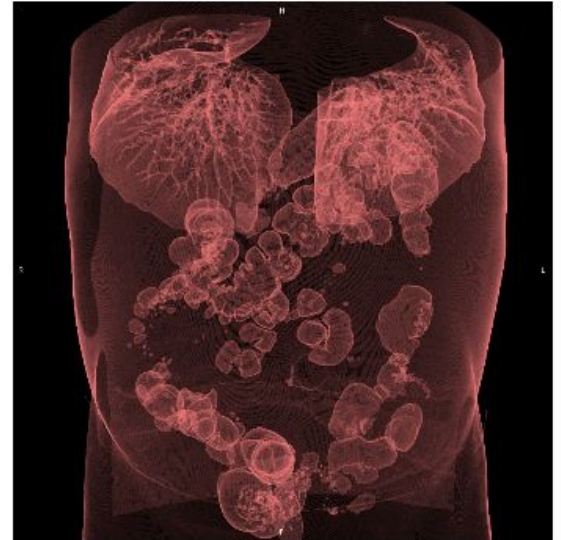
OEM Available Markets US\$M

Source: IDC, Frost & Sullivan, MCS data



- **Strategy:**

- Lead in end-to-end OEM solutions
 - Data acquisition, reconstruction, computation, visualization, distribution
- Innovate
 - Scalable systems, large data set computing, 3D visualization
- Leverage
 - Research alliances (ZIB, MGH)
 - Partners and sourcing (NVIDIA, HP)
- Integrate
 - New products from TGS and SoHard acquisitions
- Focus
 - Customer success, performance and time to market



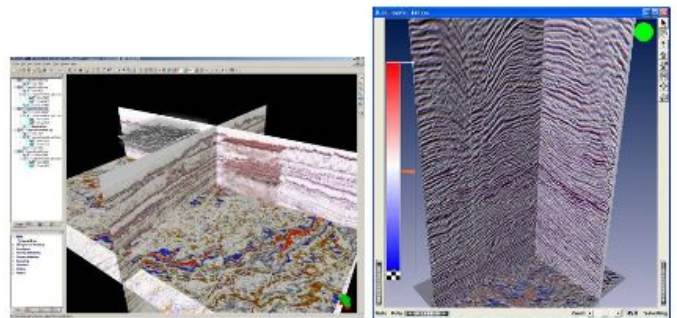
- **Core competencies**

- Algorithm optimization
- Acceleration technologies
- Image reconstruction
- 3D and visualization
- Multiprocessing and system architecture
- Applications know-how

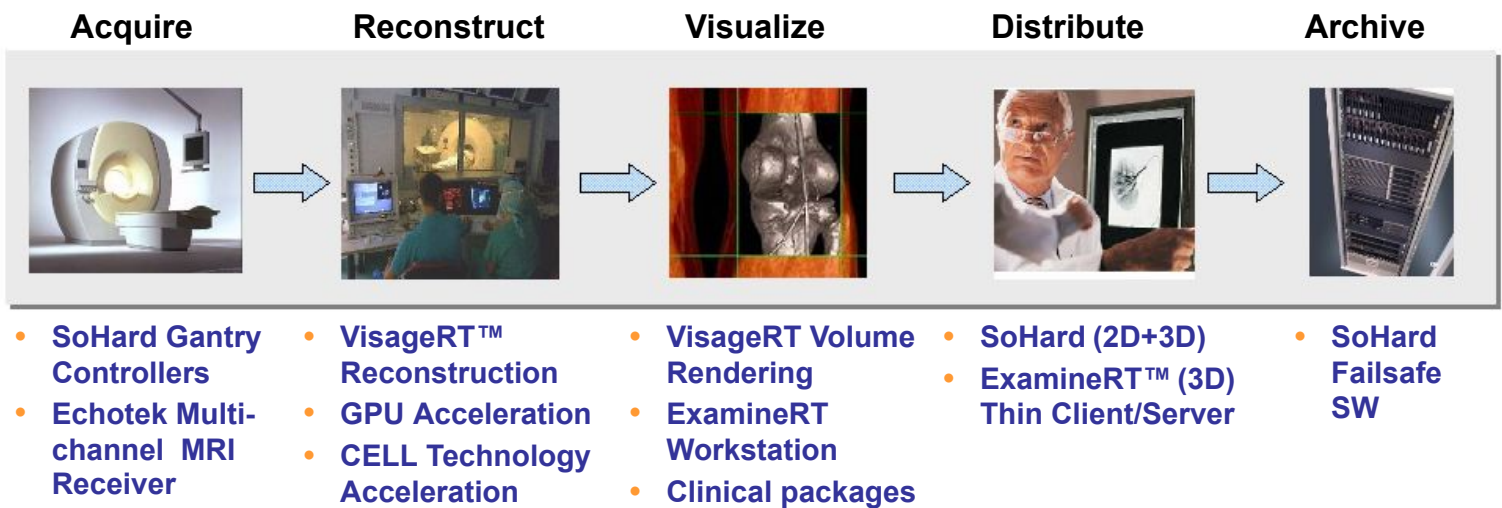
- Improving sensors
- Large data sets
- Growing need for intensive computing
- Enhanced image accuracy
- Real-time 3D
- Time to market



