

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): February 8, 2006

**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 Wednesday, February 8, 2006 at the SG Cowen & Co. 27th Annual Aerospace/Defense Technology 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 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 February 8, 2006.

**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 hereunto duly authorized.

MERCURY COMPUTER SYSTEMS, INC.  
(Registrant)

Date: February 8, 2006

By: \_\_\_\_\_ /s/ ROBERT E. HULT  
Robert E. Hult  
Senior Vice President, Operations and  
Finance, Chief Financial Officer

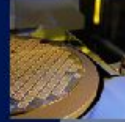
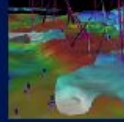
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EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
99.1	Presentation materials dated February 8, 2006.

Computer Systems, Inc.  
**MERCURY**

*Challenges Drive Innovation*



**SG Cowen & Co. 27<sup>th</sup> Annual  
Aerospace/Defense Technology  
Conference  
February 8, 2006**

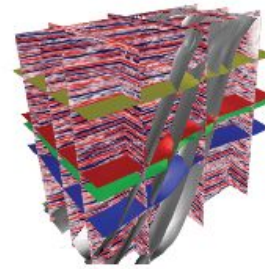
**Jay Bertelli**, President, Chief Executive Officer & Chairman  
**Barry Isenstein**, VP & GM, Defense Business Unit

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 Quarterly Report on Form 10-Q for the quarter ended September 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, along with their corresponding GAAP financial 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 Second Quarter Fiscal 2006 earnings release, which can be found on our website at [www.mc.com/mediacenter/pr/](http://www.mc.com/mediacenter/pr/).

- **Leader in high-performance computing for defense and commercial applications**
- **FY05 revenues of \$250 million**
- **891 employees**
- **HQ in Chelmsford, MA**
- **Specialized technology for:**
  - High-data rate computing and I/O
  - Signal processing
  - 2D and 3D image processing
- **Four business units:**
  - Defense
  - Commercial Imaging & Visualization
  - Advanced Solutions
  - Modular Products & Services



- **Strong competitive position in attractive and growing markets**
- **Leverage technology investments across multiple applications in diverse markets**
  - **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**



...by combining extensive technical expertise with deep knowledge of the science behind our customers' applications...

