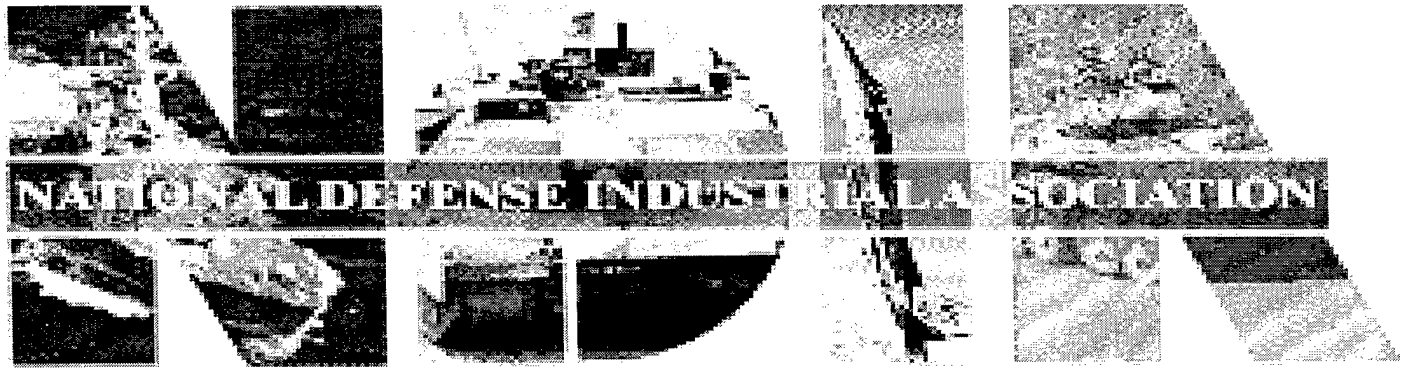


STRENGTH THROUGH INDUSTRY & TECHNOLOGY

ATLANTA XXV

19-21 APRIL 1999

DTIC QUALITY INSPECTED 4

Approved for public release. Distribution is unlimited

19991029 022

ATLANTA XXV

19-21 April 99

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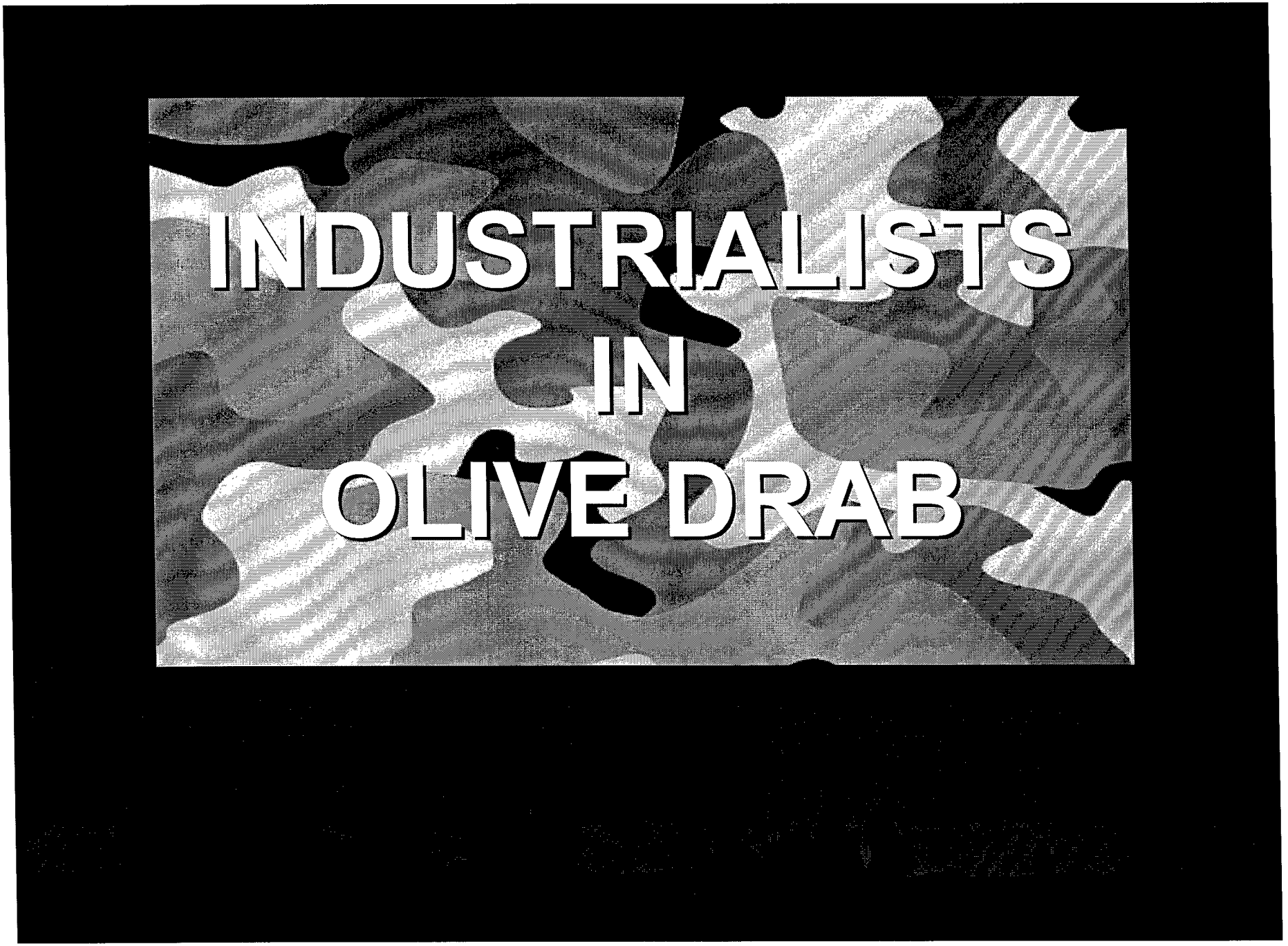
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NDIA XXV


INDUSTRIALISTS
IN
OLIVE DRAB


CONGRATULATIONS !!!
On your
SILVER
ANNIVERSARY

AMC Is Engaged In Worldwide Operations

Total (CIV / MIL / CONTR)
2,166 (687 / 422 / 1057)

France 3 (2 / 1)
Germany 798 (286 / 45 / 467)
Italy 40 (14 / 26)
Luxembourg 14 (5 / 9)
Netherlands 103 (45 / 48 / 6)
UK 12 (9 / 3)
Belgium 25 (10 / 15)

Bosnia 125 (17 / 7 / 101)
Croatia 29 (0 / 0 / 29)

Canada 2 (0 / 2)
Alaska 66 (51 / 15)

Hungary 144 (3 / 3 / 138)
Macedonia 1 (1 / 0)

Korea 173 (97 / 76)
Japan 1 (1 / 0)

Johnston Atoll 17 (17 / 0)

Egypt 2 (2 / 0)
Qatar 4 (4 / 0)

Kuwait 70 (54 / 16)
Saudi Arabia 518 (40 / 162 / 316)

Honduras 3 (2 / 1)
Panama 3 (2 / 1)

Australia 1 (0 / 1)

Hawaii 41 (35 / 6)

Don't Forget:

Counter Drug Operations



Operations:
- Just Cause
- Desert Storm
- Provide Comfort
- Southern Watch
- Vigilant Warrior
- Restore Hope
- Support Hope
- Uphold Democracy
- Safe Haven
- Vigilant Sentinel

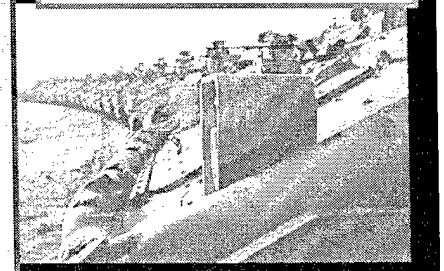
Able Sentry
Joint Endeavor
Joint Forge

Allied Force

Events:
Hurricanes:
- Hugo
- Andrew
- Iniki
- Mitch

LA Riots
Western Fires
Midwest Floods

Domestic Terrorism Rapid Response Team - SBCCOM

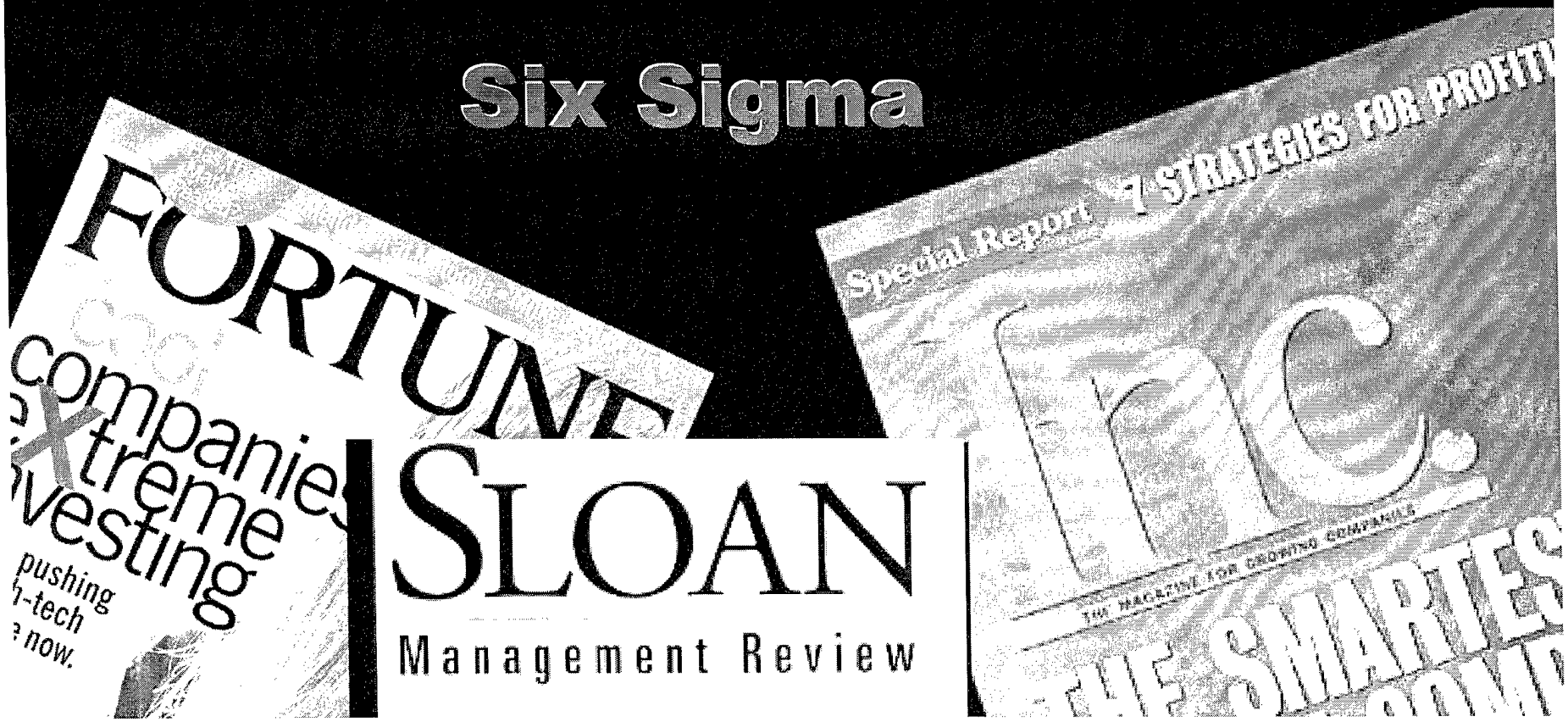


Business Practices

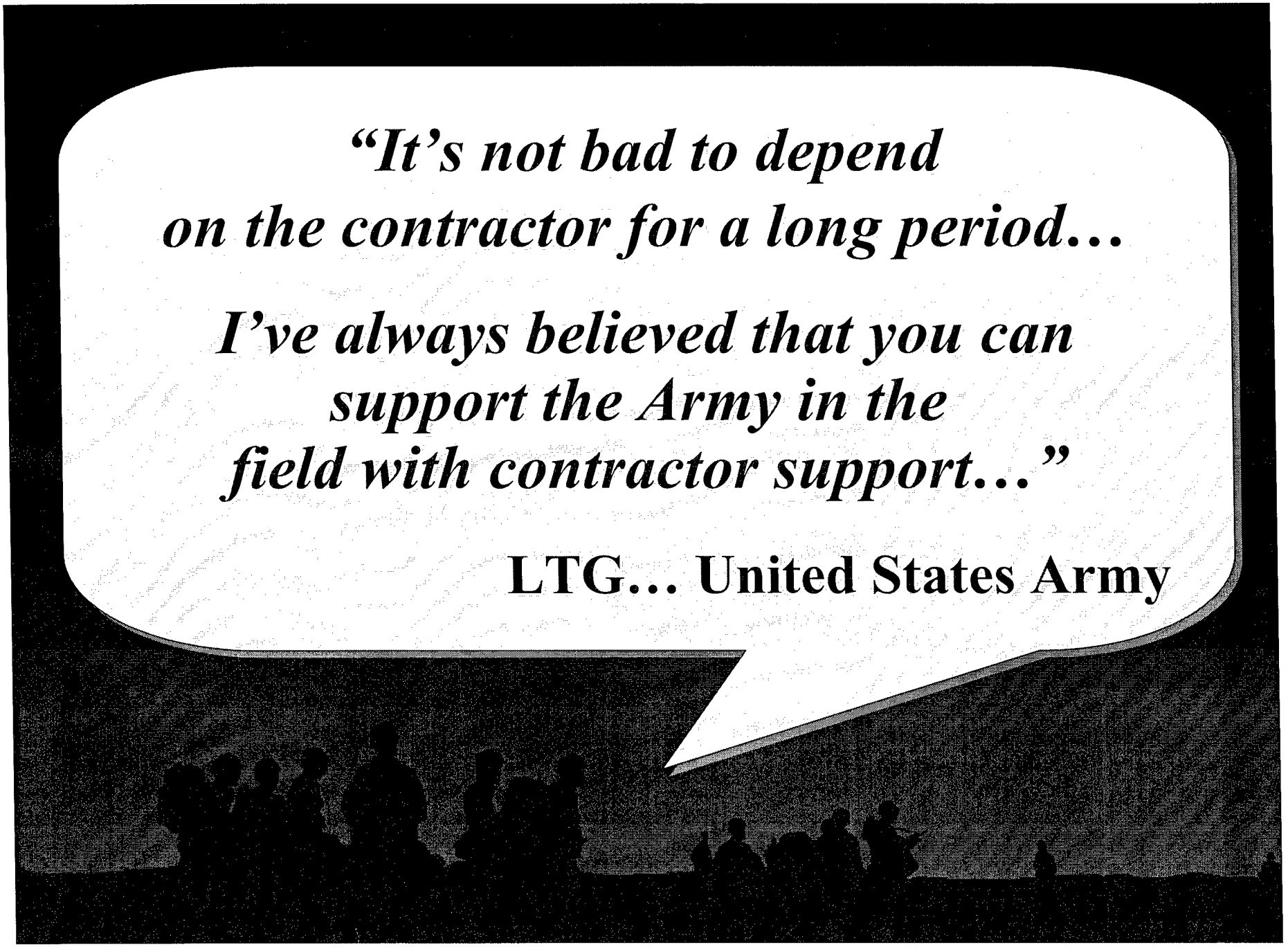
E-Commerce

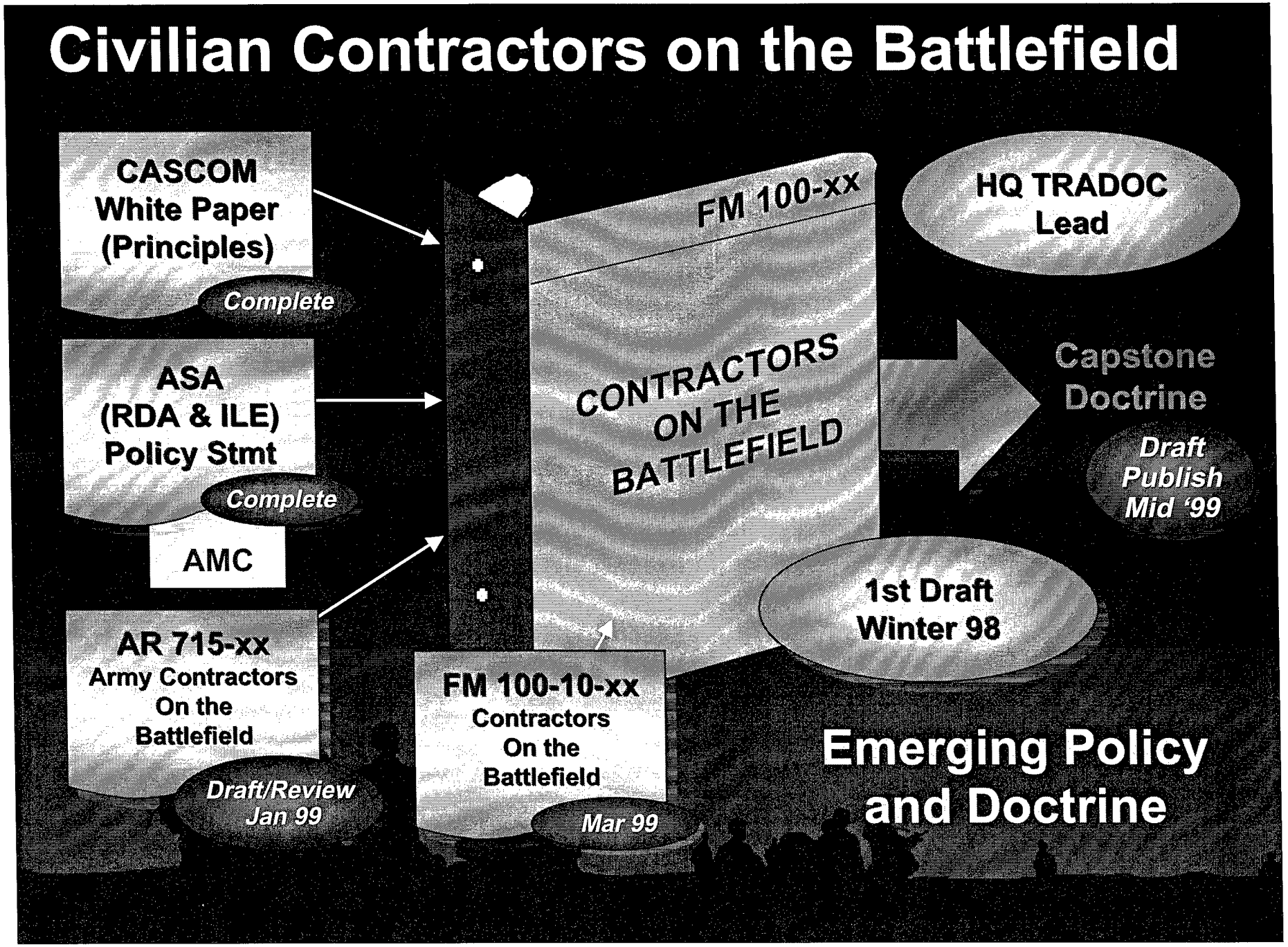
Total Quality Management

Six Sigma



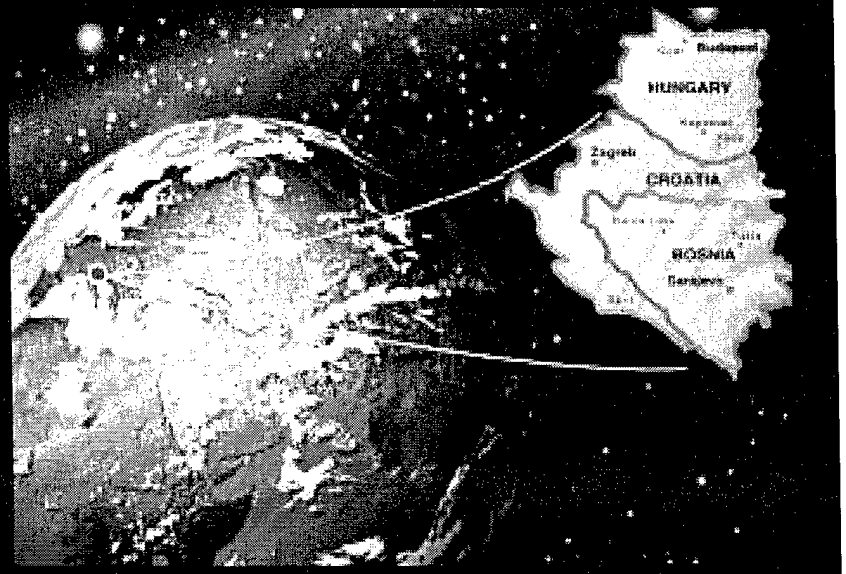

Just in Time
Reengineer
Intransit Visibility
America's Largest Corporations
FORTUNE
MIT'S MAGAZINE OF INNOVATION
TECHNOLOGY
REVIEW
Electronic Commerce
ADVISOR
1998


"It's not bad to depend on the contractor for a long period...
I've always believed that you can support the Army in the field with contractor support..."
LTG... United States Army


Civilian Contractors on the Battlefield
CASCOM White Paper (Principles)
Complete
ASA (RDA & ILE) Policy Stmt
Complete
AMC
AR 715-xx Army Contractors On the Battlefield
Draft/Review Jan 99
FM 100-10-xx Contractors On the Battlefield
Mar 99
FM 100-xx
CONTRACTORS ON THE BATTLEFIELD
HQ TRADOC Lead
Capstone Doctrine
Draft Publish Mid '99
1st Draft Winter 98
Emerging Policy and Doctrine

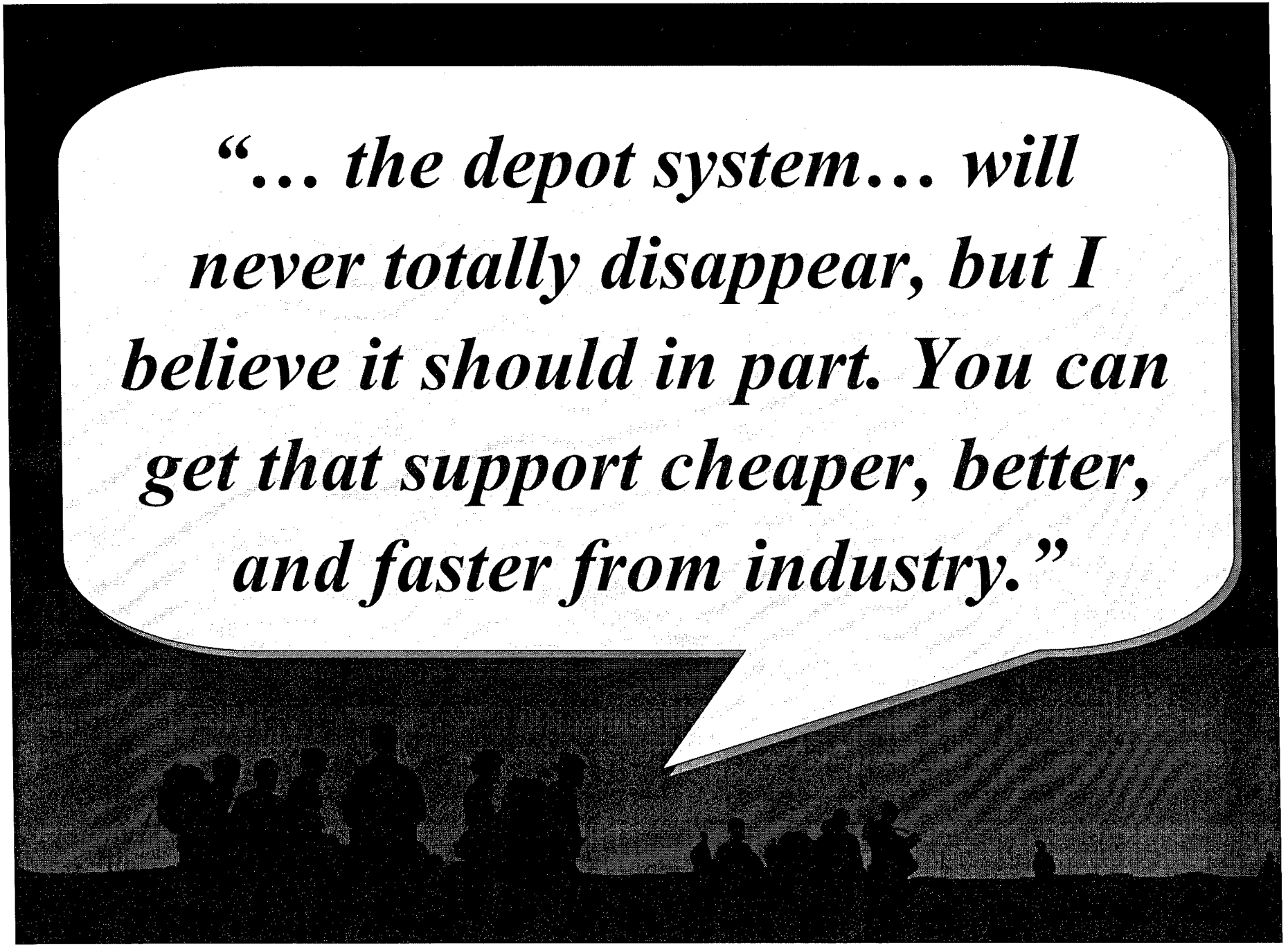
Operation Joint Endeavor/Guard

LOGCAP TASKS



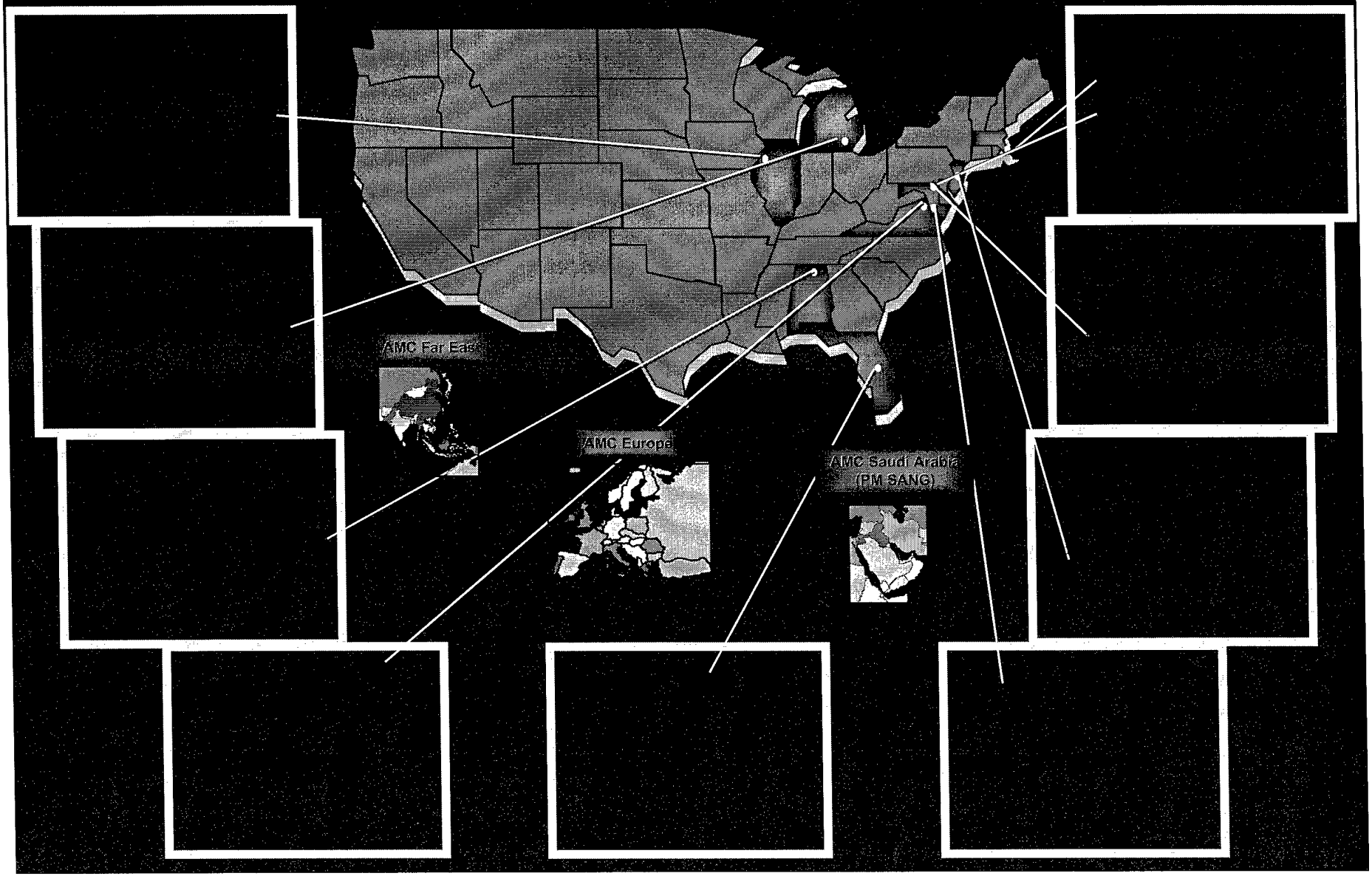
- Facility Setup & Maintenance
- Upgrade Existing Facilities
- Waste Management
- BIOMED/HAZMAT
- Power Generation
- Showers and Latrines
- Kitchens and Food Service
- Potable Water
- Laundry Service
- MSR Maintenance
- CIF Repair

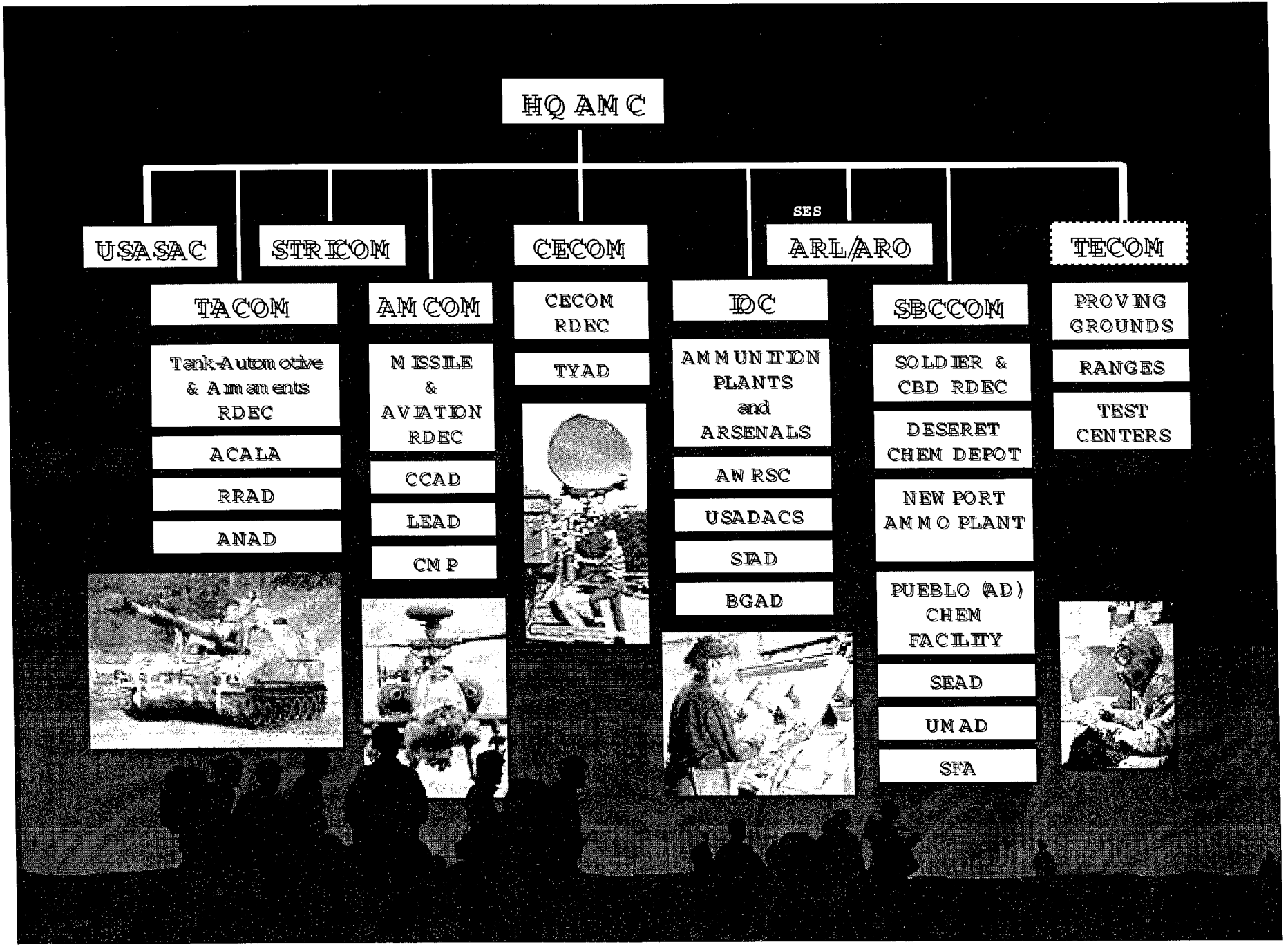

Power in *Partnership*
A M C
ASA (ALT)
Industry
T R A D O C

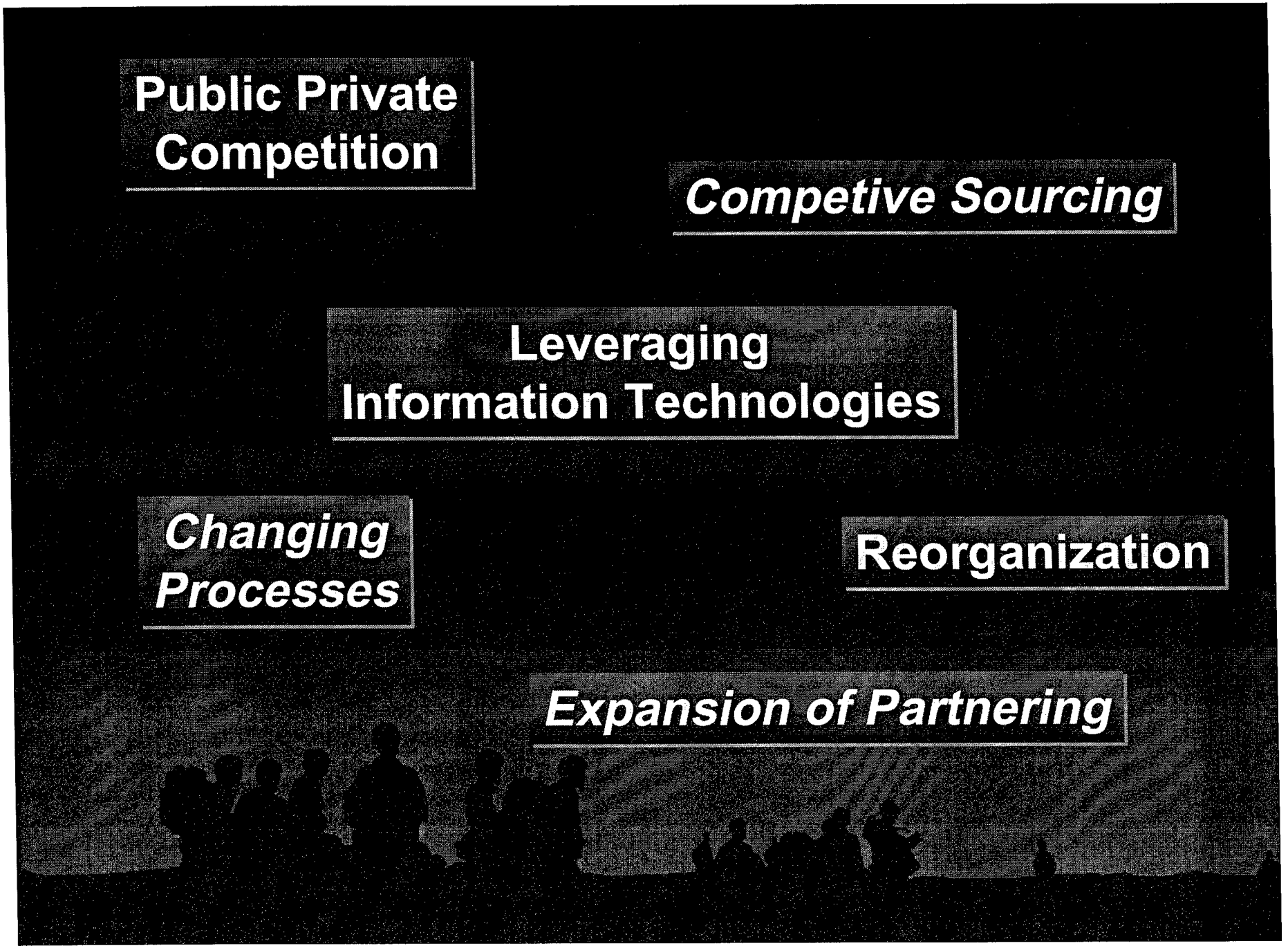

"... the depot system... will never totally disappear, but I believe it should in part. You can get that support cheaper, better, and faster from industry."


