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 10, 2010

Mercury Computer Systems, Inc.
(Exact Name of Registrant as Specified in Charter)

Massachusetts	**000-23599**	**04-2741391**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

201 Riverneck Road, Chelmsford, Massachusetts 01824
(Address of Principal Executive Offices) (Zip Code)

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

Not Applicable
(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 November 10, 2010, at Mercury's Eleventh Annual Investor 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

Exhibit No.	Description
99.1	Presentation materials dated November 10, 2010.

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.

Dated: November 10, 2010

MERCURY COMPUTER SYSTEMS, INC.

By: /S/ ROBERT E. HULT

Robert E. Hult
Senior Vice President, Chief Financial Officer, and Treasurer

Exhibit Index

Exhibit No.	Description
99.1	Presentation materials dated November 10, 2010.

Exhibit 99.1

MERCURY COMPUTER SYSTEMS™

Eleventh Annual Investor Conference

November 10, 2010
New York, NY

Forward-Looking Safe Harbor Statement

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 fiscal 2011 business performance and beyond and the Company's plans for growth and improvement in profitability and cash flow. You can identify these statements by the 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, inability to fully realize the expected benefits from acquisitions and divestitures or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, changes to export regulations, increases in tax rates, changes to generally accepted accounting principles, difficulties in retaining key employees and customers, unanticipated costs under fixed-price service and system integration engagements, and various other factors beyond our control. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 30, 2010. 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 adjusted EBITDA and free cash flow, which are non-GAAP financial measures. Adjusted EBITDA excludes certain non-cash and other specified charges. Free cash flow is defined as cash flow from operating activities less capital expenditures. The Company believes these non-GAAP financial measures are useful to help investors better understand its past financial performance and prospects for the future. However, the presentation of adjusted EBITDA and free cash flow is not meant to be considered in isolation or as a substitute for financial information provided in accordance with GAAP. Management believes the adjusted EBITDA and free cash flow 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 the 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 most recent earnings release, which can be found on our website at www.mc.com/mediacenter/pressreleaseslist.aspx.

Agenda

- Corporate Overview
  - Mark Aslett, President & CEO
- Keynote: ADM Edmund P. Giambastiani, Jr. (USN Ret)
  Former Vice Chair, US Joint Chiefs of Staff
- *Coffee Break (20 min)*
- Mercury Federal Systems (MFS)
- Advanced Computing Solutions (ACS)
- Financial Review
- Closing Remarks / Q&A

Introducing Mercury Computer Systems

- MRCY on NASDAQ
- 500+ employees worldwide
- FY10 revenues of $200M, 15% Adj. EBITDA
- Defense revenue ~80% and 42% growth (12% CAGR) FY07–10
- Real-time digital image, signal and sensor processing solutions
- Advanced Computing Solutions (ACS), Mercury Federal Systems (MFS) divisions

Best-of-breed provider of commercially developed, open application ready and multi-INT subsystems for the ISR market

The Mercury executive team

Mark Aslett
President & CEO

Robert E. Hult
CFO & Treasurer

Didier M.C. Thibaud
SVP & GM, ACS

Gerald M. Haines II
SVP Corporate Development

Craig A. Saline
SVP Human Resources

Dr. Ian Dunn
CTO, ACS

David R. Martinez
President, MFS

Stephen G. Anderson
VP Product Management & Operations, ACS

Leon K. Woo
VP Engineering, ACS

Charles A. Speicher
VP, Controller and Chief Accounting Officer

Brian Hoerl
VP Sales, ACS

The Mercury board of directors

Mark Aslett
President & CEO

Vincent Vitto
Chairman of the Board
Retired President & CEO, Draper Labs

George W. Chamillard
Retired Chairman & CEO, Teradyne Inc.

William K. O'Brien
Former Global Managing Partner, PricewaterhouseCoopers (PwC)

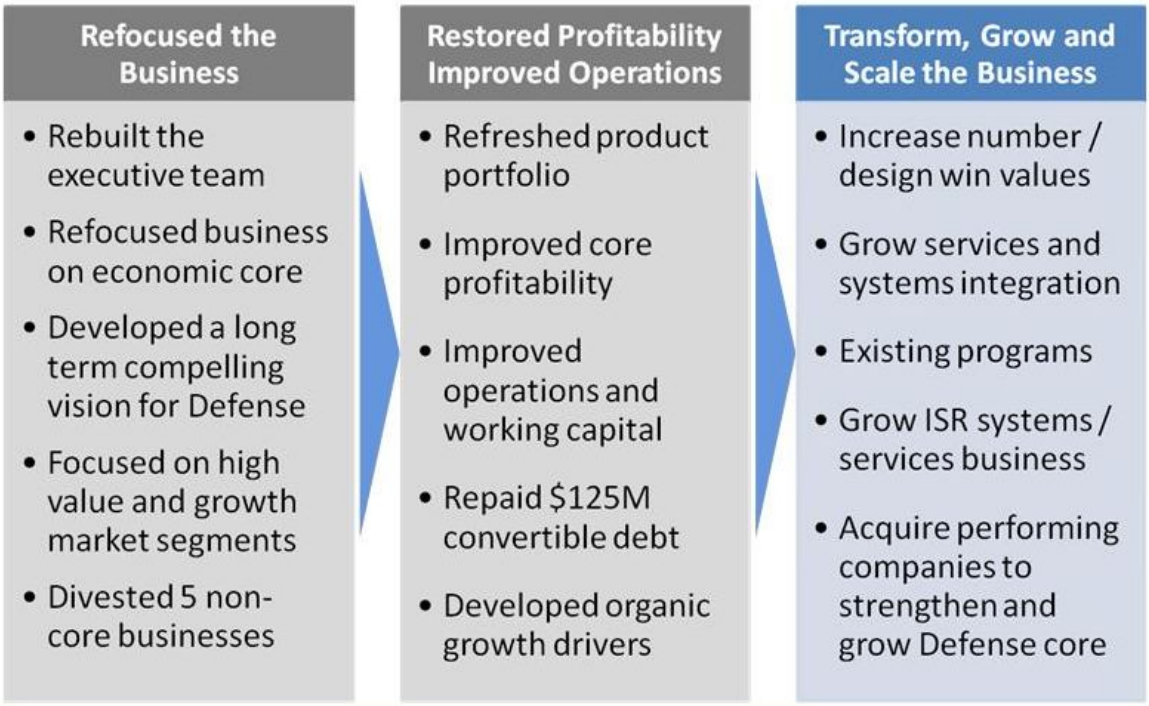
George K. Muellner
Retired President, Advanced Systems for Integrated Defense Systems, Boeing;
Former Principal Deputy, Office of the Assistant Secretary of the Air Force for Acquisition

Lee C. Steele
Partner, Tatum, LLC

James K. Bass
Retired President & CEO, Piper Aircraft

Michael A. Daniels
Retired Sector Vice President, SAIC
Former Chairman & CEO, Network Solutions

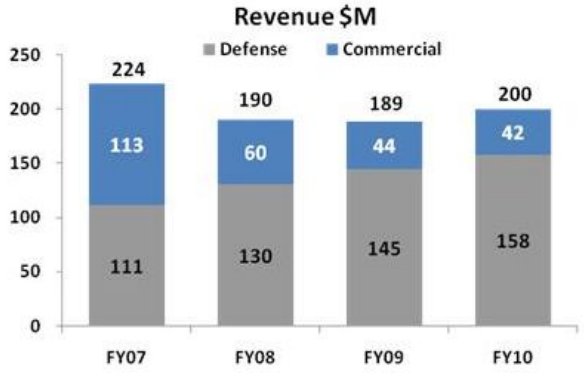
Mercury continues to transform and grow

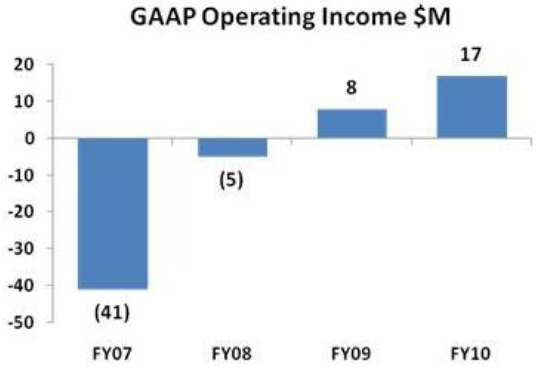


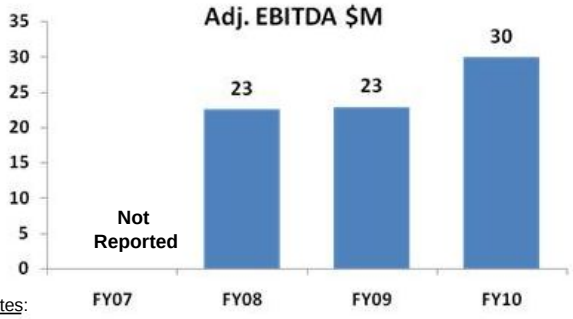
First two phases complete. Focused on growth and acquisiti

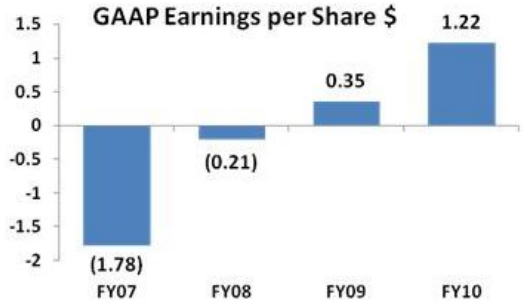
FY07 –FY10: Restored profitability and growth

Defense 42% growth (12% CAGR) since FY07. FY10 Adjusted EBITDA 15%









Notes:

- FY07 figures are as reported in the Company's fiscal 2007 form 10K and have not been restated for discontinued operations.
- FY08 –FY10 figures are as reported in the Company's fiscal 2010 form 10K.
- FY10 Earnings per Share were positively influenced by the partial reversal of the valuation allowance against deferred tax assets and an effective FY10 tax rate benefit of approximately 5%

Mercury's vision

Transform Mercury's profile and market position from a commercial item ("COTS") vendor to the Primes to a "National Asset" and critical component of the Prime, DoD and Intelligence Community industrial base for affordable Intelligence, Surveillance and Reconaissance subsystems and capabilities

Best-of-breed provider of commercially developed, open application ready and multi-INT subsystems for the ISR mark

We've been making customers successful for 30 years

NORTHROP GRUMMAN
LOCKHEED MARTIN
BAE SYSTEMS
argon ST
Raytheon
BOEING
TELEPHONICS®
SIERRA NEVADA CORPORATION
ELECTRONIC SYSTEMS AND INTEGRATION
ITT
GENERAL ATOMICS