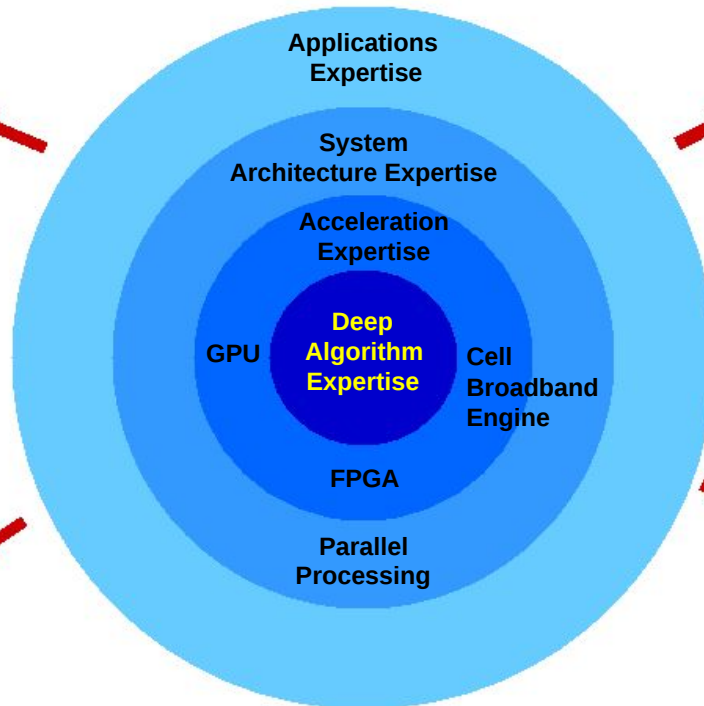
**Life Sciences:**

- Medical imaging
- Biotechnology

**Geosciences:**

- Oil and gas exploration
- Engineering and simulation

**New markets and opportunities that can benefit from Mercury expertise**



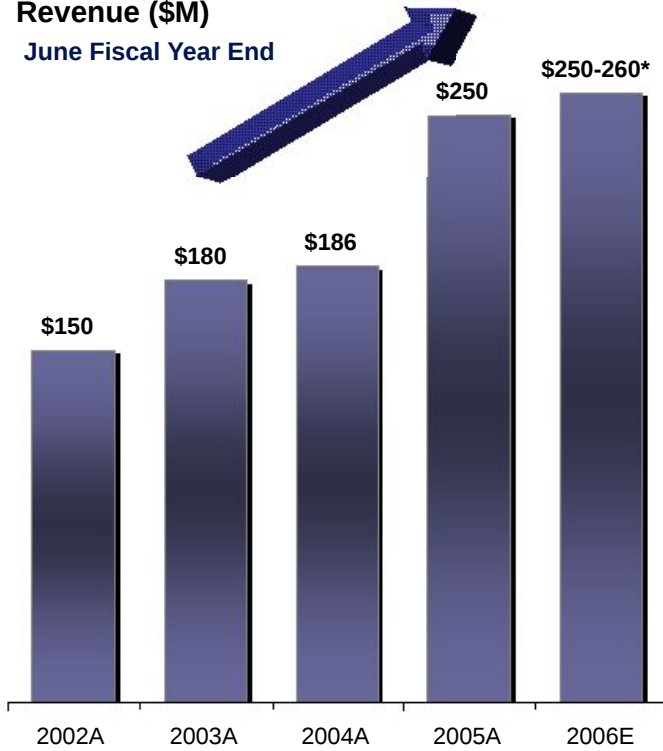
- Radar
- Sonar
- Signals intelligence
- Image & data exploitation
- Smart weapons

**Semiconductor equipment:**

- Mask generation
  - Wafer inspection
- High-end baggage scanning  
Telecommunications

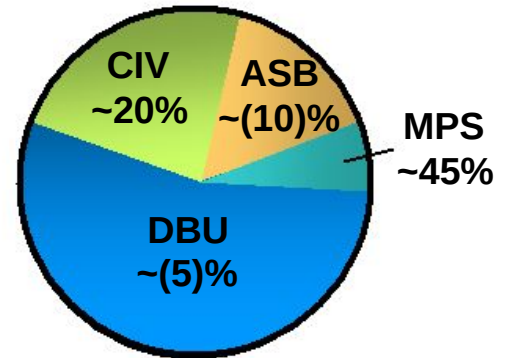
...and delivering broad, sustained value to our customers.

Revenue (\$M)  
June Fiscal Year End



## FY2005: Record revenues

### FY2006 Projected Growth Rates\*\* by Business Unit\*



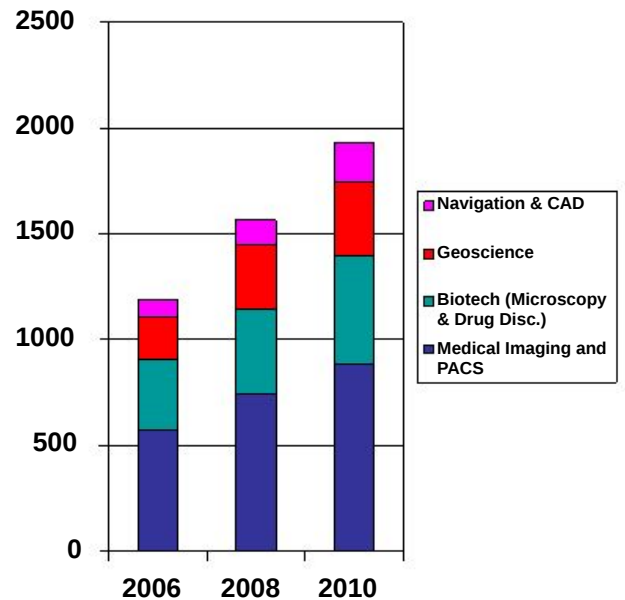
\*Per Company guidance, January 26, 2006 earnings conference call