FOR
companies
treme
vesting
pushing
h-tech
e now.
The Microsoft Diaries (Cont'd)
FOR
INSIDE:
MEGAMERGER MANIA
A Complete Scorecard Of The Biggest M&A Year Ever
Citigroup: Off to a Rocky Start
DaimlerChrysler: The Germans Rule
Dumb Deals: Investors Beware
erica's argest porations
JUNE
HUNDRED

America's Arsenal For The Brave




HQ AMC
USASAC
STRICOM
CECOM
SES
ARL/ARO
TECOM
TACOM
Tank-Automotive & Armaments RDEC
ACALA
RRAD
ANAD
AMCOM
MISSILE & AVIATION RDEC
CCAD
LEAD
CMP
CECOM RDEC
TYAD
IOC
AMMUNITION PLANTS and ARSENALS
AWRSC
USADACS
SIAD
BGAD
SBCCOM
SOLDIER & CBD RDEC
DESERET CHEM DEPOT
NEW PORT AMMO PLANT
PUEBLO (AD) CHEM FACILITY
SEAD
UMAD
SFA
PROVING GROUNDS
RANGES
TEST CENTERS


Public Private Competition
Competitive Sourcing
Leveraging Information Technologies
Changing Processes
Reorganization
Expansion of Partnering

FY99 ALT/PLT Goals

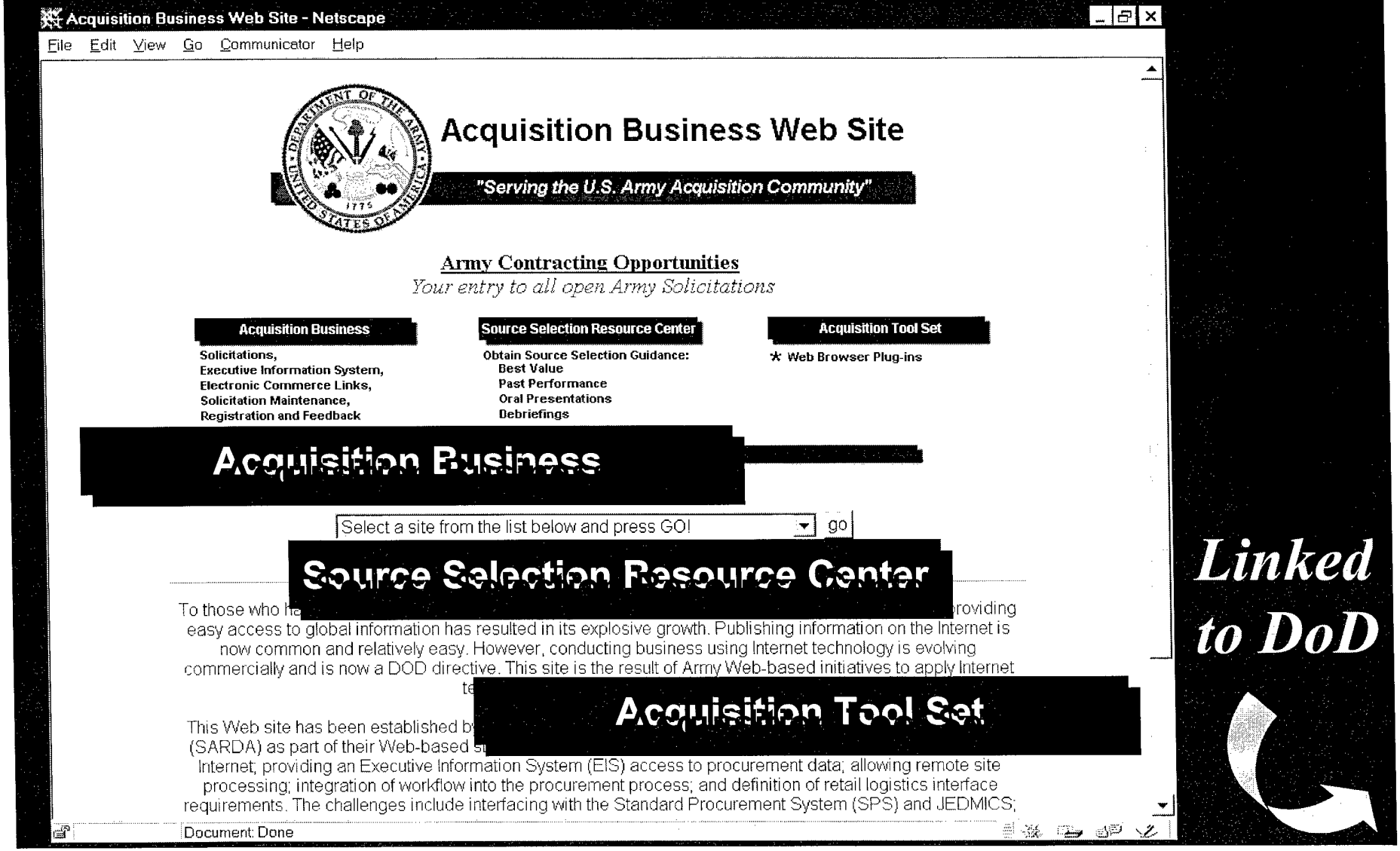
Administrative Lead Time - 57
+ Production Lead Time - 188

Total **245 Days**

... and looking for 220 Days for FY00

E-Commerce: Your Link to Opportunity

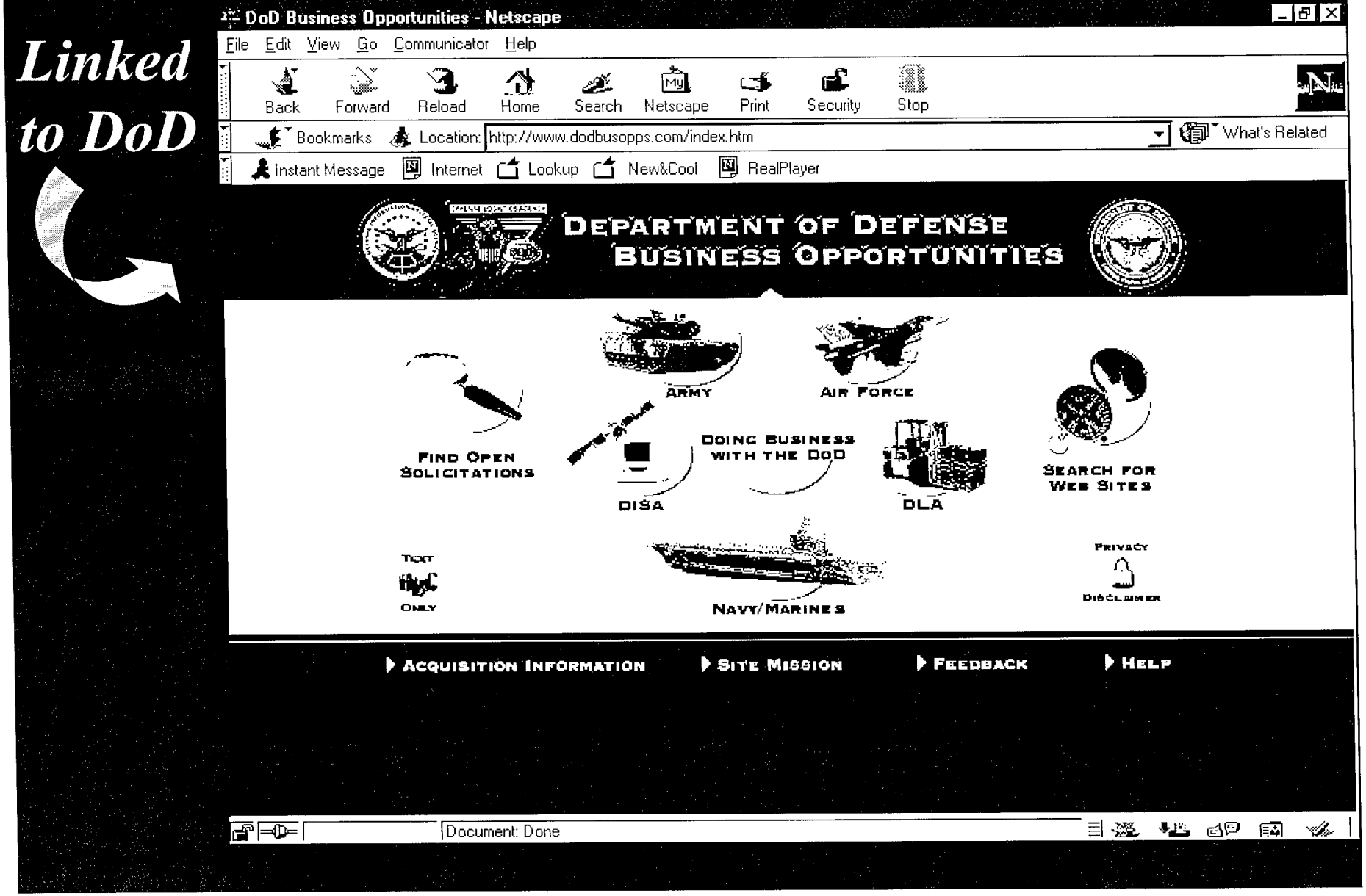
Army Opportunities



Linked to DoD

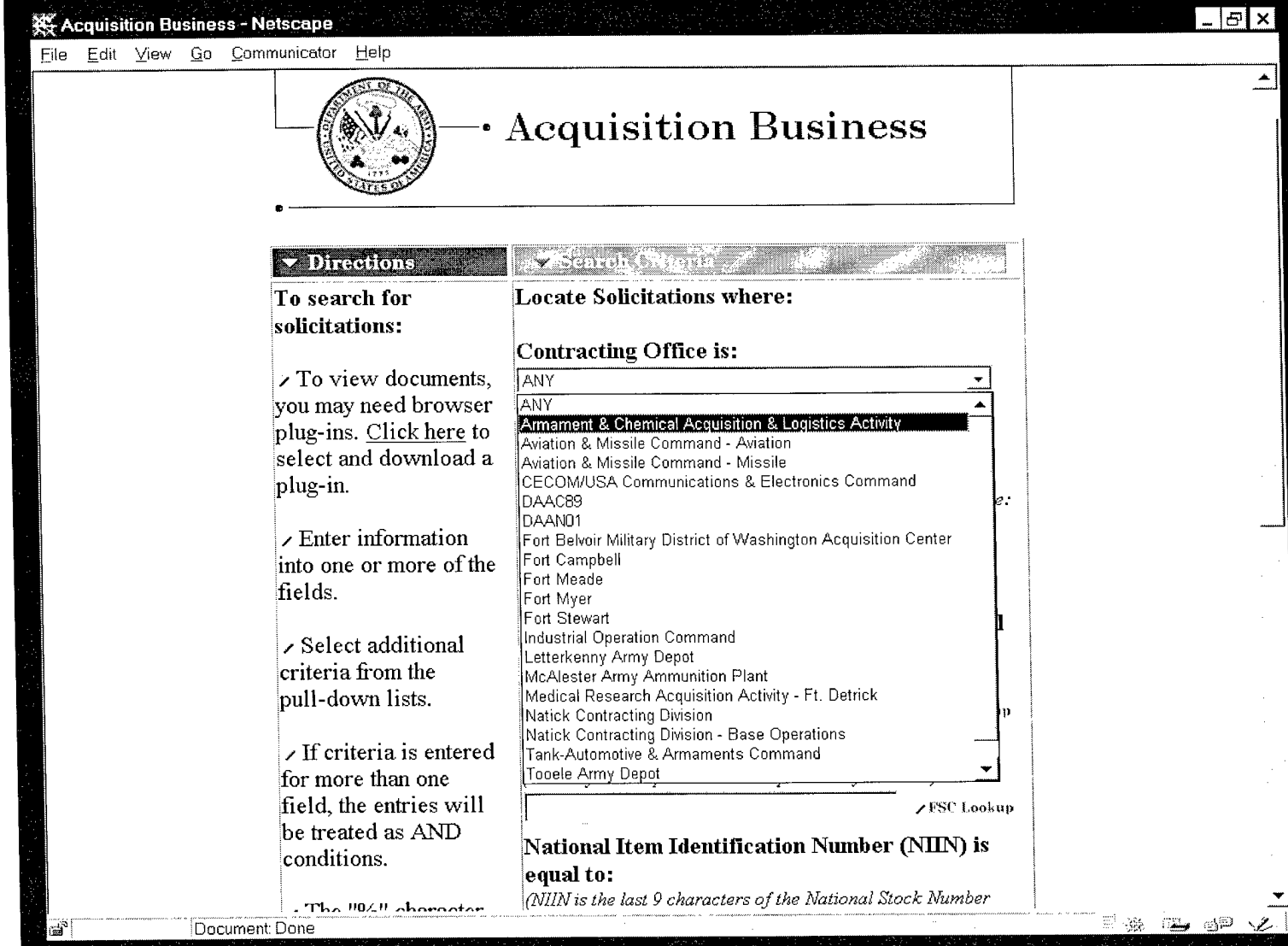
E-Commerce: Your Link to Opportunity

Linked to DoD



Army Single Face to Industry

Locate Solicitations



Multiple Search Options

Army Single Face to Industry

Multiple Search Options



Acquisition Business - Netscape

File Edit View Go Communicator Help

Directions

To search for solicitations:

- To view documents, you may need browser plug-ins. Click here to select and download a plug-in.
- Enter information into one or more of the fields.
- Select additional criteria from the pull-down lists.
- If criteria is entered for more than one field, the entries will be treated as AND conditions.
- The "%" character may be used for wildcard queries (i.e. 12% will return all FSCs that begin with "12").

Locate Solicitations where:

Contracting Office is: ANY

Solicitation Number is equal to:

Closing Date is: *(Date format is DD-MON-YYYY (Example: 01-JAN-2000))*

After **and/or**

Before

Standard Industrial Classification (SIC) is equal to:

(You may enter up to 10 codes separated by commas)

SIC Lookup

Federal Supply Code (FSC) is equal to:

(You may enter up to 10 codes separated by commas)

FSC Lookup

National Item Identification Number (NIIN) is equal to:

(NIIN is the last 9 characters of the National Stock Number (NSN))

Solicitation references this Noun:

Sort the output by

Sort by Solicitation Number

Document: Done

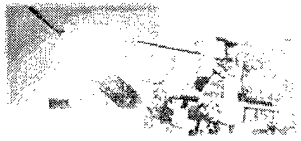
Technical Data Packages

H2398Q0887 - Netscape

Edit View Go Communicator Help

U.S. Army Aviation and Missile Command

Acquisition Center



Solicitation:	DAAH2398Q0887	**Closing Date:**	25-NOV-1998
POC:	DIANE IVY 256-955-9182		
TDP	**NSN**	**Noun**	
	2840011779015	BLADE,TURBINE ENGIN FINAL REPORT OF SERIAL NUMBER TAMMS	
Amendments		**Attachments/Exhibits**	

Upload Attachments/Exhibits

BACK

Return to AcquisitionCenter Contracting Information System

Document Done

Request for Quotation (RFQ)

Netscape

File Edit View Go Communicator Help

Next Page | Respond

REQUEST FOR QUOTATION
(THIS IS NOT AN ORDER)

THIS RFQ ☐ IS ☑ IS NOT A SMALL BUSINESS SET-ASIDE

PAGE 1 OF PAGES 6

1. REQUEST NO.	2. DATE ISSUED	3. REQUISITION/PURCHASE REQUEST NO.	4. CERT. FOR NAT. DEF. UNDER BDSA REG. 2 AND/OR DMS REG. 1	RATING
DAAH2398Q0887	25-AUG-1998			

5a. ISSUED BY **DIANE IVY**
DODAAC: W58RGZ

6. DELIVERY BY *(Date)*
SEE SCHEDULE

7. DELIVERY
☐ FOB DESTINATION ☑ OTHER *(SEE SCHEDULE)*

5b. FOR MORE INFORMATION CALL *(No Collect Calls)*

NAME	TELEPHONE NUMBER	
	AREA CODE	NUMBER
DIANE IVY	256	9559182

9. DESTINATION

a. NAME OF COSIGNEE
SEE SCHEDULE

8. TO:

a. NAME

b. COMPANY

b. STREETADDRESS

c. STREET ADDRESS

c. CITY

d. CITY | e. STATE | f. ZIP CODE

d. STATE | e. ZIP CODE

10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5A ON OR BEFORE CLOSE OF BUSINESS (Date)
25-NOV-1998

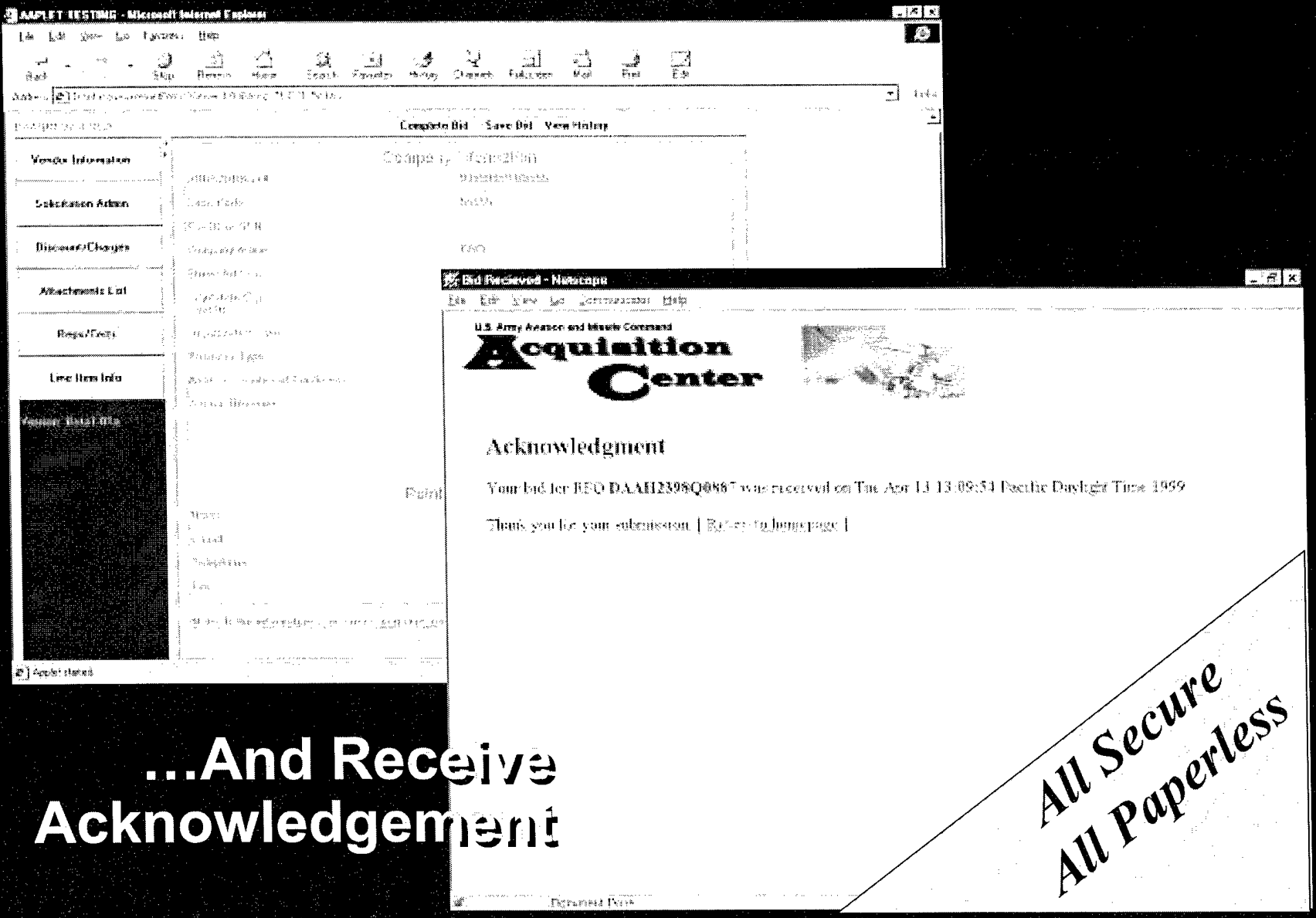
IMPORTANT: This is a request for information, and quotations furnished are not offers. If you are unable to quote, please so indicate on this form and return it to the address in Block 5A. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation or to contract for supplies or services. Supplies are of domestic origin unless otherwise indicated by quoter. Any representations and/or certifications to this Request for Quotations must be completed by the quoter.

11. SCHEDULE *(Indicate applicable Federal, State and local taxes)*

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)
	SEE SCHEDULE				

Form Ready

Submit Your Response...



...And Receive Acknowledgement

All Secure
All Paperless

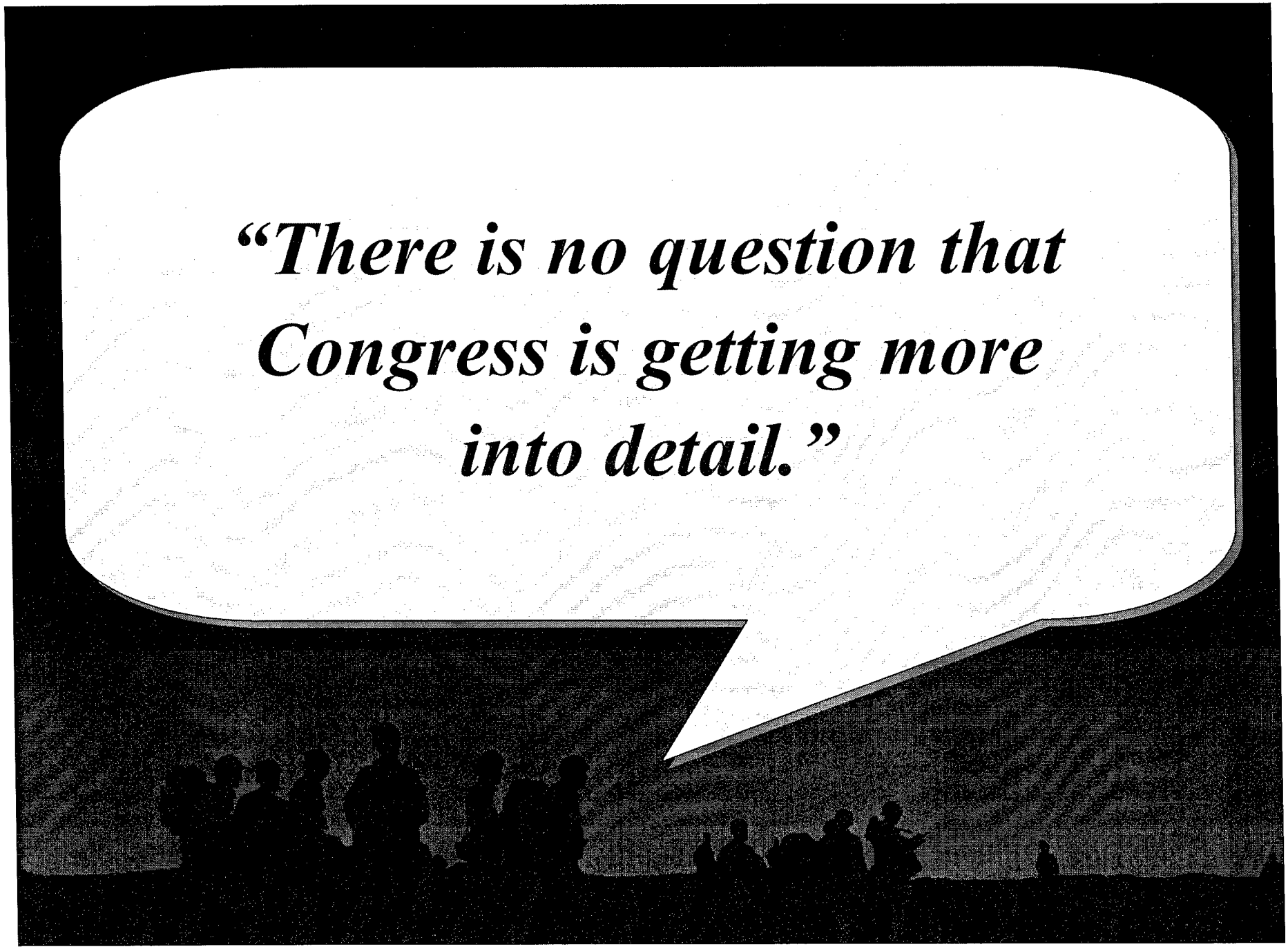
FY99 ALT/PLT Goals

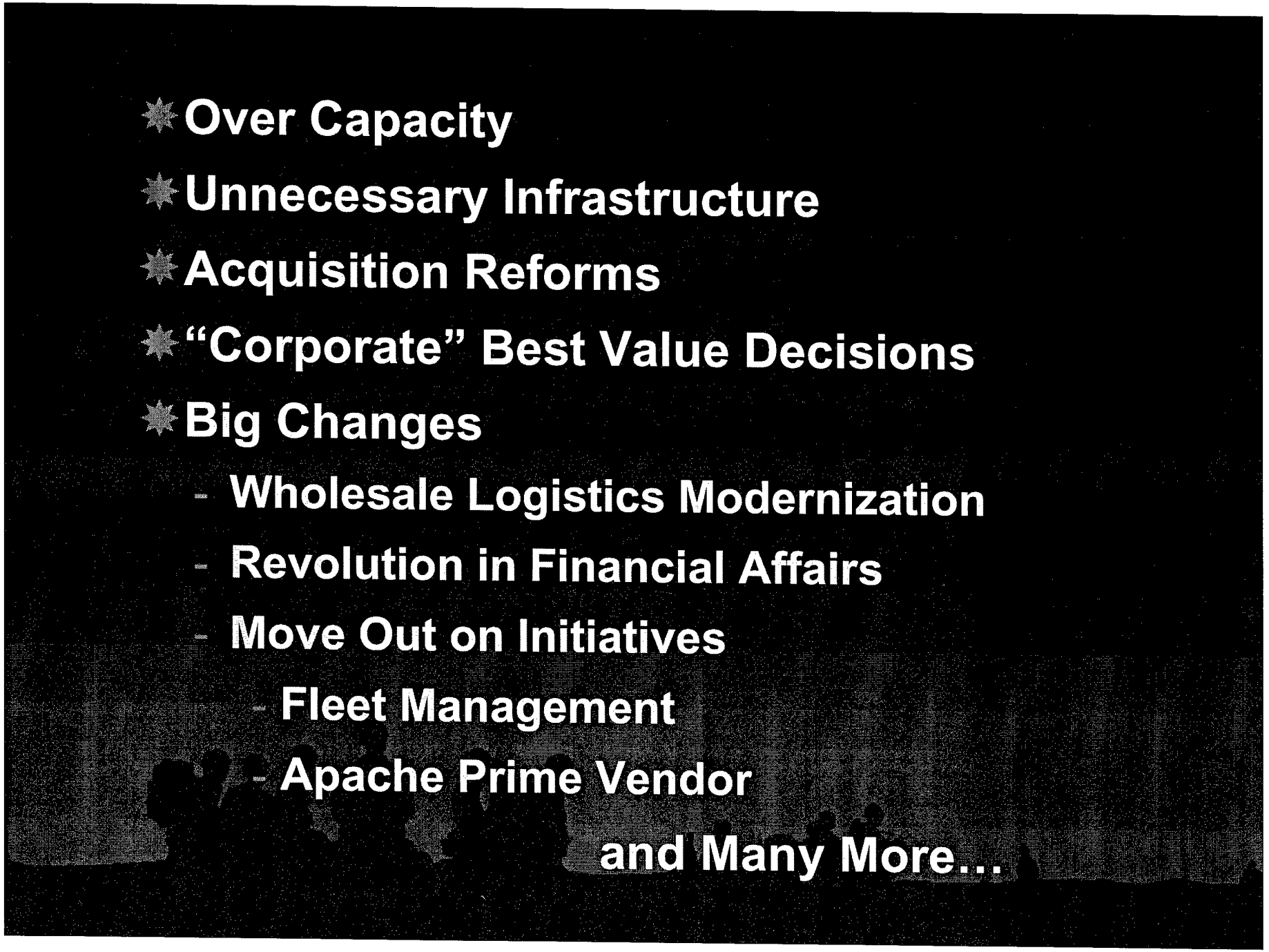
Administrative Lead Time - 57

+ Production Lead Time - 188

Total **245 Days**

... and looking for 220 Days for FY00


"There is no question that Congress is getting more into detail."


Over Capacity
Unnecessary Infrastructure
Acquisition Reforms
"Corporate" Best Value Decisions
Big Changes
- Wholesale Logistics Modernization
- Revolution in Financial Affairs
- Move Out on Initiatives
- Fleet Management
- Apache Prime Vendor
and Many More...

Total Ownership Cost Reduction

TAV PVS CAIV

HTI FM MTS NBO

Partnering

TOCAS

Alpha Contracting



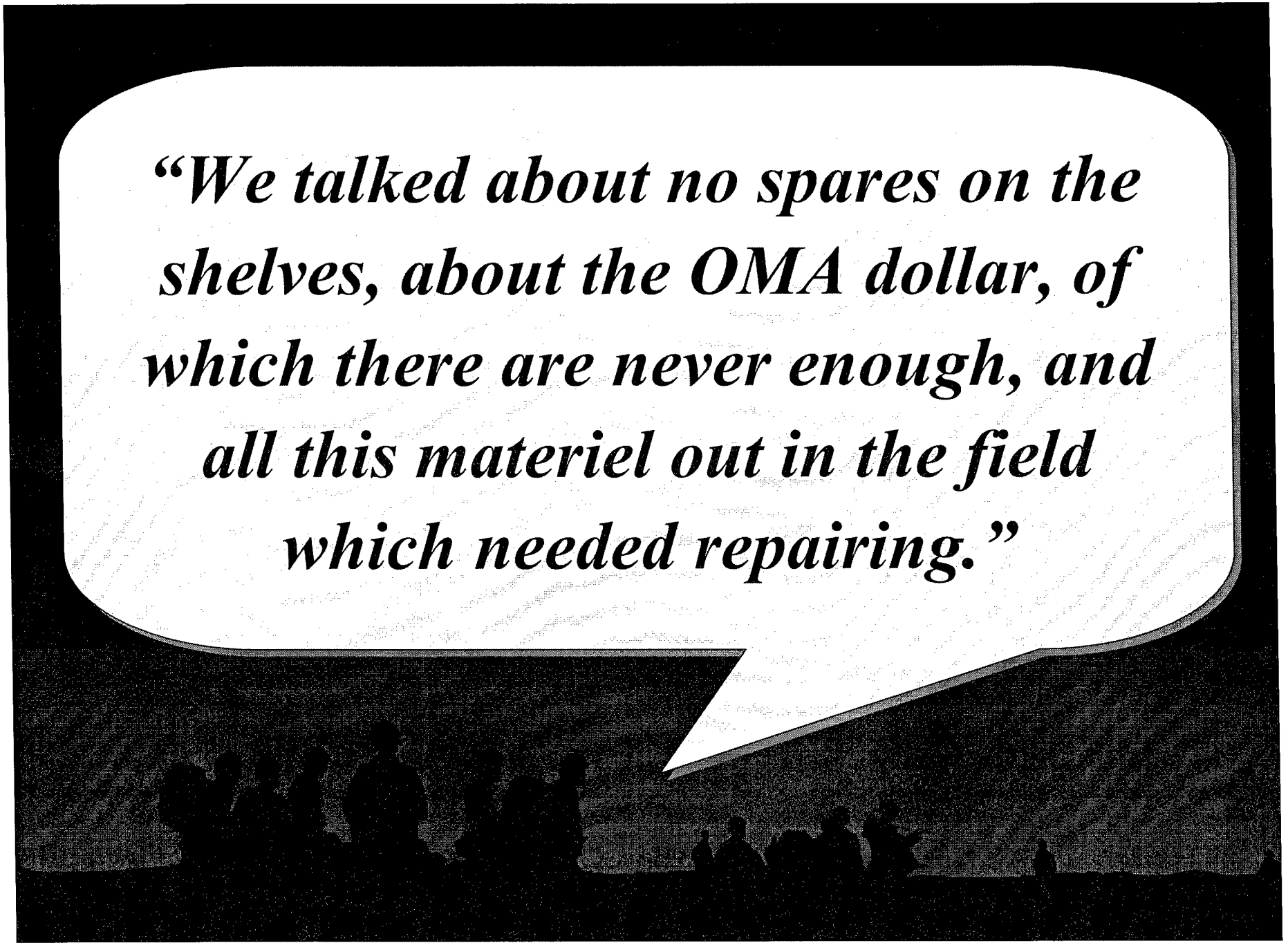
Common TMDE

912C / 816

PPBS Revision

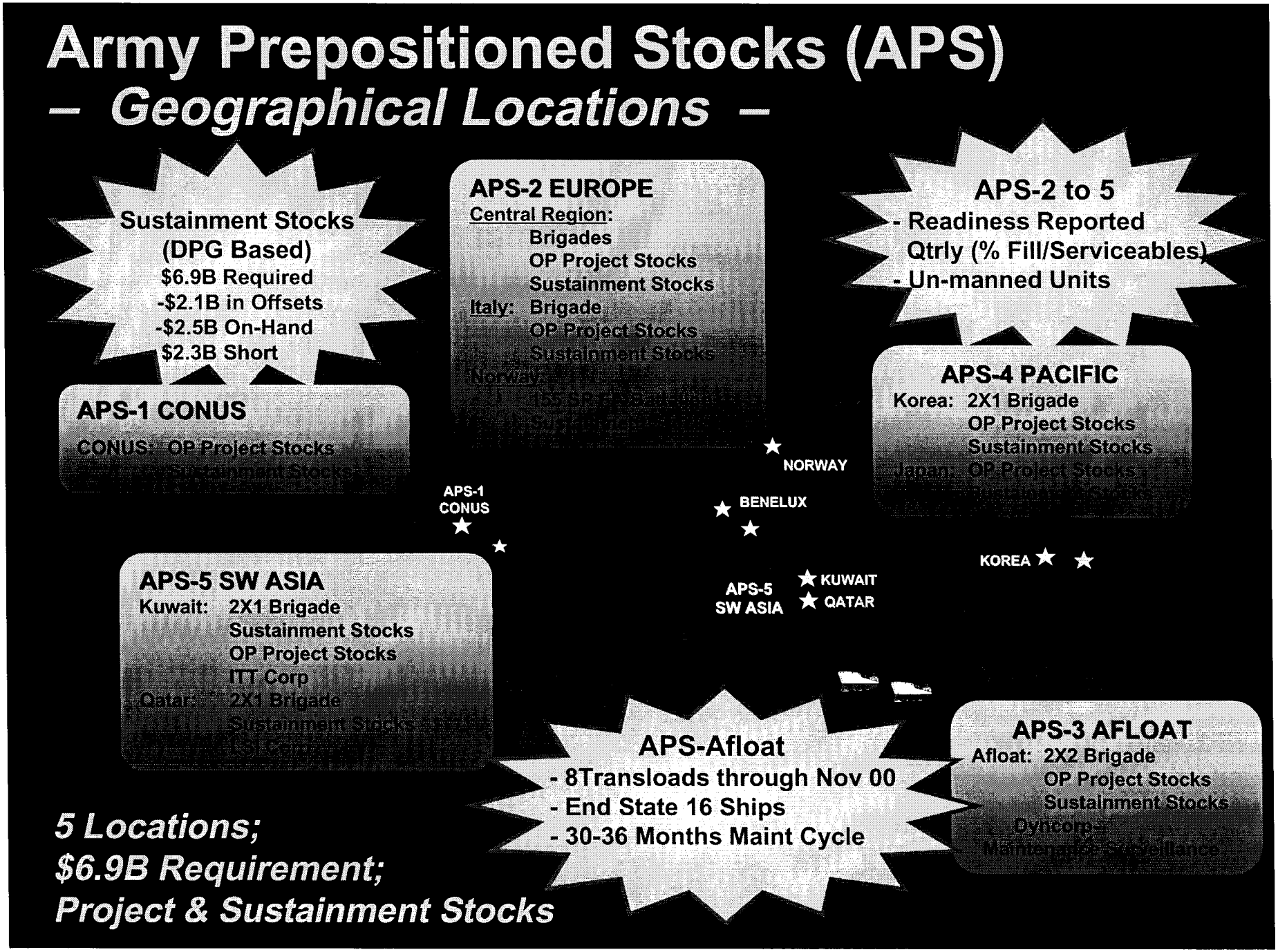
DVD LCCM EC/EDI OSCR

SCMA ABC/M COSSI


"We talked about no spares on the shelves, about the OMA dollar, of which there are never enough, and all this materiel out in the field which needed repairing."

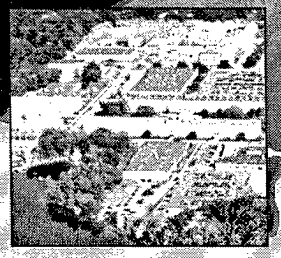

Power in *Partnership*
A M C
ASA (ALT)
Industry
T R A D O C

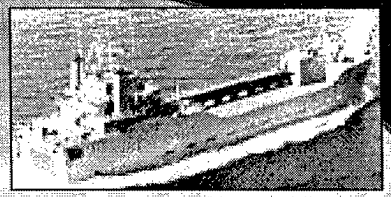
Army Prepositioned Stocks (APS)
– *Geographical Locations* –



Logistics Power Projection

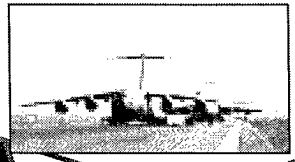
ON TO THE 21st CENTURY





LOGCAP

STRATEGIC MOBILITY



CONUS BASED ARMY

ASSURED COMMUNICATIONS





Total Asset Visibility
Intransit Visibility
Movement Tracking

WORLDWIDE DEPLOYMENT REQUIREMENT

Army Prepositioned Stocks

...Sealift



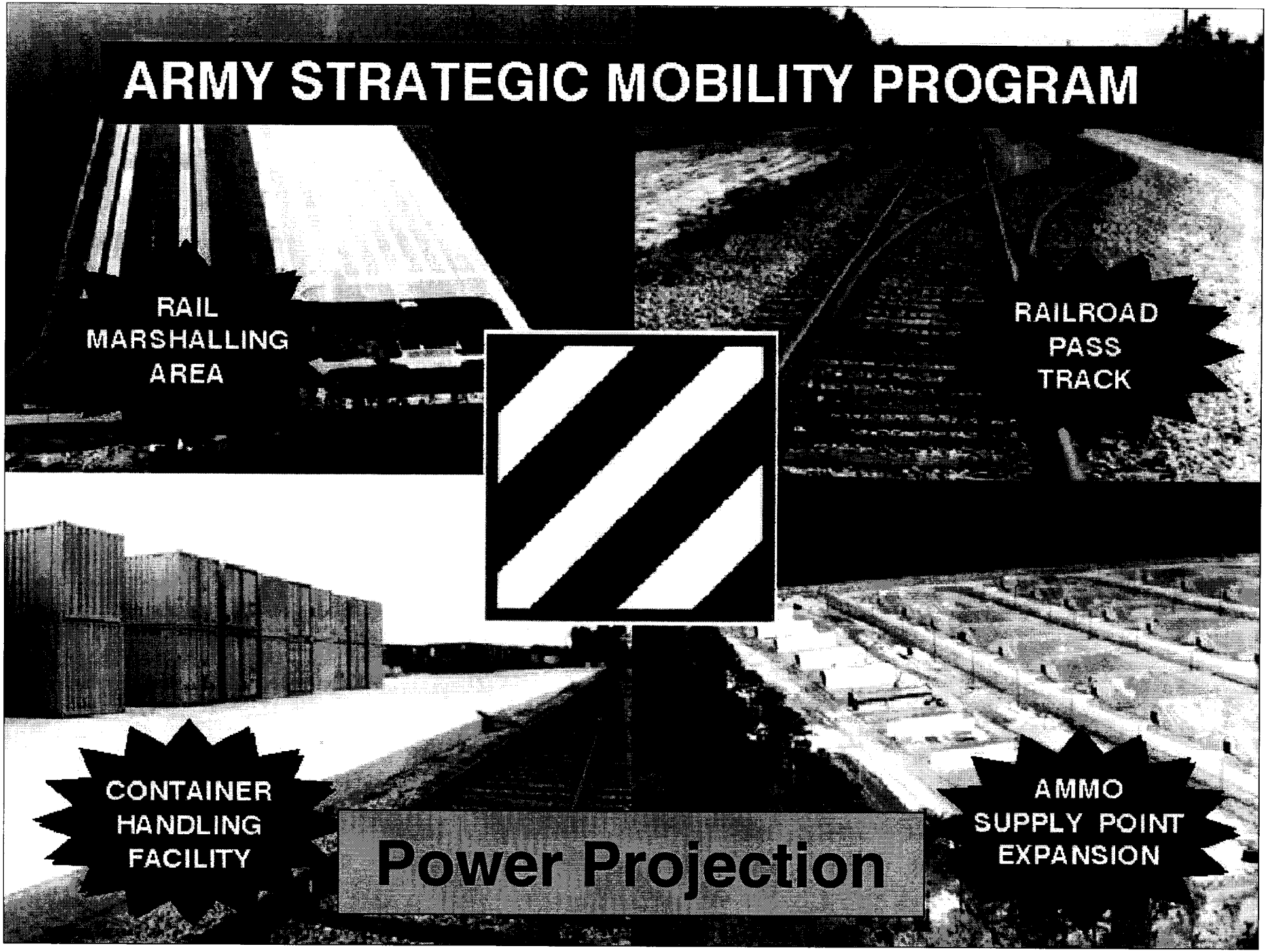
...Airlift



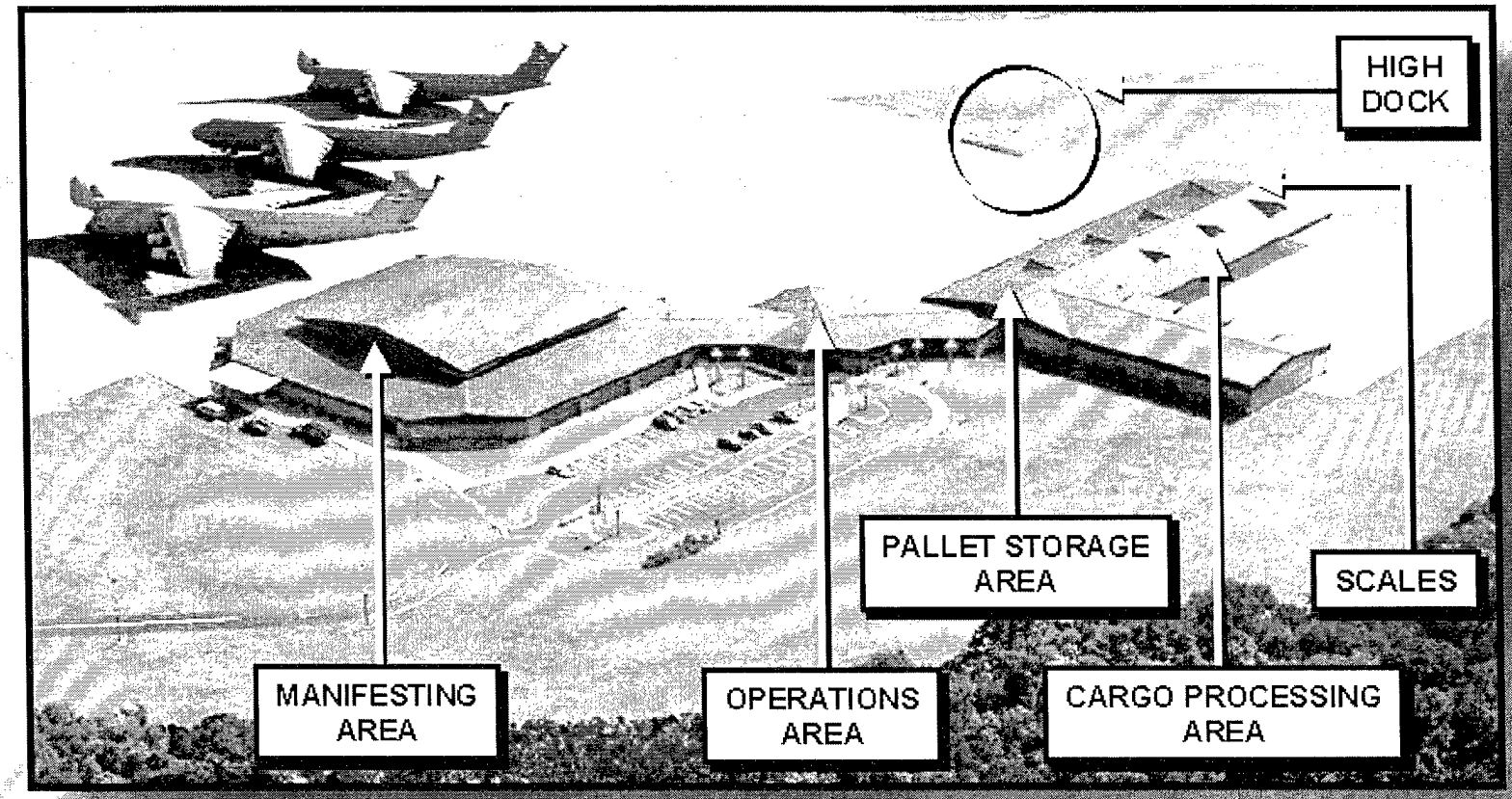
Operation Desert Thunder
Combat Ready in 96 hours

Now...5 ➡ 2001...19

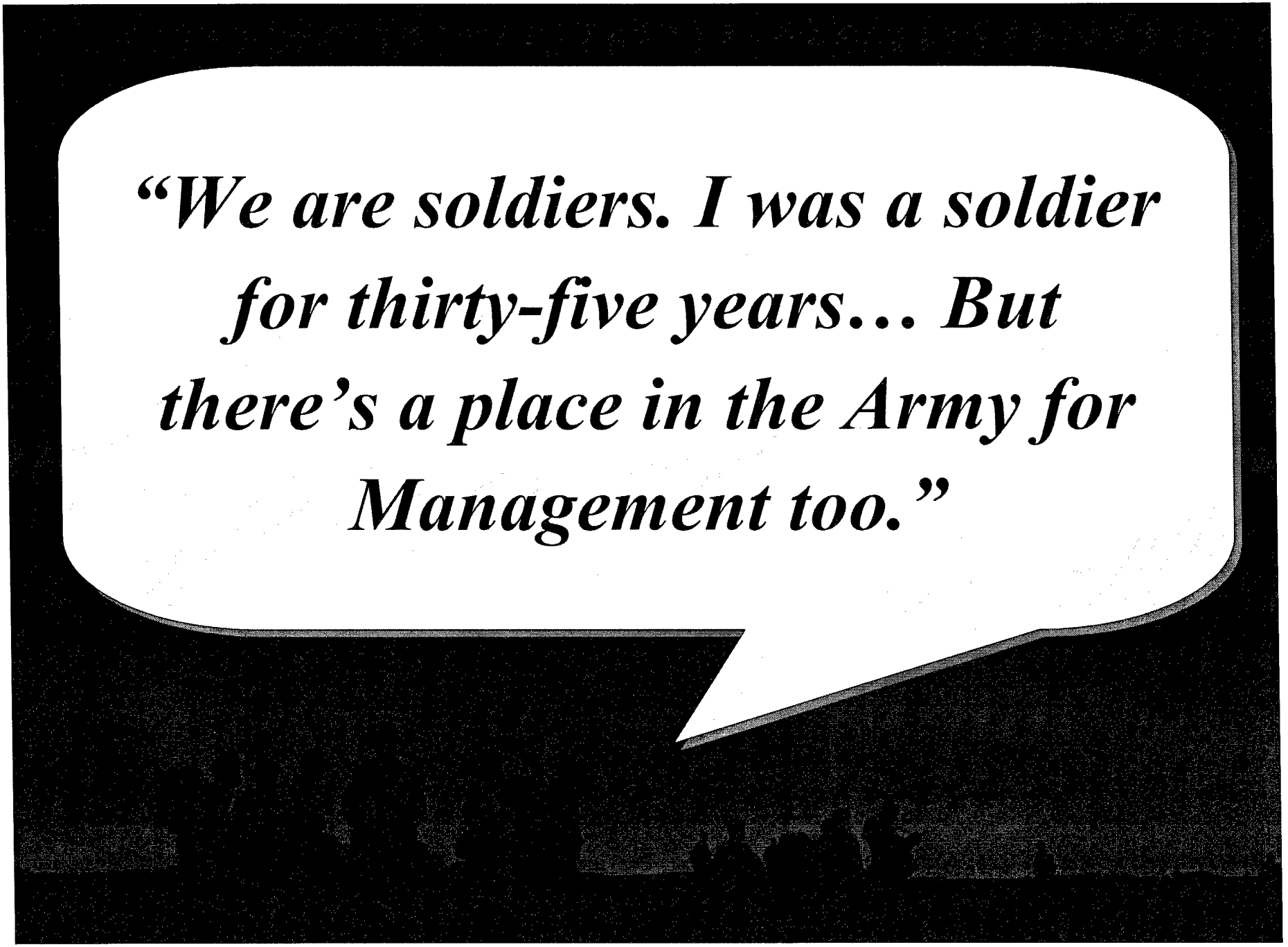
Now...47 ➡ 2006...134


ARMY STRATEGIC MOBILITY PROGRAM
RAIL MARSHALLING AREA
RAILROAD PASS TRACK
CONTAINER HANDLING FACILITY
AMMO SUPPLY POINT EXPANSION
Power Projection

TRUSCOTT DEPARTURE/ARRIVAL AIRFIELD CONTROL GROUP FACILITY



TOTAL COST: $8.4 MILLION


"We are soldiers. I was a soldier for thirty-five years... But there's a place in the Army for Management too."