Multi-slice CT (32/64) 4 Gbytes typical



OIV/VolumeViz large data set module
100 Gbytes typical



- **Broad end-to-end medical systems OEM solution portfolio**
- **All steps from scanner output to end-user applications**
- **Image reconstruction, processing, and visualization**
- **Embedded components and integrated solutions**

- **Competitive advantages**

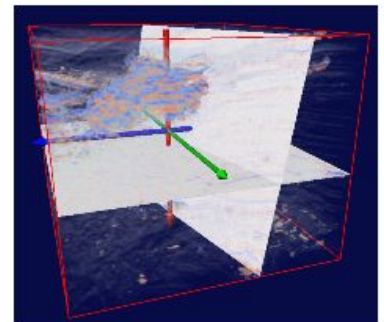
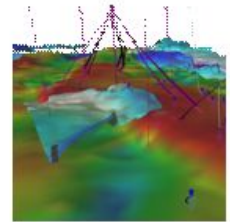
- Power/cubic inch
- Scalable systems
- Extremely large data sets

- **Computing solutions**

- Seismic acquisition
- Seismic processing

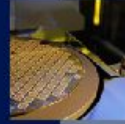
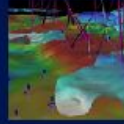
- **Visualization solutions**

- Seismic QC and interpretation
- Horizons, faults, well bores, etc.
- Core analysis
- Drilling planning
- Reservoir models



- Growing markets
- Product innovation
- Acquisitions
- Aligned with trends
- Solving real problems
- 2D + 3D + systems = competitive advantage
- Quality and time to market
- Extending customer base
- Growing business -> 35%

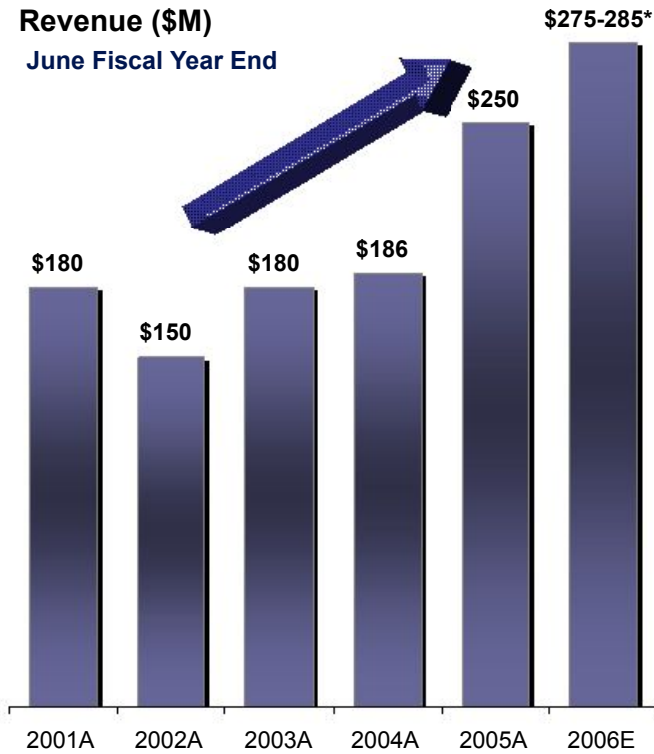




Financial Overview

Revenue (\$M)

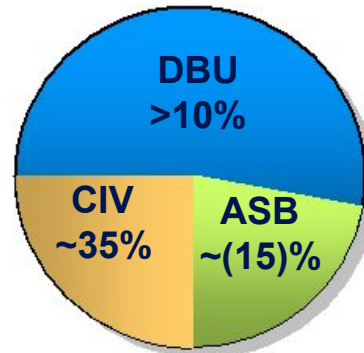
June Fiscal Year End



2005: Record revenues

**2006: Projected revenue growth 12%
(at midpoint of guidance range)**

FY06 projected growth rates



**Per Company guidance, Oct. 20, 2005 earnings press release*

	Fiscal Year Ending June 30, 2006	
Revenues (\$M)	\$275-285	
Gross Margin	64-65%	
	GAAP	Non-GAAP
Operating Income	6%	12%
EPS	\$0.50-0.55	\$1.00-1.05

- Impact of equity-based compensation costs related to FAS 123(R), amortization of purchased intangibles, and in-process R&D charges excluded from Non-GAAP

Notes:

- 1) *Figures in millions, except percent and per share data which includes adjustment for contingent convertibles, in accordance with GAAP*
- 2) *Company guidance, October 20, 2005 Q1 earnings press release*

	Quarter Ending December 31, 2005	
Revenues (\$M)	\$61-64	
	GAAP	Non-GAAP
Operating Income	---	4%
EPS	\$(0.02)-0.00	\$0.08-0.10