\*\*Growth rates calculated at midpoint of FY2006 revenue guidance

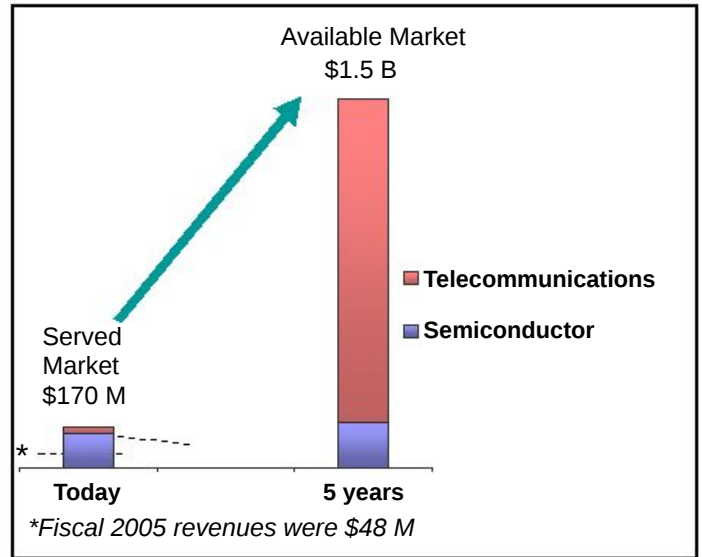
- **20% of FY05 revenues**
  - 50% growth over FY04
- **Delivering Imaging & Computing Solutions to:**
  - Life Sciences (Medical Imaging & Biotech)
  - Geosciences (Oil and gas exploration)
  - Navigation
- **Strong economic trends**
- **Growing, \$1 billion+ market**
- **Increased 3D demand**
- **2D + 3D + systems = competitive advantage**

## OEM Available Markets US\$M

Source: IDC, Frost & Sullivan, MCS data



- **20% of FY05 revenues**
  - **81% growth over FY04**
- **Market Focus**
  - **Semiconductor Capital Equipment**
  - **Wireless Communications Infrastructure**
- **New applications in semiconductor equipment**
- **Expanding business in communication segments**
  - **New business emerging in Silicon Solutions and Data Links**



	FY04	FY05	Guidance FY06	Timeless Business Model
<b>Revenue</b>	100%	100%	100%	<b>100%</b>
<b>Gross Margin</b>	67%	66%	61-63%	<b>66-67%</b>
<b>SG&amp;A</b>	29%	29%		<b>29-30%</b>
<b>R&amp;D</b>	21%	20%		<b>20-21%</b>
<b>Income from Operations</b>	17%	17%	6-8%	<b>16-18%</b>

**Notes:**

*FY06 non-GAAP guidance per January 26, 2006 Q2 earnings conference call*

	Fiscal Year Ending June 30, 2006	
<b>Revenues (\$M)</b>	<b>\$250-260</b>	
<b>Gross Margin</b>	<b>61-63%</b>	
	<b>GAAP</b>	<b>Non-GAAP</b>
<b>Operating Income</b>		<b>6-8%</b>
<b>EPS</b>	<b>\$(0.16)-0.09</b>	<b>\$0.50-0.70</b>

- **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, January 26, 2006 Q2 earnings press release*