LTG George Sammit, Jr.

United States Army, Retired



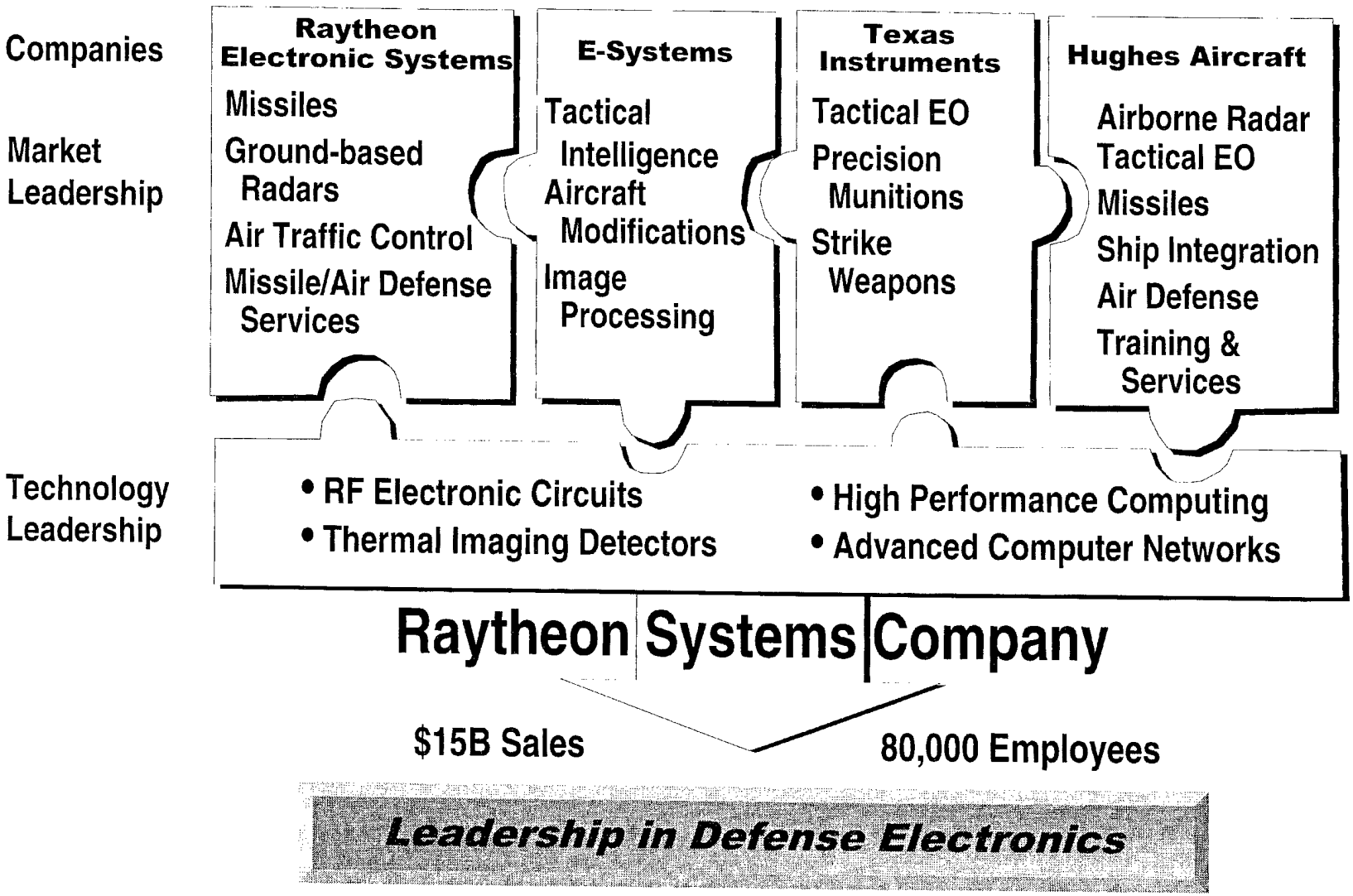

What are you doing for the soldier of 2020?
Army After Next – Take us there.


CUB ARMY CAM

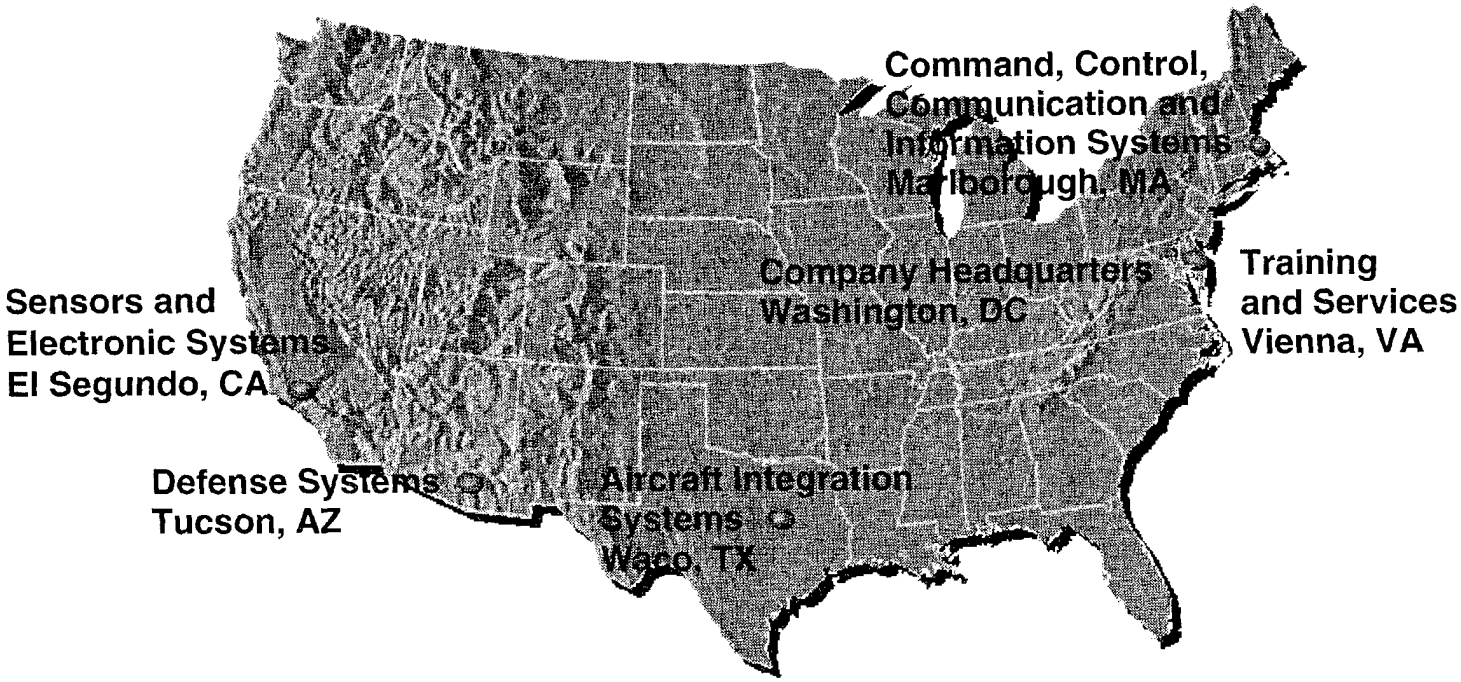


Atlanta XXV

W.H. Swanson
Chairman and CEO
Raytheon Systems Company

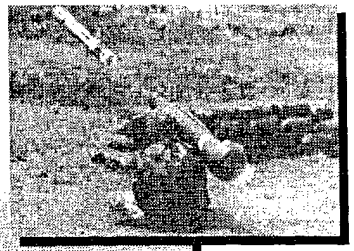

Companies
Market Leadership
Raytheon Electronic Systems
Missiles
Ground-based Radars
Air Traffic Control
Missile/Air Defense Services
E-Systems
Tactical Intelligence
Aircraft Modifications
Image Processing
Texas Instruments
Tactical EO
Precision Munitions
Strike Weapons
Hughes Aircraft
Airborne Radar
Tactical EO
Missiles
Ship Integration
Air Defense
Training & Services
Technology Leadership
• RF Electronic Circuits
• Thermal Imaging Detectors
• High Performance Computing
• Advanced Computer Networks
Raytheon Systems Company
$15B Sales
80,000 Employees
Leadership in Defense Electronics

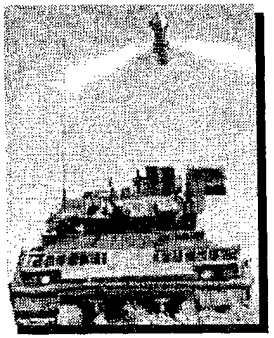
Raytheon Systems Company Headquarters Locations

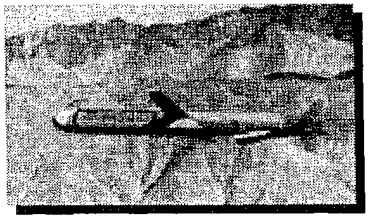


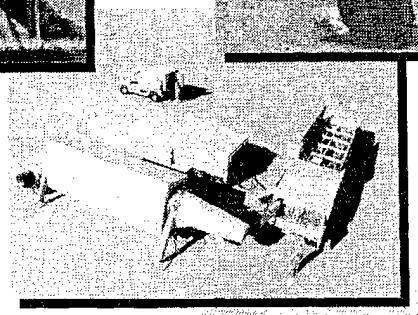
Defense Systems

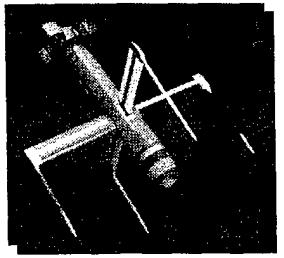

Patriot


Javelin

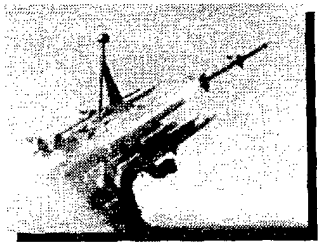

TOW


Tomahawk

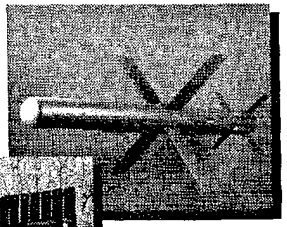

GBR

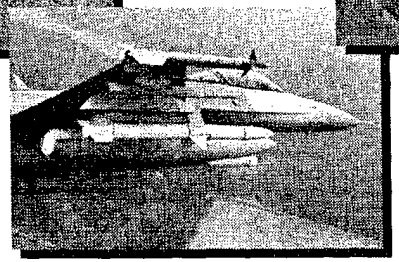

BAT

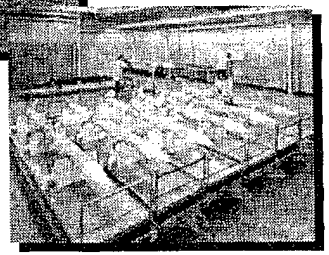

Stinger


Hawk AMRAAM


NMD

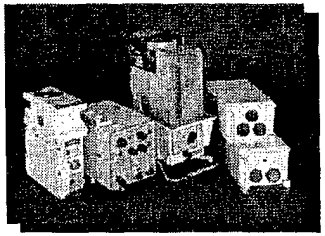



HARM

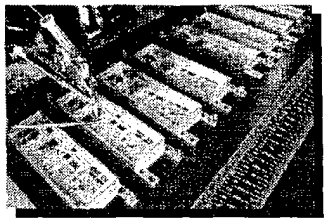

AMRAAM


E-FOG-M

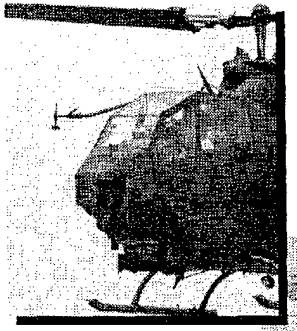
Sensor and Electronic Systems



International Tank
Sights and Lasers



Digital Receiver
Technology



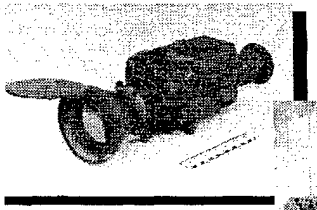
Cobra EO
Fire Control



F18 Radar



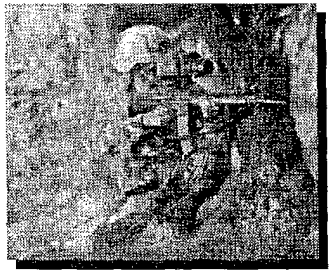
Bradley



Thermal
Weapons



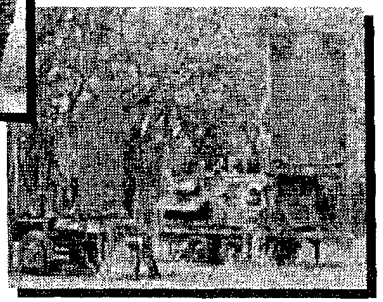
Sentinel



Thermal Weapon Sight

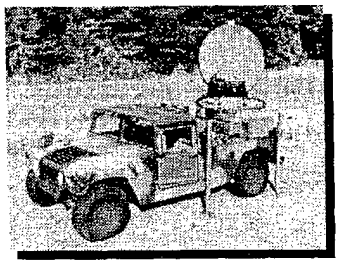


Abrams Tank
EO

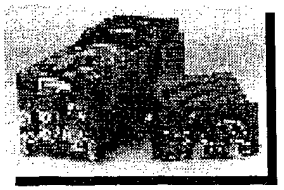


Firefinder

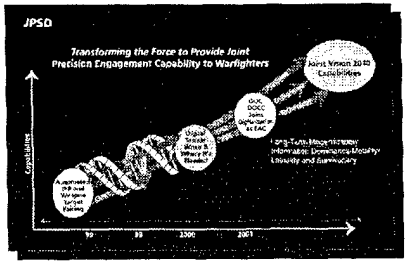
Command, Control, Communication and Information Systems



STAR - T



Ground Radios



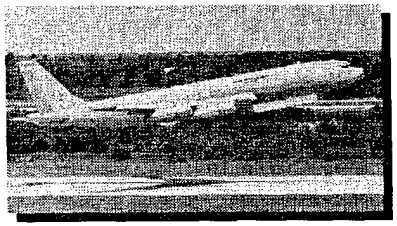
JPSD



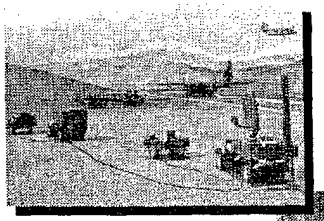
Ground Processing



Defense Red Switch Network



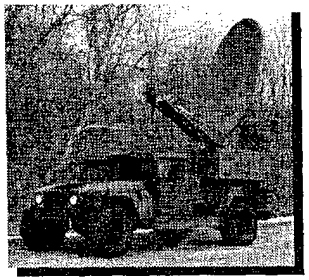
JSTARS



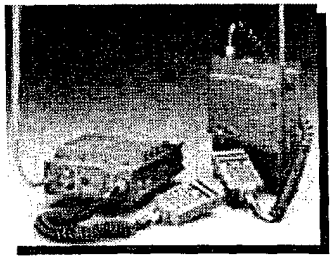
ATNAVICS



Air Traffic Control



SMART - T

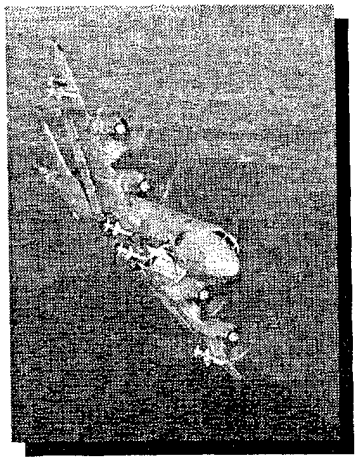


EPLRS

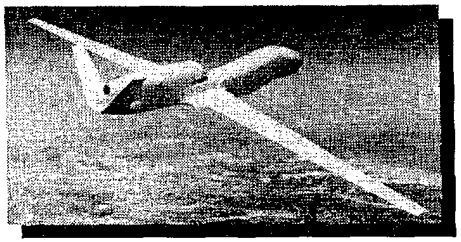


AFATDS

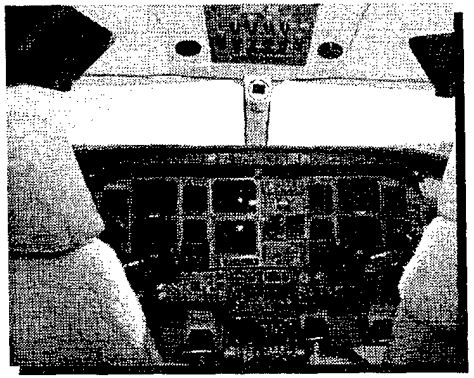
Aircraft Integration Systems



Maritime Patrol Aircraft



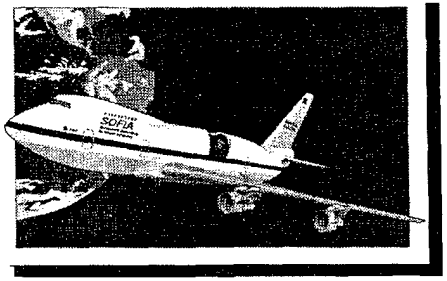
UAV



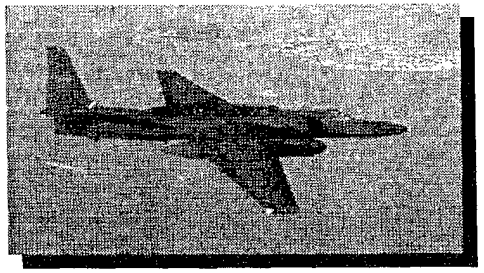
Aircraft Modification



Special Operations Support

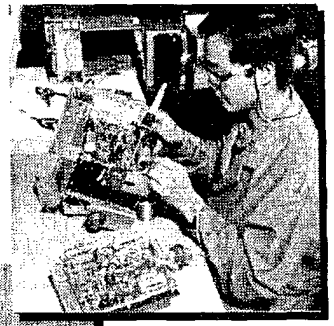


Stratospheric Observatory



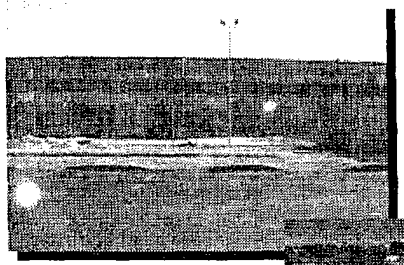
Airborne Surveillance

Training and Services



Depot Services





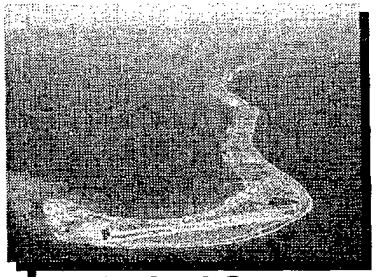
Facility Maintenance



Range Operations



Logistics Engineering



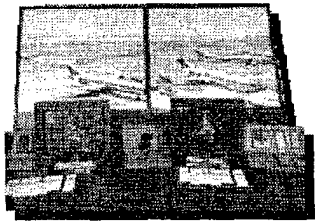
Technical Support



Training Support



Field Engineering



ATC Support



Training Systems

Centers of Excellence

	Current Locations	COE's
(A) Printed Wiring Board Fabrication	6	→ 1
(B) Circuit Card Assembly	19	→ 1
(C) Microelectronics	11	→ 2
(D) Metal Fabrication	15	→ 4
(E) Cables	10	→ 1
(F) Optics	3	→ 3
(G) EO Components/ Coolers	4	→ 2

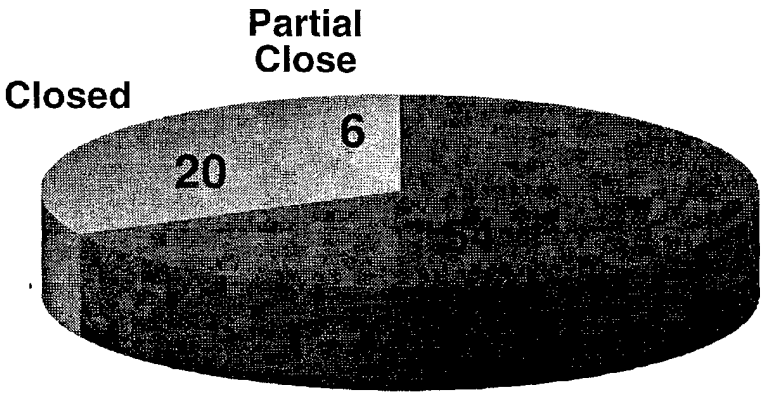


Centers of Manufacturing

	Current Locations	COE's
(A) Missiles/ Strike Weapons	5	2
(B) Torpedoes, Ship Combat Systems Sonar, Mine Warfare, and Ocean Surv. Systems	4	1
(C) All Up Round	5	2
(D) Radar	6	4
(E) Electro-Optical	4	2
(F) Depots	7	3
(G) Radio and Terminal	5	1

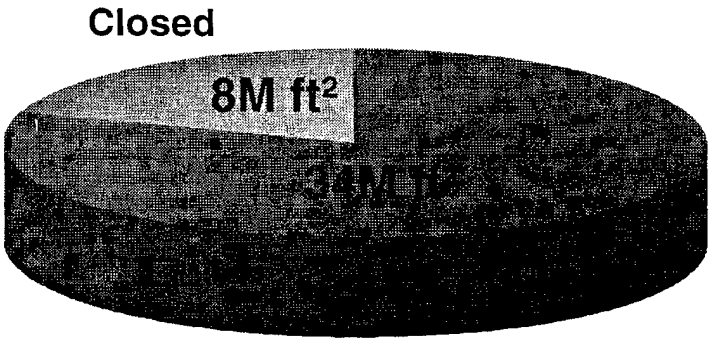


Facilities Restructuring



Major Facilities

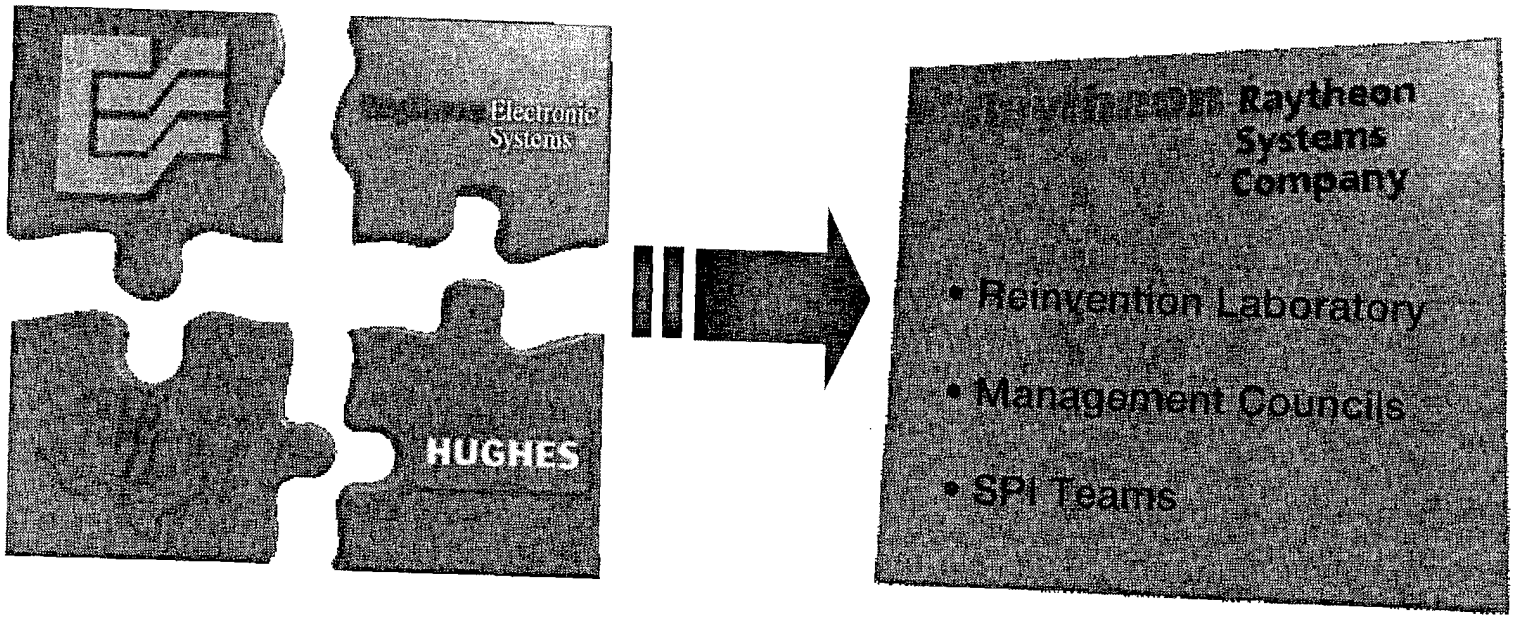
- 80 Major Facilities to 60
- Partial Closure of An additional Six Major Facilities



Facilities Square Footage

- 42M ft² to 34M ft²
- 20% Reduction

Acquisition Reform



Ongoing Commitment to Reform

32 Approved SPI Projects

Assembly and Inspection

1 Deletion of Solderability Testing
2 Delete MIL-STD-2000, Delete Cosmetic Rework
3 Delete MIL-STD-2000, Reduce Solder Inspection
4 Delete ECP Requirements for Class 2 Changes
5 Contractual Requirements Acceptance Test Reduction
6 Part is a Part Contractual Requirements
7 Contract Document Disclosure
8 Reduce Inspection
9 Eliminate DoD-STD-100 Specification Control Drawings
10 Eliminate Annual Certification of Test Stations
11 Eliminate Customer's External Audits
12 Eliminate Contract Need for On-Sheet Parts List
13 Eliminate MIL-STD-15206 MRB Presentation

Business System Summary

14 Reduce Cost Reporting on Contracts
15 Combine Spares Procurements
16 Final Overhead Negotiations
17 Contract Terminations
18 Combined Requisitions

Government Property Summary

19 Inventory & Control of Government Property
20 MIL-STD-45662A Calibration Requirements

Proposal Summary

21 Certification of Cost and Pricing
22 Spares Bidding
23 Termination Proposals
24 Forward Pricing Rate Agreements
25 Subcontractor Audits

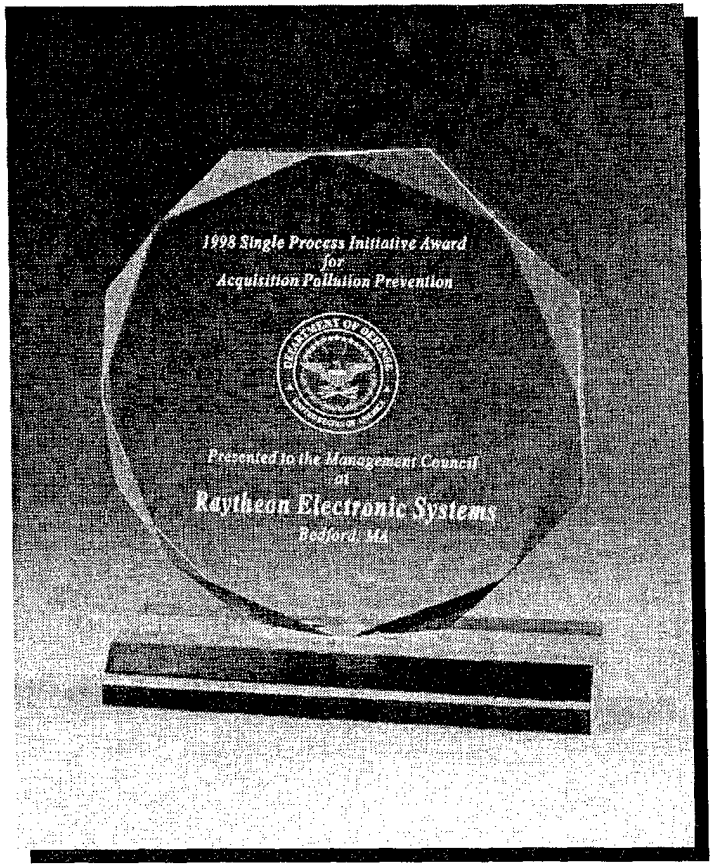
Procurement

26 Subcontract Terminations, FAR Change
27 Small Business Plans, FAR Changes
28 Annual Certification
29 Eliminate Rescreening Requirements
30 Remove Packaging Requirements

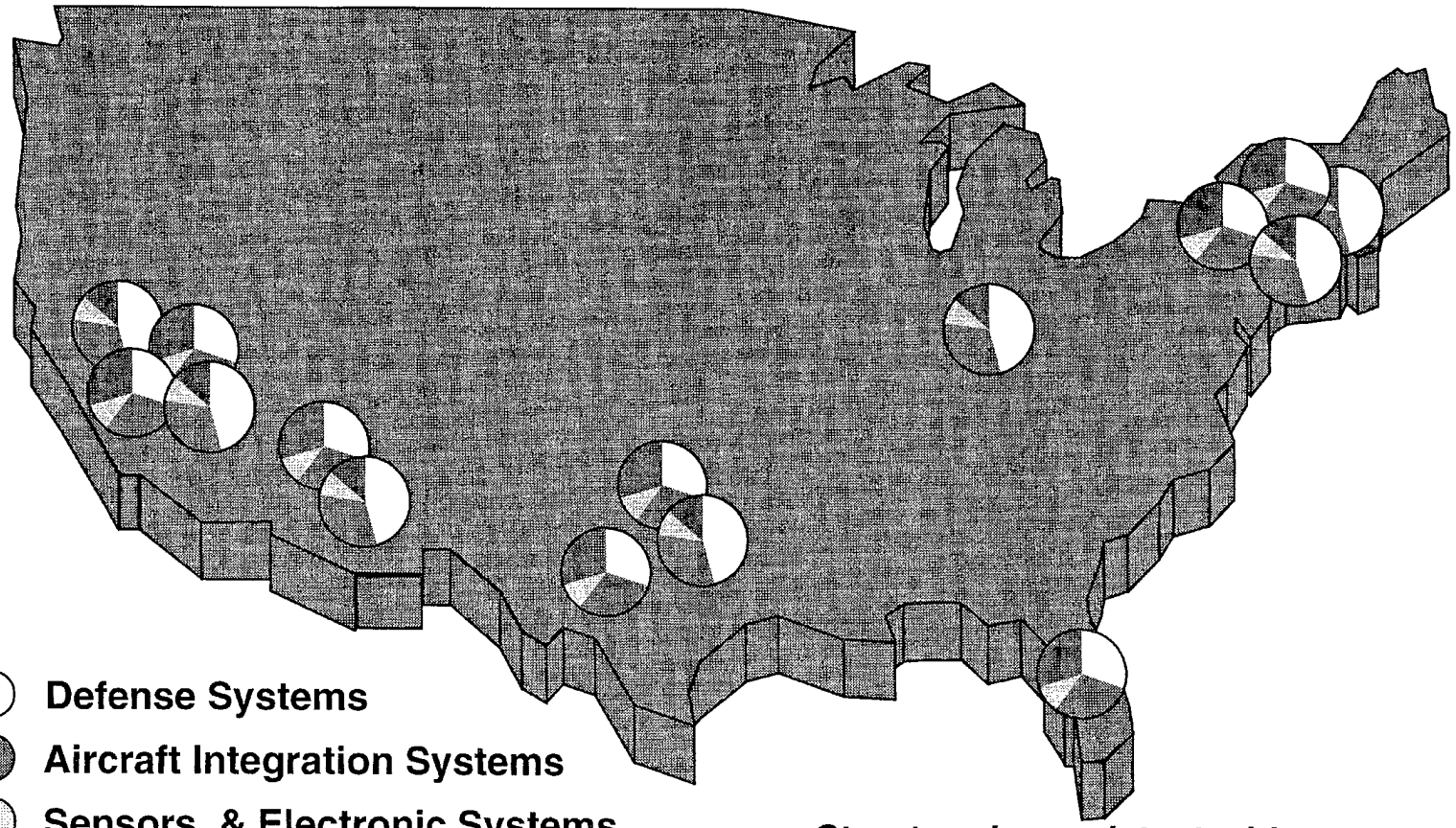
Concurrent Sales Summary

31 Eliminate Contractual Mandatory Government Inspection Requirements
32 ISO 9001

DCMC SPI Recognition Award



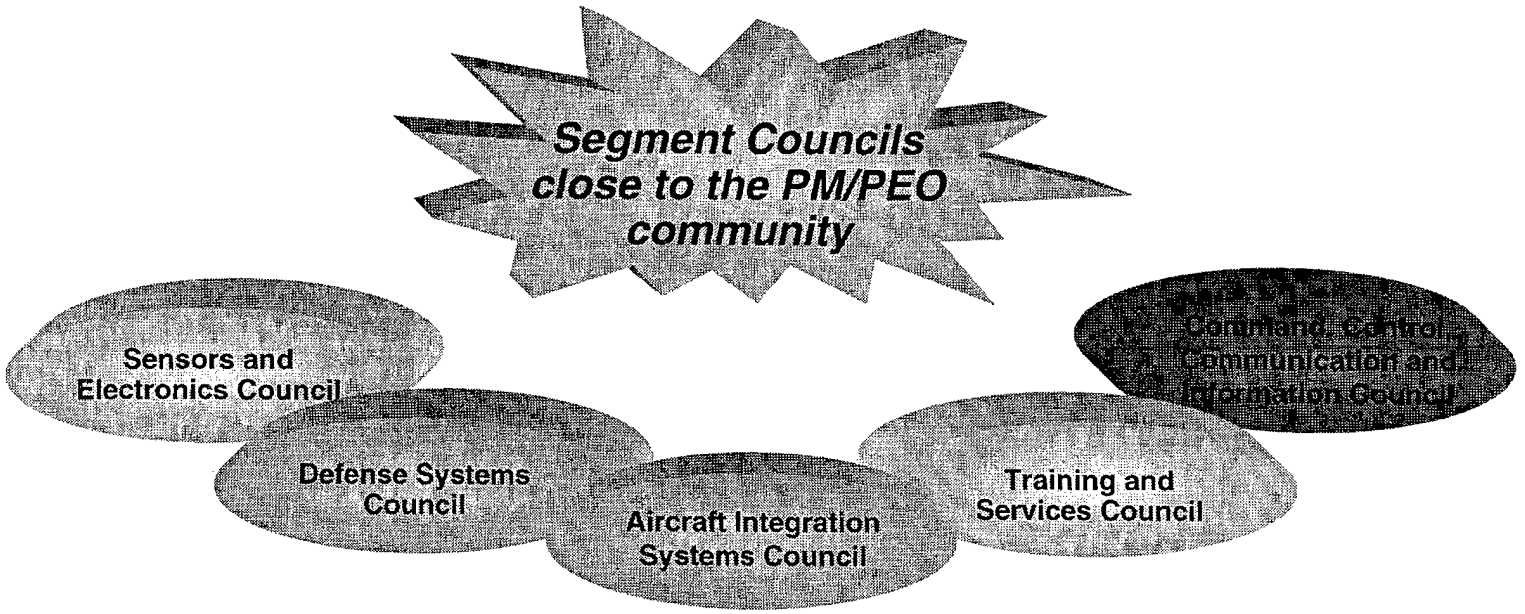
Previous Management Councils



- Defense Systems
- Aircraft Integration Systems
- Sensors & Electronic Systems
- Command, Control, Communication and Information Systems

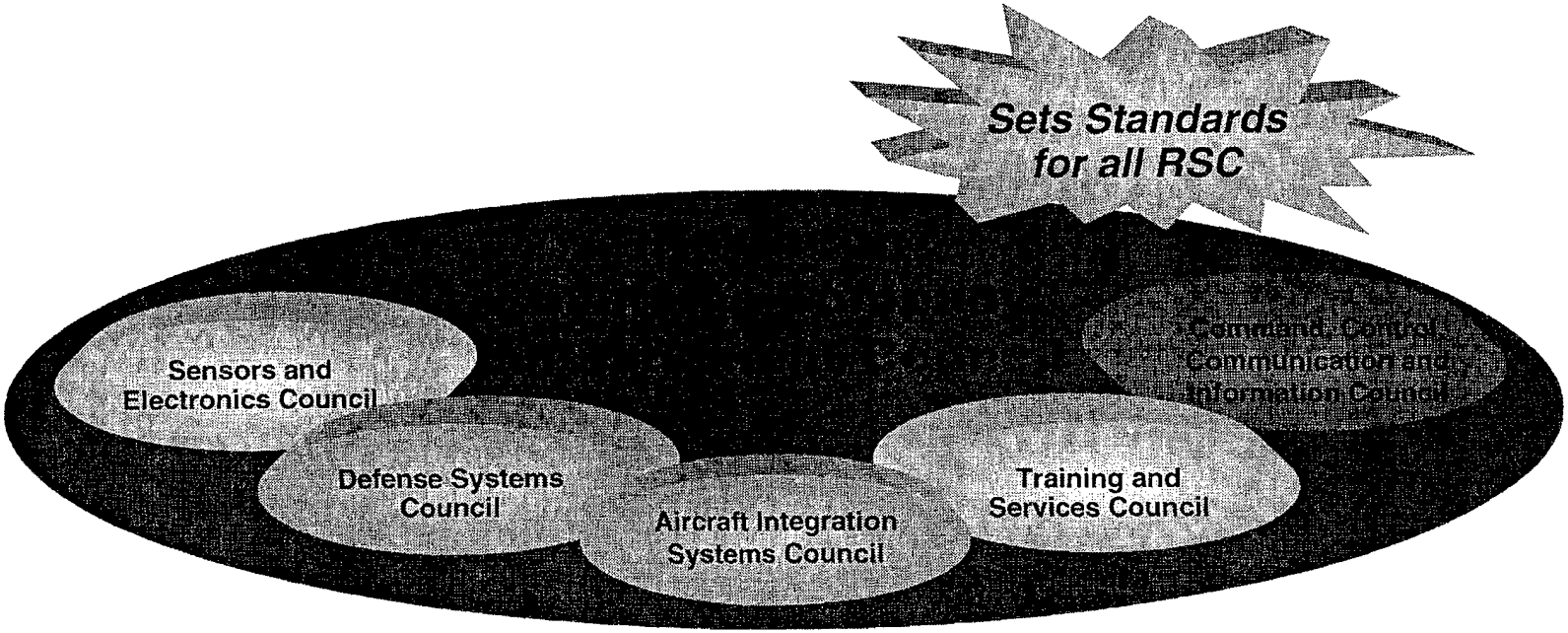
- *Structure inconsistent with RSC Segment structure*
- *Councils not facility specific*
- *Segments geographically spread*