Deployed on 300+ programs with 26 Primes

By delivering superior solutions

We solve problems that can't be solved with commercial computing

- State-of-the-art, mixed silicon, real-time embedded signal processing and multi-computing solutions
- Advanced Size, Weight and Power design and packaging
- Ruggedized for deployment; production volume ready
- Application middleware: portability, scalability, high-availability, virtualization
- Best performance available using open standards

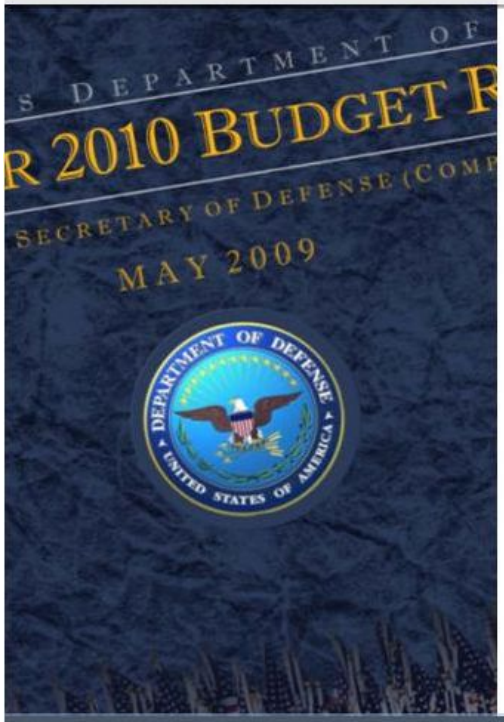
A proud heritage of innovation and technology leadership

However, today's threats are more challenging

- Explosion in sensors and overwhelming data
- EW: new and rapidly evolving threats
- Radar: smaller, faster targets. New technologies
- EO/IR: leap in imaging detail, onboard exploitation and real-time tactical acces
- C4: Net-centric command, control and collaboration
- Time to relevant information is critical

Causing greater demand for Mercury's solutions and capabil

DoDbudget request and C4ISR forecast

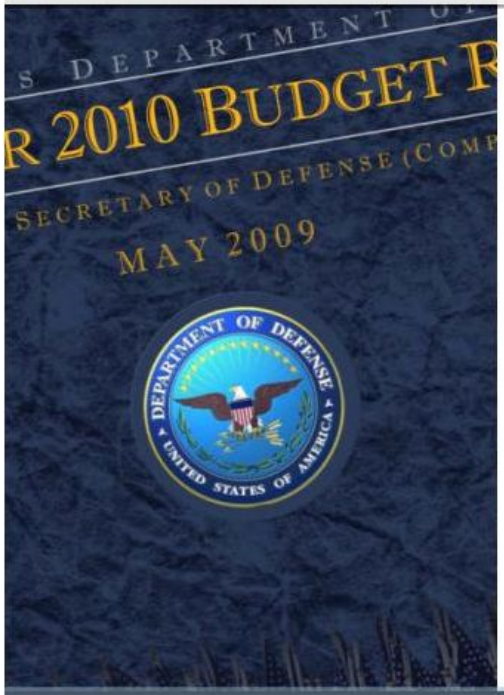


- DoDbudget projections are:
  - $667B in 2009
  - $693B in 2010
  - $708B in 2011
- Frost & Sullivan DoD C4ISR spending:
  - $41.2B in 2009
  - $42.7B in 2010
  - $43.3B in 2011

C4ISR spending is approx 6% of total DoD spending annually

Source: US DoD C4ISR Market, Frost & Sullivan, June 2010

Defense procurement reform: Restoring affordability to Defense goods and services



- Topline DoD budget pressure
- 2-3% budget growth in real terms
- Save $100B in overhead over 5 years
- Provide the war fighting capability our Nation needs with the dollars we have
- Obtain greater efficiency, affordability and productivity in Defense spending
- Avoid program turbulence and maintain a vibrant and healthy Defense industry

DoD focused on better buying power through government and industry productivity growth

Secretary Gates and Undersecretary Carter have issued 23 principal actions in five major areas:

1. Target affordability and control cost growth
2. Incent productivity and industry innovation
3. Promote real competition
4. Improve tradecraft in services acquisition
5. Reduce non-productive processes and bureaucracy

DoDfocused on better buying power through government and industry productivity growth

Mercury fully supports the DoD initiatives and has an important role in achieving the desired goals

1. Target affordability and control cost growth
2. Incent productivity and industry innovation
3. Promote real competition
4. Improve tradecraft in services acquisition
5. Reduce non-productive processes and bureaucracy

Mandate affordability

Shorter program timelines

Eliminate portfolio redundancy

Drive productivity growth will cost /should cost

Reward contractors for supply chain and indirect expense management

Increase use of fixed priced incentive firm target contracts

Reinvigorate industry's independent R&D

Preferred supplier program

Economical production runs

Adjust progress payment to incent performance

Require open systems architectures

Increase dynamic small business role in Defense

DoDfocused on better buying power through government and industry productivity growth

In addition, and as a direct result of procurement reform, our customers are seeking ways to:

- Reduce risk (technical – programmatic – business)
- Increase P-Win on must win new programs and upgrades
- Maintain or improve margins under firm fixed contract awards
- Compress development and deployment cycles
- Differentiate from competition with less IRAD
- Turn fixed operating costs to variable period expenses

Primes moving to outsourcing with best-of-breed partners

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Evaluation of alternative approaches from Prime's viewpoint

	Lowest Risk	Least Cost	Reduced Time	Improved P-Win
In-house make vs. buy	◔	◔	◔	◔
Catalog / COTS boards	◔	◑	◑	◑
Best-of-breed subsystem	◕	◕	◕	●

Mercury is helping the Primes succeed in this new environm

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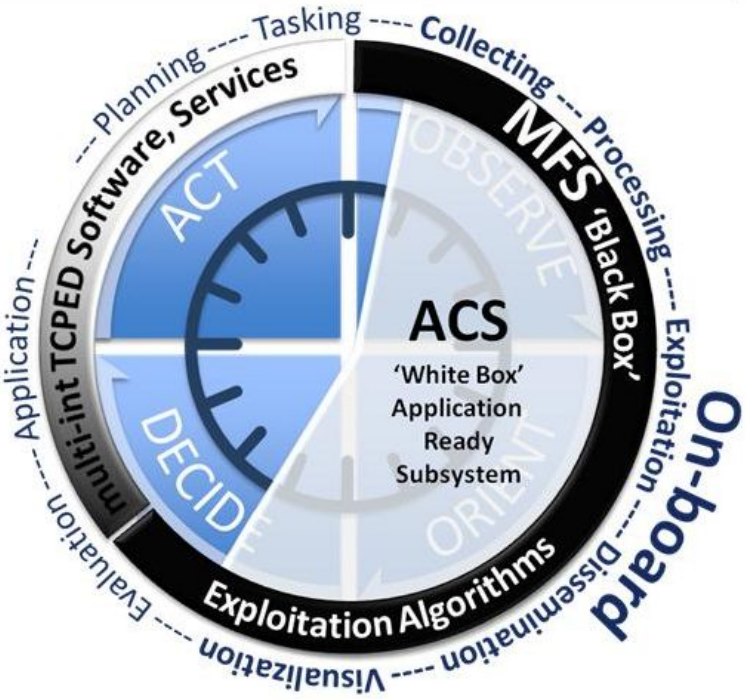
● = Best ◑ = Fair ○ = Poor

Our business model evolved significantly in FY08 in anticipation of the issues the Primes now face

- Forward looking business model established FY08
  - ACS Services and Systems Integration
  - Mercury Federal Systems
- Focused on application ready and ISR subsystems
- ACS application ready ‘White Box’subsystems to Primes
- MFS classified, platform ready ISR ‘Black Box’ subsystems to Primes



Capability and flexibility give Primes a competitive advantage

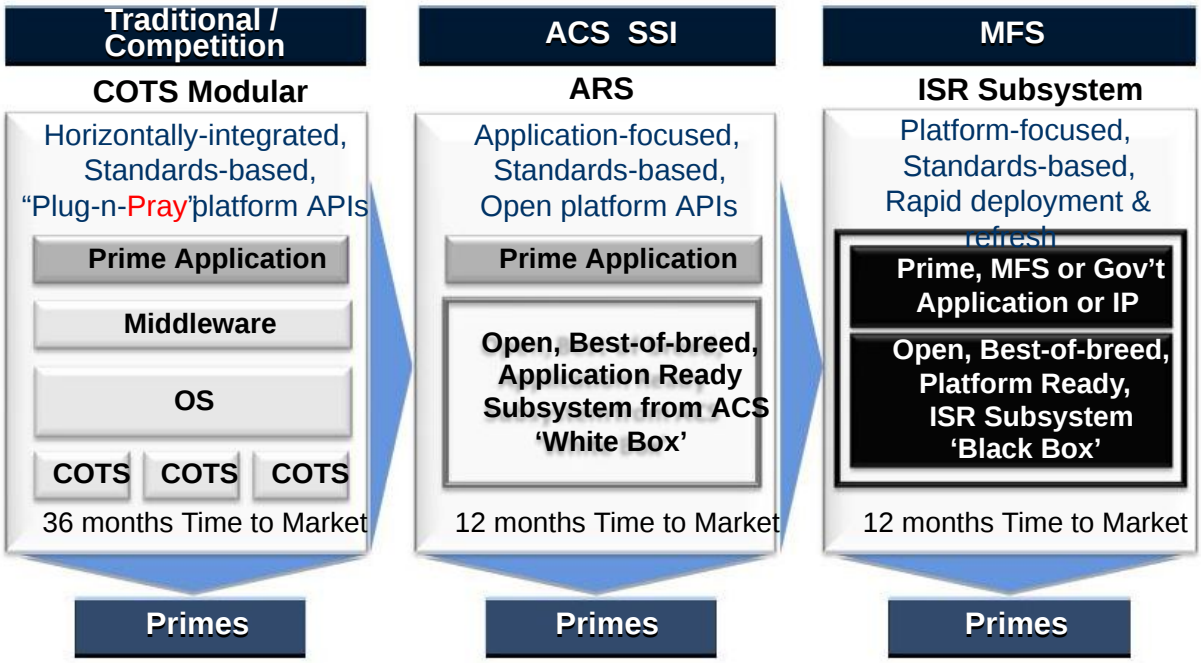
What is an application ready ISR subsystem?