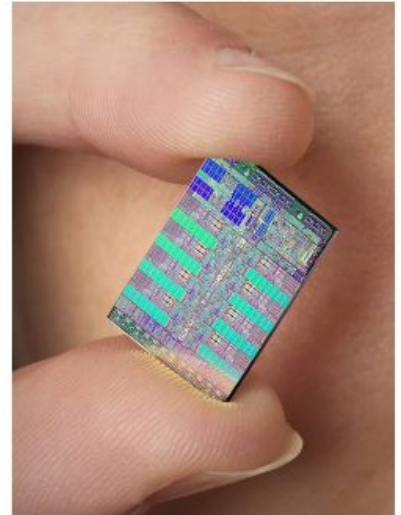
	Quarter Ending March 31, 2006	
<b>Revenues (\$M)</b>	<b>\$55-58</b>	
	<b>GAAP</b>	<b>Non-GAAP</b>
<b>Operating Income</b>		<b>(6)%-(3)%</b>
<b>EPS</b>	<b>\$(0.32)-\$(0.26)</b>	<b>\$(0.10)-\$(0.04)</b>

- **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:*

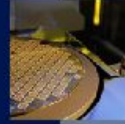
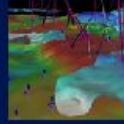
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- 2) *Company guidance, January 26, 2006 Q2 earnings press release*

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







*Cell Broadband Engine is a trademark of Sony Computer Entertainment Inc.*



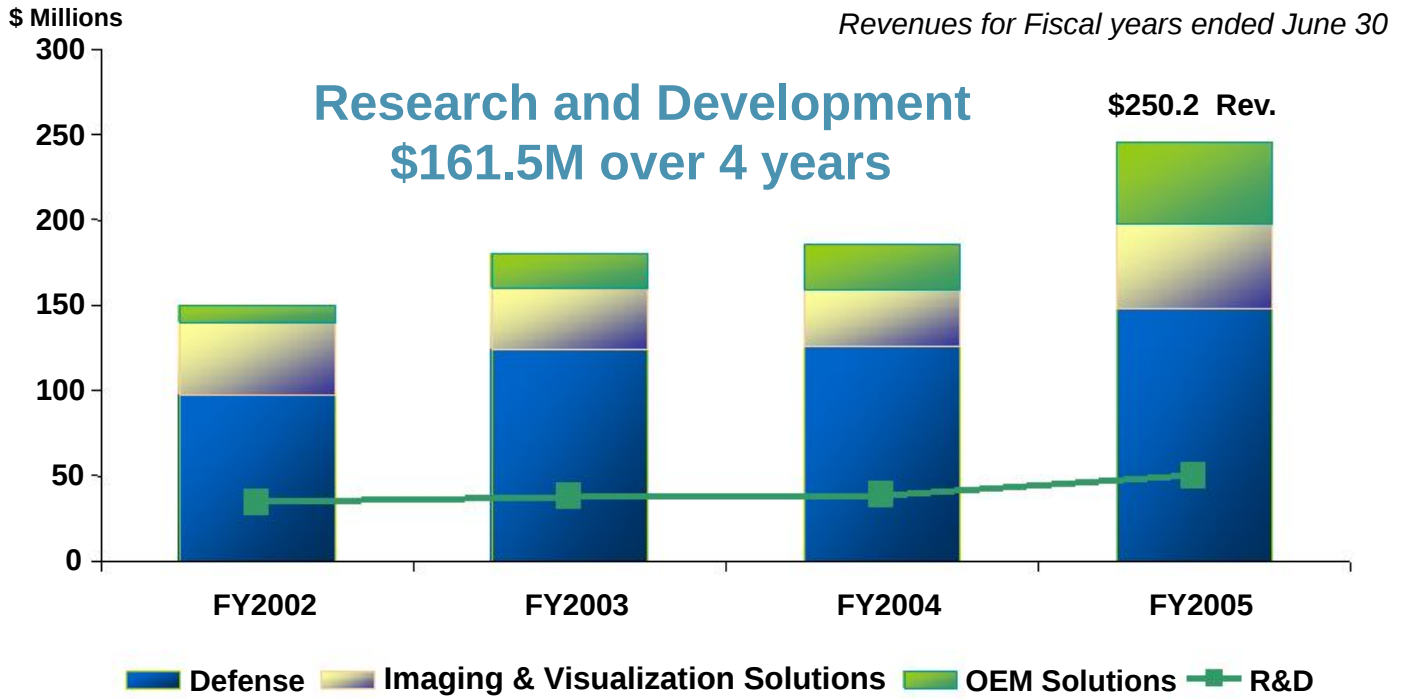


Barry Isenstein, SVP, GM  
Defense Business Unit (DBU)