RSC Management Council Structure



Commitment to Acquisition Reform

Integrated RSC Management Council Structure

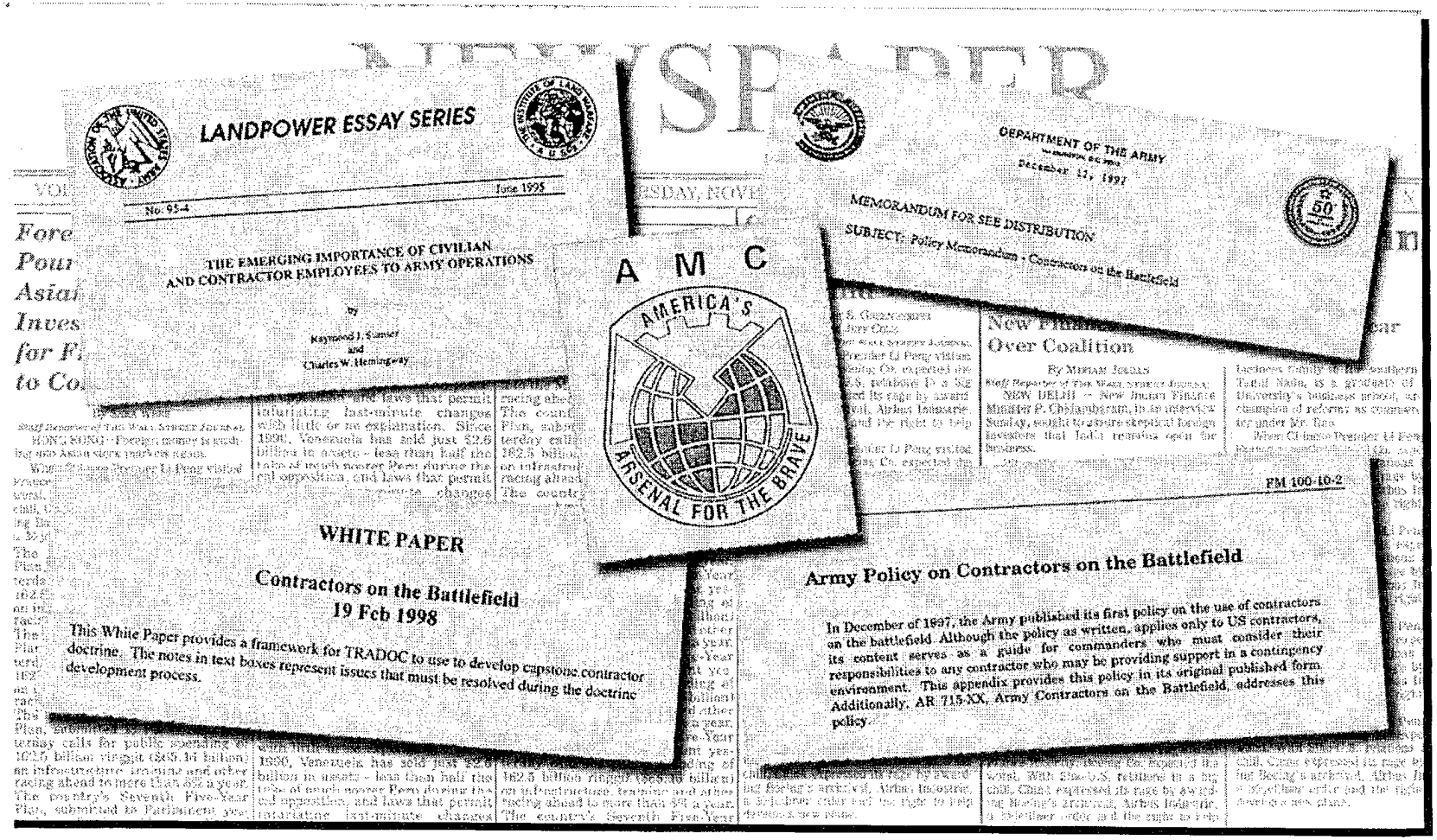


Commitment to Acquisition Reform

Acquisition Reform Initiatives

- PROCAS
- EVMS
- DoD Past Performance
- RSC Transition and details
- Integrated Digital Environment (IDE)
- Environmental Initiatives
- Streamlined Acquisition
- Other topics of interest to the Councils

Contractor On The Battlefield



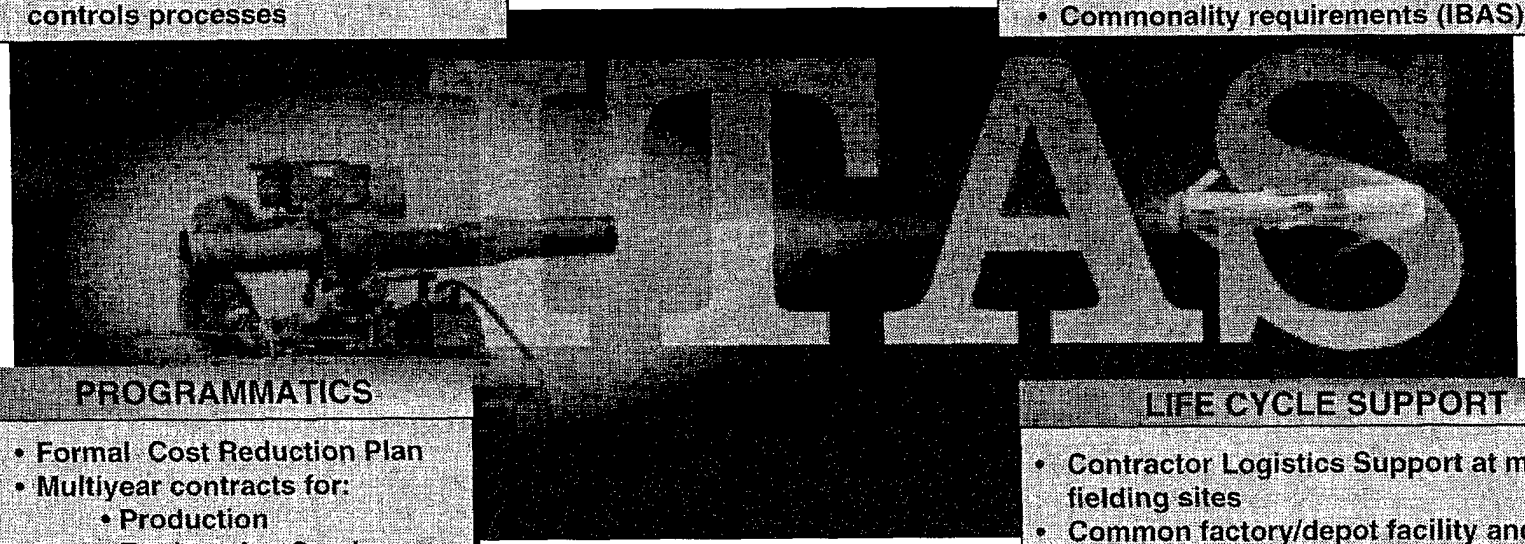
ITAS Acquisition Reform Model

CONTRACT REFORM

- Performance specifications for field replaceable items
- RSC controls detailed design data
- Fly-to-Buy
- Key metrics monitored, contractor controls processes

HARDWARE REFORM

- Full Built-in-Test capability
- Plastic encapsulated microcircuits
- Industrial parts
- Controlled use of COTS items
  - RSC Part Selection Process
- Commonality requirements (IBAS)



PROGRAMMATICS

- Formal Cost Reduction Plan
- Multiyear contracts for:
  - Production
  - Engineering Services
  - Prime Vendor Support
- Alpha Acquisition

ELECTRONIC COMMERCE

- On-line submission of CDRL's and Technical data
- Logistics data integrated with Army Log Systems

LIFE CYCLE SUPPORT

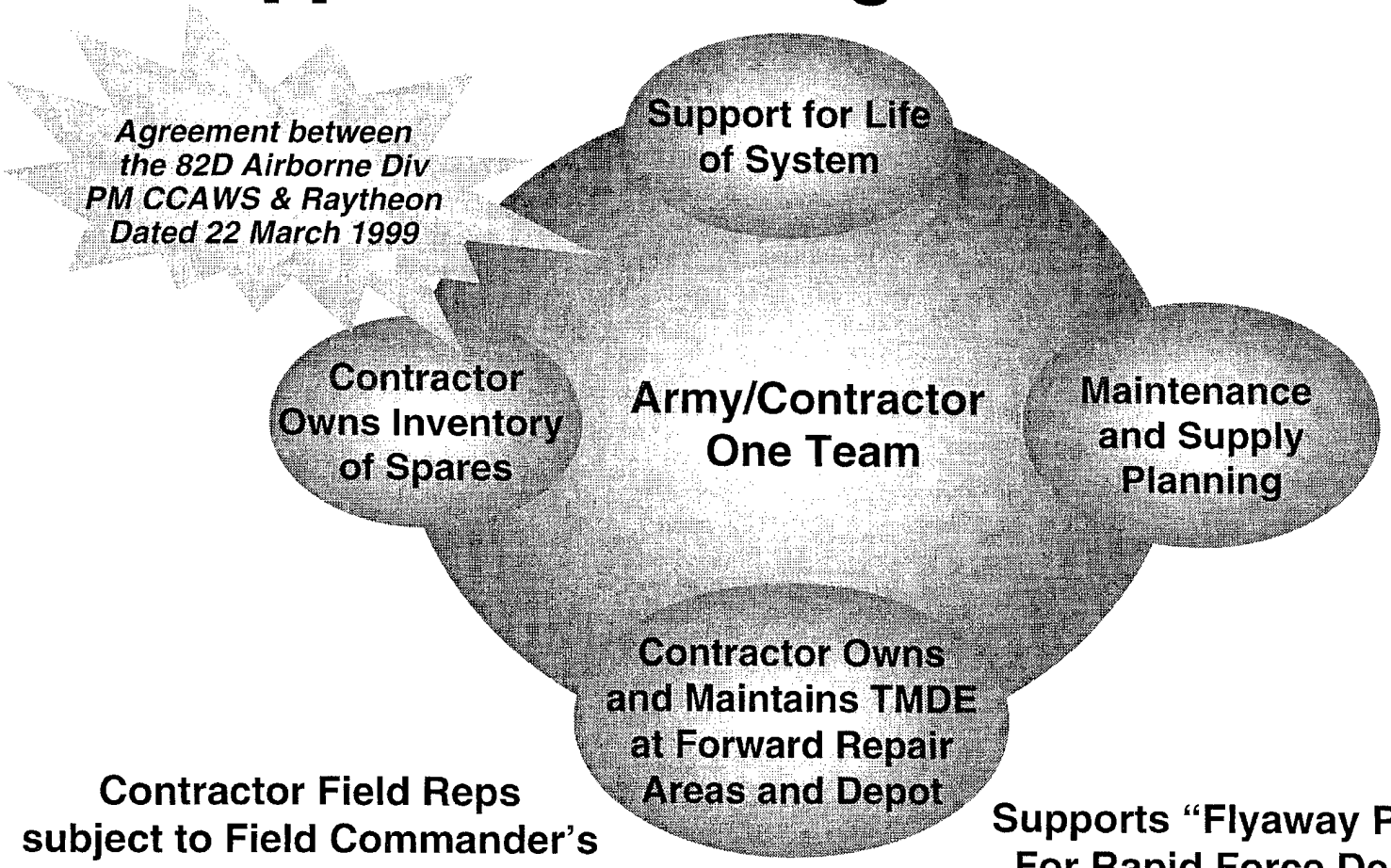
- Contractor Logistics Support at major fielding sites
- Common factory/depot facility and equipment
- Guaranteed system availability

TOW Improved Target Acquisition System (ITAS)



The 82D Airborne's 1-17 CAVALRY with their new TOW ITAS anti-armor systems.

Contractor Integrated with the Unit to Support the Warfighter



Contractor Field Reps subject to Field Commander's control at all times

Supports "Flyaway Packages" For Rapid Force Deployment

ITAS CLS for the 82D A/B Div

9 Infantry Battalions
1 Calvary Squadron

- 11H - ITAS Operator

Forward Support Battalion (FSB)

- 27E - ITAS Contact Team

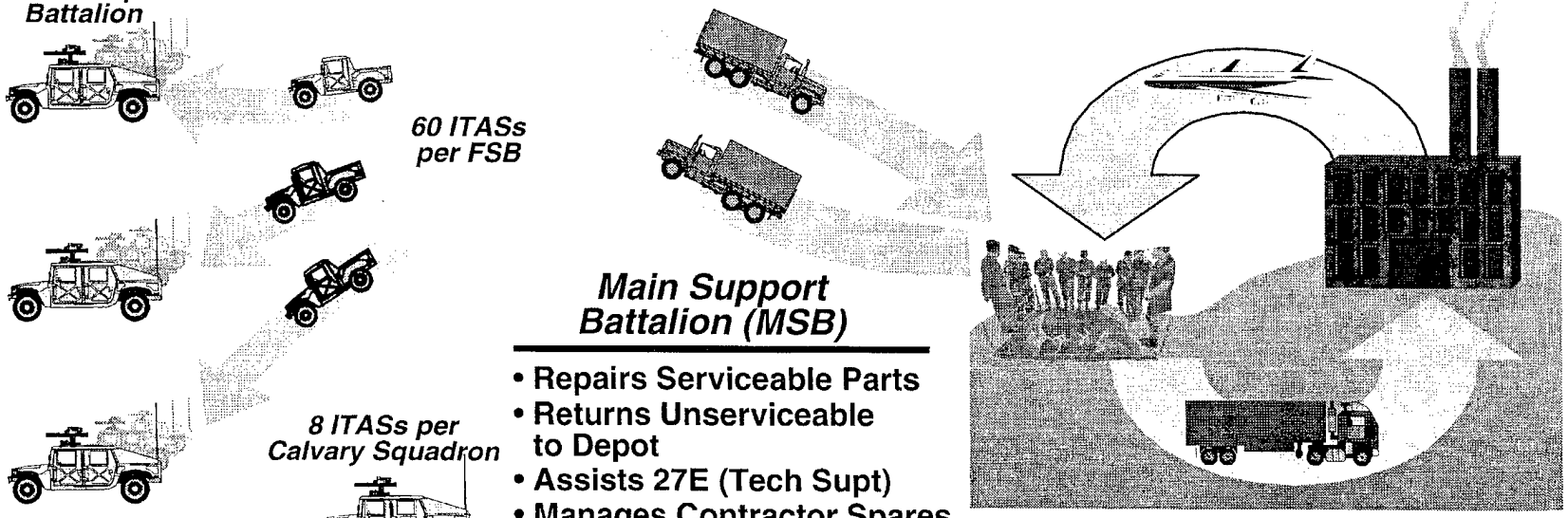
Contractor Depot – Raytheon

- Repairs Unserviceable Parts
- Replenishes Spares
- Executes Modernization Program

20 ITASs per Battalion

60 ITASs per FSB

8 ITASs per Calvary Squadron



Main Support Battalion (MSB)

- Repairs Serviceable Parts
- Returns Unserviceable to Depot
- Assists 27E (Tech Supt)
- Manages Contractor Spares

⇐ •Fly-Away Package (ASL) ⇒

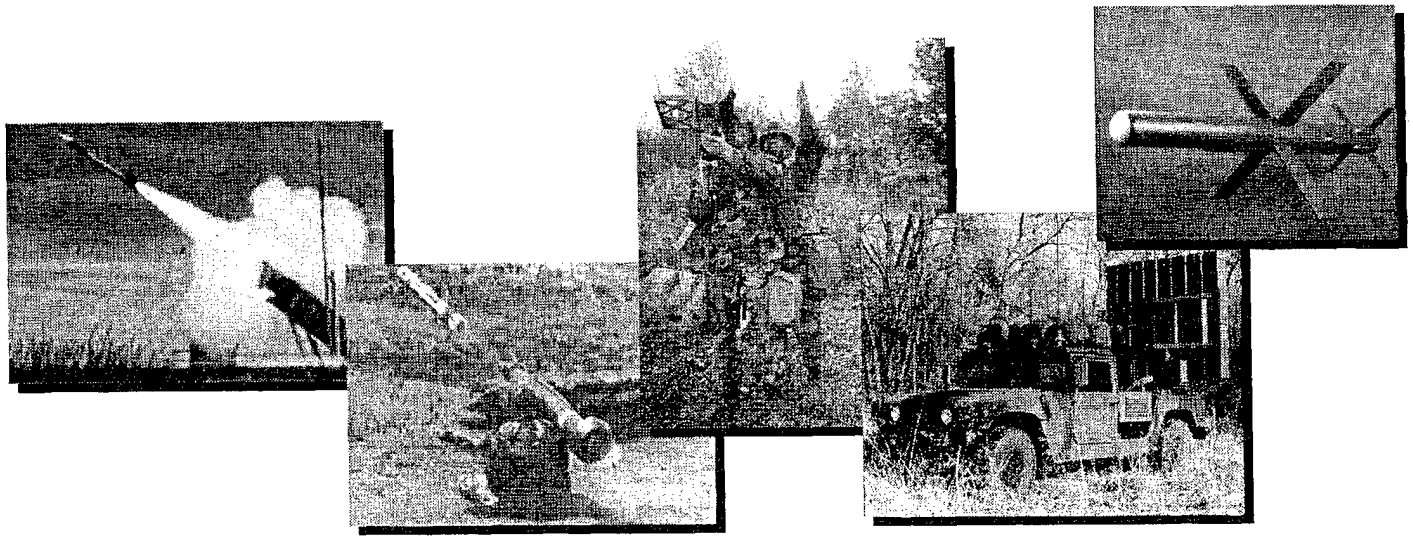
For ITAS, the Army's Care-Abouts Have Been Addressed with the Agreement Between the PM, the 82D and Raytheon

U.S. Army Care-Abouts	Contractor as Team Member
War Planning/Force Multiplier	☑ Member of War Planning Council
Seamless Transition to War	☑ Total Integration of RSC into Support Plan
Responsiveness of Support	☑ RSC Located with Units/Incentive Contract
Support to Contractors	☑ Provided by Unit through the agreement
Deployment Requirements	☑ Health/Physical/Legal Requirements met
Control in Battle	☑ RSC Rep under Commander's Authority, SOFAs & UCMJ
Technical Support	☑ Skilled Technicians drawn from both Industry and former Military Pools

Acquisition Reform

Issues

- *SPI process*
- *Commercialization*
- *Unique business requirements*
- *Contract terms and conditions*



Acquisition Reform

Success

- *New opportunities*
- *Partnering between industry and the Army*
- *Streamlining*
- *Teamwork*



Commitment to Reform



Atlanta XXV

Atlanta XXV
History in the Making

GEN(R) Louis Wagner

History In The Making

Forum For Former Decision Makers To Review Previous Issues And Show How These Issues Provide A Framework To Continue The Evolution Of Government/Industry Relationships

Materiel Acquisition Issues - 1976 To 1989

- Small Budget to Large Budget to Decreasing Budget
- Critical Modernization Requirements
- Huge "Bow Wave"
- Hollow Army - Equipment Readiness Problems
- Congressional Criticism
- Distrust of Government Testing
- Depot Initiatives Stymied
- Poor Quality of New Equipment
- Packard Commission
- "ILL WIND" - Lawyers Reigned Supreme

"It's Deja Vu All Over Again"

Acquisition Initiatives - 1976 To 1998

- PMs Had Extensive Operational Experience
- Increased User Input - TRADOC System Managers
- Increased "Green Suiter" Input To Soldier Systems
- Increased Contractor Knowledge Of User - NTC
- Total Program Support By Prime Contractor - MSE
- Increased Contractor Support - Particularly Aviation
- Depot Performance Enhancement
- Objective Supply System (OSS) - Fort Hood
- Common Items And Supply Depots To DLA
- In Transit/Total Asset Visibility - But Too Slow

AN OUTSIDER'S VIEW OF AMC TODAY

- Not Enough "Green Suiters' To Influence The Action
- Management Of Suppliers Is Key Focus
- Increased Reliance On Contractors In All Areas
- Decreased Emphasis On Acquisition Expertise
- Many Good Initiatives
  - Velocity Supply Management
  - State-Of-The-Art In-Transit/Total Asset Visibility
  - Paperless Contracting
  - Streamlined RFPs (?)

Too Few People For Too Many Jobs?



AAI Corporation

A subsidiary of United Industrial Corporation

HISTORY IN THE MAKING

An Industry Viewpoint

G. J. Kersels

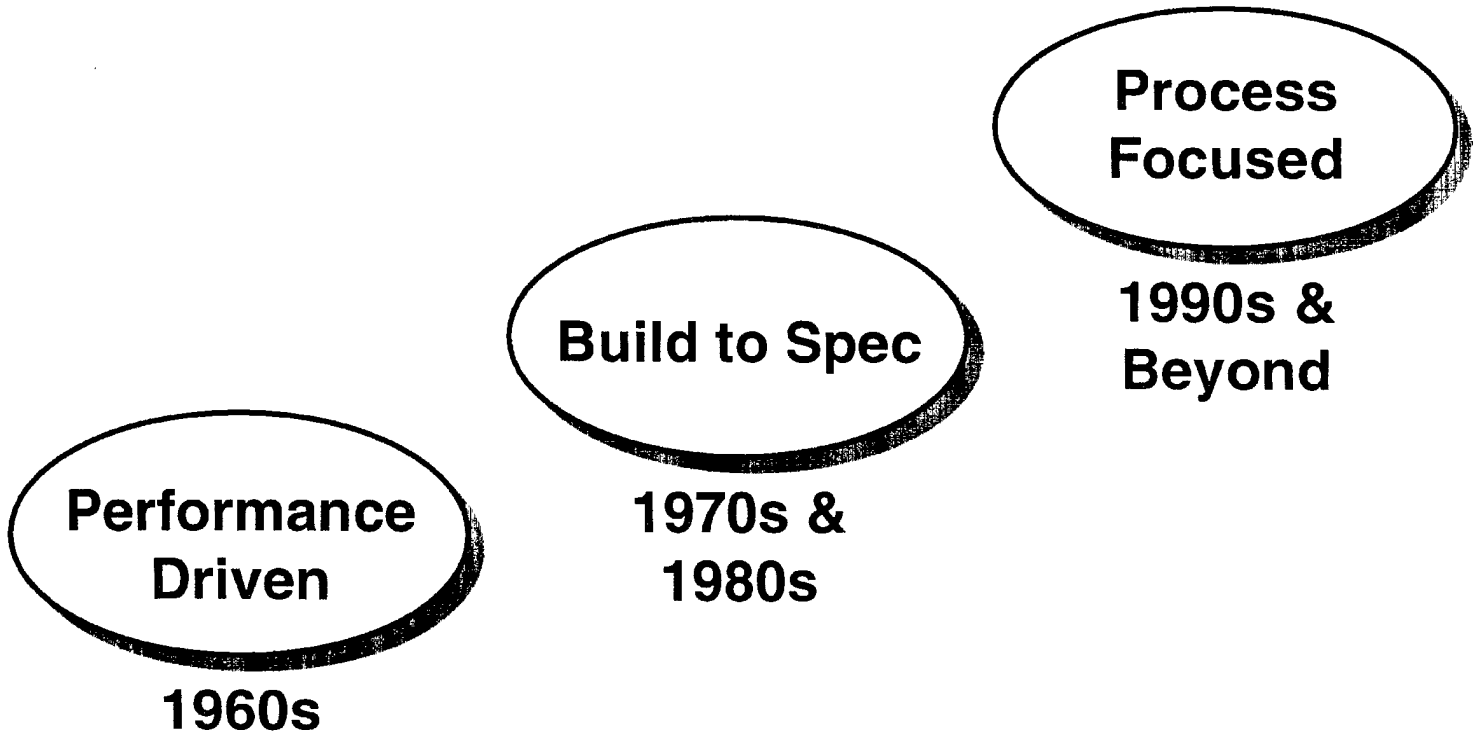
Vice President, General Manager

Defense Systems

20 April 99

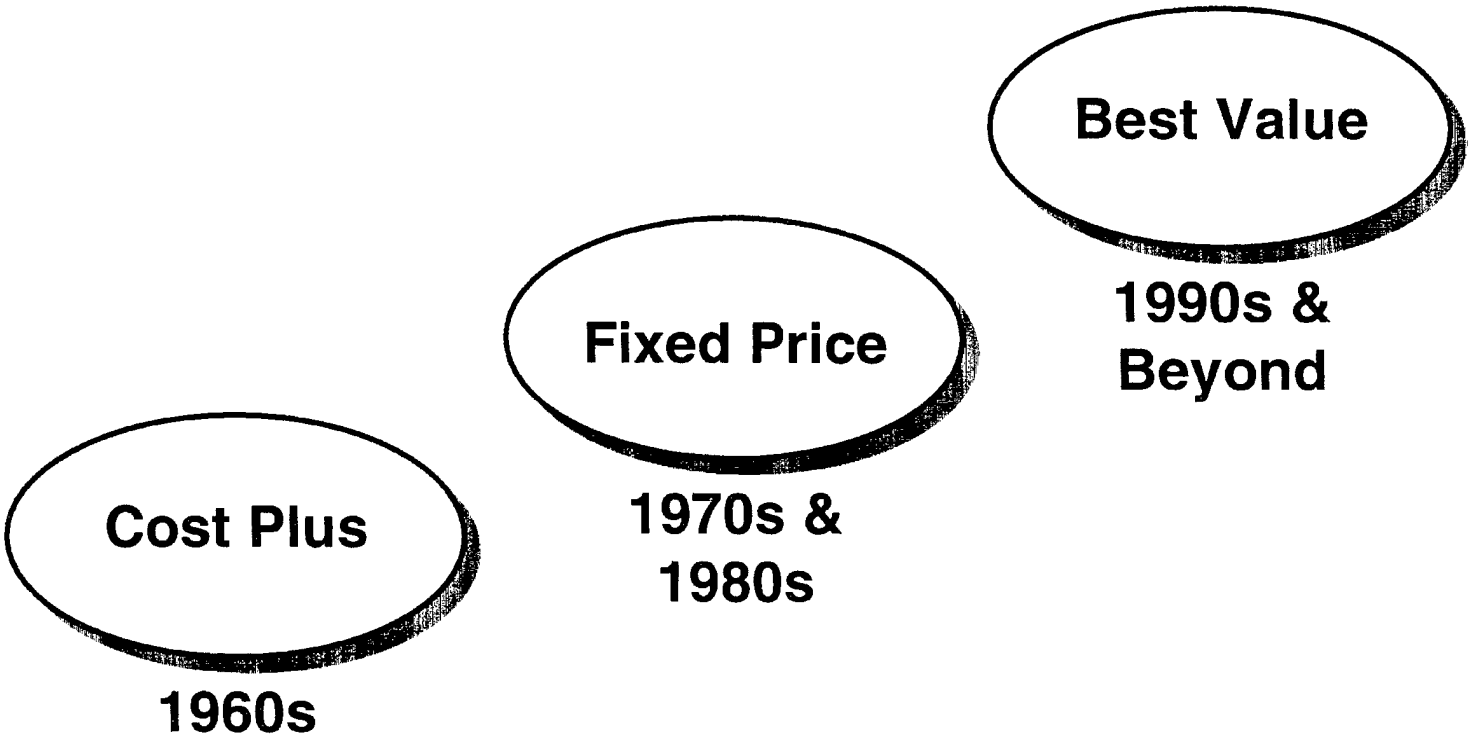
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PERFORMANCE EXPECTATIONS



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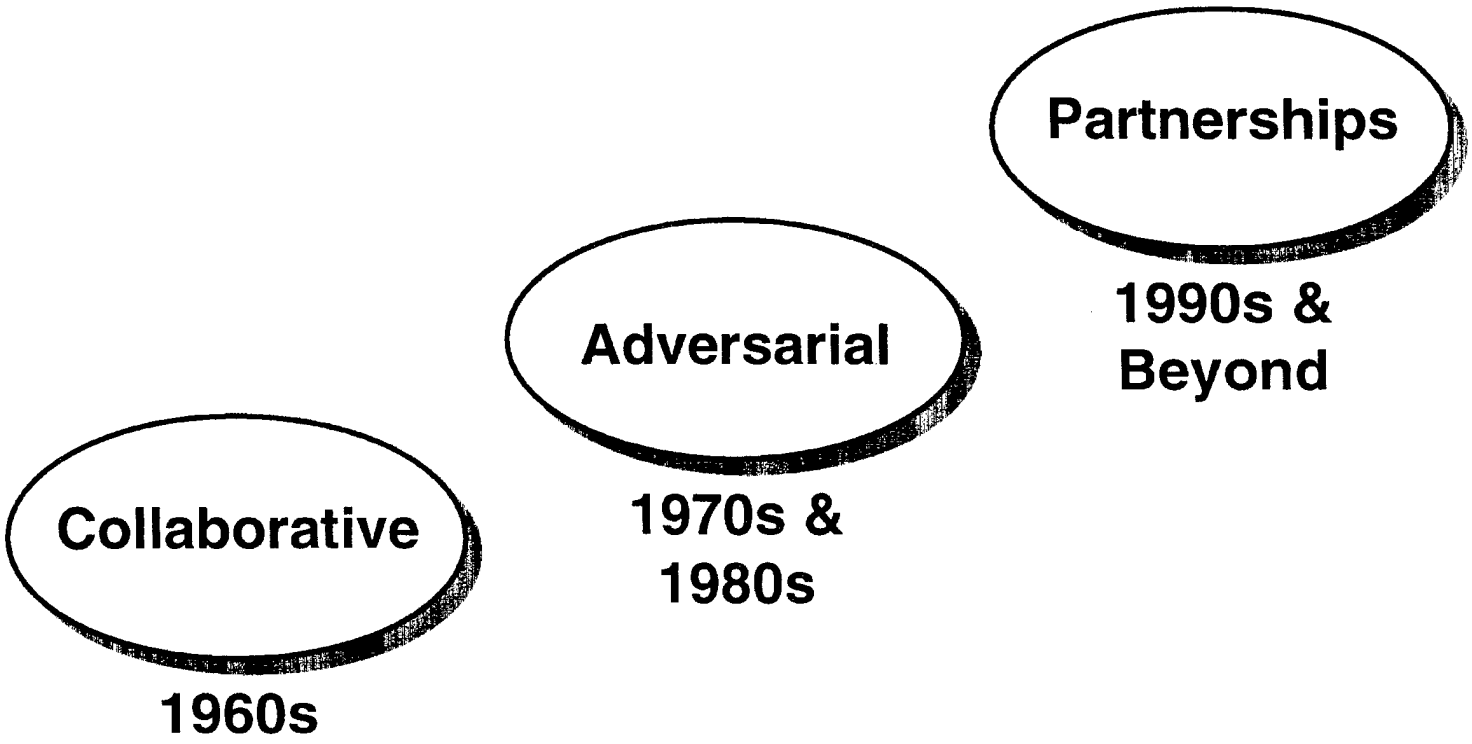
CONTRACT EXPECTATIONS



4/20/99 3

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GOVT/INDUSTRY RELATIONSHIPS



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CURRENT STATE

ARMY	**Warfighters** Combat Experts	**Support** Logistics Maintenance
INDUSTRY	**Primes** Experts at weapon platforms	**Support Specialist Companies** Training experts Contractor Life Cycle Support

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FUTURE INDUSTRY APPROACH

Option A

Prime

- Platform
- Training
- Contractor Life Cycle Support

Vertical Integration

Option B

Prime

- Platform

Support Specialist

- Training
- Contractor Life Cycle Support

Competition
Innovation
Lower Cost

ATLANTA XXV

Safeguarding The Exchange Of Information In An Open Environment

Mr. David Borland

Vice Director of Information Systems for Command, Control, Communications and Computer

20 April 1999

Purpose

- Provide an overview of how Government and Industry will safeguard the exchange of classified/proprietary information in their business dealings.

Agenda

- **Background**
- **Terms and Definition**
- **Bottom Line Up Front**
- **Context**
- **Classes of Attacks Against Network Systems**
- **Business Rules for Access Control (Current & Future)**
- **Business Scenarios (Current and Future)**
  - Solicitation and Awards
  - Electronic Catalogs (E-Catalogs) and Electronic Mall (E-Mall)
  - Technical Drawing Process
- **Public Key Infrastructure**
- **DoD Medium Assurance Public Key Infrastructure**
- **Target DoD PKI Architecture for Interoperability**
- **Target User Registration**
- **Challenges and Opportunities**
- **RECAP**

Background

Paperless Contracting:

- 21 May 97: Management Reform Memorandum (MRM) #2, "Moving to a Paper-free Contracting Process by January 1, 2000"
- 29 Jul 97: MRM #2 Addendum (included the Logistics function)
- 8 Dec 97: MRM #2 Reemphasis (provides focus, details monthly briefs)

Public Key Infrastructure (PKI):

- 8 Aug 97: Management Reform Memorandum (MRM) #16, "Identifying Requirements for the Design, Development and Implementation of a DoD Public Key Infrastructure.
- 19 Aug 97: ASD(C3I) Memorandum, "Public Key Infrastructure (PKI) Services for the Defense Information Infrastructure (DII)"
- April 99: Draft ASD(C31)Policy Memorandum, Department of Defense (DoD) Public Key Infrastructure (PKI)

Web Based Security:

- 24 Sep 98: DEPSECDEF Memorandum, "Information Vulnerability and the World Wide Web"
- 20 Oct 98: Principal Deputy USD(A&T) Memorandum, "Information Vulnerability and the World Wide Web"
- 30 Nov 98: Army DISC4/CIO Memorandum, "Guidance for Management of Publicly Accessible U.S. Army Web-sites

Definitions and Terms

Army Electronic Commerce (EC): Electronic techniques for accomplishing business transactions, including electronic mail or messaging, World Wide Web technology, electronic bulletin boards, purchase cards, electronic funds transfers, and electronic data interchange.

Army Single Face to Industry (ASFI): A web based electronic contracting system that provides direct interface with the Army's procurements systems and provides a centralized entrance point for industry

Public Key Infrastructure (PKI): The people, policy, procedures, hardware and software components, and facilities necessary to enable public key cryptographic functions, so that applications can provide the desired electronic commerce and security enhancements.

Digital Signatures: A process using public key cryptography whereby a user can electronically sign an electronic transaction. The digital signature can be validated as genuine and the signed transaction cannot be altered without detection.

Identity Certificates: An electronic file with a specific validity period that certifies that the named user is who he or she claims to be, and binds the user's public key with the named user. The certificate cannot be altered without detection.

Electronic Mall (E-Mall): A virtual shopping mall the provides DoD Customers the ability to order items electronically.

Army Mart (A-MART): Army World-Wide-Web front end to the DoD E-Mall

Bottom Line Up Front (BLUF)

If you don't have an expert in Information Technology (IT) Infrastructure that's working Public Key Infrastructure, then you need to get one.

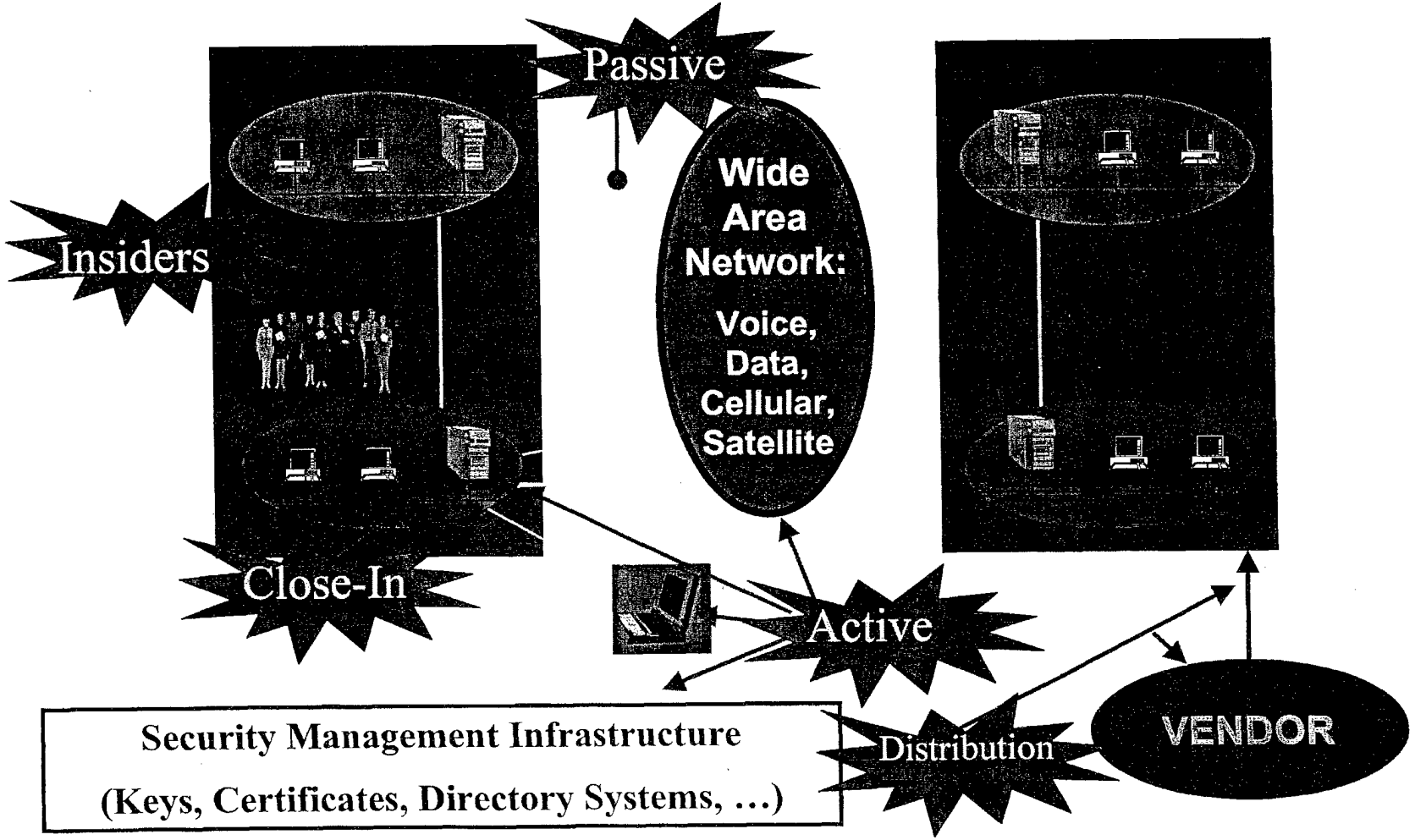
Context

- What is the threat in the digital environment and where is it located?

- How are we currently ensuring that only authorized individuals have access to the electronic information?

- How will this change in the future?