What it's not is simply "Packaged COTS"

- Customizable configurations
  - Open, best-of-breed building blocks from Mercury and 3rd parties
  - From RF to visualization
  - SWaP and performance optimized
  - Application middleware: portability, scalability, high availability, virtualization
  - Prime ISR application reac
  - Pre-established TRL, MRL

Mercury is responding with a family of application ready subsystem solu

Mercury's application middleware and systems expertise differentiate us from the competition



If you want a system you need to buy it from a systems vend

‘White Box’ success story – Ground Missile Defense

ACS SSI services-led sale leads to production subsystem annuity stream

PROGRAM BACKGROUND:

- Prime embraced outsourcing. 80% external vs. 20% last time around
- Desired best-of-breed partners
- Rapidly needed open ‘COTS’ radar application ready subsystem
- Prime provides application, sensor and platform integration

RADAR APPLICATION READY SUBSYSTEM:

- OpenVPX™ processing subsystem
- Conduction-cooled chassis
- Multi-plane backplane
- Modified power supplies
- Systems management capabilities
- Delivered as configured subsystem

MERCURY BUSINESS MODEL:

- ACS SSI services-led sale
- Leveraged existing product portfolio
- Paid $6m engineering development services, $6m systems integration, $6m 1st production system
- 17-20 country ‘White Box’ production susbsystem annuity stream

'Black Box' success story – Wide Area Persistent ISR

MFS services-led sale leads to production subsystem annuity stream

PROGRAM BACKGROUND:

- Real-time full motion video direct to troops at tactical edge day and night
- QRC phase 1 deployment ~12 months QRC phase 2 expected
- Open plug and play sensor architecture
- Best-of-breed model – EO/IR sensors, processing, algorithms, comm's
- Leverage Gov't IP where possible

EO/IR APPLICATION READY SUBSYSTEM:

- FPGA/Intel/GPU processing system
- Solid state storage subsystem
- Sensor & GPS integration
- Algorithm integration
- Onboard exploitation, dissemination

MERCURY BUSINESS MODEL:

- MFS won program – DCAA terms
- Subcontracted design, development, integration, production of 'White Box' to ACS SSI – commercial terms
- 'Black Box' production subsystem annuity stream

Our hybrid business model provides a flexible program response capability with better value

MFS

- DCAA contracting business model
- Top secret / SCI personnel
- Leverages $40M ACS product and subsystem IRAD investments
- Enhances ACS application ready ‘White Box’with classified IP
- Platform ready, affordable ISR ‘Black Box’subsystems
- Uniquely positioned to transition IP from Government labs to subsystems
- Variable vs. Prime fixed cost model

ACS

- Commercial item business model
- Outsourcing partner to the primes
- Best-of-breed, open, application ready ‘White Box’subsystems
- Primes can influence and leverage $40M Mercury IRAD through SSI
- Leverage R&D investments and expertise across multiple programs
- Services led engagement leads to production subsystem annuities
- Variable vs. Prime fixed cost model

Capability and flexibility provide affordable value added solut

Acquisition strategy

1. **Strengthen and grow the core ACS Defense business:**
   - Extend / enhance current product portfolio to include RF, mission computing and communications to increase platform production content
   - Develop and scale an outsourced engineering services and systems integration model leading to production application ready subsystems as the Primes outsource more and divest non-core assets
2. **Expand our total addressable market through MFS and increase our ISR domain expertise and capabilities:**
   - Transform Mercury's business model to become a services-led, best-of-breed ISR subsystems and technology-enabled software and services partner to the Primes
   - Strengthen ISR domain expertise and capabilities: personnel, know-how, clearances, contract vehicles and customer access

Best-of-breed provider of commercially developed, open application ready and multi-INT subsystems for the ISR mark

Acquisition candidate likely characteristics:

- Focused on ACS product line extensions and ISR business platform for MFS
- Businesses that are profitable and growing
- In the low tens of millions revenue to start
- Privately held
- Can be executed with assets on hand or available
- Accretive within 12 months or less

Best-of-breed provider of commercially developed, open application ready and multi-INT subsystems for the ISR mark

Positioned for growth in a changing industry

- Focused on growing ISR market – strong position on important, well funded programs
- Outsourcing partner to the Primes – best-of-breed application ready and ISR subsystems
- Government amenable business model well aligned with defense procurement reform
- Delivering strong organic growth in defense with robust proforma target business model
- Pursuing complementary ISR acquisitions to transition business model and scale

Continuing to build a pure-play, best-of-breed ISR subsystem and technology-enabled software and services company

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Agenda

- Corporate Overview
- Keynote: ADM Edmund P. Giambastiani, Jr. (USN Ret)
  Former Vice Chair, US Joint Chiefs of Staff
- *Coffee Break (20 min)*
- Mercury Federal Systems (MFS)
- Advanced Computing Solutions (ACS)
- Financial Review
- Closing Remarks / Q&A

Outline

- Opening remarks
- DoDefficiency initiatives, acquisition reform and affordability
- DoDbudget outlook
- Addressing today's wars and tomorrow's potential conflicts
- Program implications for ISR and Mercury
- Summary

Agenda

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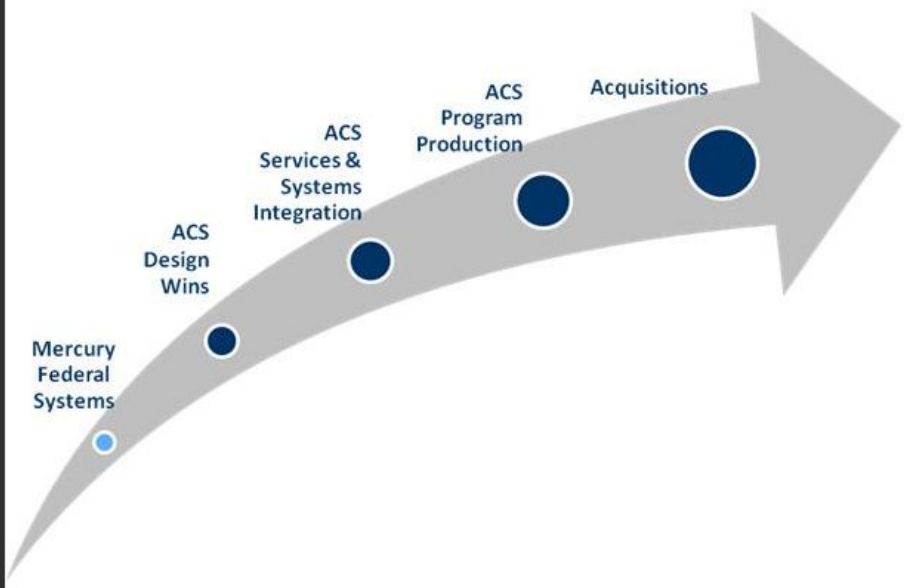
- Mercury Federal Systems (MFS)
  - David Martinez, President
- Advanced Computing Solutions (ACS)
- Financial Review
- Closing Remarks / Q&A

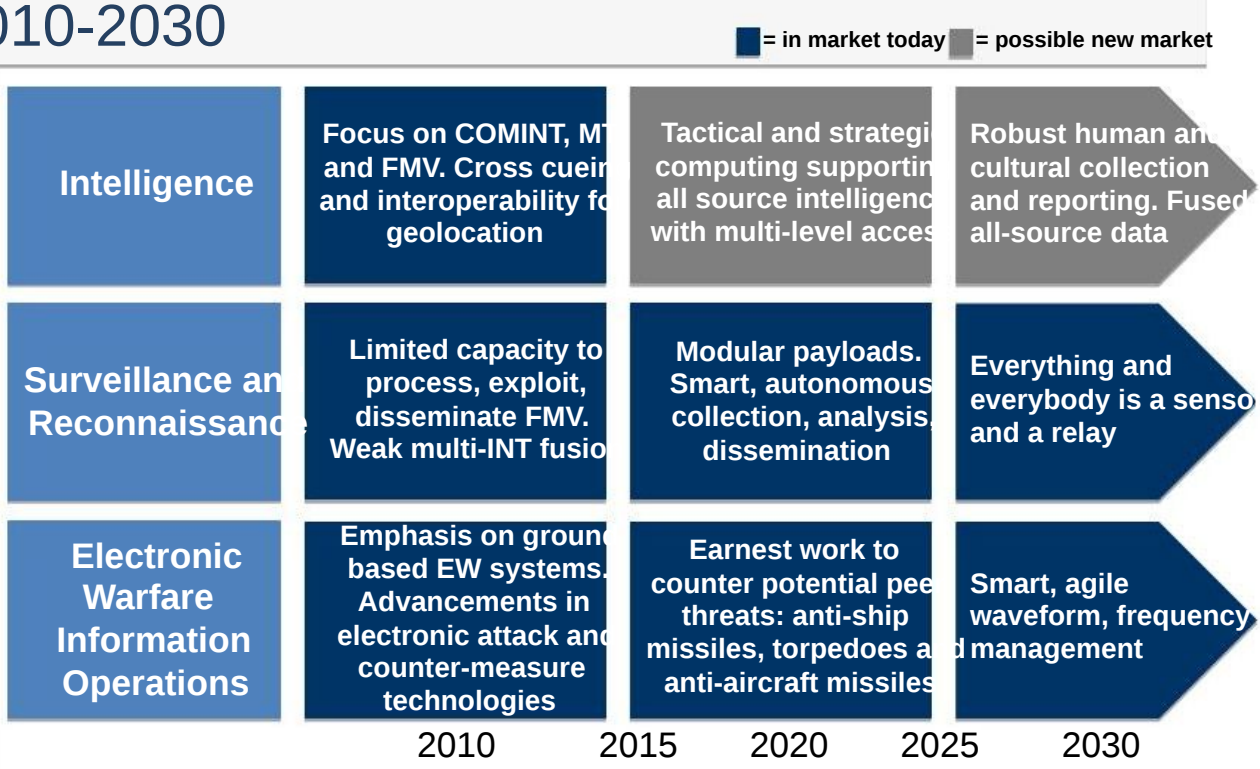
MFS in the context of Mercury's five defense growth drivers

- UAV EO/IR QRC & production
- SIGINT QRC & production
- ISR government labs IP transfer
- Best-of-breed solution provider
- Classified ISR subsystems