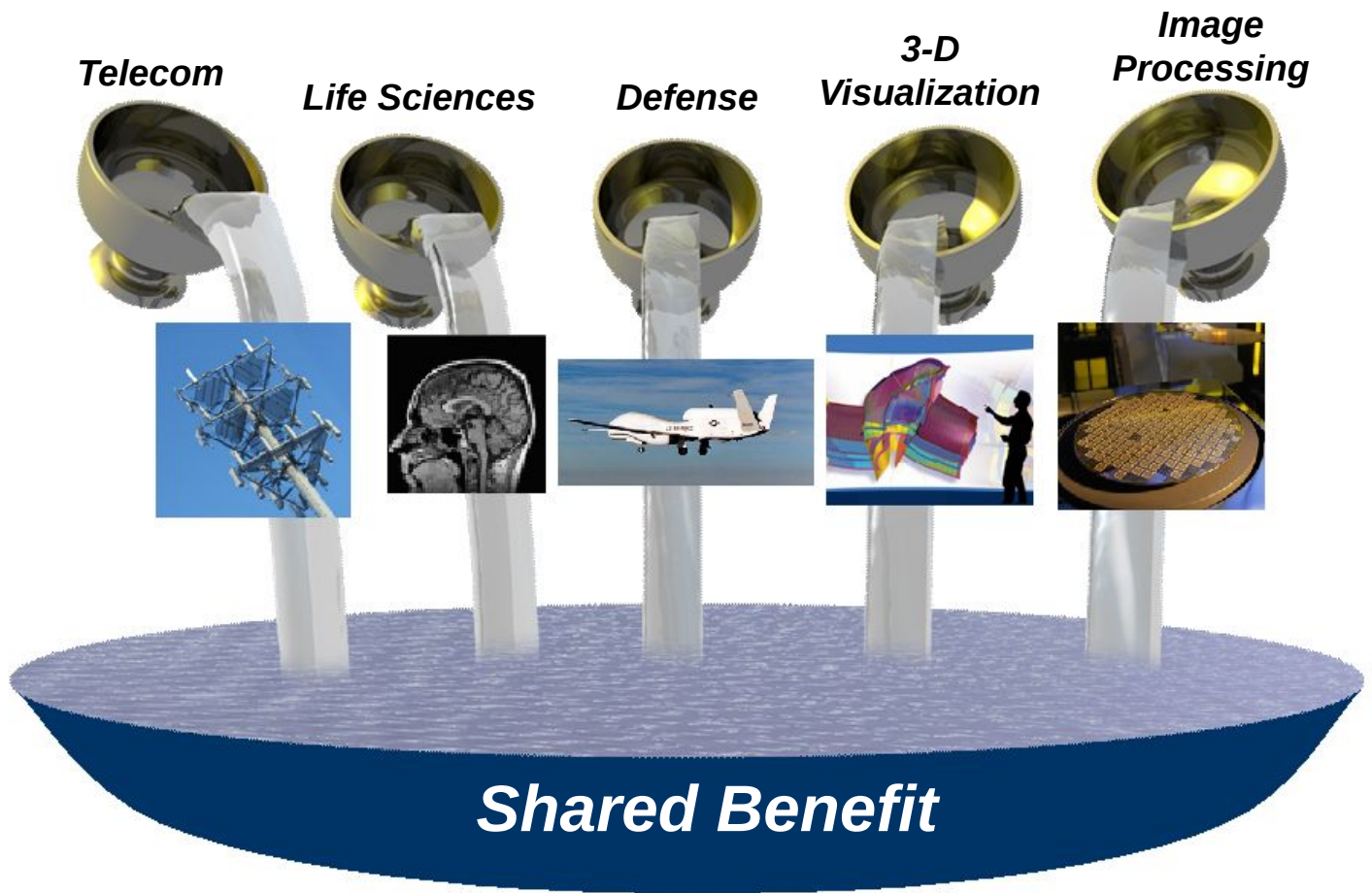
# Which Markets Drive Technology?