- Impact of equity-based compensation costs related to FAS 123(R), amortization of purchased intangibles, and in-process R&D charges excluded from Non-GAAP

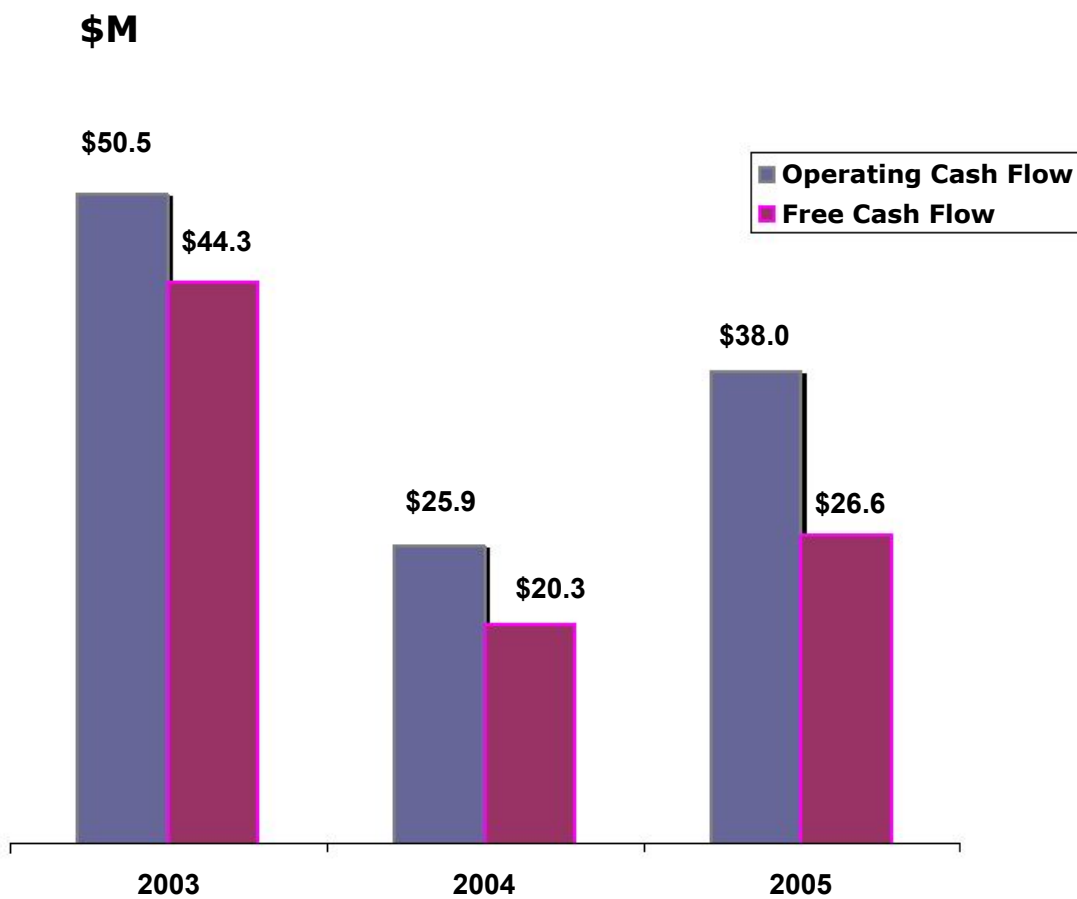
Notes:

- 1) *Figures in millions, except percent and per share data which includes adjustment for contingent convertibles, in accordance with GAAP*
- 2) *Company guidance, October 20, 2005 Q1 earnings press release*

	FY04	FY05	Guidance FY06	Timeless Business Model
Revenue	100%	100%	100%	100%
Gross Margin	67%	66%	64-65%	66-67%
SG&A	30%	29%		29-30%
R&D	21%	20%		20-21%
Income from Operations	17%	17%	12%	16-18%

Notes:

- Acquisition-related amortization of intangibles ~ 1%, ~1%, ~2% FY04, FY05, FY06, resp.
- FY06 Non-GAAP guidance per October 20, 2005 Q1 earnings call. FY06 GAAP income from operations 6%



**Historically strong
balance sheet**

**Supports open
innovation growth
agenda**

(Quarter ended September 30, 2005)	
Cash and Equivalents	\$171
Total Current Assets	\$182
Total Assets	\$393
Total Debt *	\$139
Total Liabilities	\$190
Stockholders' Equity	\$203

** Includes \$125 million convertible senior notes offering*

- **Strong competitive position in attractive and growing markets**
- **Diversified revenue base – defense and commercial**
- **Straightforward operating model and financial structure**
- **Strong balance sheet, operating cash flow with significant financing flexibility**
- **Open innovation strategy through partnerships and acquisitions enhances capability to deliver solutions across target markets**

Sustain a 25% or better long-term revenue growth rate

www.mc.com
NASDAQ: MRCY