Classes of Attacks against Networked Systems



Paperless Access Control Business Rules
Current Environment (1999)

Process	Access Control
Solicitations & Awards	
Unclassified	Defined & Implemented
Post Solicitations	ID & Password through Contracting System
View Solicitations	None, available in Public Domain
Submit Proposal	ID & Password, secure session via Secure Sockets Layer (SSL)
Contract Awards	Telephonically to Contractor or Electronic Data Interchange (X12) transaction set through the Federal Acquisition Network (FACNET)
Classified	Not defined. Classified Solicitations and Awards are handled via Paper.
E-Catalogs & E-Mall	
Browsing	.MIL Domain Restriction
Ordering	ID & Password, secure session via Secure Sockets Layer (SSL)
Payment	ID & Password, secure session via Secure Sockets Layer (SSL)
Order Status Tracking	ID & Password, secure session via Secure Sockets Layer (SSL)
Technical Drawings	
View Drawings	None for Distribution A Type Drawings
Order Drawings	Distribution B requires ordering from the Contracting Officer, ID & Password, secure session via Secure Sockets Layer (SSL)

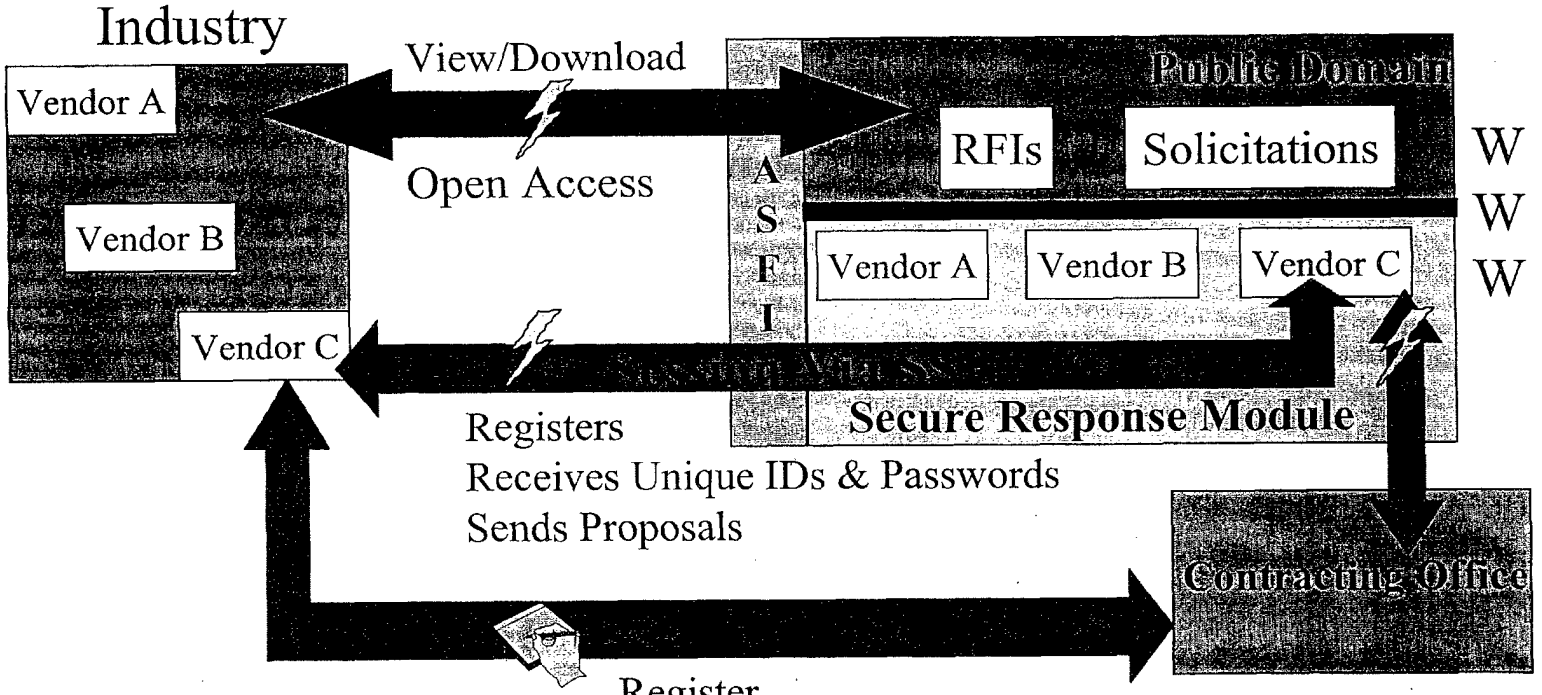
Paperless Access Control Business Rules
Notional Future Environment (200X)

Process	Access Control
Solicitations & Awards	
Unclassified	Partially Defined
Post Solicitations	ID & Password, Authentication via Identification Certificate (PKI)
View Solicitations	None, available in Public Domain
Submit Proposal	ID & Password, Authentication via Identification Certificate (PKI) and secure session via Secure Sockets Layer (SSL)
Contract Awards	To Be Defined (An OSD IPT will define the paperless business rules)
Classified	Not Defined (No existing plans to migrate to paperless operations)
E-Catalogs & E-Mall	
Browsing	.MIL Domain Restriction
Ordering	ID & Password, Authentication via Identification Certificate (PKI) and secure session via Secure Sockets Layer (SSL)
Payment	ID & Password, Authentication via Identification Certificate (PKI) and secure session via Secure Sockets Layer (SSL)
Order Status Tracking	ID & Password, Authentication via Identification Certificate (PKI) and secure session via Secure Sockets Layer (SSL)
Technical Drawings	
View Drawings	None for Distribution A Type Drawings
Order Drawings	Distribution B requires ordering from the Contracting Officer, ID & Password, Authentication via Identification Certificate (PKI) and secure session via Secure Sockets Layer (SSL)

Business Scenarios Current Environment (1999)
Solicitations & Awards w/Security Overlay

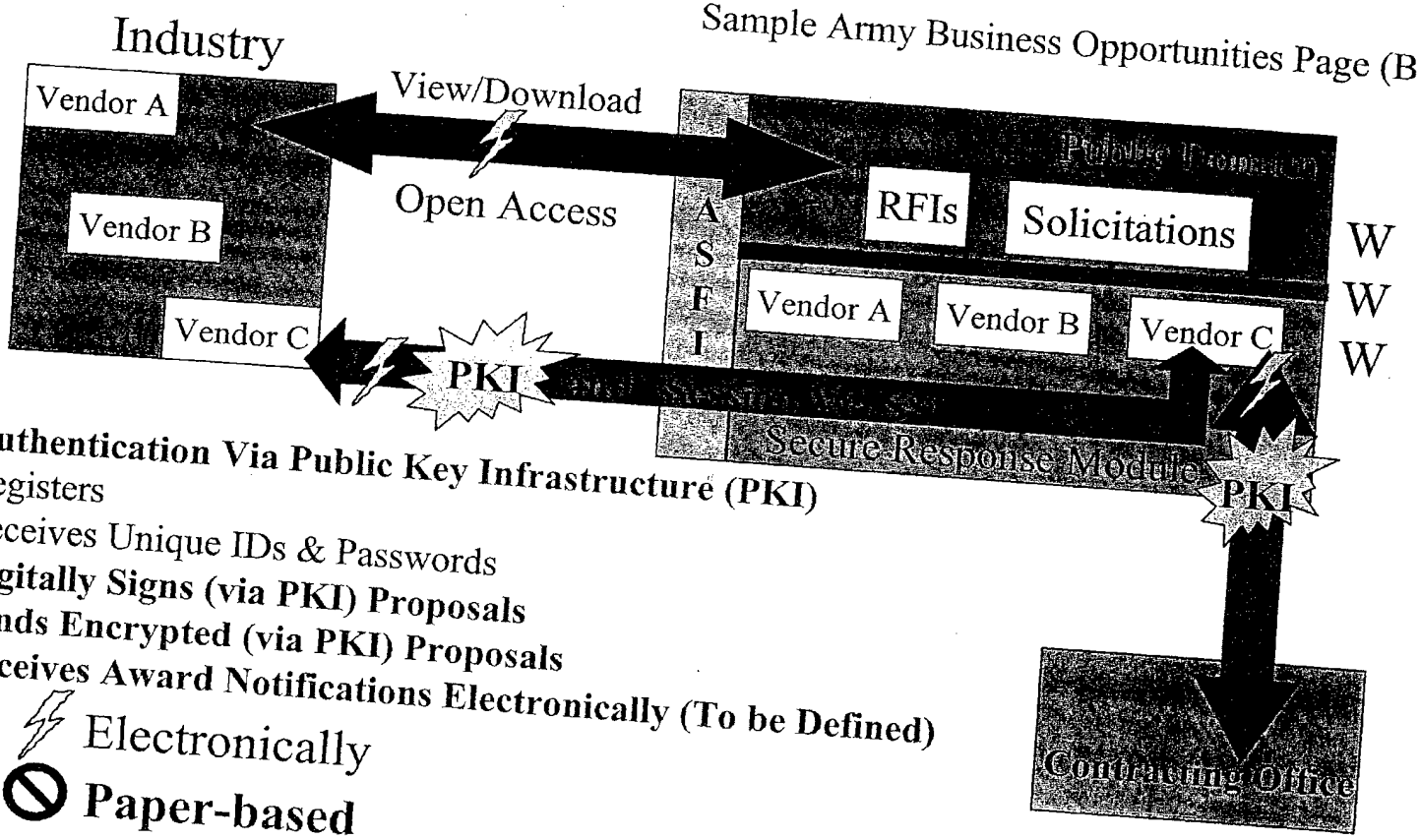
ASFI: http://www.army-acquisition.net

Sample Army Business Opportunities Page (BOP)



Business Scenarios Future Environment (200X)
Solicitations & Awards w/Notional Security Overlay

ASFI: http://www.army-acquisition.net



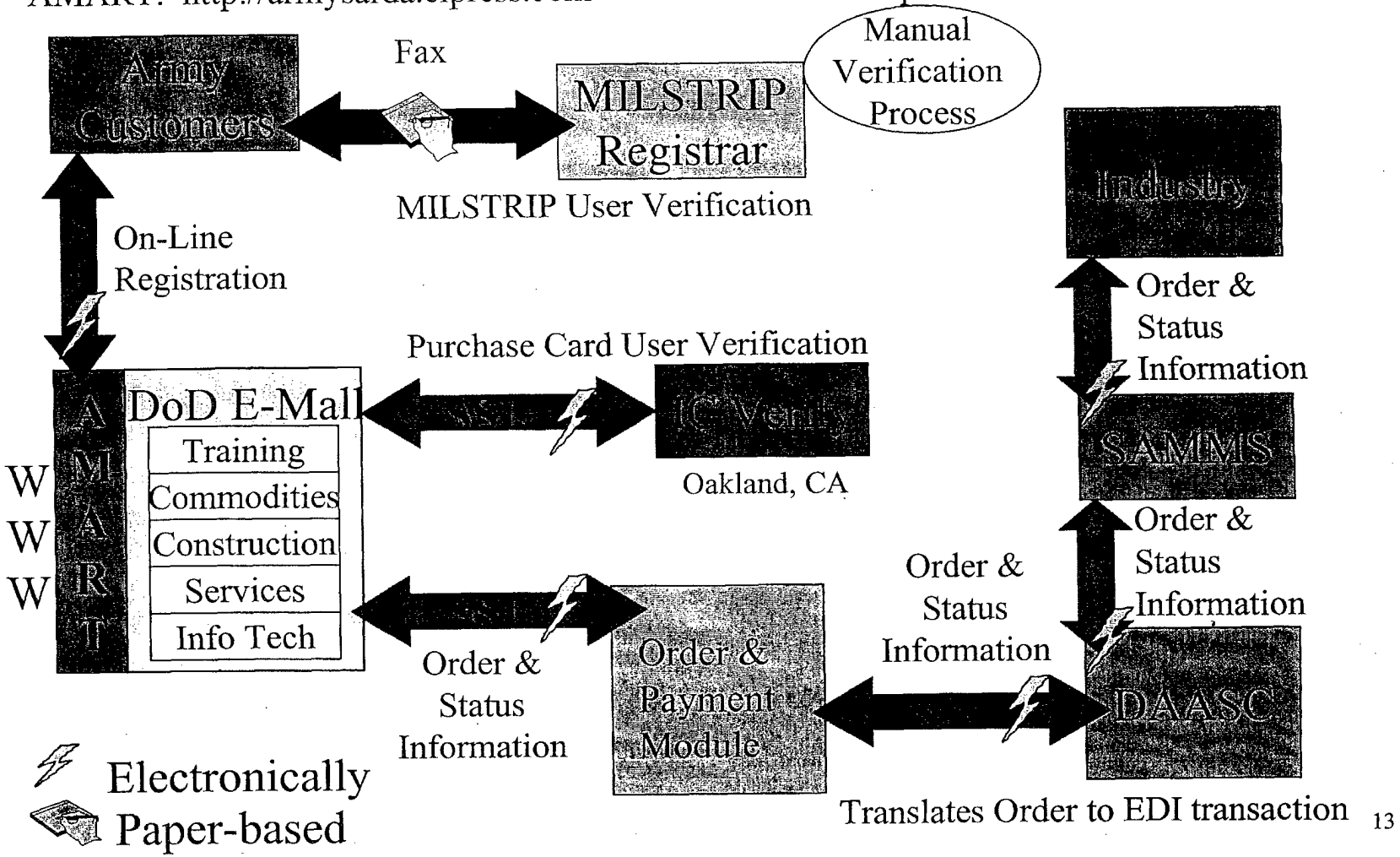
Authentication Via Public Key Infrastructure (PKI)
Registers
Receives Unique IDs & Passwords
Digitally Signs (via PKI) Proposals
Sends Encrypted (via PKI) Proposals
Receives Award Notifications Electronically (To be Defined)

Electronically

Paper-based

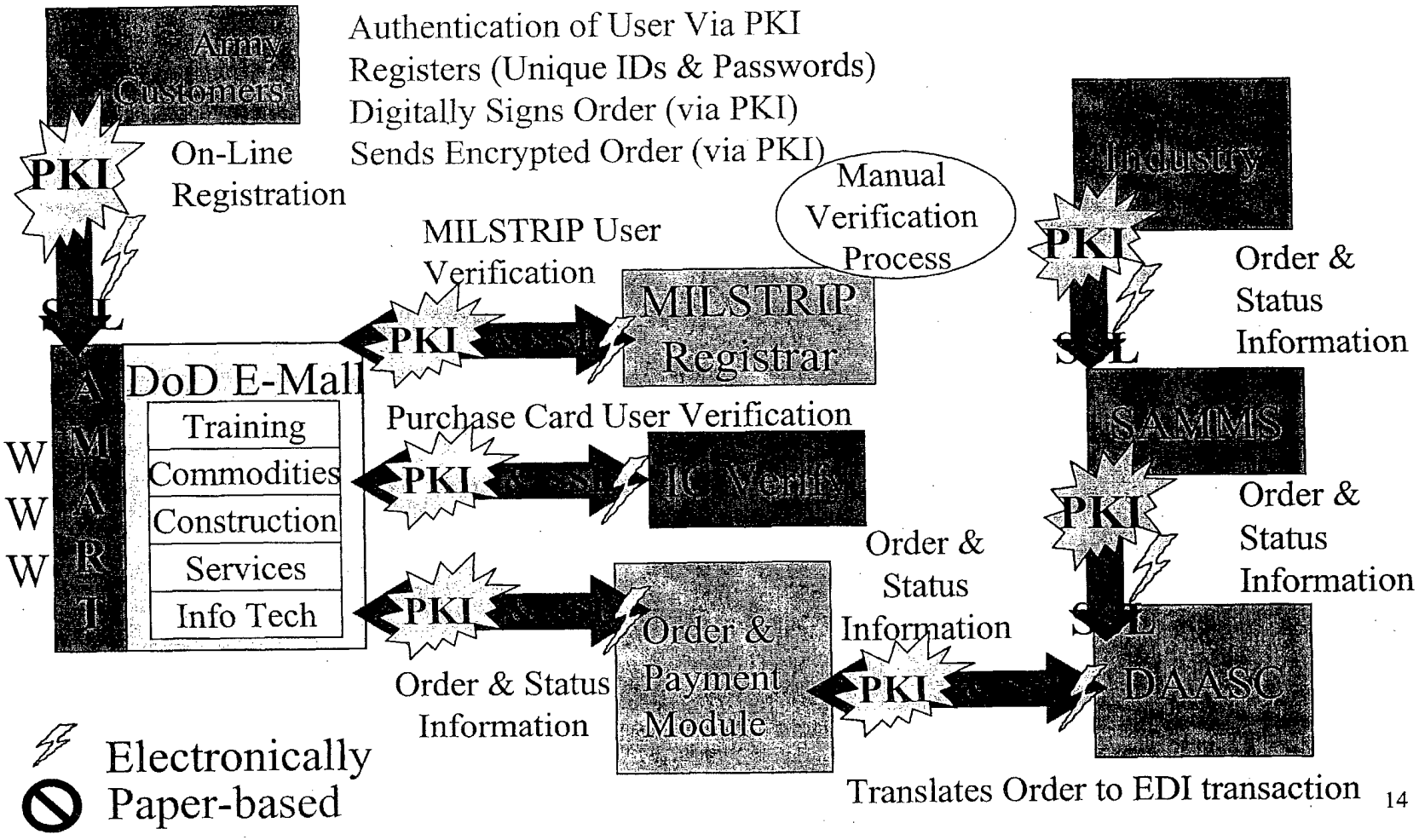
Business Scenarios - Current Environment (1999)
E-Catalogs & E-Mall w/Security Overlay

AMART: http://armysarda.elpress.com E-Mall: http://www.emall.dla.mil

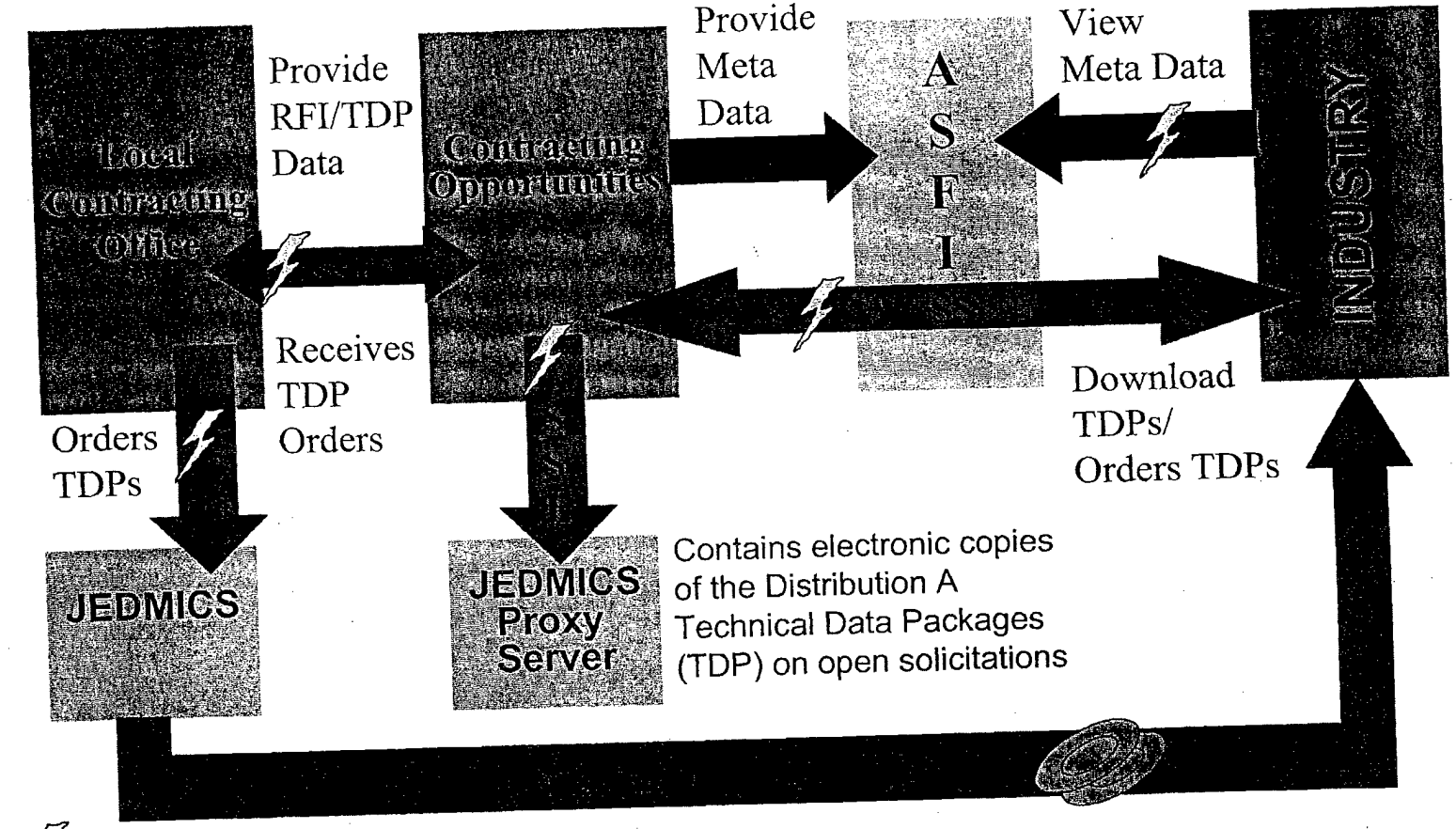


Business Scenarios - Future Environment (200X)
E-Catalogs & E-Mall w/ Notional Security Overlay

AMART: http://armysarda.elpress.com E-Mall: http://www.emall.dla.mil

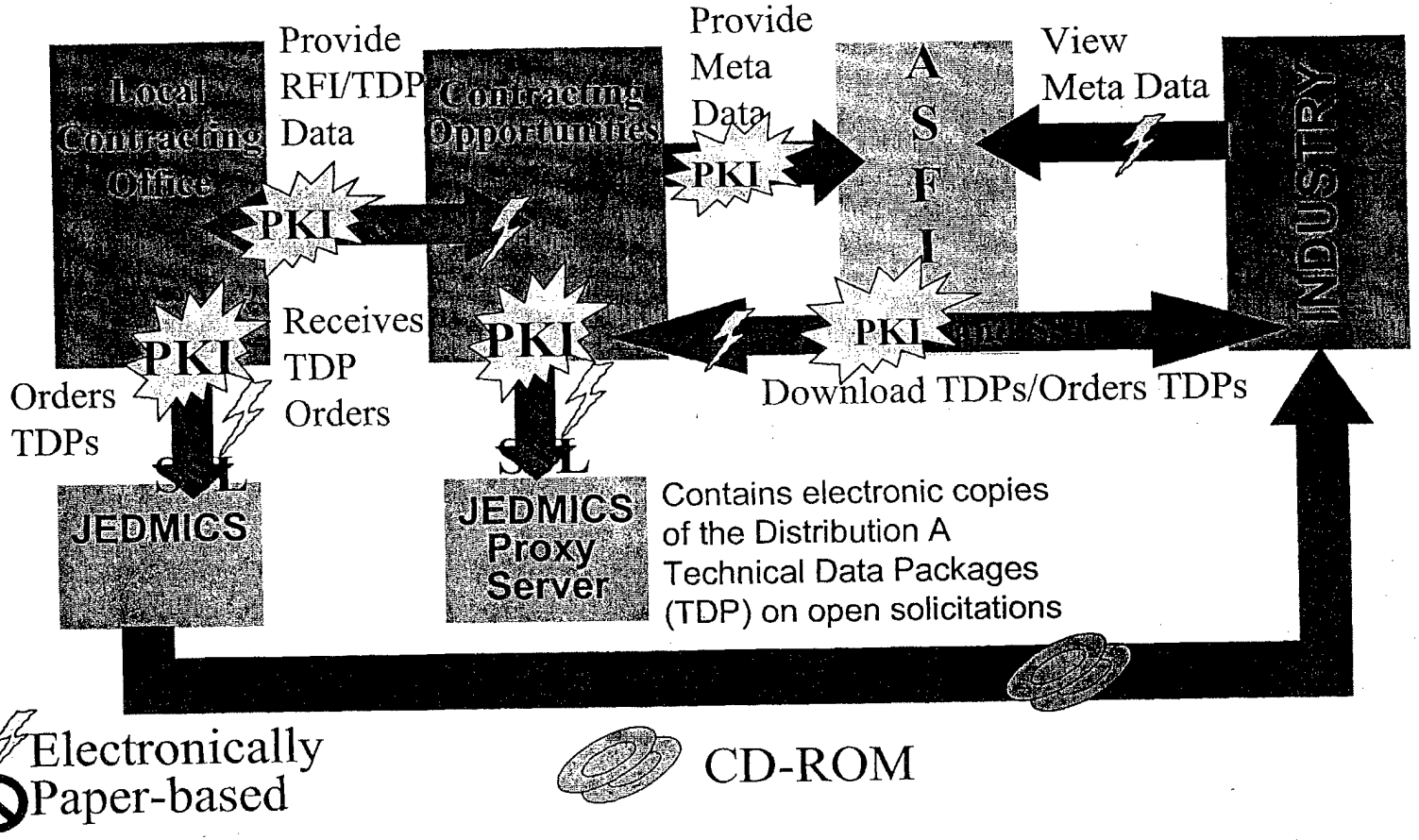


Business Scenarios Current Environment (1999) Technical Drawings w/Security Overlay

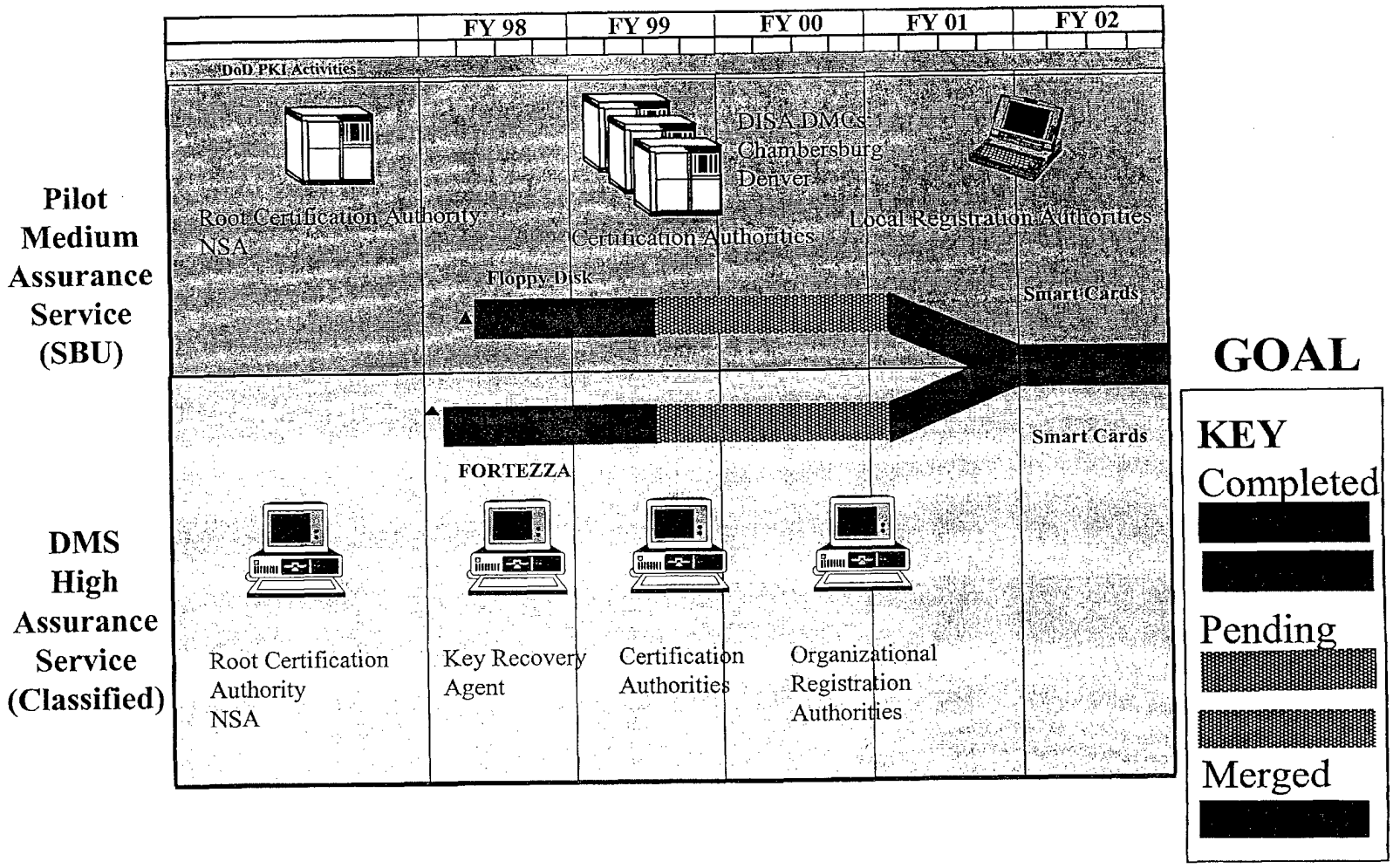


Business Scenarios Future Environment (200X) Technical Drawings W/ Notional Security Overlay

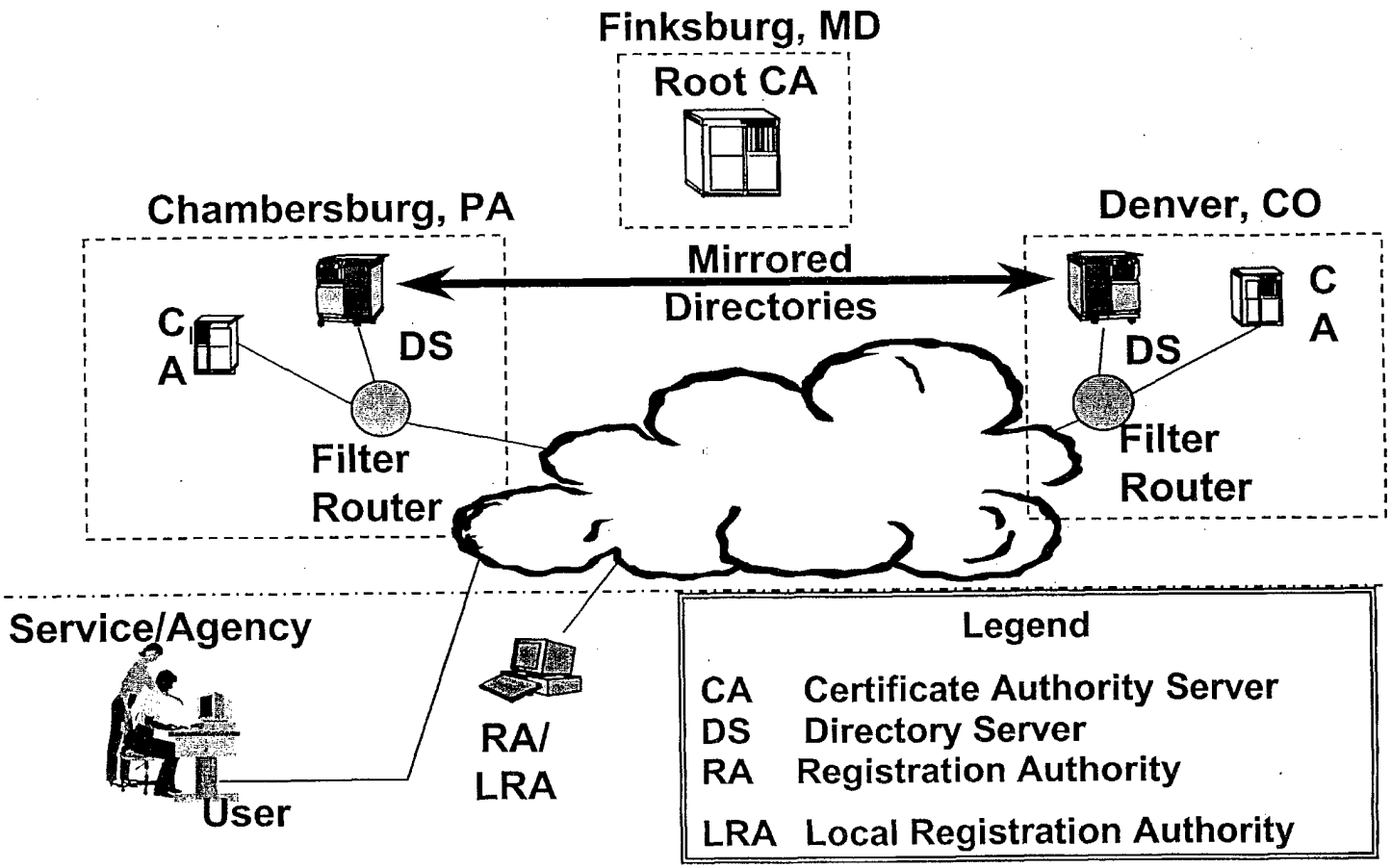
NOTE: No Defined Business Process Changes for Future Environment Changes as a result of Pending DoD PKI Policy



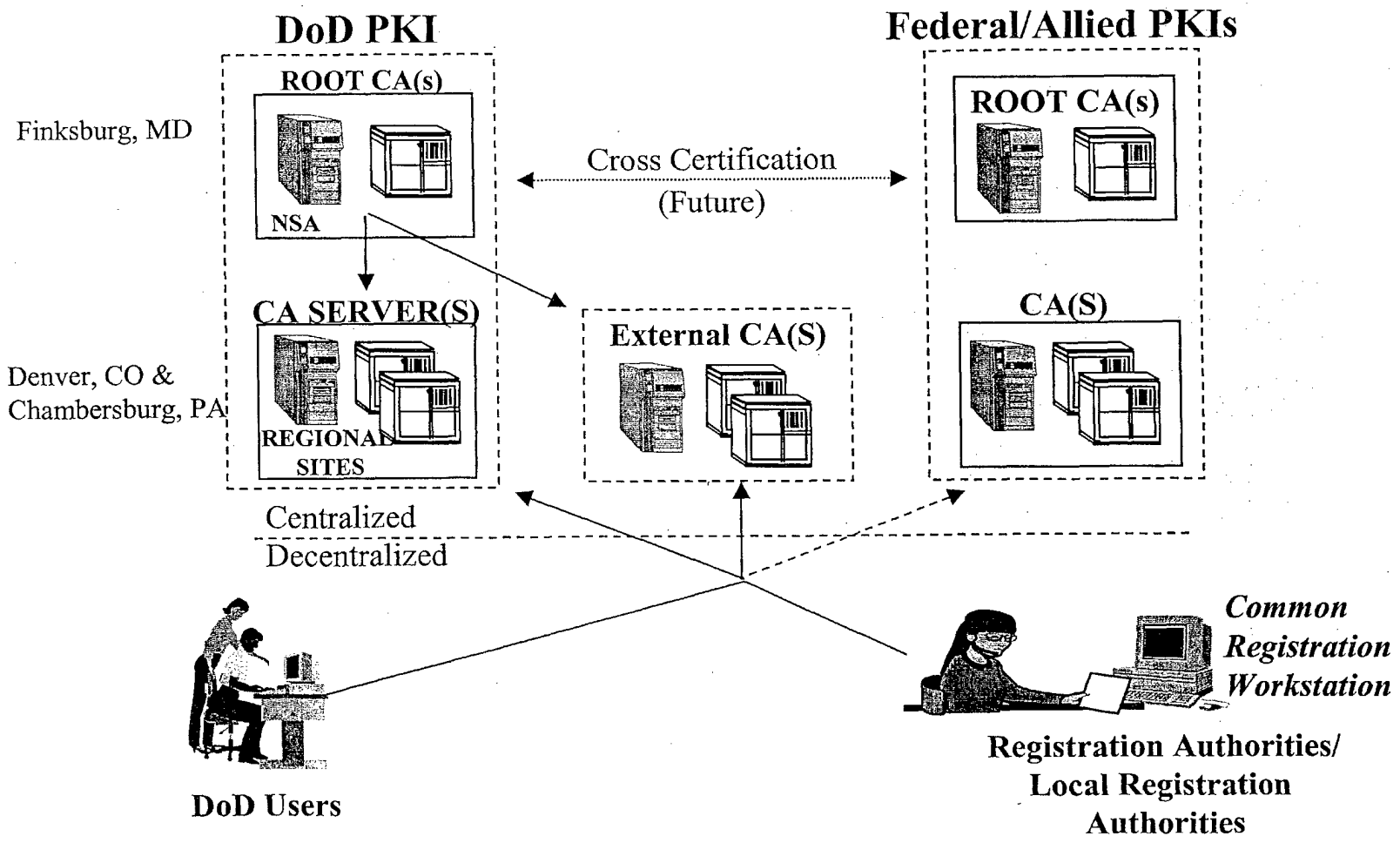
PUBLIC KEY INFRASTRUCTURE



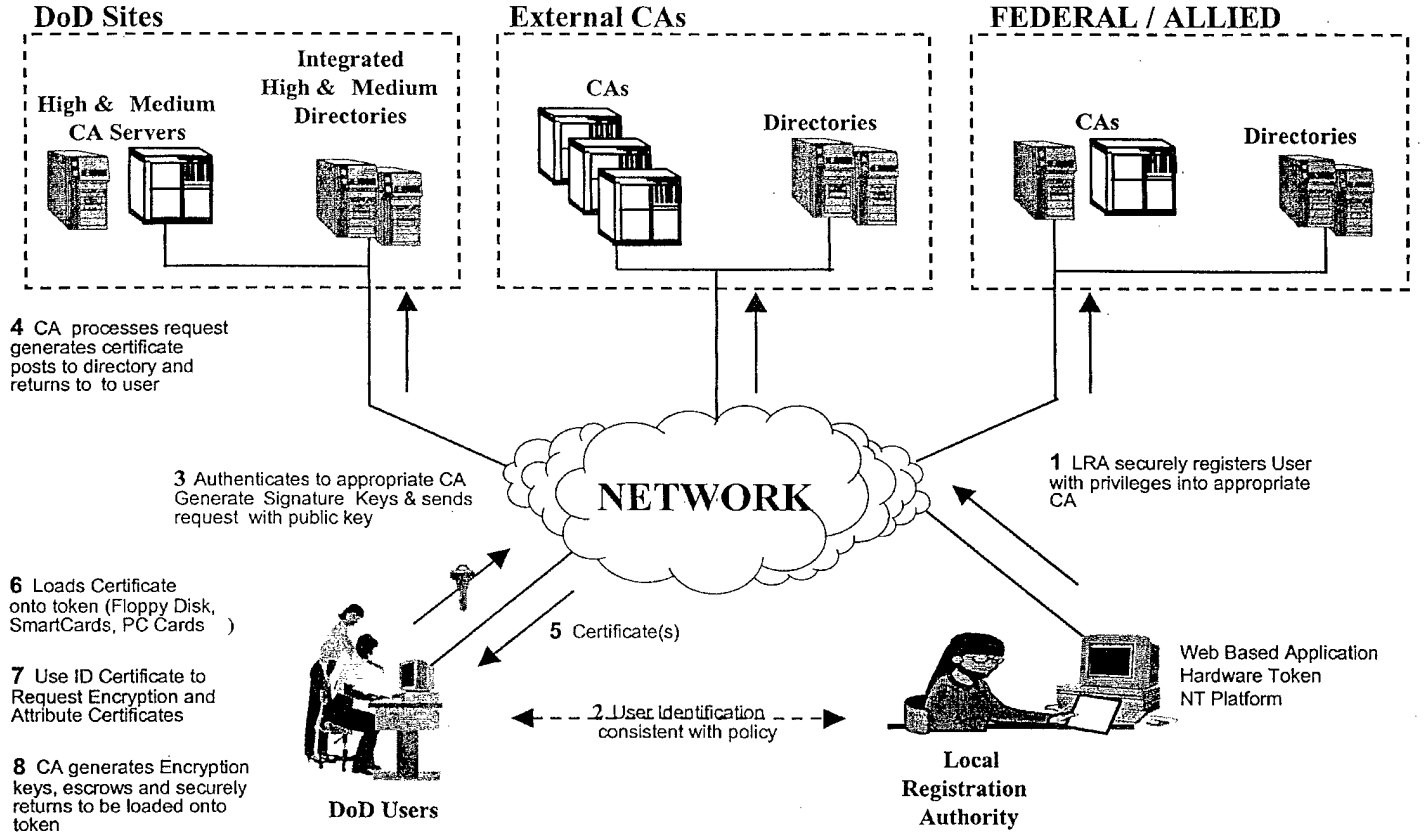
DoD Medium Assurance Public Key Infrastructure



Target DoD PKI Architecture for Interoperability



Target User Registration



Challenges and Opportunities

- Challenges:
  - Paperless Environment for Business Processes must be Defined/Redefined to accommodate emerging technology and security policies.
  - Obtaining the required resources to implement paperless operations.
  - Achieving the cultural change to move to paperless operations
- Opportunities:
  - Achieve efficiencies by defining/redefining business processes to take advantage of information technology.
  - Securing our Information.
  - Reducing Vulnerabilities.

RECAP

- The Threat to our information assets is real and our vulnerability is increased as we move towards paperless operations.
- We must ensure that appropriate access controls and policies are in place to safeguard our information.
- The DoD is rapidly moving towards a paper-free contracting process.
- Today's information is protected in transit through the use of SSL.
- Tomorrow's information will be afforded greater protection by the implementation of a PKI.
- Government and Industry must work together as we begin to implement a DoD PKI to ensure interoperability is achieved.
- Uncle Sam Wants You!