<b>Telecom/ Networking</b>	<b>PowerPC<sup>™</sup> PMC</b> <b>RapidIO</b> <b>VxWorks</b>	
<b>Desktop/ Server</b>	 <b>Linux</b> 	
<b>Graphics/ Gaming</b>	 <b>Cell</b> <b>altivec<sup>™</sup></b> technology	

Historically 18-21% of Revenues



Enabled by Solid Financial Performance



- 60% of FY05 revenues
  - 18% growth over FY04
- Market focus
  - Radar
  - Signals Intelligence (SIGINT)
  - Other defense technologies
- Technology leadership
  - Strong COTS model
  - Aboard demanding platforms in air, on land, under sea
  - Full life-cycle support
- Military transformation
  - CISR
  - Smart weapons
  - Cell Broadband Engine-based technology



Representative



**Raytheon**



**NORTHROP GRUMMAN**



**BAE SYSTEMS**

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

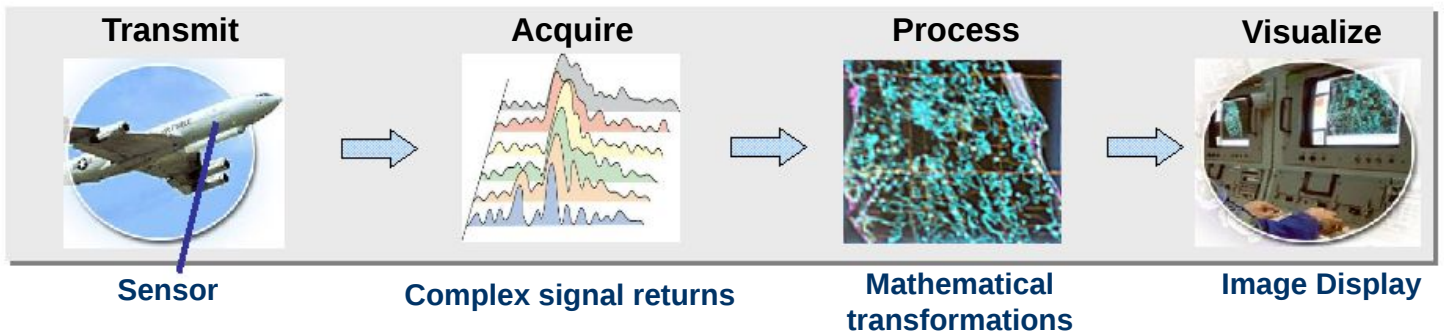
- **Target**

- High-growth CISR applications
- Offer COTS “more of the sensor-based computing system”
- Solutions: HW, SW and services
- Leadership in performance and functionality per volume

- **Leverage**

- Leadership in existing radar and SIGINT platforms
- Strong customer relationships
- Technological expertise

## Real-time signal and image processing applications



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





## High Density, High Performance Multiprocessors

3U Boards

Cell-Based Products

Conduction-Cooled

Integration,  
Ruggedization,  
Custom Software



 **ECHOTEK™** SERIES

 **momentum™** SERIES

Photo-realistic  
effects

  
RapidIO IP



- **The importance of CISR**
  - Old threats
  - New threats
- **The role of COTS**
  - Lower life-cycle costs
  - Faster time to deployment
- **Technology is driven by non-defense markets**
  - Servers/Desktops
  - Graphics/Gamers
  - Telecommunications/Networking