Growth based organically and through acquisitions

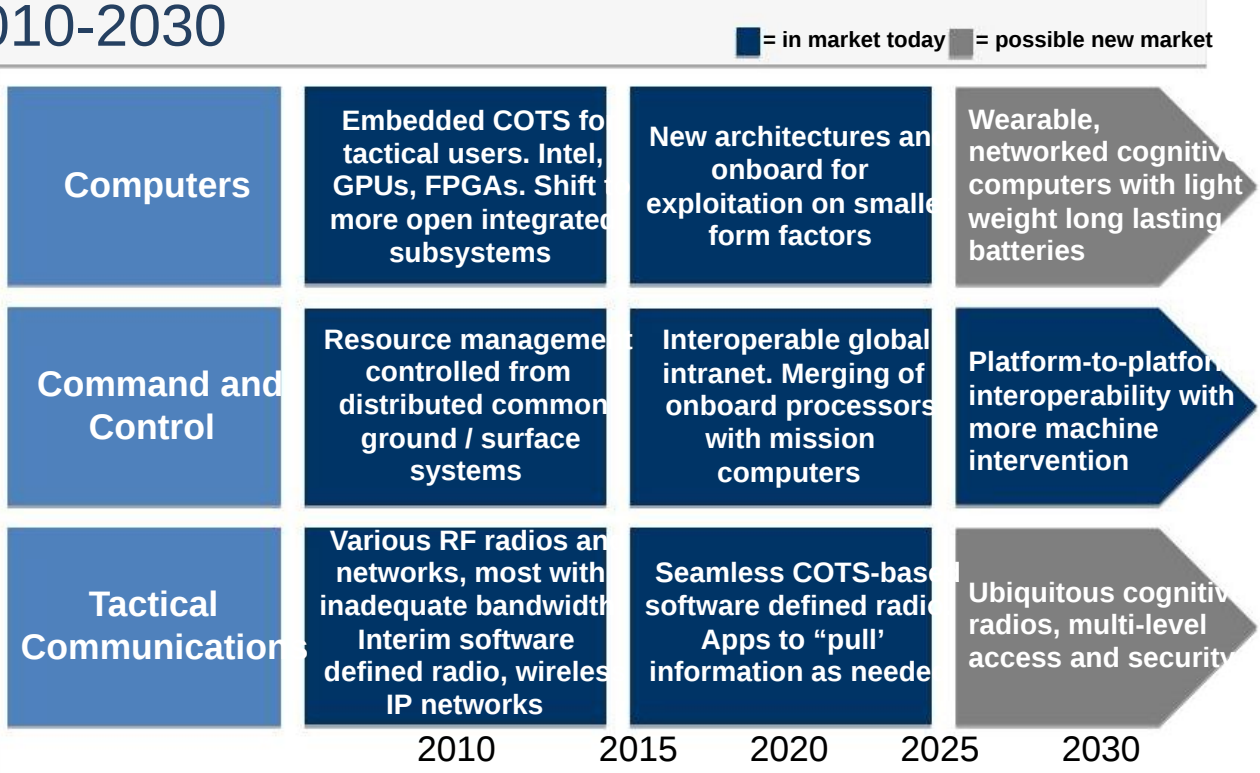
US DoD C4ISR: Technology roadmap and trends 2010-2030



Mercury well positioned given its capabilities and programs

Source: US DoD C4ISR Market, Frost & Sullivan, June 2010; Mercury analysis

US DoD C4ISR: Technology roadmap and trends 2010-2030



Mercury well positioned given its capabilities and programs

Source: US DoD C4ISR Market, Frost & Sullivan, June 2010; Mercury analysis

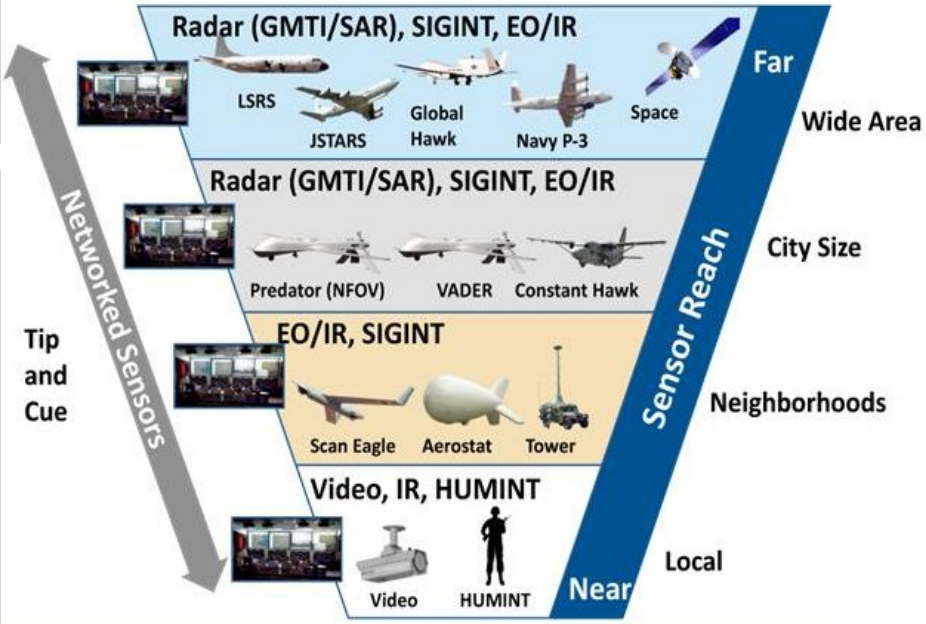
Mercury Federal Systems: vision and approach

- Acquire companies with strong ISR capabilities
- Team to force-multiply Mercury's expertise
- Transition gov't IP: Labs, FFRDCs, UARCs, academia
- Best-of-breed solutions across ISR spectrum
- Emphasis on application ready subsystems critical to ISR market
- Rapid and modular implementation of classified applications

The ISR systems and technology services arm of Mercury Computer Systems based on affordable, innovative best of breed open solutions

Layered ISR architecture

- Wide area multi-INT persistent ISR
- Find and precisely target enemy intents and activities
- Monitor activity in difficult environments
- Cross-platform cueing
- Rapid capabilities at low cost: 80% solution OK



Best-of-breed provider of commercially developed, open application ready and multi-INT subsystems for the ISR mark

MFS business value-add evolving towards onboard exploitation

- Leveraging ACS building blocks
- Deployed applications for onboard exploitation
- Affordable and open architectures enabling rapid spiral development
- Future growth driven by multi-INT net centric systems, software and services

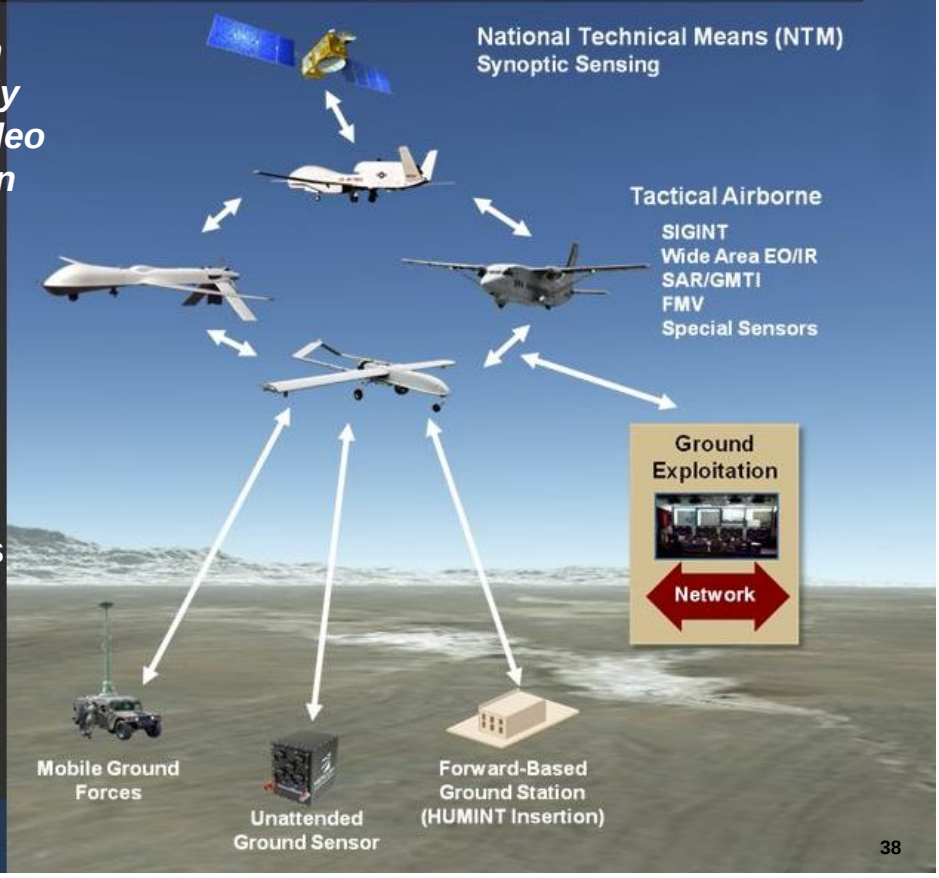
The MFS and ACS business model offers more affordable capal

Migrating ground multi-INT to onboard platforms

"Analysts at the AF 480th ISRW review approximately 820 hours of full-motion video daily and exploit more than 1,000 targets per day"
ASD News: March 19, 2010

Value of Timely Results:

- Reduces amount of data processed on the ground
- "Heavy lifting"onboard platform to address comm's bottlenecks
- Focuses analysts on transforming knowledge into action



MFS major program: Persistent ISR airborne surveillance

- Quick reaction capability with MFS as the payload provider
- Partnered with other agile companies (Sierra Nevada Corp, ITT, BAE, L3, Adam Works)
- Rapid prototyping and demonstration of best-of-breed
- Real-time tailored feeds directly to the forces
- Near real-time “TIVO®” capability

Validation of ACS & MFS leadership and agility

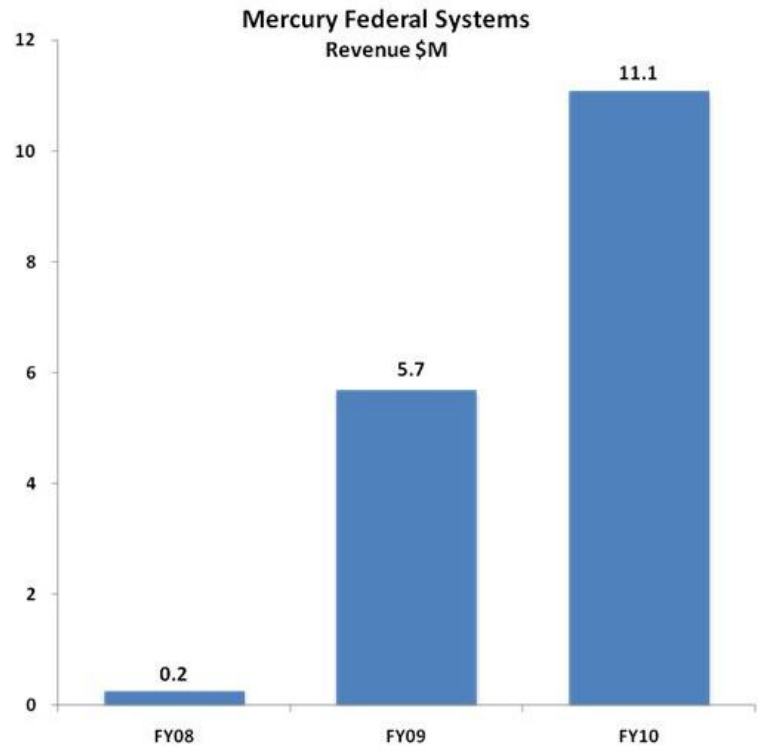
Growth into SIGINT market to address present and future DoD needs