NDIA
NATIONAL DEFENSE INDUSTRIAL ASSOCIATION
STRENGTH THROUGH INDUSTRY & TECHNOLOGY

1999 ATLANTA XXV ACQUISITION REFORM SURVEY 20 APRIL 1999

Presented by

MG Greenberg (RET), NDIA

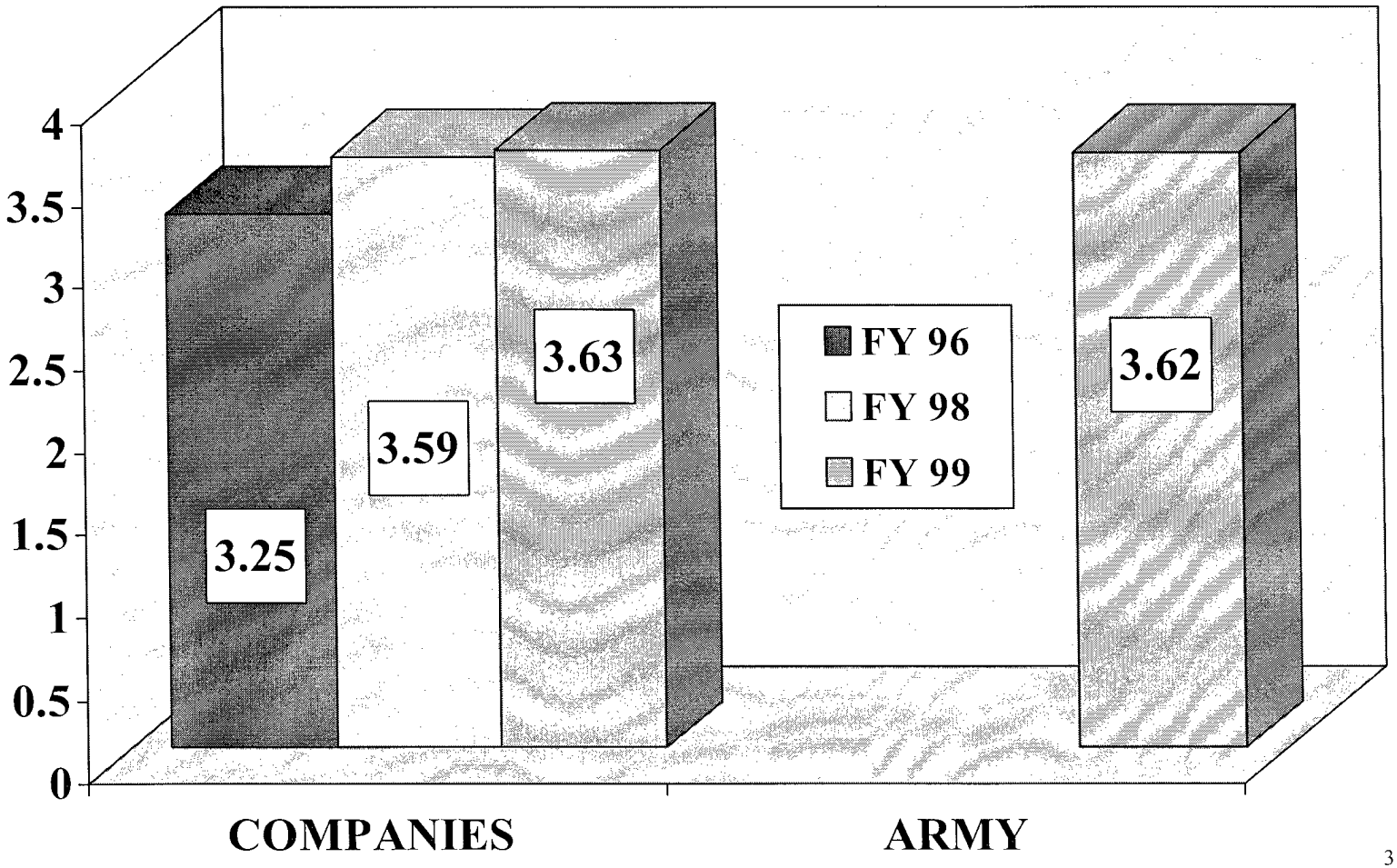
with Mr. Tull, AMC

ACQUISITION REFORM AS SEEN BY INDUSTRY AND ARMY

- RESULTS OF THE 1999 NATIONAL DEFENSE INDUSTRIAL ASSOCIATION & ARMY SURVEYS * :
  - DOES INDUSTRY UNDERSTAND ACQUISITION REFORM (AR)
  - PROGRESS MADE BY COMPANIES IN IMPLEMENTING AR
  - PROGRESS MADE BY ARMY IN IMPLEMENTING AR
  - HOW WELL IS AR BEING IMPLEMENTED ON DIFFERENT CONTRACT TYPES
  - WHAT CONCRETE RESULTS COMPANIES ARE ACHIEVING
  - HOW PROGRESS VARIES AMONG FEDERAL AGENCIES
- USED RATING SCALE OF 1-5 (5 BEING THE HIGHEST)
- SURVEYS OF ARMY & INDUSTRY COMPARE "APPLES TO APPLES"

* 59 Industry Responses / 112 Army Responses

HOW WELL DO COMPANIES UNDERSTAND ACQUISITION REFORM?



ASPECTS OF AR BEST UNDERSTOOD BY COMPANIES

	FY96	FY98	FY99
• Mil Specs Replaced w/ Commercial/Performance Specs	3.80	4.14	4.15**
• Source Selection Based on Best Value	3.70	3.97	4.13**
• Use of IPPD and IPTs			4.12*
• Mil Specs Replaced w/ Commercial Performance Specs			4.05*

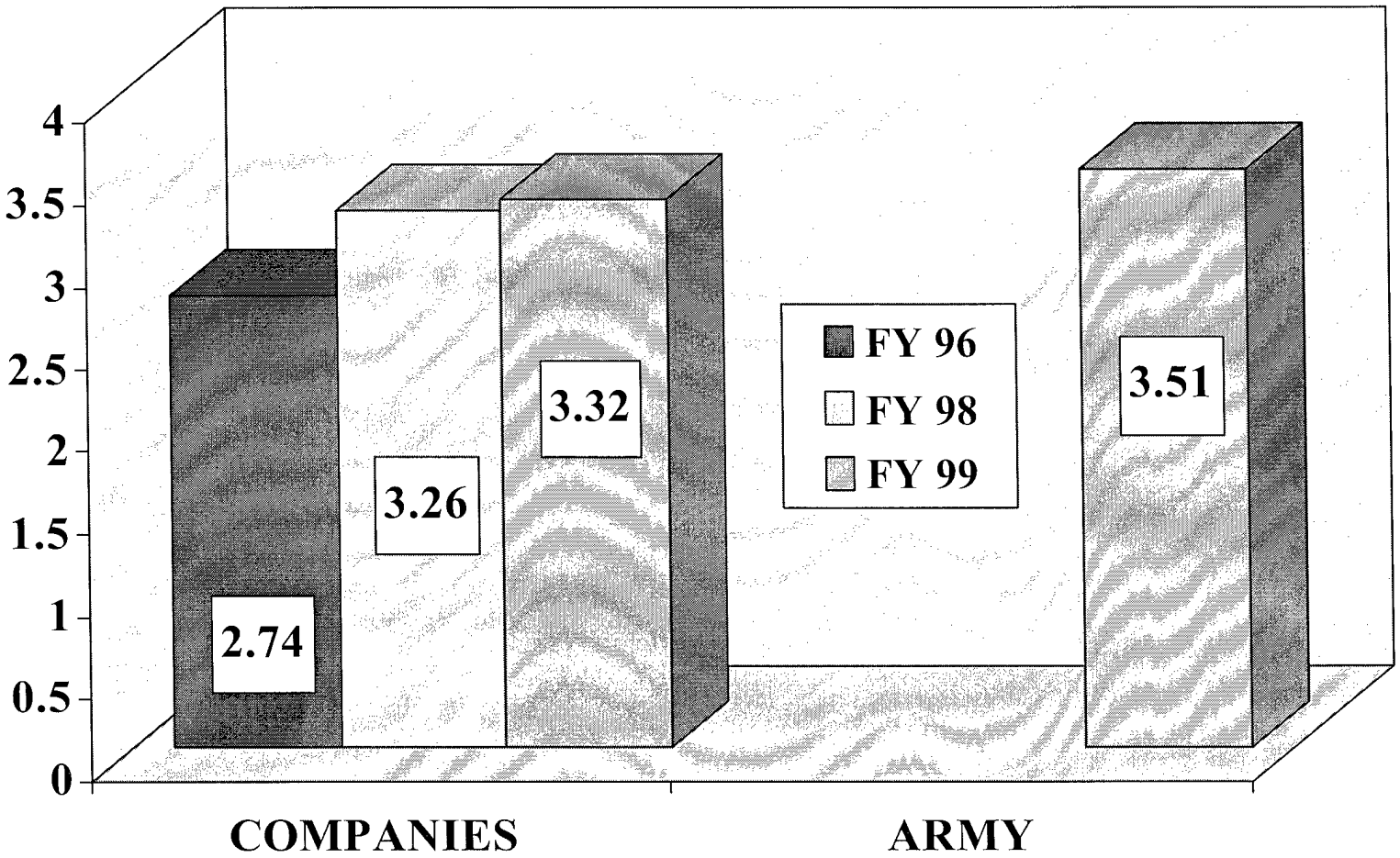
ASPECTS OF AR LEAST UNDERSTOOD BY COMPANIES

	FY96	FY98	FY99
• DoD Mgmt Transition from "Oversight" to "Insight"	2.70	2.81	2.68**
• Government Commercial Buying Practices	Unk	3.11	3.12**
• DoD Mgmt Transition from "Oversight" to "Insight"			2.95*
• DoD "Block Change" & "Common Process Facility" Initiative			3.31*

** Industry Response

* Army Response

WHAT PROGRESS HAS BEEN MADE BY INDUSTRY IN IMPLEMENTING ACQUISITION REFORM?



WHERE ARE COMPANIES MAKING THE MOST PROGRESS IMPLEMENTING AR?

	FY96	FY98	FY99
• Use of IPPD and IPTs	Unk	3.72	3.97**
• Tracking and Improvement of Past Performance	Unk	3.82	3.88**
• Use of IPPD and IPTs			3.94*
• Elimination of Military Specifications			3.85*

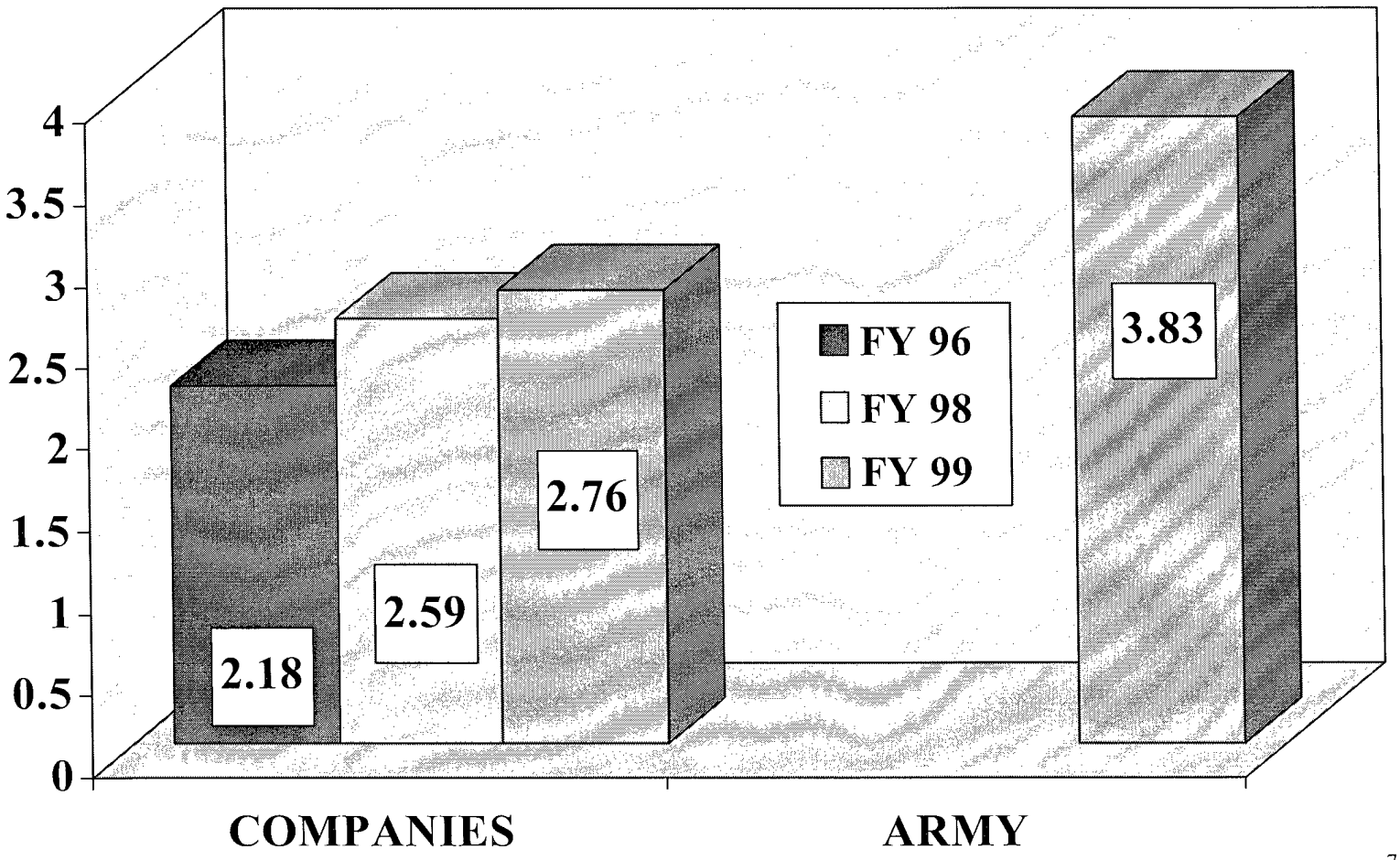
WHERE ARE COMPANIES MAKING LEAST PROGRESS IMPLEMENTING AR?

	FY96	FY98	FY99
• Use of Alternative Dispute Resolution and Partnering	2.30	2.89	2.83**
• Fixed Priced Commercial Products and Services	Unk	2.77	2.94**
• Fixed Priced Commercial Products and Services			3.10*
• Implementation of Electronic Commerce			3.28*

** Industry Response

* Army Response

WHAT PROGRESS HAS ARMY MADE IN IMPLEMENTING ACQUISITION REFORM?



WHERE IS THE ARMY MAKING THE MOST PROGRESS IMPLEMENTING AR?

	FY96	FY98	FY99
• Management through IPPD and IPTs	Unk	3.09	3.36**
• Source Selection Based on Best Value	2.70	3.08	3.10**
• Management through IPPD and IPTs			4.26*
• Use of Performance Specs at End-System/End-Product Level			4.05*

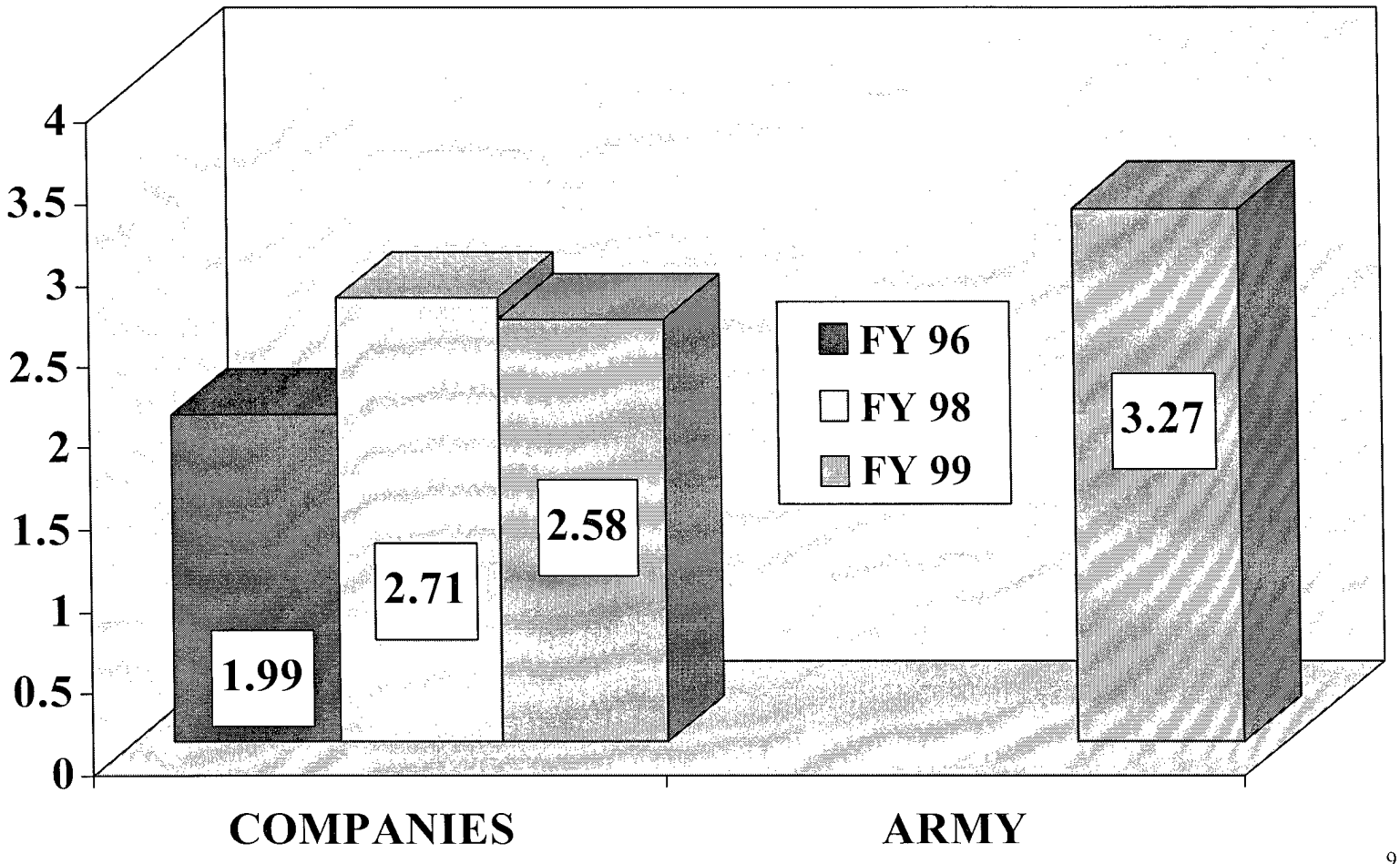
WHERE IS THE ARMY MAKING LEAST PROGRESS IMPLEMENTING AR?

	FY96	FY98	FY99
• Commercial Products and Services as Defined in FASA	1.90	2.16	2.24**
• Replacement of Arms Length/Litigation Relationship with Alternative Dispute Resolution and Partnering	Unk	2.38	2.33**
• DoD "Block Change" & "Common Process Facility" Initiative			3.33*
• Commercial Products and Services as Defined in FASA			3.51*

** Industry Response

* Army Response

HAVE YOU SEEN CONCRETE RESULTS IN THE OPERATIONS OF COMPANIES AS A RESULT OF ACQUISITION REFORM?



WHERE HAS AR MOST IMPROVED THE PROCESS FOR INDUSTRY?

	FY96	FY98	FY99
• The Draft RFP Process	2.70	3.30	3.35**
• Communication with DoD Customers	Unk	3.02	2.97**
• The Draft RFP Process			3.90*
• Communication with DoD Customers			3.57*

WHERE HAS AR LEAST IMPROVED THE PROCESS FOR INDUSTRY?

	FY96	FY98	FY99
• Proposal Preparation is Less Expensive	1.70	2.31	2.06**
• Non-Value Added Oversights Audits and Inspections Have Decreased	1.50	2.38	2.26**
• Significant Cost Savings Achieved on Existing Contracts			2.71*
• Proposal Preparation is Less Expensive			2.89*

** Industry Response

* Army Response

HOW WELL IS AR BEING IMPLEMENTED ON DIFFERENT TYPES OF PROCUREMENTS?

	FY96	FY98	FY99*
MAJOR PROGRAMS	2.40	3.45	3.19 / 4.11
ENGINEERING & TECHNICAL SERVICES	1.70	2.55	2.83 / 3.72
ANALYTICAL & ASSESSMENT SERVICES	2.10	2.23	2.61 / 3.63
NON-MAJOR PROGRAMS	2.00	2.86	2.59 / 3.79
OPERATION & MAINTENANCE	1.70	2.29	2.53 / 3.54
SPARES/REBUYS	1.70	2.18	2.48 / 3.18

* Industry Response / Army Response

HOW WELL IS EACH AGENCY MANAGING ACQUISITION REFORM?

	FY96	FY98	FY99*
AIR FORCE	3.20	3.30	3.23 / 4.10
ARMY	2.70	3.17	2.95 / 4.10
NAVY	2.10	2.66	2.71 / 3.79
DLA	2.10	2.50	3.08 / 4.33

* Industry Response / Army Response

VSE CORPORATION

PARTNERING WITH SMALLER BUSINESSES IN A COMPETITIVE ENVIRONMENT

"Small and Mid-size Companies Competing With and Against Mega-Sized Businesses"

COMPETING IN A CHANGING ENVIRONMENT

- **Due to resource constraints DOD is increasing the size of the service contracts (Omnibus contracts)**
- **"Mega-sized" hardware companies find large services contracts more attractive as traditional OEM business declines**

VSE CORPORATION

THE SQUEEZE

- **Economics favor large business**
- **Government policy helps small business**
- **Mid-size firms caught in middle**

VSE CORPORATION

THE CONSEQUENCE

- **Overall cost increases to the Government**
- **Mergers/Acquisitions reduce "competition base"**

VSE CORPORATION

FACTORS DRIVING BUSINESS STRATEGIES

- Use of large omnibus service contracts
  - Fuel acquisition/merger fire (reduces "competition base")
  - Bundling (hurts small/mid-sized companies)
  - Limits competition -- increases B&P costs
  - Mega-sized companies can low ball and freeze out small/mid-sized companies
- Length of contracts
  - Ten years too long --no viable bidders remain
  - Allows opportunity to bid contract at loss for 5 years - make up in last 5 years

VSE CORPORATION

FACTORS DRIVING BUSINESS STRATEGIES

- Large scale multiple award task & delivery order contracts
- Attractive to mega-sized companies
  - Strong arm tactics
  - JV's with mega-companies nearly impossible for small mid-sized companies
- Compete at 2 levels - drives up B&P cost
- Drives to lowest price - not best value
- Small business/mid-sized companies not perceived as creditable bidders (management capability/ financial strength)

VSE CORPORATION

FACTORS DRIVING BUSINESS STRATEGIES

- **Past Performance (Impacts Small, Mid-Size and Mega Companies)**
  - **Improves performance of marginal as well as good companies**
  - **Improper use, either inadvertently or by design, could destroy viable business**
    - **Performance evaluation plan should be specified in RFP/Contract**
    - **Direct requests to other Agencies by Contracting Officers is an uncontrolled process**

VSE CORPORATION

FACTORS DRIVING BUSINESS STRATEGIES

PAST PERFORMANCE (continued)

- Past Performance Evaluation/Award fee separate process (only need one)
- Need better system to review and challenge before misunderstandings get reduced to writing
- Mega-sized companies - have advantage -- poor performance -- bid from another division/business unit
- Teaming Partners certify no history of bad performance

VSE CORPORATION

CONCLUSIONS

- Service contracting has been around a long time
  - Process is not broken (suggested areas of improvement)
    - GAAP vs.CAS (reduce contractor costs)
    - SBA Reevaluate Small Business Size Standards
    - Expand Partnering Concept
    - Consider Preservation of "Competition Base" as "Best Value" Eval Factor
    - Move to Performance Based Contracts
      - Develop Metrics for Eval
      - Consistent with Past Performance Evals

VSE CORPORATION

CONCLUSIONS (continued)

- A-76 is failed process
  - Needs major rework
- Procurement Reform made it more difficult and costly for service contractors
- DOD current procurement strategies threaten "competition base" by fueling mergers/ acquisitions
- DOD Review Procurement Strategies and how/where they are driving Service Industry

VSE CORPORATION

LOCKHEED MARTIN

ATLANTA XXV

Panel 2

Partnering with Smaller Businesses In Competitive Environments

Large Company Viewpoints

April 20, 1999

Peter DeMayo
Vice President Contract Policy
Lockheed Martin Corporation

LOCKHEED MARTIN

AQUISITION REFORM

- Top DOD priority. Lots of success stories.
- DOD initiatives on commercial products and commercial practices need more attention
- Fertile ground for broadening industrial base and encouraging smaller businesses to participate in DOD requirements
- Larger businesses need to take the lead
  - Association activity
  - Direct company involvement
  - Flow the benefits of acquisition reform to supplier base
- Teaming is the key

LOCKHEED MARTIN

SMALL BUSINESS - PARTNERING LARGE COMPANY VIEWPOINTS

GENERAL INDUSTRY INVOLVEMENT

Trade Associations Play a Key Role

- AIA Establishes Supplier Management Council
- Better Representation for Supplier Issues
- Better Communication of Aerospace Industry Requirements
  - Supplier Measurement
  - Acquisition Reform
  - Electronic Commerce

Role For Other Association Support

LOCKHEED MARTIN

SMALL BUSINESS - PARTNERING LARGE COMPANY VIEWPOINTS

- DOD downsizing requires that large businesses provide greater support toward meeting small businesses goals and objectives
- Traditional Government programs can be supported by large companies
  - Small Business
  - Small Disadvantage Business
  - Women Owned Business
  - HBCU/MI
- Small Business can contribute to best value. There are many high quality small business firms in the industrial base.

LOCKHEED MARTIN

SMALL BUSINESS - PARTNERING LARGE COMPANY VIEWPOINTS

- Working with Historically Black Colleges and Universities and Minority Institutions (HBCU/MIs)
- Contract Awards for
  - Research and Development
  - Feasibility Studies
- Lockheed Martin Success Stories
  - Florida A&M University - Involved in Chip Wafer Fabrication and development of Ultra Capacitors - LME&M
  - Norfolk State - Light Weight Composite Material Testing for Tecnico

LOCKHEED MARTIN

SMALL BUSINESS - PARTNERING LARGE COMPANY VIEWPOINTS

- Establishing Mentor / Protégé Programs
  - Assist Small Businesses in Business Development, Marketing, Quality Assurance, Human Resources, Engineering, Training etc.

- Lockheed Martin and Mentor Protégé Success Stories
  - LM Electronics and Missiles and TLC Precision-Chip wafer technology
  - LM Vought and Tecnico Light Weight Composite material - PAC-3 Missile
  - LM Electronics and Missiles and TJ Technologies - Ultra Capacitors - JASSM
  - LM Aeronautics and Enginetics - C130 Galley

LOCKHEED MARTIN

SMALL BUSINESS - PARTNERING LARGE COMPANY VIEWPOINTS

- Issues to be Worked
  - Teaming Difficult - Limited Capital investment Available
  - Ensure Small Business receives contract after being part of competitive award
  - Keep Small Business involved when contract bundling. Requires innovation.
  - Keep open option for Small Business to be Prime with support by large business

LOCKHEED MARTIN

SMALL BUSINESS - PARTNERING LARGE COMPANY VIEWPOINTS CONCLUSION

- Industry looks for continued success with Small Business. All part of change.
  - Outreach through Home Pages
  - Meeting and Conferences
- Redefined relationships do not alter the imperative
  - Small Business participation makes sense - business sense.
  - Government and large business needs to agree on rules and expectations

J.M. WALLER ASSOCIATES

MANAGING THE VISION

ENVIRONMENT
MANAGEMENT
ENGINEERING
PLANNING
ENERGY

Burke, VA • Atlanta, GA
San Antonio, TX • Oak Ridge, TN

TEAMING WITH A LARGE BUSINESS

A SMALL BUSINESS PERSPECTIVE

J.M. WELLER ASSOCIATES
MANAGING THE VISION

PROFILE OF J.M. WALLER ASSOCIATES, INC.

- An Engineering Services Company
- Incorporated in 1993
- Minority-Owned Business
- SBA 8(a) Certified
- Participates in the Mentor/Protege Program

J.M. WALLER ASSOCIATES
MANAGING THE VISION

MANAGEMENT & TECHNICAL SERVICES

- Environmental Engineering & Management
- Facilities Management
- Hazardous Material & Waste Management & Training
- Public Information & Outreach
- Information Technology & Management

J.M. WALLER ASSOCIATES
MANAGING THE VISION

MAJOR CLIENTS

- Department of the Army
- Department of the Air Force
- U.S. Army Forces Command
- U.S. Army Training and Doctrine Command
- U.S. Army Reserve Command
- Army Corps of Engineers
- Army Environmental Center
- Air Force Center for Environmental Excellence
- Military Installations - CONUS, Hawaii, Germany & SW Asia

J.M. WALLER ASSOCIATES
MANAGING THE VISION

WHY WOULD A SMALL BUSINESS CONSIDER TEAMING WITH A LARGE BUSINESS?

- Client Bundling or Broad Scope Contracts
- Lack of Sufficient Set-Asides
- Add Depth and Breadth to its Capability
- Provide Specialty or Niche Services
- Introduction to New Clients
- Improve Potential for Contract Award
- Enhance Proposal Writing Capabilities

J.M. WALLER ASSOCIATES
MANAGING THE VISION

J.M. WALLER ASSOCIATES
EXPERIENCE WITH TEAMING ARRANGEMENTS
(AS THE PRIME)

OBSERVATIONS

- Teaming Partners Have Been Responsive
- Partners Provided Depth to the Team
- Quality of Proposals has Improved Significantly
- Success Has Been Slow in Coming

J.M. WALLER ASSOCIATES
MANAGING THE VISION

J.M. WALLER ASSOCIATES
EXPERIENCE WITH TEAMING ARRANGEMENTS
(AS THE SUB)

OBSERVATIONS

- Prime Must Commit a Specific Portion of the Contract to Small/Minority Business
- Large Business Must Strive to Meet Small/Minority Contractual Goals
- A Good Reputation as a Competent Sub is Imperative
- A Significant Challenge for the Small Company

J.M. WALLER ASSOCIATES
MANAGING THE VISION

WHY WOULD A SMALL BUSINESS CONSIDER PARTICIPATING IN THE MENTOR/PROTEGE PROGRAM?

- Expand Business
- Increase Client Exposure
- Broaden Technical Capabilities
- Achieve Technology Transfer
- Create Infrastructure Enhancements
- Become a Preferred Provider to the Mentor

J.M. WALLER ASSOCIATES
MANAGING THE VISION

SUMMARY

- All Small and Minority Businesses Are Not Alike
- Large Businesses Should Identify Good Small/Minority Businesses Now
- Small/Minority Business Participation on Federal Contracts Is Likely to Increase
- Federal Contract Oversight Is Likely to Improve
- Presence of a Good Small/Minority Business Will Be Necessary and Helpful
- Mentor/Protege Program Relationship Offers Excellent Opportunities

J.M. WELLER ASSOCIATES
MANAGING THE VISION

Atlanta XXV Executive Seminar:

Panel 3 - Public/Private Enterprise

LTG Paul J. Kern

Director, Army Acquisition Corps

21 April 1999



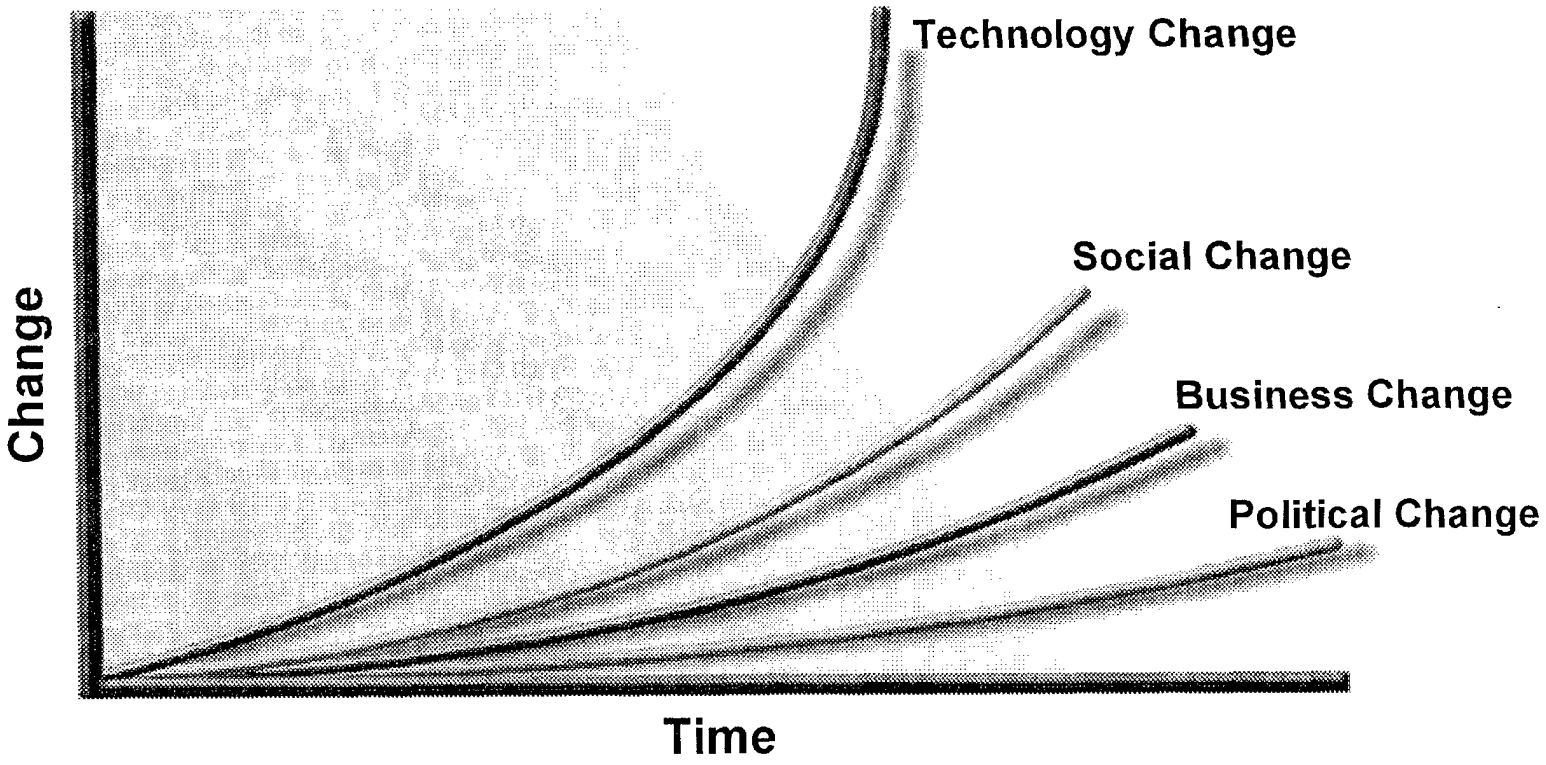
"Soldiers Are Our Customers"

Atlanta XXV Panel Members

LTG Paul J. Kern	***Director Army Acquisition Corps***
BG George A. Landis	***US Army (Ret.), Vice President and Deputy, Product Support Division Raytheon Systems Company***
Mr. Fred Strader	***Vice President and General Manager, United Defense Armament Systems Division***
COL Gregory F. Potts	***Commander, Anniston Army Depot***
Mr. Jerry DeMuro	***Vice President and General Manager, Communication Systems Division, GTE Government Systems Corp.***
Mr. Dan Gans	***Military Legislative Assistant to Representative Riley, Alabama***

The Law of Disruption

Law of Disruption = Combination of Moore's and Metcalfe's Laws



Social, Political and Economic Systems Change Incrementally, but Technology Changes Exponentially!

From the book "Unleashing the Killer App" by Larry Downes/Chunka Mui

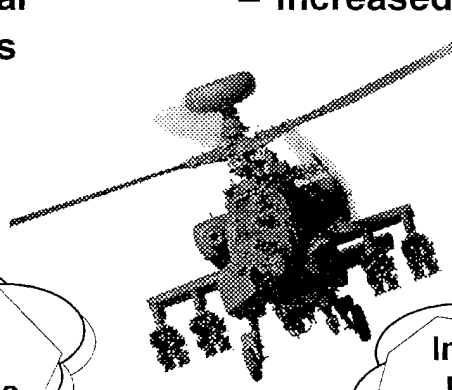
"Soldiers Are Our Customers"

Atlanta_25-3

Apache Prime Vendor Support

- Prime Vendor Support
- Unsolicited Proposal - April 97
- Contract Negotiation Completed - May 98
- Revamps Current Logistic System - Takes Advantage of Best Commercial Practices & Performance Guarantees

- Apache Prime Vendor Support Provides:
  - Depot Level Maintenance
  - Wholesale Logistics Support
  - Increased Technical Support



Modernization Thru Replacement Parts

Use of Best Commercial Business Practices

Technology Insertion Funded Thru Operational & Support Costs

Significant O&S Cost Savings

Improved System Readiness Thru Increased Availability of Spare Parts

Status: Still Working Regulatory (A-76) Issues (Financial, and Political Issues)

"Soldiers Are Our Customers"

Atlanta_25-4

What is Apache Prime Vendor Support

- Apache Prime Vendor Support (PVS) is a Type of **Contractor Logistics Support (CLS)** That Assigns **("Nose to Tail")** **Wholesale Logistics Support** of the Helicopter to Private Contractor(s), i.e., Boeing and Lockheed Martin

- It is Intended to **Revamp the Current Apache Logistics System** by Taking Advantage of Best Commercial Practices, Performance Guarantees, and Incentivizing the Contractor to Sell us Reliable Parts Rather Than Spares

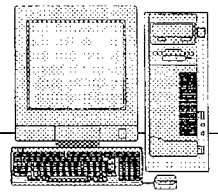
- We Expect PVS to **Improve System Readiness** Through the Increased Availability of Spare Parts and **Yield Significant O&S Savings** That can be Used to Modernize the Aircraft

Wholesale Logistics Modernization Program

Tier II of GCSS-Army

CSA Direction → ***Implement Global Combat Support System - Army***

Three Tiers :
- Retail Log Integration
- Wholesale-Retail Integration
- Joint Interoperability



- Outdated
- Unresponsive (Batch, Not On-Line System)
- 25 Year Old Technology
- Process is 30 Years Old

Current Major Army Info Systems

SDS
(Standard Depot System)

HAS
(Headquarters Application System)

CCSS
(Commodity Command Standard System)

Depot Operations

Workloading

Wholesale Inventory

GOAL: Modernize Wholesale Logistics Operations/ Systems

Modernization Approach

- Leverage Private Sector
- Adopt Best Commercial Practice
- Use Modern Commercial Info Technology
- Use Continuous Technology Insertion/ Commercial IT Services

CRITICAL ON-GOING ACTIONS

- ***A- 76 Waiver Pending Approval***
- ***RFP - Ready for Release***
- ***RFP + 10 months = Contract Award***

"Soldiers Are Our Customers"

Atlanta_25-6

Raytheon

A 25 Year Relationship Building on the Past to Shape the Future

Public/Private Enterprise

George A. Landis
Vice President and Deputy for Logistics
Training & Services
Raytheon Systems Company

What Privatization Requires:

- Willingness to prioritize interests of the Soldier
- Objective cooperation
- Responsive contracting vehicles/mechanisms
- Real-time communications
- Best business practices
- Trust

What Privatization Does Not Need:

- Excessive Federal direction
- Unnecessary delays
- Sub-optimizing national interests
- To gain a reputation as:
  - way around BRAC
  - way to protect site work loads
  - a means to consolidate depot functions
  - a means to protect service specific functions
  - maintaining an existing spare parts production lines

Raytheon & City of Indianapolis

- **Successful public/private partnership**

- **Mission:**
  - To support America's Naval Air capability with quality engineering, manufacturing and depot services.
  - To support the Navy's modernization of forces by providing significant O & S savings through performance excellence and Best Business Practices.

Raytheon & National Training Center

- **Successful public/private partnership**
- **Mission:**
  - To support a "trained and ready" fighting force for the 21st Century
  - To support Operations Group in providing joint and combined arms training focused on developing soldiers, leaders, and units of America's Army

Working Hand & Glove

Raytheon and the U.S. Army are working hand and glove providing seamless operations in these areas:

- Instrumentation
- Live Fire
- Organizational Maintenance
- Battlefield Effects
- Civilians on the Battlefield
- Training Analysis and Feedback
- System Engineering and Integration
- Logistics

- Timely audio visual support to AAR process minutes after the conclusion of a battle or exchange or engagement

Real time Army/Industry synergy!

Partnership

A Range of Opportunities

Frederick M. Strader

General Manager, Armament Systems Division, United Defense

United Defense

Crusader 155mm Gun Development Partnership

- United Defense is responsible for all systems
  - no "GFE"
- We selected the XM 297 solid propellant cannon developed by ARDEC
  - completing development under our direction
  - Crusader PM funds ARDEC efforts directly
  - prototype gun production a combination of Watervliet Arsenal, Rock Island Arsenal and United Defense
- Despite technical challenges, gun is on schedule
  - has fired 40Km
  - meeting 10+ rounds/min rate of fire

United Defense

DD 21 155mm Gun

- Private Industry is leading the development of the ships and all systems
  - "no GFE"
- Navy agreed to one core group, headed by United Defense, to develop the gun for both teams
- United Defense will design and produce the gun
- Various Navy Labs will provide support, funded directly by us
- Includes control of projectile/propellant development to allow system optimization

United Defense

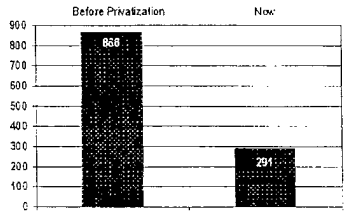
Louisville Privatization

- Overhaul of 5" Guns
- Gun Barrel Production
- Team includes Navy ISEA and LRA
- Raytheon Privatized Separate Product

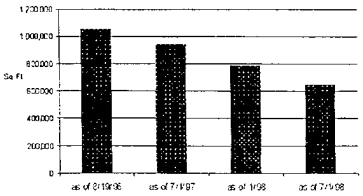
- Doubled Productivity
- Better Quality and Safety Record
- Consolidated into Less Space
- ISO 9001 certified
- Excellent Award Fee Scores
- But Navy Orders are Lower...