**DBU is extremely well-positioned to out-manuever competition in a changing environment**

## ● Radar Processing Leadership

- Tactical fighters: JSF
- Airborne surveillance: MP-RTIP
  - Global Hawk
  - E10-A, JSTARS, AWACS
- Shipboard missile defense: Aegis
- UAV SAR: Predator LYNX



JSF (F-35)

## ● Expanding Radar Markets

- Upgrades to existing radars
- Land-based/mobile radar
- Propose new technology
  - Passive radars
- Cell Broadband Engine for large and small radars



Aegis (BMD)

- **Communications Intelligence (COMINT) and Electronic (ELINT) Intelligence**
- **Fastest growing DBU segment**
  - Proliferation of signals
  - Cross-cueing for other sensors
  - COTS adoption
- **Comprehensive product offering**
  - RF receivers
  - Analog-to-digital conversion
  - ASIC and FPGA-based digital receivers
  - Programmable digital signal processing
  - Future integrated product
- **Leveraged investments for defense communications**



## *What You Could Only Dream About Before*

### **Widespread deployment of battlefield visualization and decision aids previously found only in research laboratories**

- Multisensor visualization for ALL warfighters on the move
- Comprehensive battlefield pictures for all warfighters
- Super-smart compression for high-demand data links
- Detection and acquisition of previously intractable targets



**PowerBlock™ 200**

## Sensor data overwhelming analysts

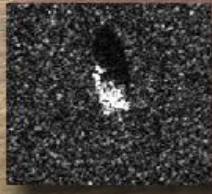


## Sensor to Shooter:

Providing real-time sensor-based intelligence to the shooter on the ground

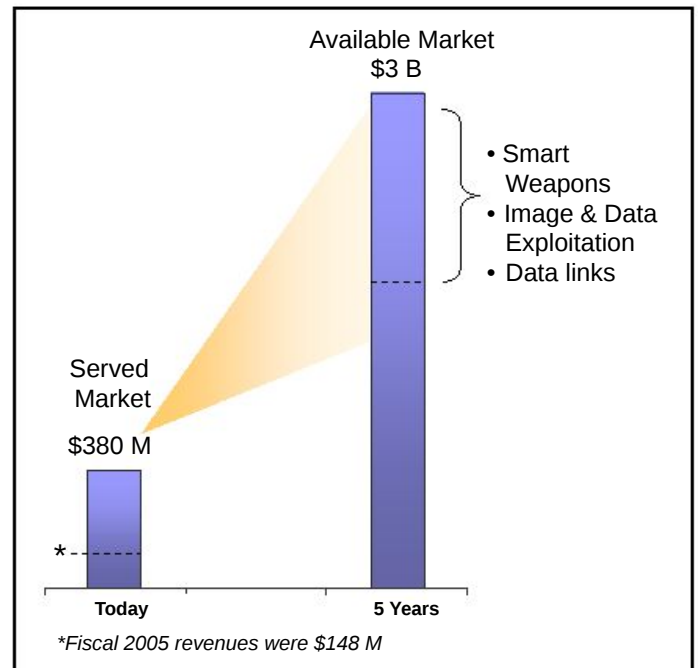


**A**irborne  
**R**econnaissance  
**I**mage  
**E**xploitation  
**S**ystem



## 231 Active Defense Programs 35 Design Wins in FY05

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





- **DoD investment priorities consistent with DBU strengths**
  - Transformation agenda driving increasing need for CISR and processing
- **COTS will grow in importance**
- **DBU well-positioned**
  - Significant barriers to entry
  - Strong investment strategy
    - Defense and Commercial
  - Driving innovations for the next generation
  - New designs and legacy upgrades

- **Strong competitive position in attractive and growing markets**
- **Leveraging technology investments by entering new markets and applications**
  - Defense and commercial
- **Continuous partnership and acquisition activity supplements internal development**
- **Strong balance sheet and operating cash flow support investments**

[www.mc.com](http://www.mc.com)  
**NASDAQ: MRCY**