- Interoperable COMINT systems
- Modular ISR planning and collection
- Scalable solutions to include different manned and unmanned platforms
- Rapid integration at affordable costs
  - Prototypes
  - Low rate initial production
  - Full production

Acquisition is focused on expanding into COMINT area

Delivered strong revenue growth since FY08 startup

- 95% revenue growth FY10
- Beginning FY11 backlog $2.7M
- Next-generation persistent ISR program driving growth
- Best-of-breed, ISR subsystem architect, developer & integrator
- Leverages ACS application ready ISR subsystem solutions
- Open platform-independent architectures



Growth opportunities for MFS

Broad range of customers and government sponsors

- Multi-INT onboard processing
- Initial focus is on EO/IR and COMINT
- Leverage ACS investments
- Transition government IP from lab to deployment
- Deliver 'blackbox' by enhancing 'whitebox' ARS with classified IP
- Center of excellence for rapid and modular development

Innovative solutions at an affordable price

Agenda

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  Former Vice Chair, US Joint Chiefs of Staff
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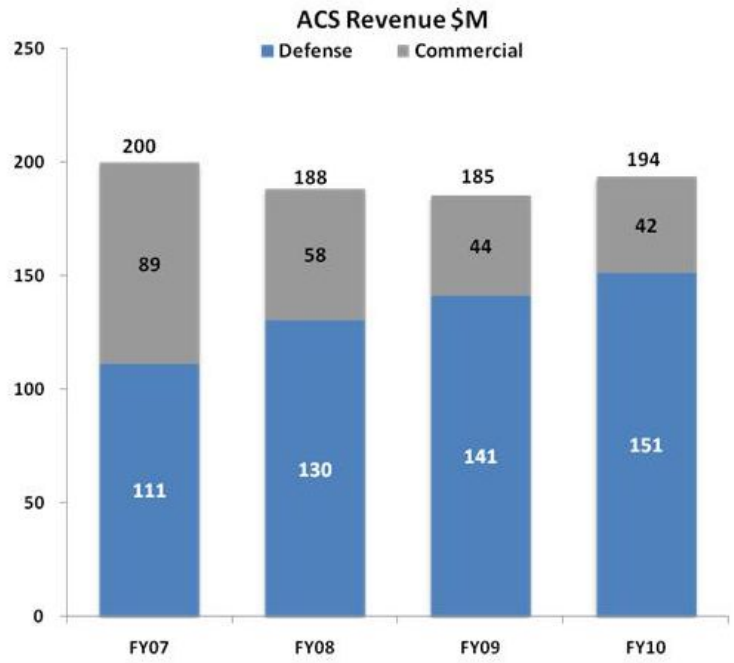
- Advanced Computing Solutions (ACS)
  - Didier Thibaud, SVP and GM, ACS business unit
- Financial Review
- Closing Remarks / Q&A

Advanced Computing Solutions (ACS)

Defense 36% growth (11% CAGR) since FY07

- Focus on providing application ready subsystems for C4ISR
- Leverage technologies and product between commercial and defense markets
- Optimized performance for SWaP
- Quick Response Capabilities (QRC) through service offerings
- Defense continues its growth 11% CAGR; Radar (32% CAGR and EO (29% CAGR) FY07-10
- Commercial revenues stabilized

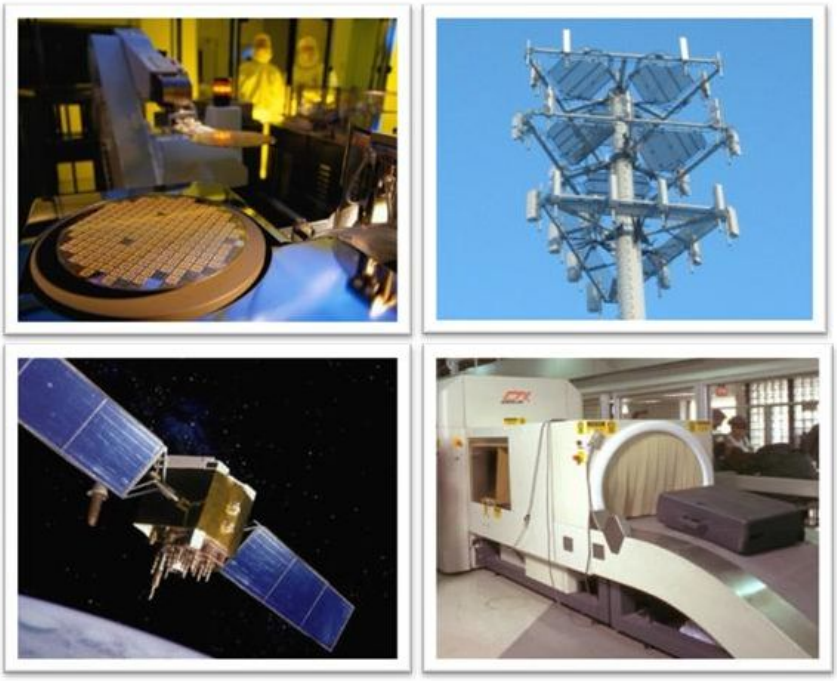


Commercial stabilized and double digit CAGR in Defense

Note: ACS revenues include intercompany revenue of $.1M in FY08, $2.1M in FY09 and $5.0M in FY10

Commercial segment dynamics

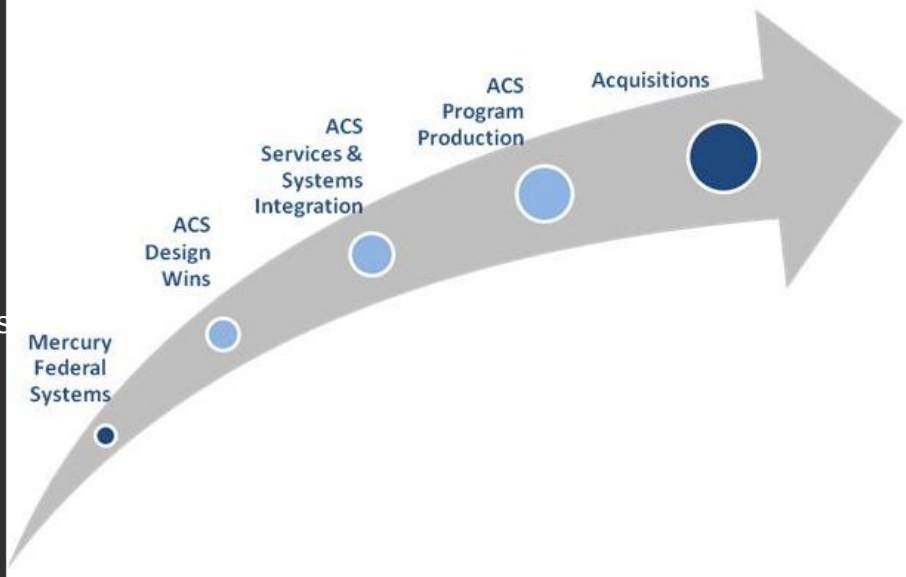
- Semiconductor
  - Market rebounding
  - ASML in production
  - KT at end of cycle
- Communication
  - Entering new area: 4G test equipment
  - New satellite communication systems in deployment
- Homeland Security
  - Design wins still in development
  - New opportunities



Commercial revenue stabilized

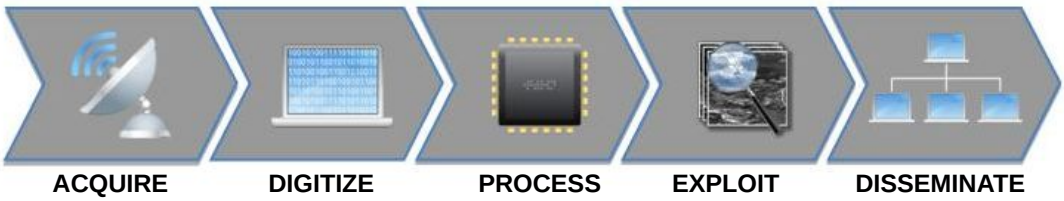
Go-To-Market strategy driving growth

- Design wins:
  - New products & tech refresh
  - New customers
  - New segments
- Services and Systems Integration:
  - Outsourcing by Primes
  - Application ready subsystems
- Program production:
  - Missile defense
  - UAV radar/EW/EO/IR
  - Fighter radar
  - Airborne EW



Well positioned to sustain double-digit defense growth

Open architecture solutions driving design wins



Unique Value Driver	RF Tuner Fastest tuning speed	Best Signal to Noise Ratio	Leader in DSP	First OpenVPX architecture for Intel and GPU	Highest density in storage
Market Impact	Meet next generation EW requirements	Best detection in SIGINT	Lead Radar, EW and WAAS markets	First deployed system for UAVs	Meet next generation WAMI system requirements

Technology leadership aligned to battlefield requirements provides superior capabilities to our customers

ACS design win value CAGR 15%

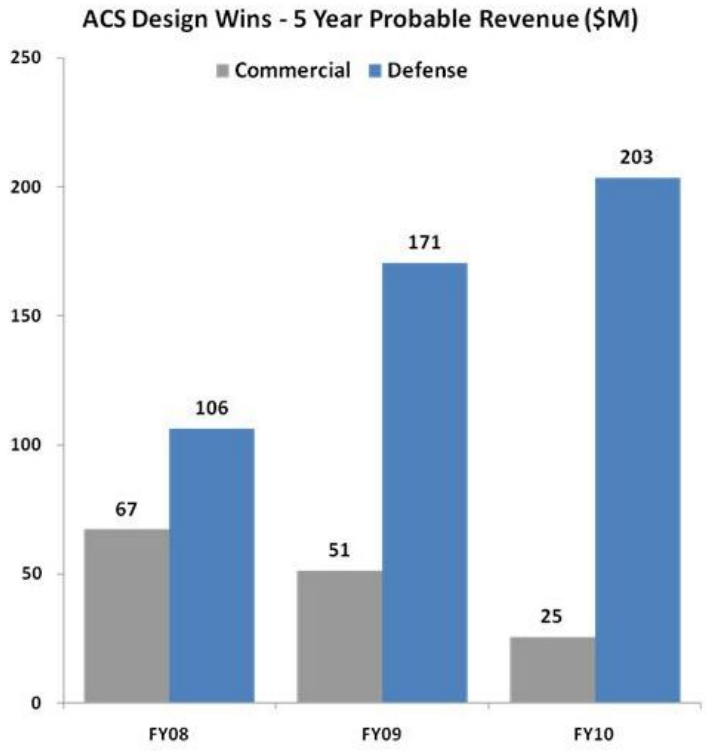
Defense CAGR 38%

Defense Highlights

- Aegis – Naval BMD, C4I
- Patriot – Missile Defense
- BAMS – SIGINT, Radar
- Predator/ Reaper – Radar
- ASIP – Airborne SIGINT
- JCREW – Ground SIGINT
- SEWIP – Naval SIGINT
- Cobra Ball – EO/IR
- SSEE(F) – Naval SIGINT

Commercial Highlights

- ASML – Semiconductor
- Artiza – 4G test
- Hughes – Satellite comms
- Rapiscan – Baggage scanning



Note: Potential is 5 year probable value based on customer-supplied information at time design win awarded. Actual program value may be higher or lower.