- Now Moving Additional Work to Louisville

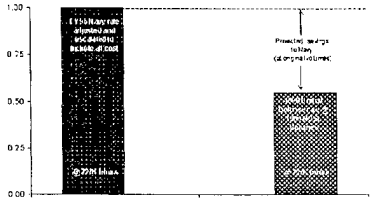
Employment



Floor Space Consolidation



Hourly Charge Rate



United Defense

Key Operating Mechanisms

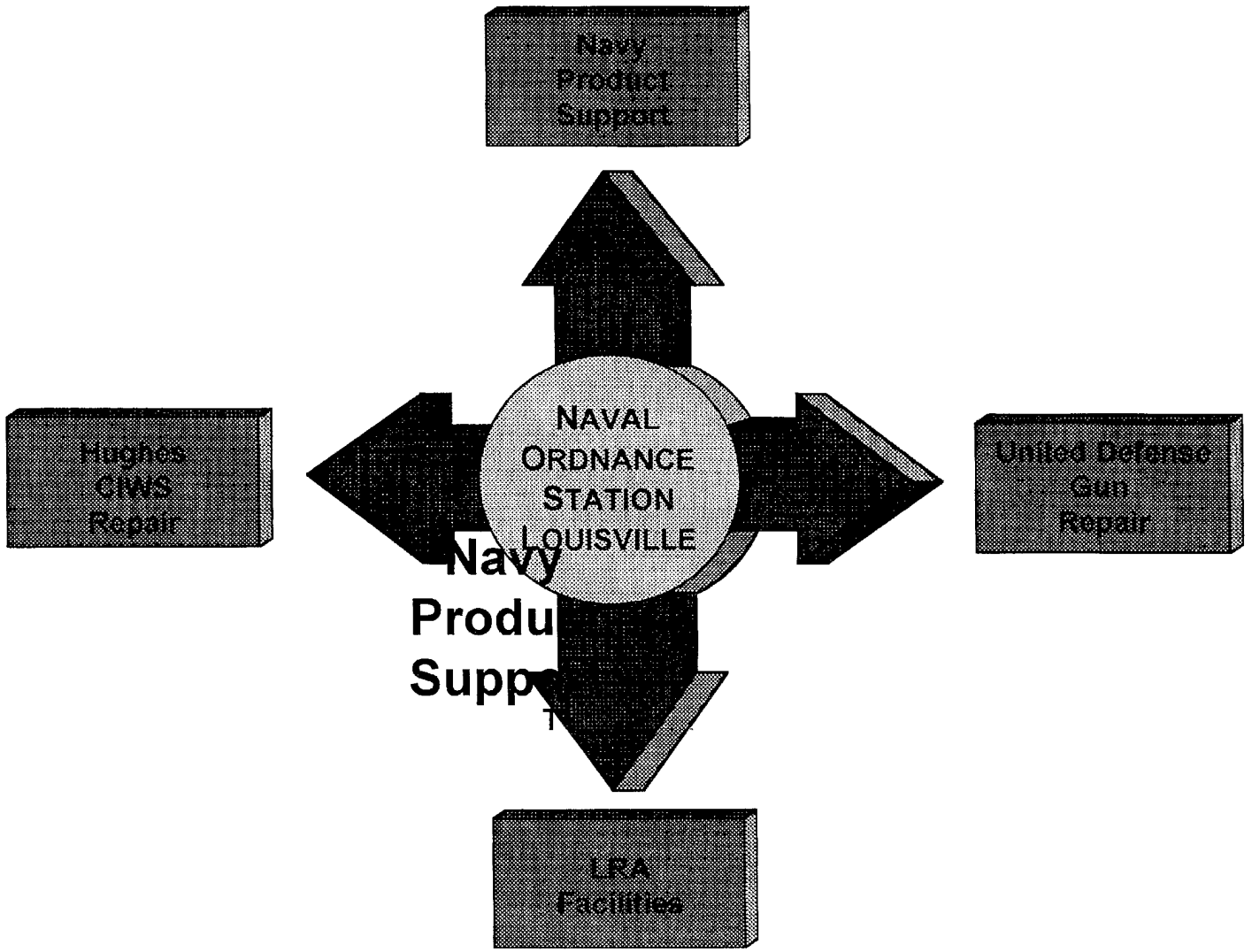
- United Defense - ARDEC Memorandum of Agreement for Crusader Cannon Development
- DD 21 Teaming Agreement
- Louisville Privatization Agreement

United Defense

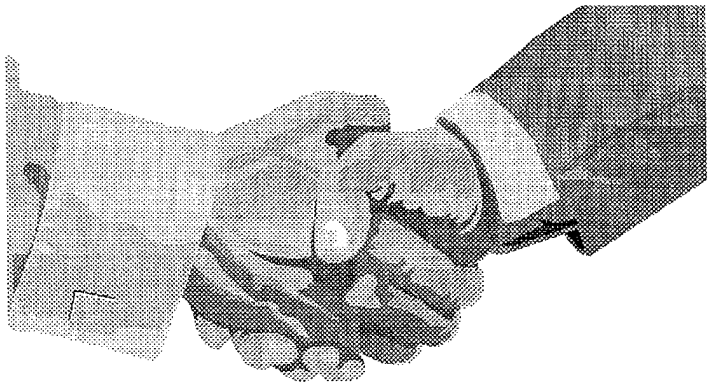
Lessons Learned

- No One Best Way:
  - A range of models can produce successful results
  - Partnership can make the best use of scarce technical resources
- Biggest obstacles are Fear and Mistrust
  - Rice-bowl issues still exist
  - Must reconcile different ways of doing things
- The Cure: focus on who is the Real Customer, and what are their real needs
- Privatization has its own lessons learned
  - "This is a Political Event"

United Defense



INDUSTRY/GOVERNMENT PARTNERSHIPS FOR SYSTEM SUPPORT

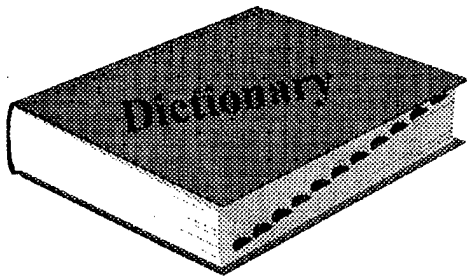


Jerry DeMuro
Vice President & General Manager
GTE Government Systems Corporation
April 19, 1999

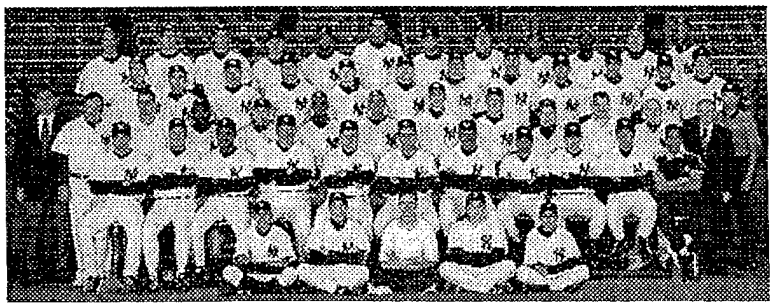
GTE Government Systems

CSD COMMUNICATION SYSTEMS DIVISION

What is a partnership?



= "a player on the same side or team as another"



= "common objectives"
"win/win situations"

GTE Government Systems

CSD COMMUNICATION SYSTEMS DIVISION

All opportunities to partner are not equal

New start program partnerships

- Mutual opportunity to grow
- Work together on political support
- The only loss is opportunity

≠

Legacy system support partnerships

- Existing infrastructure
- Competing interests
- The focus shifts to competition



GTE Government Systems

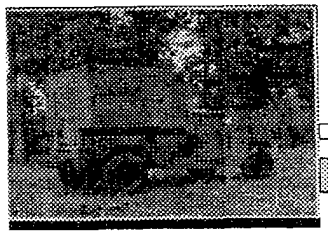
CSD COMMUNICATION SYSTEMS DIVISION

MSE Overhaul in Europe

"A legacy system support partnership that works"

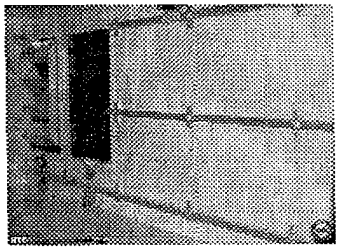
GTE

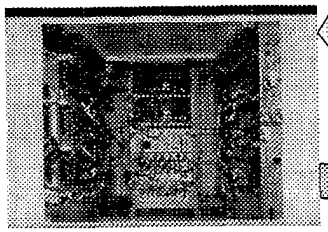
Pirmasens



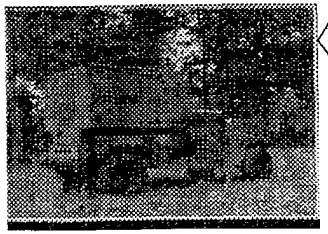
damaged shelter

shelter to repair





electronics to repair



repaired shelter

Reasons to cooperate:
- Represented "new work"
- GTE lacked facilities to handle shelters
- Environmental issues for GTE
- Pirmasens had capability and capacity

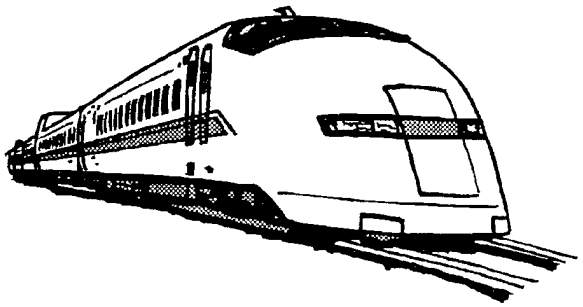
GTE Government Systems

CSD COMMUNICATION SYSTEMS DIVISION

Other experiences with legacy system support partnerships

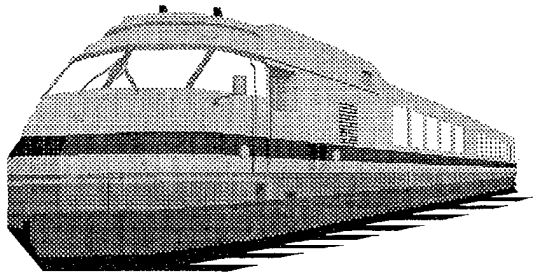
"More competition than cooperation"

Contractor





Government



- Workforce Retention
- Excess Capacity
- Funding
- Data Issues

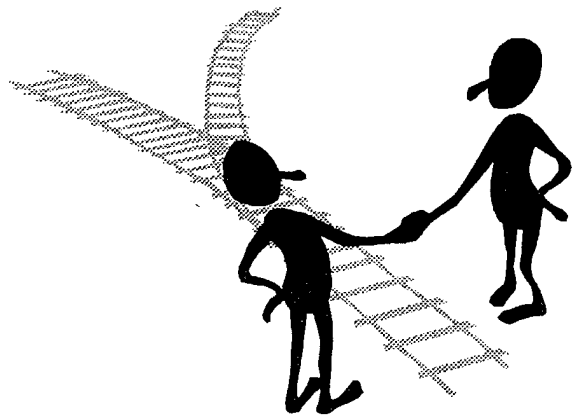
GTE Government Systems

CSD COMMUNICATION SYSTEMS DIVISION

System support partnerships

"Track to success"

- Make system support partnering a part of the integrated acquisition strategy
- Eliminate legal and administrative barriers
- Win/win relationship



GTE Government Systems

CSD COMMUNICATION SYSTEMS DIVISION

ARMY MODERNIZATION

MG Joseph M. Cosumano, Jr.

Assistant Deputy Chief of Staff for

Operations and Plans (Force Development)

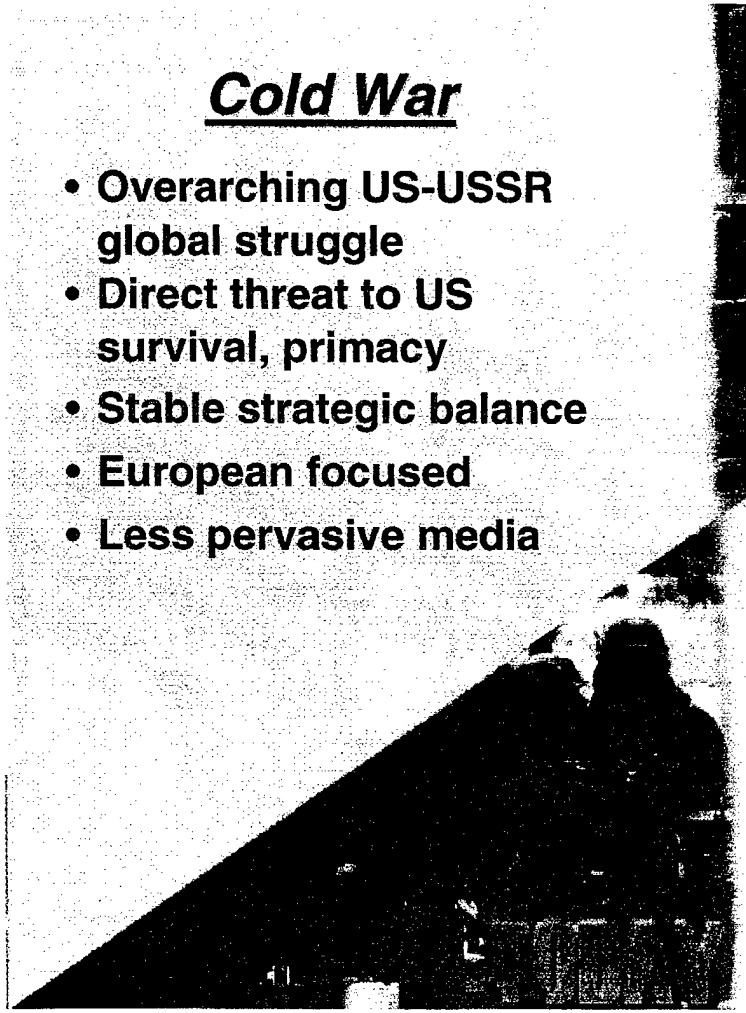
Agenda

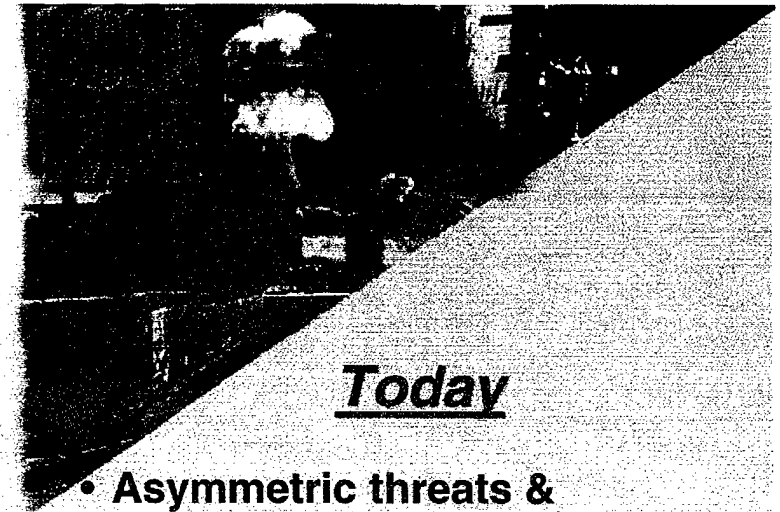
- The Environment
- The Change Process
- Modernization Plan

The World Has Changed

Cold War

- Overarching US-USSR global struggle
- Direct threat to US survival, primacy
- Stable strategic balance
- European focused
- Less pervasive media



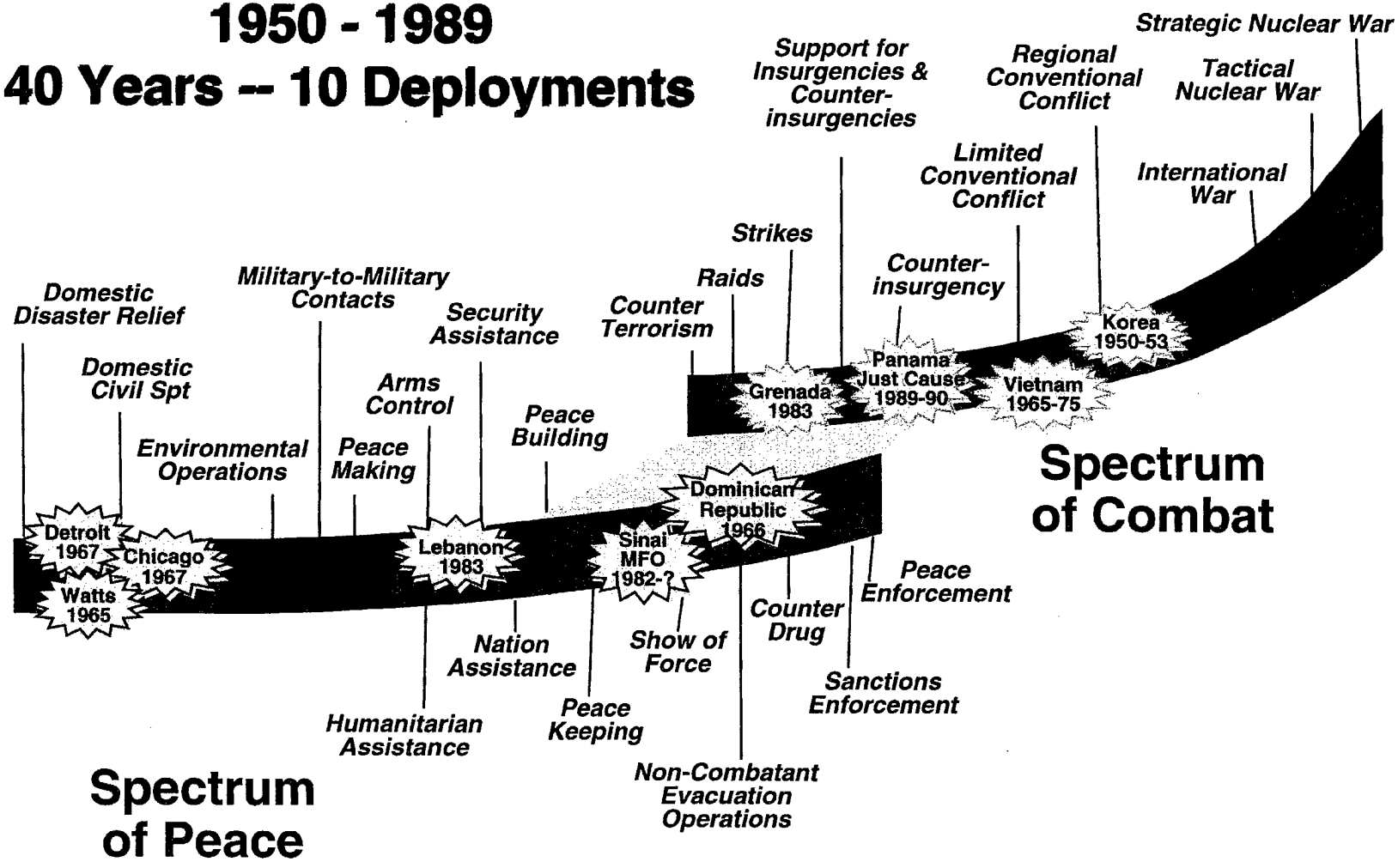


Today

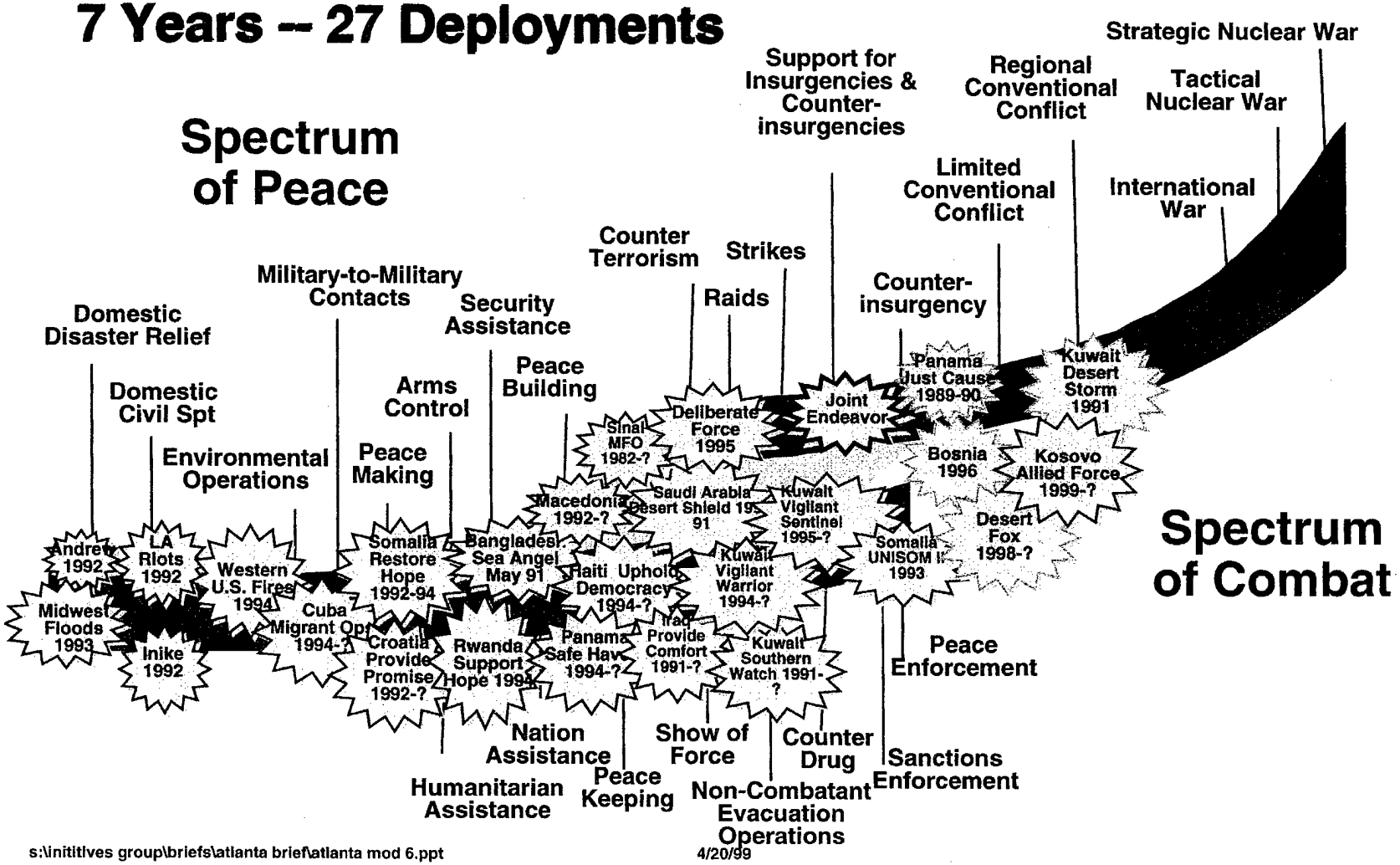
- Asymmetric threats & challenges
- Simultaneous missions across the spectrum of crisis
- Many possible combat contingencies
- "CNN" factor

. . . Suggesting Increased Demand for Land Forces.

1950 - 1989
40 Years -- 10 Deployments



1990 - Current
7 Years -- 27 Deployments



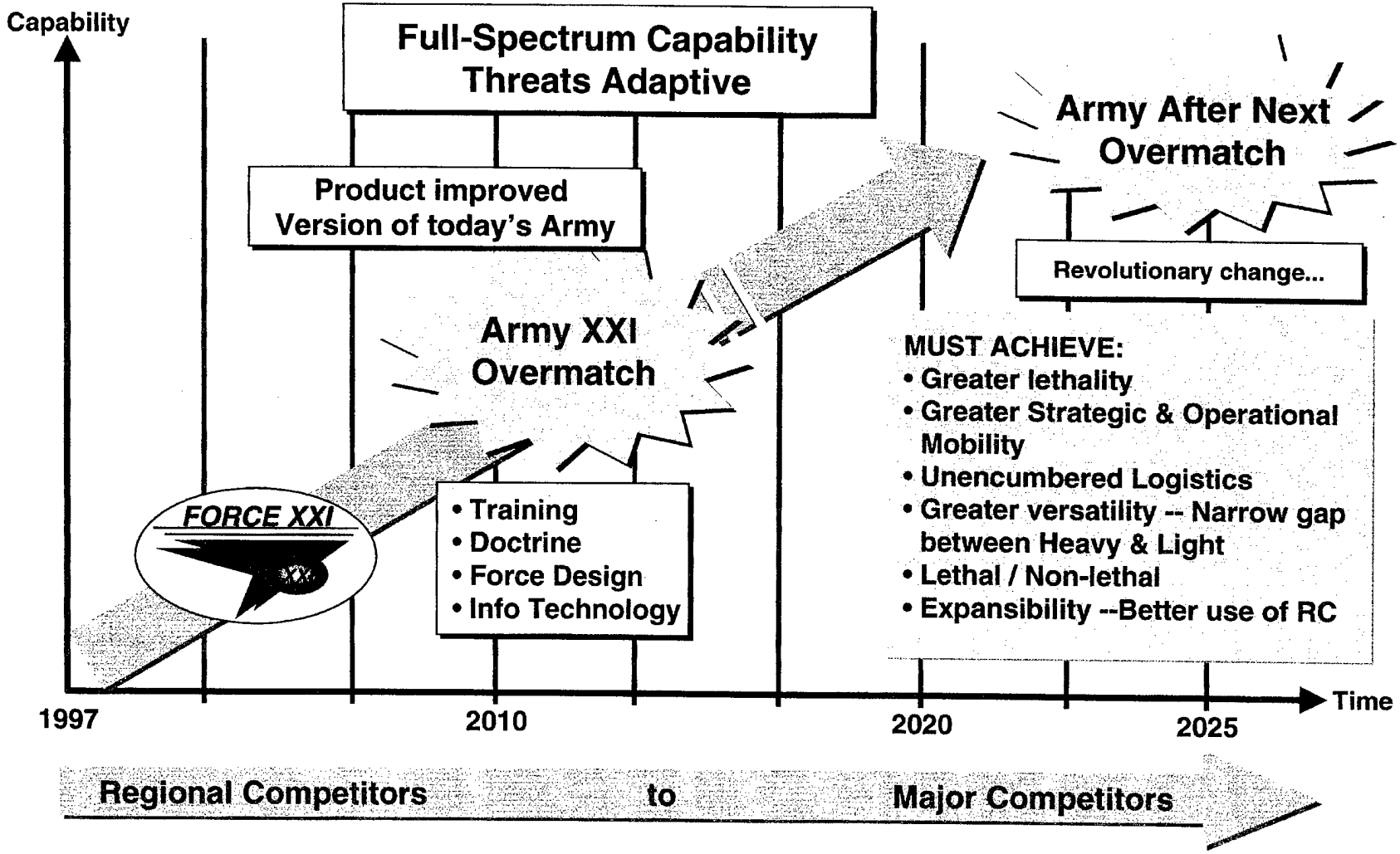
The Army Has Changed too!

TODAY

Cold War Army	Power Projection Army	Army XXI	Army After Next
• Forward Deployed	• CONUS-Based	• Flexible Strategy	• Surface to Space Continuum
• Threat-based	• Power Projection	• 21st Century Technology	• Split-Based, Interdependent Operations
• 20th Century Technology	• Broad Mission Range	• Knowledge and Capabilities Based	• Hybrid Forces
• Longer Planning Horizon	• Constrained Resources	• Lethal and Survivable	
	• Shorter Planning Horizon	• Real-time Situational Awareness	

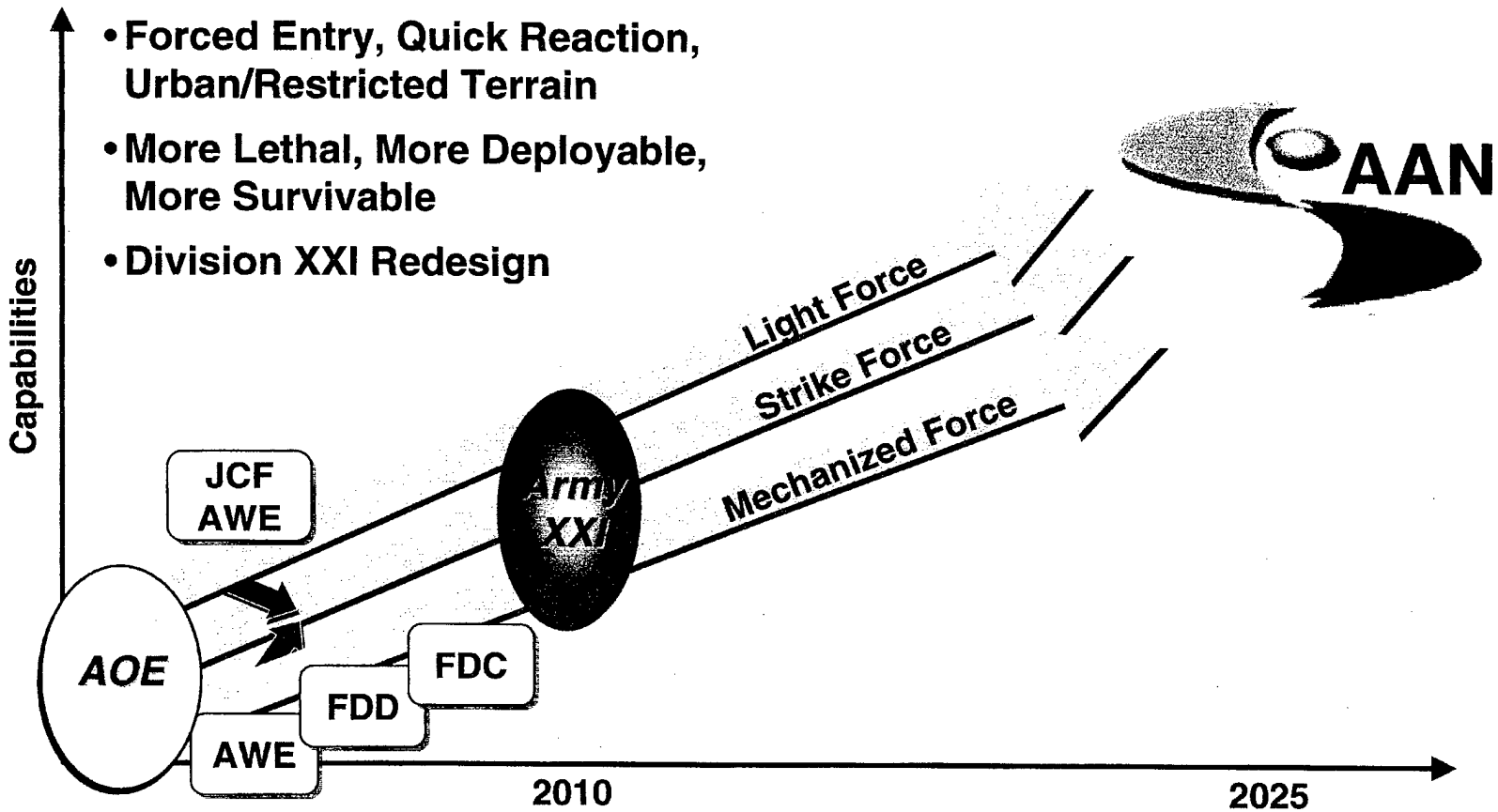
And Must Continue to Change

We Have a Change Process - Force XXI



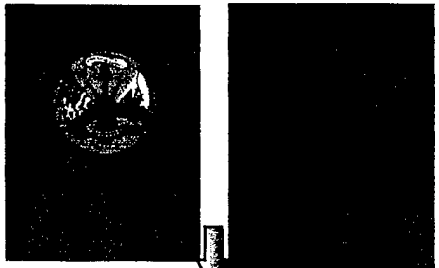
Army Experimentation Campaign Plan

- Forced Entry, Quick Reaction, Urban/Restricted Terrain
- More Lethal, More Deployable, More Survivable
- Division XXI Redesign



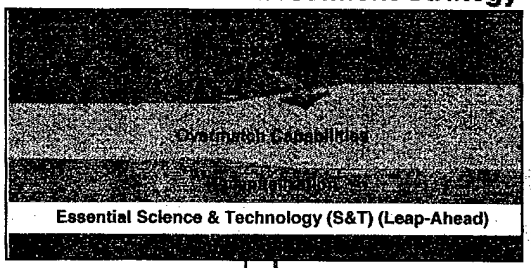
Modernized Doctrine, Organizations, Materiel and Leader Development

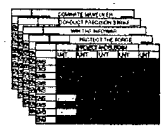
Army Transformation---The Path to AAN



Modernization Vision

Modernization Investment Strategy





POM Investment Plan

Strategic Responsiveness

ARMY AFTER NEXT

2020

Far-Term

Physical Agility

2010

Mental Agility

- Full-Spectrum Dominance
- Positions Army for AAN

Mid-Term





2000

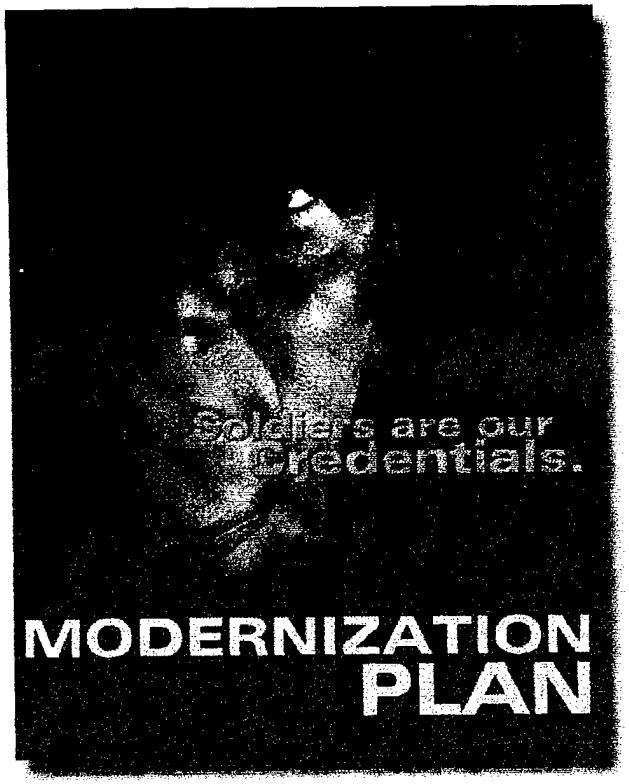
Mod Plan

- Fields Info Dominance
- Maintains Overmatch
- Focuses Tech Base

Near-Term

Near, Mid, Far Term Objectives

We Have a Modernization Plan



Goals

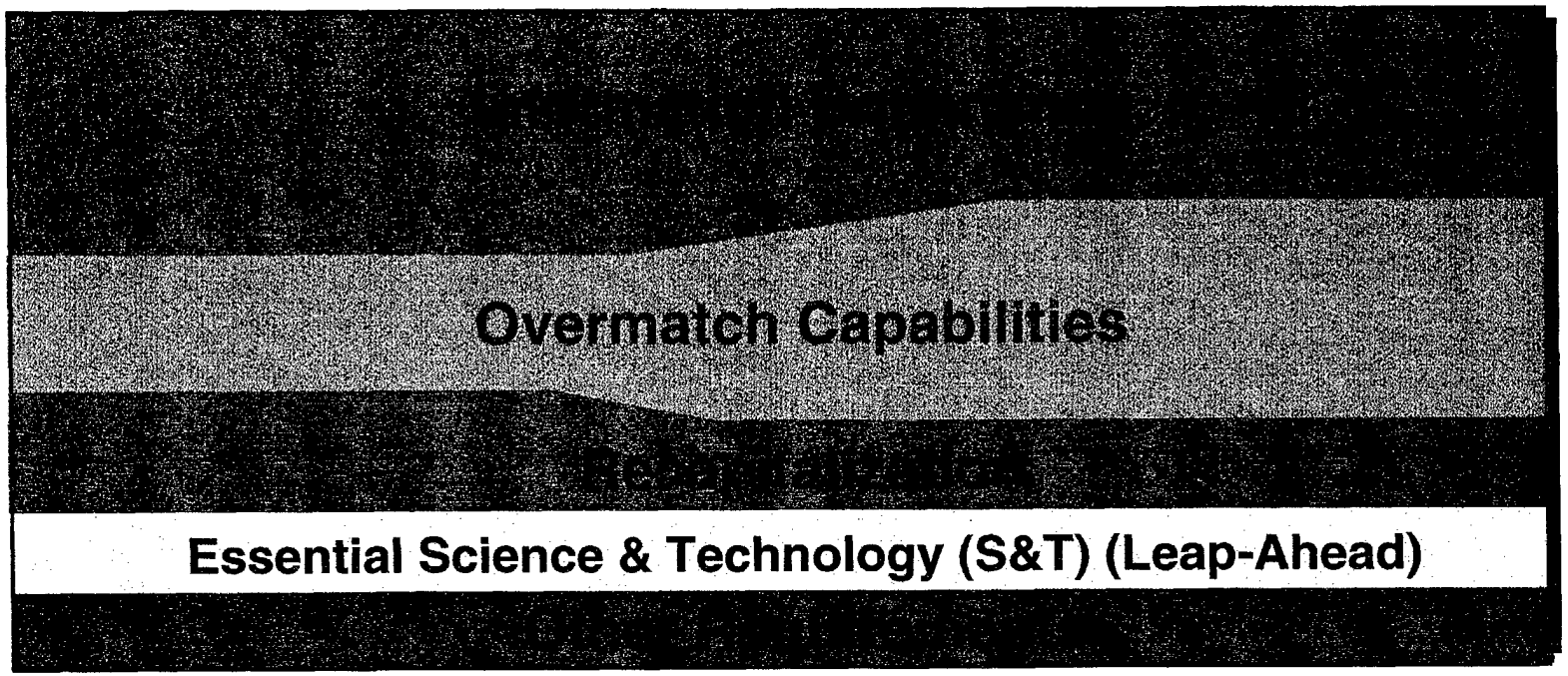
- Digitize the Army
- Maintain Combat Overmatch
- Sustain essential R&D, Focus S&T on Leap-ahead Technology
- Recapitalize the Force
- Ensure AC/RC Interoperability

To Continue Change Over Time

1999 Modernization Plan Messages

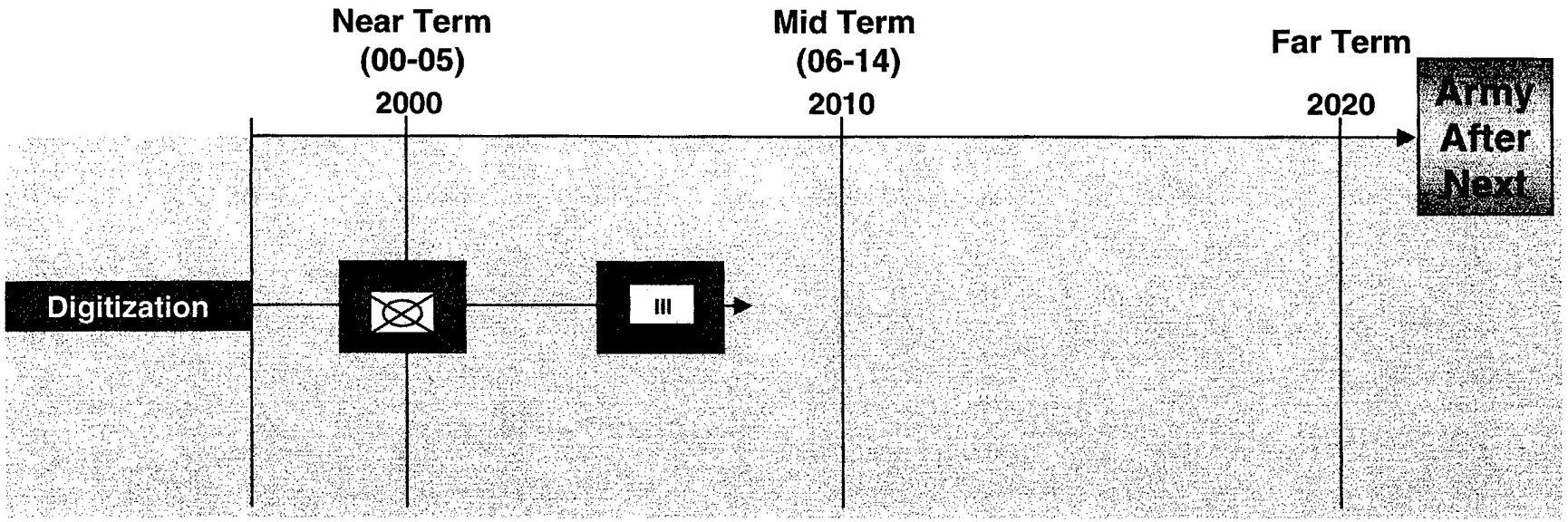
- Moving from Industrial Age to Information Age
- Focusing on Brigade Sets
- One Team, One Fight, One Future
- Resource Constrained Environment -- Balance is Key
- Recapitalize to Modernize

We Have an Investment Strategy



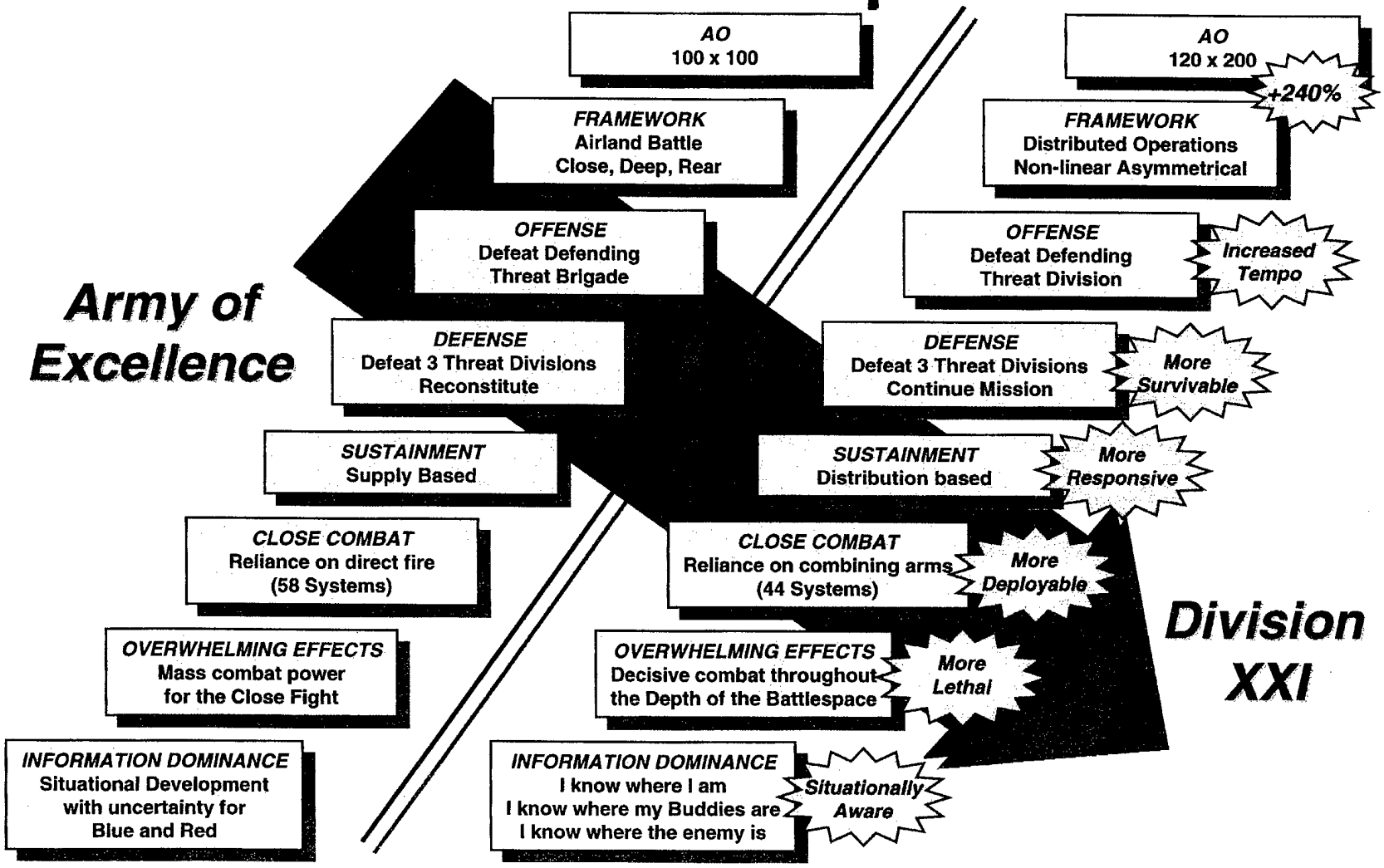
• Priority on Info Dominance • Maintain combat overmatch • Focus S&T on leap-ahead technology • Fund required recapitalization	• Continue emphasis on Information Dominance	• Sustain Information Dominance • Combat capabilities and Information Dominance embedded

Digitize The Army

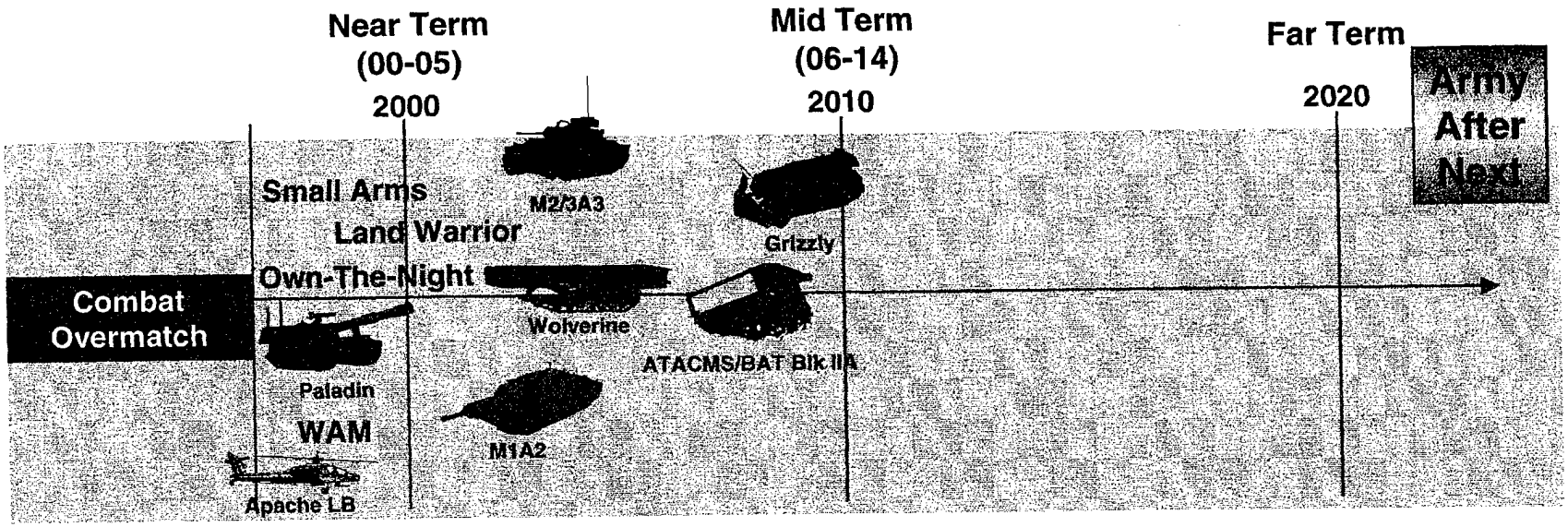


- First Digitized Division by 2000 (4th Infantry Division, Fort Hood, TX)
- First Digitized Corps by 2004 (III Corps, Fort Hood, TX)
- Provides situational awareness
  - Where is the enemy?
  - Where are my buddies?
  - Where am I?
- Uses the Army Experimentation Campaign Plan to determine our azimuth

AOE to Div XXI Comparison



Maintain Combat Overmatch



- Have ground combat overmatch
- Retain this capability through P3I
- Force structure changes and redesign
- Link to R&D initiatives to insert new technologies

Overmatch

"Things that can make a difference now."