SEWIP Block 2 another $100M+ program

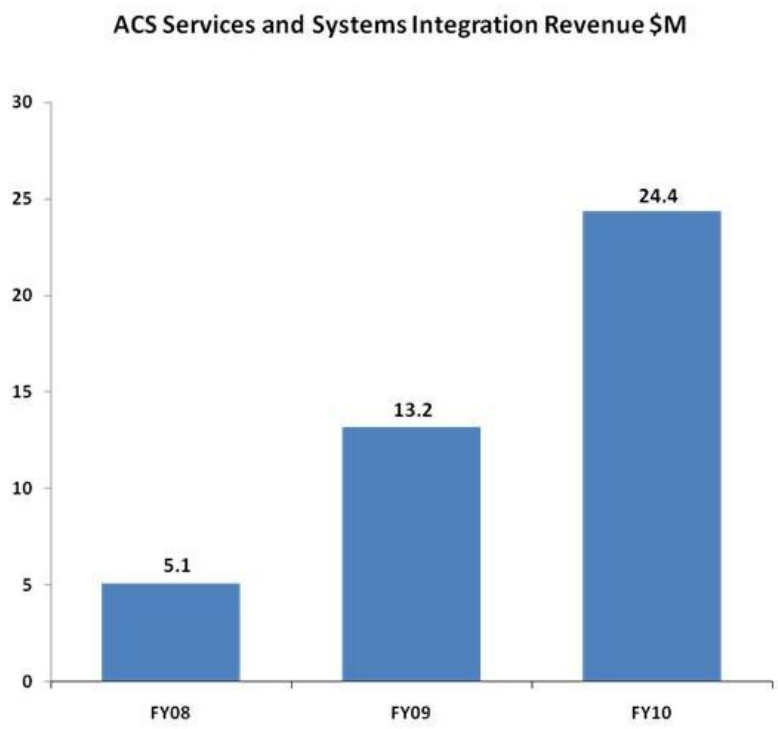
Lockheed Martin displaced incumbent

- Next generation EW upgrade for NAVY
- Deployment met compressed schedule for field test
- Leveraged Mercury application expertise
- Delivered best-of-breed application ready subsystem
- EW performance-optimized

Strong partnership with Prime driving content expansion which could double the program value to Mercury

Services and Systems Integration delivered 119% CAGR FY08-FY10

- 85% revenue growth FY10
- Expands addressable market
- Outsourcing partner to Defense Primes given acquisition reform
- Best-of-breed application ready ISR subsystem solutions
- Services-led engagement leading to long-term platform production annuity streams




ITT
Congratulations
to the
JCREW 3.3 Team
ITT ES/IEWS - Clifton, NJ
ITT ES/FPS - Thousand Oaks, CA
ITT IS - Herndon, VA
FIXED
VEHICLE MOUNTED
RIVERINE MOUNTED
DISMOUNTED
MERCURY
COMPUTER SYSTEMS
LINX
Georgia Tech Research Institute
LOCKHEED MARTIN
ONE TEAM, ONE MISSION, ONE FUTURE

JCREW 3.3: Next generation Counter IED

- 12 month development cycle:
  - Services and Systems Integration engagement
  - OpenVPX application ready building blocks
  - SWaP processing optimized
- Previous generations high volume ground mobile
  - JCREW 2.1 25,000 systems
  - JCREW 3.2 5,000 systems
- DoD to begin acquiring JCREW 3.3 systems in FY13
  - # systems TBD

Program potential could drive significant growth

Note: Mercury not involved in JCREW 2.1 and 3.2

Positioned in major programs aligned to defense budget

NORTHROP GRUMMAN
LOCKHEED MARTIN
BAE SYSTEMS
argon ST
Raytheon
BOEING
TELEPHONICS
ITT
snc SIERRA NEVADA CORPORATION ELECTRONIC SYSTEMS AND INTEGRATION
GENERAL ATOMICS

On key programs which are the foundation for growth

Aegis ballistic missile defense: SPY-1 BMD Radar

- Program in production
- $35M booked in FY10
- First systems installed on Aegis ships
- 30+ ship upgrade scheduled over 5 years
- Upside opportunities:
  - New data recorder design win in FY10
  - Lockheed Martin awarded Aegis Ashore development

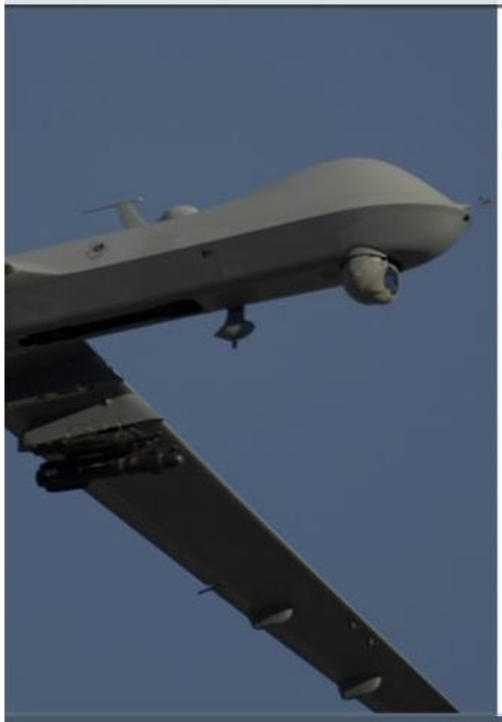
$100M+ of expected upgrades for BMD over next 5 years

Patriot missile defense: Next generation ground radar

- First award $18M
  - Development
  - UAE
  - Entering production
- Second award received
  - Taiwan
- Future awards:
  - < 12 months: Saudi Arabia, Turkey
  - > 12 months: Others
- Major potential with US Army upgrade

$50M-$80M expected additional business over next 5 years

Well positioned for growth



- Focused on growing ISR market
- Strategically positioned on important, well funded defense programs
- Business model aligned with expected defense procurement reform
- Outsourcing partner to the primes
- Best-of-breed application ready ISR subsystem provider

Commercial stabilized; strong growth in defense

Agenda

- Corporate Overview
- Keynote: ADM Edmund P. Giambastiani (USN Ret)
  Former Vice Chair, US Joint Chiefs of Staff
- *Coffee Break (20 min)*
- Mercury Federal Systems (MFS)
- Advanced Computing Solutions (ACS)
- Financial Review
  - Bob Hult, CFO
- Closing Remarks / Q&A

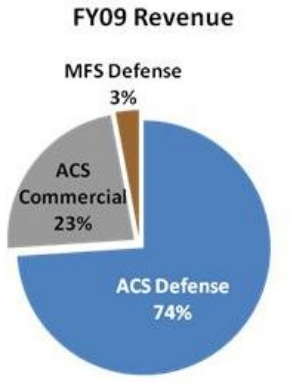
FY07 –FY10: Restored profitability & growth

GAAP	FY07	FY08	FY09	FY10
Revenue ($M)	224	190	189	200
Gross Margin % Revenue	55.6%	57.8%	55.8%	56.3%
Operating Expenses ($M)	165	115	98	95
Op Income ($M) % Revenue	(41) (18.1%)	(5) (2.8%)	8 4.1%	17 8.7%
EPS (Continuing)	($1.78)	($0.21)	$0.35	$1.22
Adj EBITDA ($M) % Revenue	Not Reported	23 11.8%	23 12.1%	30 14.9%
Operating Cash Flow ($M)	($10)	$14	$11	$16
# Employees EOY	729	530	517	523

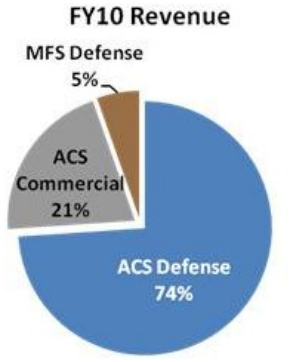
Note: FY07 figures are as reported in the Company's fiscal 2007 form 10K and have not been restated for discontinued operations.
FY08 –FY10 figures are as reported in the Company's fiscal 2010 form 10K.

Major business dynamics

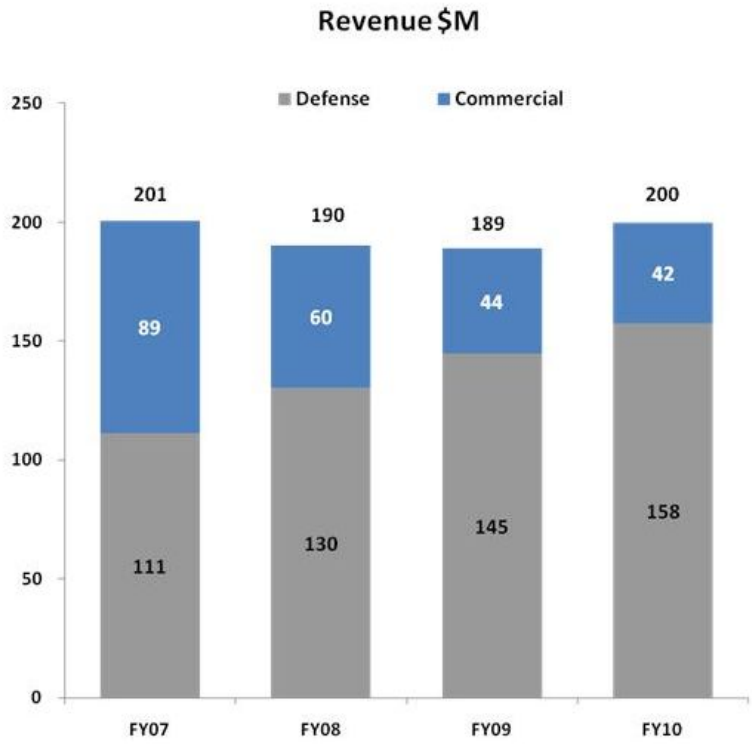
Focus on strengthening and growing the defense business



Note: Excludes $2M interco eliminations



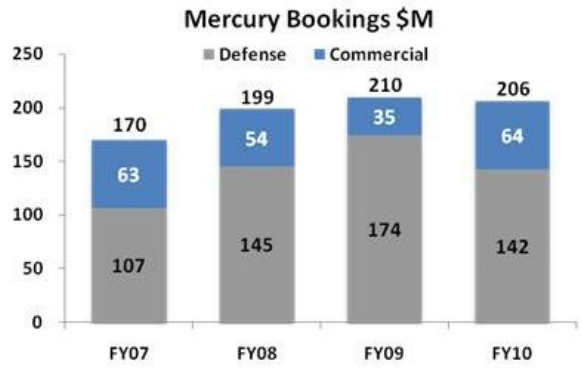
Note: Excludes $5M interco eliminations

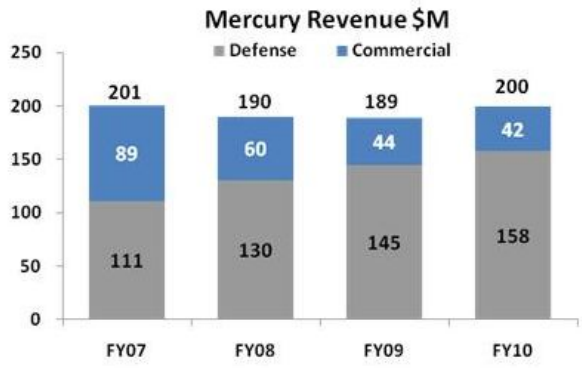


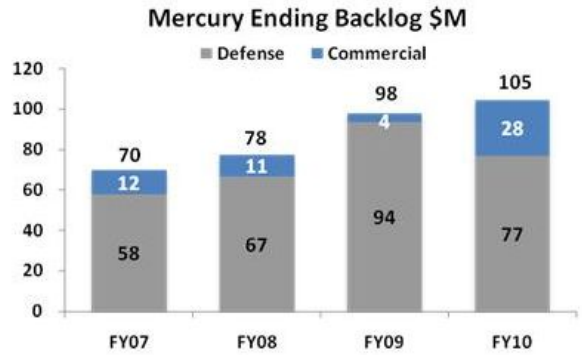
Note: FY07-10 figures adjusted for discontinued operations

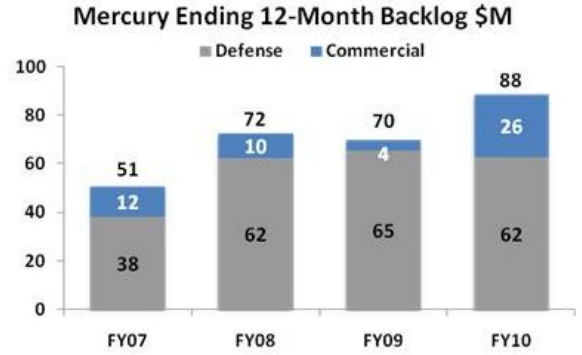
Growth in bookings and backlog

FY07-FY10 Defense CAGR: Bookings 10%, Backlog 10%, 12-month Backlog 18%



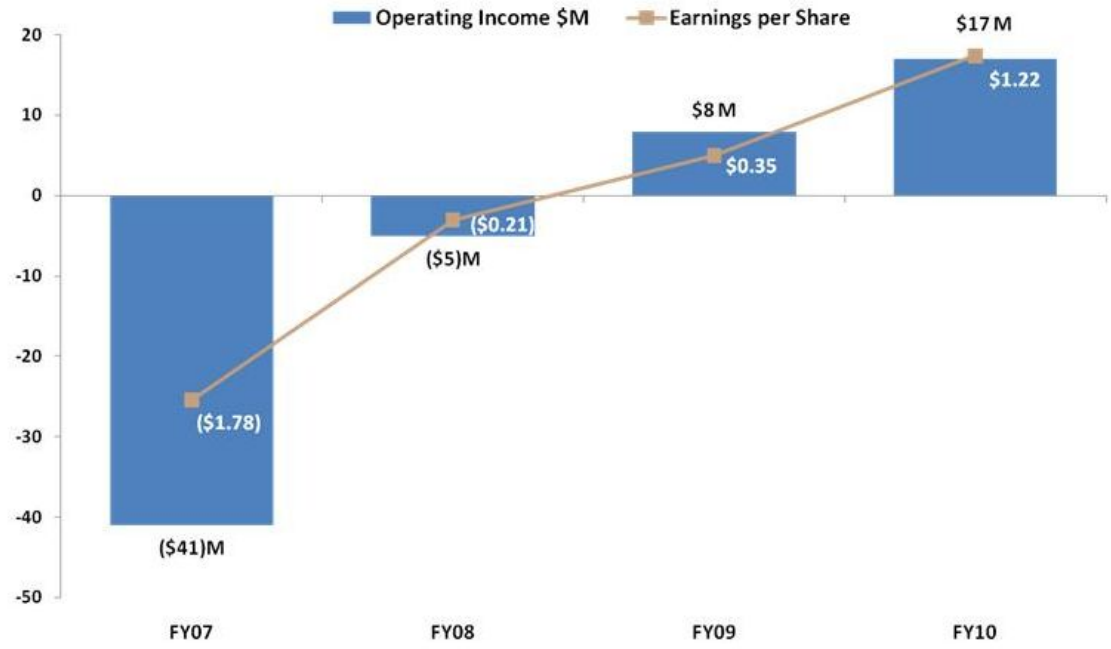






Note: FY07-FY10 Total CAGR: Bookings 7%, Backlog 14%, 12-month Backlog 21%. FY07-10 figures adjusted for discontinued operations

FY07-FY10 profitability improves



Notes:

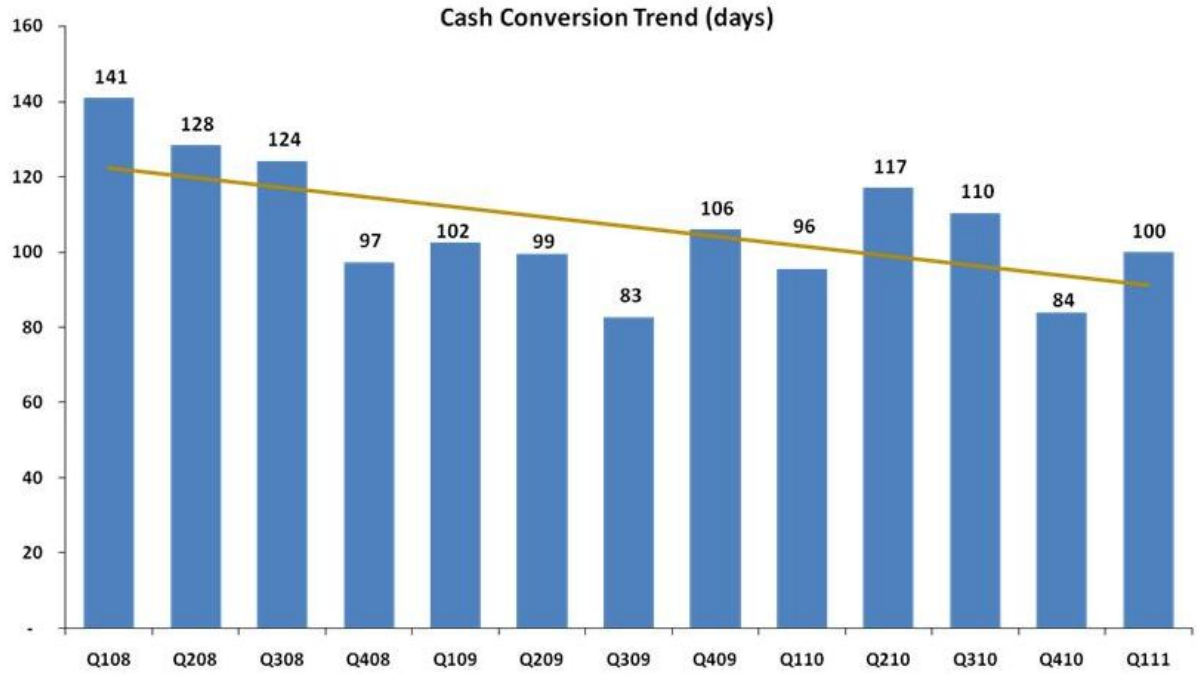
- FY07 figures are as reported in the Company's fiscal 2007 form 10K and have not been restated for discontinued operations.
- FY08 –FY10 figures are as reported in the Company's fiscal 2010 form 10K.
- FY10 Earnings per Share were positively influenced by the partial reversal of the valuation allowance against deferred tax assets and an effective FY10 tax rate benefit of approximately 5%

Efficient working capital platform to support growth

- Supply chain transformation
  - Engineering methods
  - Investments in DFM
  - Operational efficiencies
  - Reduced lead times
  - Improved cost of quality
  - Inventory reduced $10M from Q3 FY08 to Q1 FY11
- Customer satisfaction
  - Blue chip customers
  - End-of-quarter shipment skew remains an issue

Note: Inventory figures are as reported in the Company's form 10K in the year reported.

Much improved cash conversion cycle



Note: Cash conversion calculation = DSO's + Inventory Days – A/P Days

Mercury's balance sheet poised for investment

Acquisition financing available

	Q1'11 ($M)
Cash and marketable securities	**82**
Other financing sources:	
• **Operating line of credit**	**15**
• **Acquisition line of credit**	**20**
• **Universal shelf registration**	**100**

Generating positive free cash flow from operations; zero deb

Robust target business model

- Target business model organic growth only
- ACS / MFS approx 90% / 10% revenue split
- High mix, low volume
- R&D investments delivering significant added value
- Increased services and systems integration
- Services-led design wins lead to production subsystem annuity stream

GAAP	MFS Proforma	ACS Proforma	Target Business Model
Revenue	100%	100%	100%
Gross Margin	20%	55%	54+%
SG&A	12%	23%	Low-mid 20's
R&D	0%	19%	High Teens
Income from Operations	~8%	~13%	12-13%
AdjEBITDA	~11%	~18%	17-18%

Results approaching the target business model

Operating leverage with growth

GAAP	FY08	FY09	FY10	Target Busines Model
Revenue	100%	100%	100%	100%
Gross Margin	58%	56%	56%	54+%
SG&A	37%	29%	27%	Low-mid 20's
R&D	24%	22%	21%	High Teens
Operating Income	(3%)	4%	9%	12-13%
AdjEBITDA	12%	12%	15%	17-18%

Note: FY08 – FY10 figures are as reported in the Company's fiscal 2010 form 10K.

Q1 FY11 year over year comparison (GAAP)

GAAP	Q1 FY10	Q1 FY11	Delta
Revenue ($M)	47	52	10%
Gross Margin % Revenue	57.6%	58.8%	120 bps
Operating Expenses ($M	22	25	(3)
Operating Income ($M) % Revenue	5 10.7%	5 10.1%	0 (.6) pts
AdjEBITDA	8	9	1
EPS	$0.19	$0.16	($0.03)
Op Cash Flow ($M)	3	9	6
Total Backlog ($M) 12-mo Backlog($M)	99 62	104 91	5% 45%

Notes:
•All historical income statement figures have been restated for operations that have been discontinued subsequent to that time.
•Q1 FY10 tax rate 17%, Q1 FY11 tax rate 36%

Q2 FY11 guidance

	Q2 FY10 Actual	Quarter Ending Dec 31, 2010	
		Low	High
Revenues ($M)	**$45**	**$54**	**$55**
GAAP EPS	**$0.08**	**$0.10**	**$0.12**
Adj EBITDA ($M)	**$5.5**	**$7.1**	**$7.7**
Note - Adj EBITDA Adjustments ($M)			
Net Income (Continuing)	1.9	2.4	2.8
Stock compensation	1.5	1.3	1.3
Impairment	0.2	0.0	0.0
Interest Expense	0.1	0.0	0.0
Interest Income	(0.2)	(0.0)	(0.0)
Taxes	0.3	1.4	1.6
Amortization	0.4	0.4	0.4
Depreciation	1.2	1.6	1.6
Adj EBITDA ($M)	**5.5**	**7.1**	**7.7**

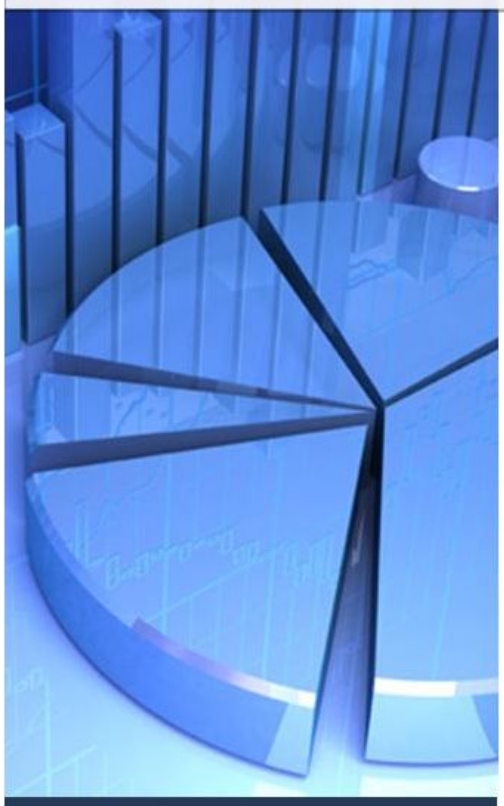
 Note: Q2 FY10 tax rate 15%, Q2 FY11 tax rate 36%

Last 13 quarter's revenues and EPS exceeded or met the top end of guidance

Note: Non-GAAP GAAP

2008	Q1		Q2		Q3		Q4	
	Reported	Guidance	Reported	Guidance	Reported	Guidance	Reported	Guidance
Revenue ($M)	49.2	48.0	52.6	51.0	56.5	53.0-55.0	55.2	53.0-56.0
EPS ($)	0.09	(0.08)	0.04	(0.05)	0.04	(0.04)-0.00	0.01	(0.05)-0.01
2009	**Q1**		**Q2**		**Q3**		**Q4**	
Revenue ($M)	49.1	47.0-49.0	50.7	47.0-49.0	50.6	48.0-50.0	48.4	46.0-48.0
EPS ($)	0.07	(0.07)-(0.03)	0.03	(0.05)-0.00	0.20	0.05-0.09	0.13	0.05-0.08
2010	**Q1**		**Q2**		**Q3**		**Q4**	
Revenue ($M)	47.4	43.0-45.0	45.2	40.0-42.0	43.6	41.0-43.0	63.6	58.0-60.0
EPS ($)	0.19	0.03-0.08	0.08	(0.08)-(0.04)	0.16	(0.15)-(0.11)	0.77	0.25-0.28
2011	**Q1**		**Q2**		**Q3**		**Q4**	
Revenue ($M)	52.1	48.0-50.0		54.0-55.0				
EPS ($)	0.16	0.03-0.06		0.10-0.12				

Poised for growth and investment



- Restored profitability and growth
- Improved working capital efficiencies
- Healthy cash flows from operations
- Strong balance sheet with zero debt
- Capital available for acquisitions
- Closing on robust target business model 17-18% adj. EBITDA

Agenda

- Corporate Overview
- Keynote: ADM Edmund P. Giambastiani (USN Ret)
  Former Vice Chair, US Joint Chiefs of Staff
- *Coffee Break (20 min)*
- Mercury Federal Systems (MFS)
  - David Martinez, President
- Advanced Computing Solutions (ACS)
- Financial Review
- Closing Remarks / Q&A

MRCY positioned for growth in a changing industry

- Focused on growing ISR market – strong position on important, well funded programs
- Outsourcing partner to the Primes – best-of-breed application ready and ISR subsystems
- Government amenable business model well aligned with defense procurement reform
- Delivering strong organic growth in defense with robust proforma target business model
- Pursuing complementary acquisitions to transition business model and scale

Continuing to build a pure-play, best-of-breed ISR subsystem and technology-enabled software and services company

MERCURY COMPUTER SYSTEMS™

Appendix

Glossary

ACS	Advanced Computing Solutions Group	**JCREW**	Joint Counter Radio Controlled Improvised Explosive Device Electronic Warfare
AEGIS	Aegis Ballistic Missile Defense System	**JSTARS**	Joint Surveillance and Target Attack Radar System
API	Application Programming Interface	**KT**	KLA Tencor
ASIP	Airborne Signals Intelligence Payload	**LSRS**	Littoral Surveillance Radar System
ASML	Advanced Semiconductor Materials Lithography	**MFS**	Mercury Federal Systems
BAMS	Broad Area Maritime Surveillance	**MRL**	Manufacturing Readiness Level
BMD	Ballistic Missile Defense	**MTI**	Moving Target Indicator
C4	Command, Control, Communications, Computers	**NFOV**	Narrow Field of View
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance	**NTM**	National Technical Means
COMINT	Communications Intelligence	**OpenVPX**	System-level specification for VPX, initiated by Mercury
COTS	Commercial off-the Shelf	**OS**	Operating System
DCAA	Defense Contract Audit Agency	**P-Win**	Probability of Win
DFM	Design for Manufacturing	**QRC**	Quick Reaction Capability
DoD	Department of Defense	**RF**	Radio Frequency
DSP	Digital Signal Processing	**SAR**	Synthetic Aperture Radar
EO	Electro-optical	**SEWIP**	Surface Electronic Warfare Improvement Program
EW	Electronic Warfare	**SIGINT**	Signals Intelligence
FFRDC	Federally Funded Research &Development Center	**SSEE**	Ships Signal Exploitation Equipment
FMV	Full Motion Video	**SSI**	Services & Systems Integration Group
FPGA	Field Programmable Gate Array	**SWaP**	Size Weight and Power
GMTI	Ground Moving Target Indicator	**TCPED**	Tasking, Collecting, Processing, Exploitation, and Dissemination
GPU	Graphics Processing Unit	**THAAD**	Theatre High-Altitude Area Defense Missile System
HUMINT	Human Intelligence	**TRL**	Technology Readiness Level
IMINT	Imagery Intelligence	**UAE**	United Arab Emirates
INT	Intelligence	**UARC**	University Affiliated Research Center
IP	Intellectual Property	**UAV**	Unmanned Airborne Vehicle
IR	Infrared	**VADER**	Vehicle and Dismount Exploitation Radar
IRAD	Internal Research & Development	**WAAS**	Wide area airborne surveillance
ISR	Intelligence, Surveillance, and Reconnaissance	**WAMI**	Wide area motion imagery

Adjusted EBITDA Reconciliation ($M)

	Year Ended June 30, 2007	Year Ended June 30, 2008	Year Ended June 30, 2009	Year Ended June 30, 2010
Operating Income (loss)	**$ (40.5)**	**$ (5.4)**	**$ 7.7**	**$ 17.3**
Adjustment to include interest income/(expense)	2.6	3.1	(0.5)	0.2
Adjustment to include other income/(expense)	2.7	1.5	0.8	1.2
Adjustment to include income tax provision/(benefit)	2.6	3.7	0.1	(9.4)
Income (loss) from continuing operations as reported	**(37.8)**	**(4.4)**	**7.9**	**28.1**
Adjustment to include income/(loss) from disco ops, net of income taxes		(30.0)	(20.3)	0.2
Adjustment to include gain/(loss) on sale of disco ops, net of income taxes		(1.0)	11.2	0.1
Net Income (loss)	**(37.8)**	**(35.4)**	**(1.3)**	**28.4**
Income (loss) from continuing operations as reported		**(4.4)**	**7.9**	**28.1**
Interest (income) expense, net		(3.1)	0.5	(0.2)
Income tax (benefit) expense		3.7	0.1	(9.4)
Depreciation		7.4	5.6	5.1
Amortization of acquired intangible assets		5.1	2.4	1.7
Restructuring		4.5	1.7	0.2
Impairment of long-lived assets		0.6	0.0	0.2
Stock-based compensation expense		8.8	4.6	4.0
Adjusted EBITDA	**$ -**	**$ 22.5**	**$ 22.9**	**$ 29.9**

Adjusted EBITDA Reconciliation ($M)

	Quarter Ended September 30, 2009	Quarter Ended September 30, 2010
Operating Income (loss)	**$ 5.1**	**$ 5.2**
Adjustment to include interest income/(expense)	0.0	(0.0)
Adjustment to include other income/(expense)	0.3	0.5
Adjustment to include income tax provision/(benefit)	0.9	2.1
Income (loss) from continuing operations	**4.4**	**3.7**
Adjustment to include income/(loss) from disco ops, net of income taxes	0.0	(0.1)
Adjustment to include gain/(loss) on sale of disco ops, net of income taxes	(0.1)	0.0
Net Income (loss)	**4.4**	**3.6**
Income (loss) from continuing operations	**4.4**	**3.7**
Interest (income) expense, net	(0.0)	0.0
Income tax (benefit) expense	0.9	2.1
Depreciation	1.3	1.4
Amortization of acquired intangible assets	0.4	0.3
Restructuring	0.3	(0.0)
Impairment of long-lived assets	0.0	0.0
Stock-based compensation expense	0.5	1.3
Adjusted EBITDA	**$ 7.8**	**$ 8.8**