Primary focus on early entry and light forces

Lethality

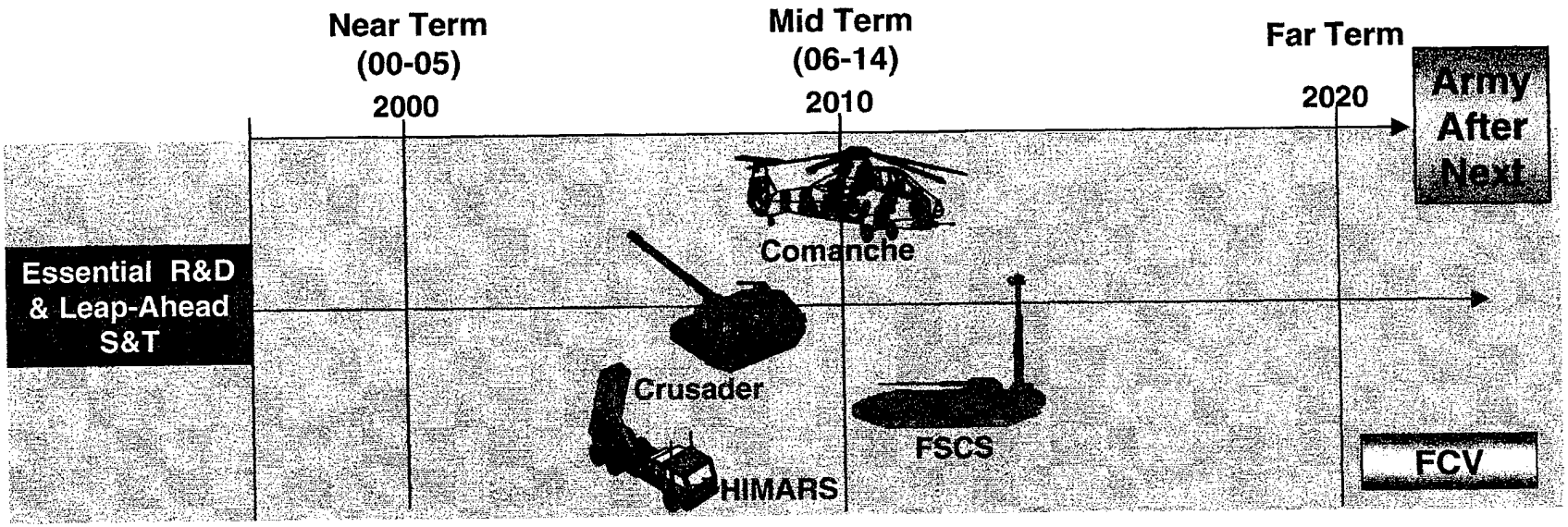
- **Digitization**
- **HIMARS: Rapidly deployable overmatching fire support**
- **M4 Carbine: Light-weight, adaptable small arms**
- **TOW2B Fire & Forget: Low-cost, low-risk lethality hedge against TOW2B obsolescence**

Survivability

- **Soldier System Enhancements:**
  - Body armor: Survivability enhancement
  - Soldier Support items that meet basic soldier needs for con ops
- **Night vision/thermal sights: Gives soldiers night-fight overmatch**

Small dollars . . . large impact for the Soldier

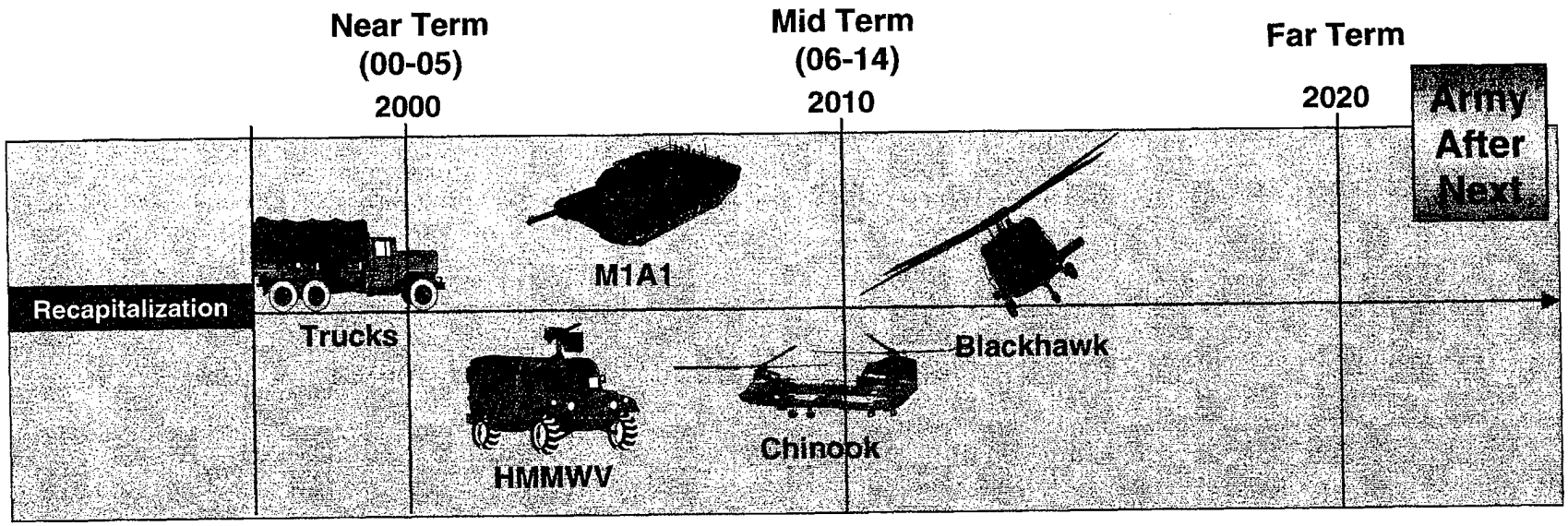
Sustain Essential R&D & Leap-Ahead S&T



- Focus Science and Technology (S&T) on *Next Generation Capabilities.*
  - Lighter.
  - More Mobile.
  - More Supportable.

- Maintain technical overmatch in the near and mid terms.

Recapitalize The Force



- Increased fleet age and operations and sustainment cost.

- Legacy systems will be in the AAN inventory.
  - Wheeled Fleet
  - CH47
  - Blackhawk
  - Abrams
  - Bradley
  - MLRS
  - Stinger

$1-2B Needed Each Year to Recapitalize to Modernize

Trucks

Costs $1.3B Per Year To maintain Trucks Age at 13.5 Years



M1A1 Tank

Engine Mean Time Between Failure Can Be Increased By 300%



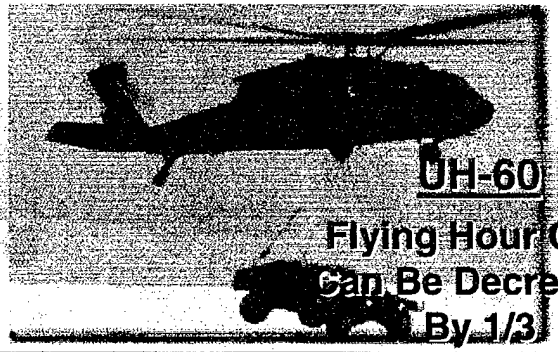
CH47

Improved Cargo Helicopter modification Will Reduce Costs By $2.6B



UH-60

Flying Hour Cost Can Be Decreased By 1/3



- Operation & Sustainment Costs take $ From Modernization
- Can Not Continue to Defer Paying on the Principal

Recapitalization

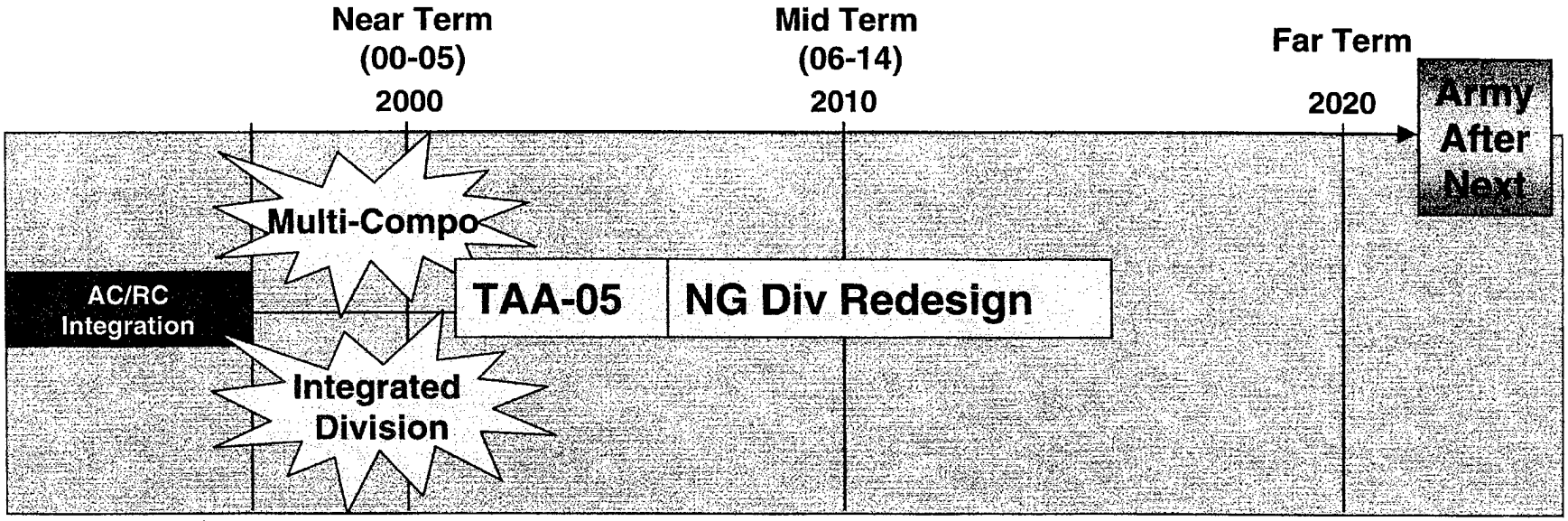
"Steps with big future payoff."

Primary focus on mechanized forces and aviation

- **Mechanized Force**
  - Improved recovery vehicle
  - Abrams/Bradley power pack replacement
  - Modernize M113 Family of vehicles to A3 variant
- **Aviation Fleet**
  - CH-47 Upgrades
  - UH-1 Sustainment and Light Utility Helicopter
  - UH-60 SLEP and UH60Q MEDEVAC
  - UH60 for RC

Reduces O&S costs and meets long-term reinvestment needs.

Ensure AC/RC Interoperability



- Building a seamless force for the future.
- RC modernized along with their Force Package.
- Initiatives:
  - Multi-compo units.
  - Integrated Divisions
  - Army National Guard Division Redesign.
  - Division Teaming

Modernization Of the Reserve Component

A Success Story...

- Provided over $21.5 Billion between FY 92-99*
- Programmed over $7B in FY00-05 for Reserve Component Modernization
- Reserve Component Modernization at highest level since 1962

* Current Dollars



Air Defense



Combat Vehicles



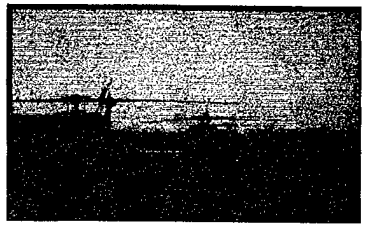
Attack Helicopters



Fire Support



CSS Systems



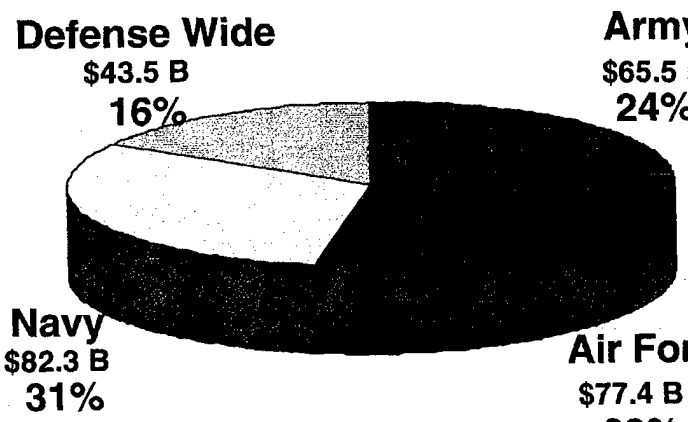
General Support Avn

Programmed AC & RC Force Structure Reductions Helping to pay the bill

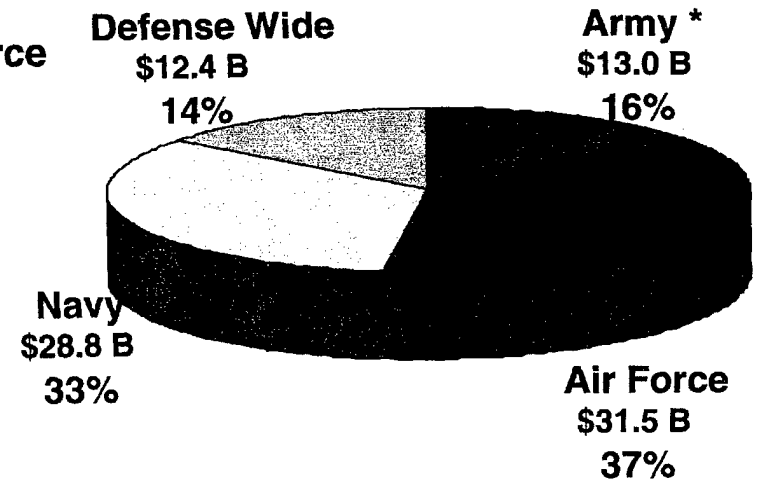
Where The Money Comes From

FY00 BUDGET

DoD TOA = $267.1 B

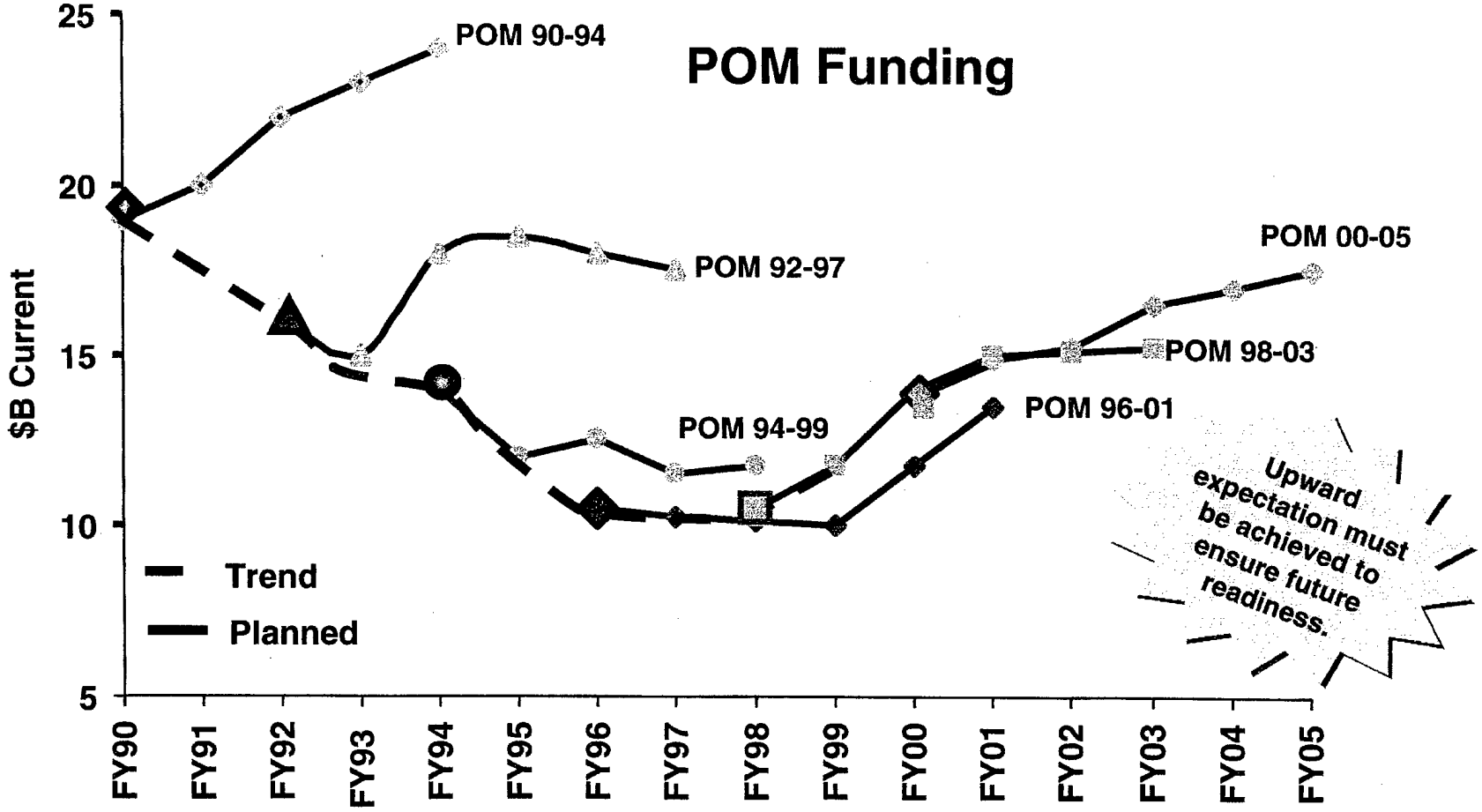


DoD RDA TOA = $86.8 B



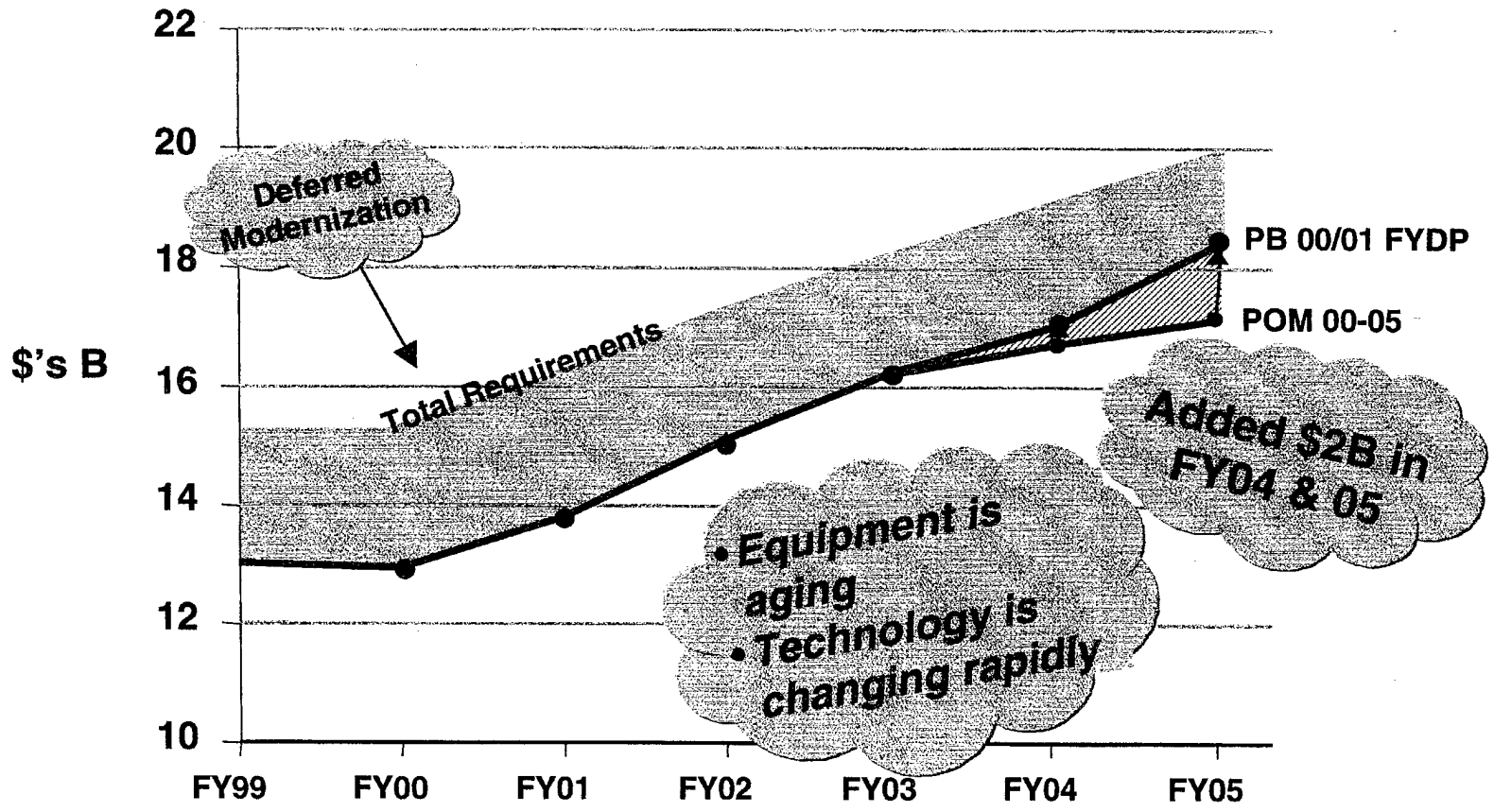
* Army RDA does not include Chem Demil

Resource Constrained Environment



We Need $2-3B/Year to meet our priority modernization needs

Resource Constrained Environment



Army Challenges

- Remain trained and ready.
- Transform the Army through Force XXI process.
- Ensure both current and future readiness in an era constrained resources.
- Reduce risk in the near and far term.
  - Training
  - Use of Total force

Army Has Changed

The Army has changed to meet the nation's changing needs.

We are well along the pathway.

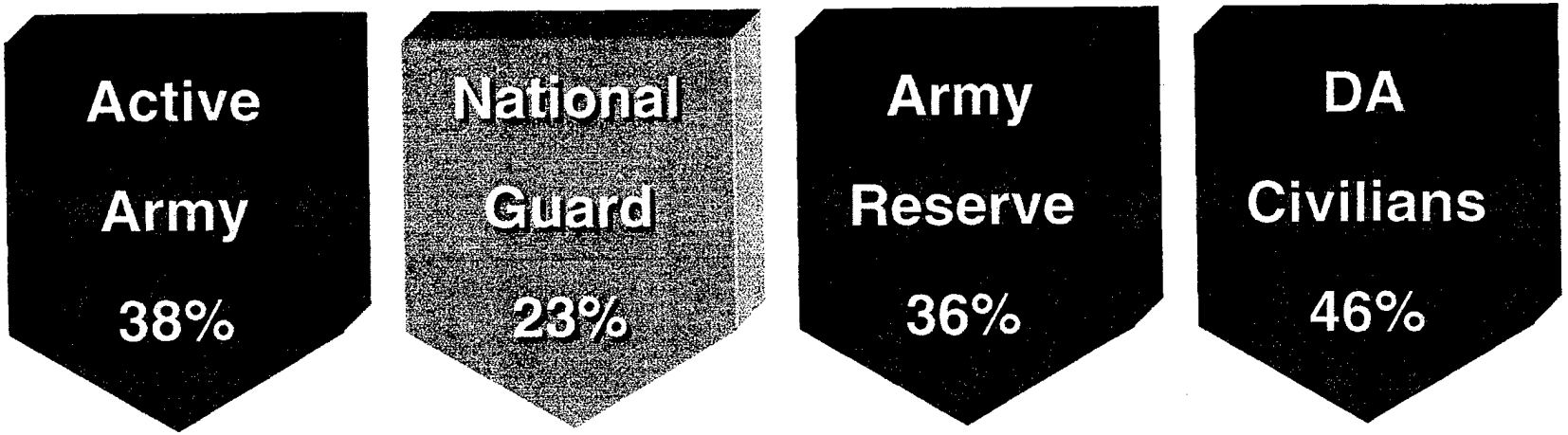
Continuing to change even while performing missions around the world.

But Resources are still Needed . . .

One Team, One Fight, One Future
Force Structure Reductions

- The QDR directed reduction in both End strength and Force Structure

Personnel Reductions from 1989-2000



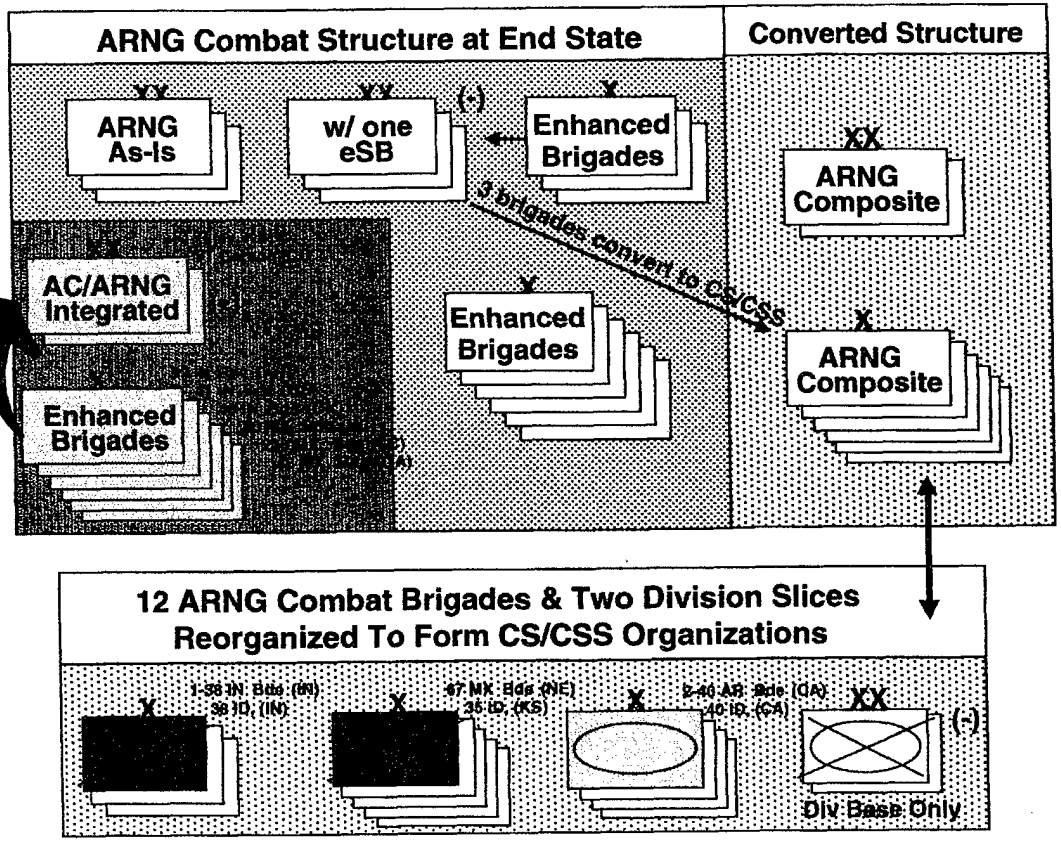
Active Army	National Guard	Army Reserve	DA Civilians
770K to 480K	457K to 350K*	319K to 205K*	403K to 218K

* 25K of RC reduction TBD

Projected Savings Already Reinvested in Modernization & Readiness

ADRS Implementation

- 3 divisions remain in current configuration.
- 3 divisions with 1 enhanced Separate Brigade (the eSB displaces a divisional maneuver brigade and becomes the third brigade in the division).
- 2 ARNG composite divisions (formed by reconfiguring 2 existing ARNG divisions).
- 6 stand alone composite brigades. The brigades are formed from the conversion of initial six brigades to convert.
- 6 stand alone eSBs.
- 6 eSB's as part of the two AC/ARNG Integrated Divisions.



Multi-Compo

A readiness partnership for America's Army

INITIAL UNITS

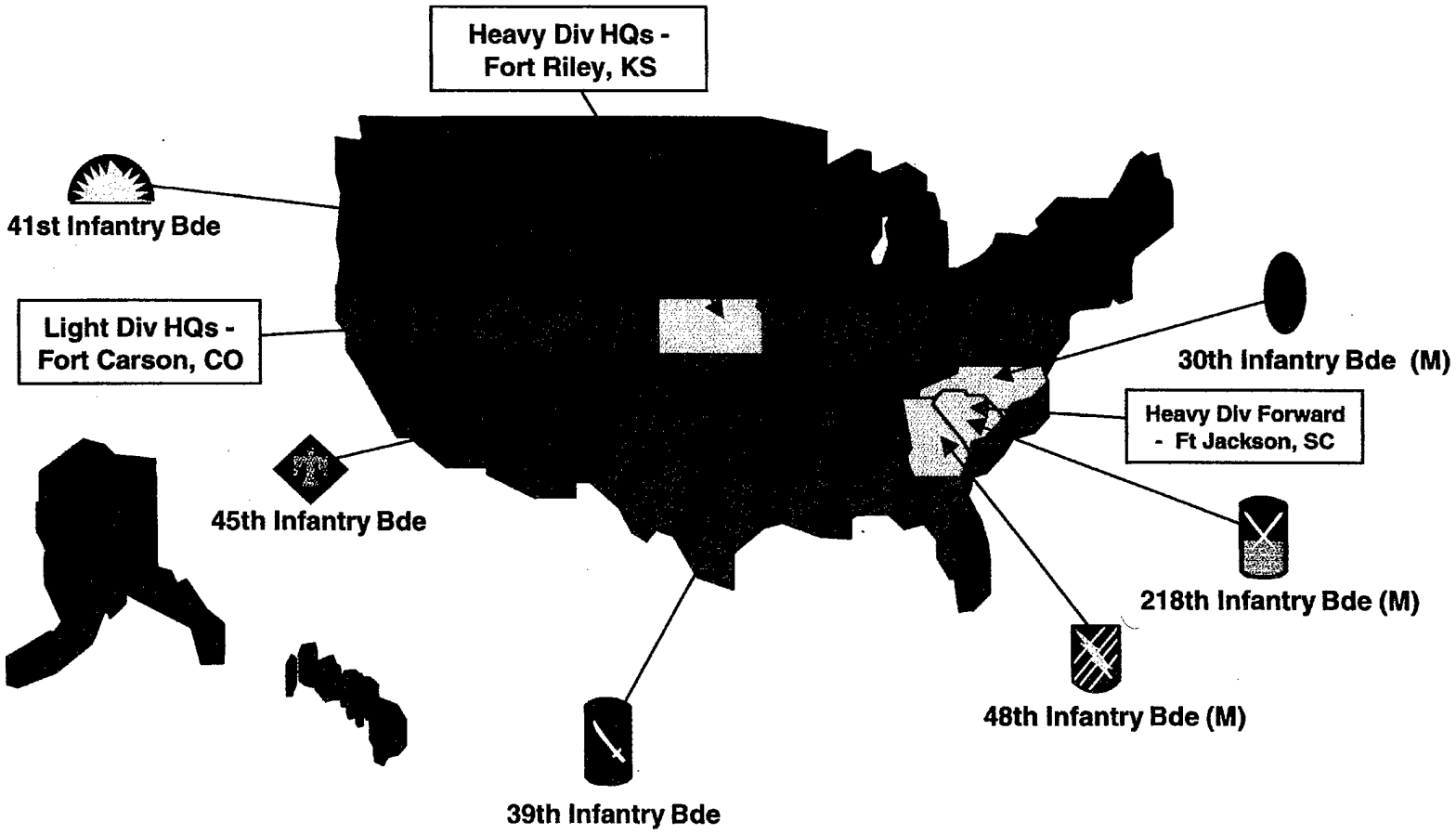
- **AC flag with ARNG element(s) :**
  - 1-159th Command Aviation BN
  - 46th Engineer BN
  - 32d Army Air & Missile Defense CMD
- **AC flag with USAR element(s) :**
  - 122d Military Police DET
  - 673d Dental CO
- **ARNG flag with AC element(s) :**
  - HHC, 142d Signal BDE
  - 1-171st Combat Support Aviation BN

Effective date for each of the initial units is 16 October 1999, except for the 32d Army Air & Missile Defense CMD, which has an effective date of 16 October 1998.

- **USAR flag with AC element(s) :**
  - 304th Corps Materiel Management CTR
  - HHC, 3rd Medical CMD
- **AC flag with both ARNG & USAR element(s) :**
  - Army Service Component CMD South
  - 52d Engineer BN
  - HHC, 93d Signal BDE



Integrated Division Headquarters and eSB Locations



5

The Army's Future . . .

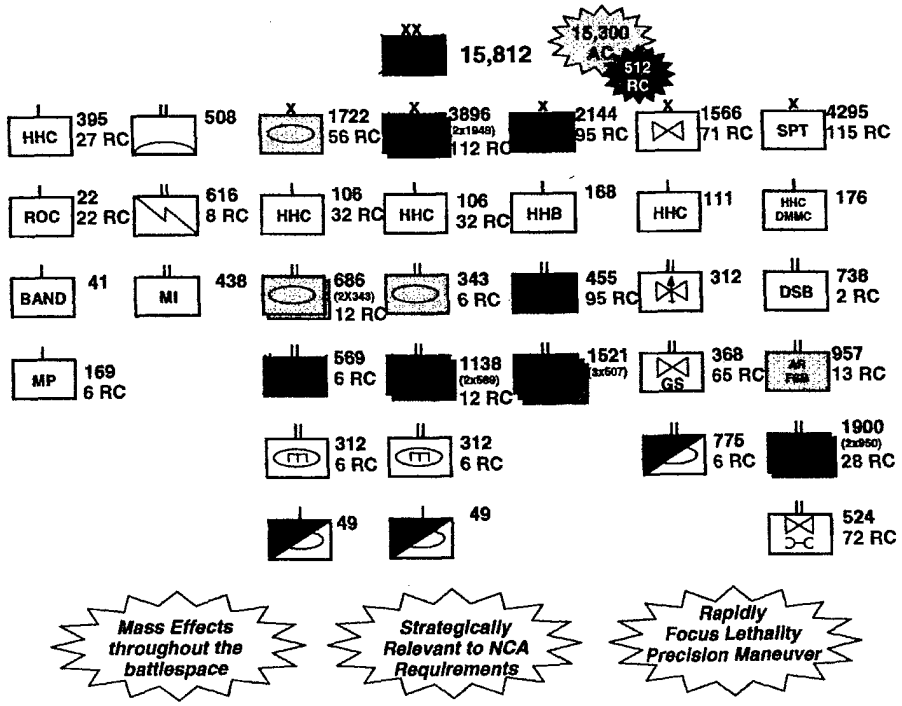
DIVISION XXI

SEAMLESS INTEGRATION
- Multi-component Unit, single TOE
- 512 RC Positions throughout the Division
- 255 USAR 257 ARNG
- Enhanced cohesion
- Train as you fight

COMMAND AND CONTROL
- Increased Battlespace
- Division Rear and Main Command Post collocated
- Mobile C2 In C2Vs
- Signal planning done in Div G6
- Added Information Operations Cell
- Added Rear Operation Center

MANEUVER
- 44 platforms per battalion
- 4 vehicles / platoon, 3 companies / battalion
- 3x9 Infantry Platoons
- Added Brigade Recon Troop to maneuver BDE
- Standardized mortars organization, 4 tubes per BN
- Reduced and standardized scouts
- Centralized CSS

FIRE SUPPORT
- Eliminated FS below Co level
- Created Striker organic to 155 FA BNs, DS to Brigade Recon Troops
- Created MLRS / Target Acquisition BN
- Downsized Paladin crew from 9 to 8
- Optimized for improved weapons / munitions



One Team, One Fight, One Future

COMBAT SERVICE SUPPORT
- Centralized CSS for Maneuver & Engineer
- Distribution based supply system
- Reduced Stocks
- Self-sustaining for limited period
- Passbacks to Corps of some functions
- Implemented enablers (multi-function mechanics, FRS-H, TIGER, etc)

MOBILITY, COUNTERMOBILITY, SURVIVABILITY
- Removed EN Bde C2, put planning cell in division staff
- Streamlined EN HHC
- Redesigned EN Co
- Assumed GRIZZLY savings early
- NBC Recon in Div Cav Sqdn
- Centralized CSS

INTELLIGENCE
- Added additional Analysis Control Team for Aviation or DIVARTY use
- Increased S2 strength in Avn and Cav Squadron
- Increased interface with assets external to the Division
- Added UAV
- Removed GSR Teams

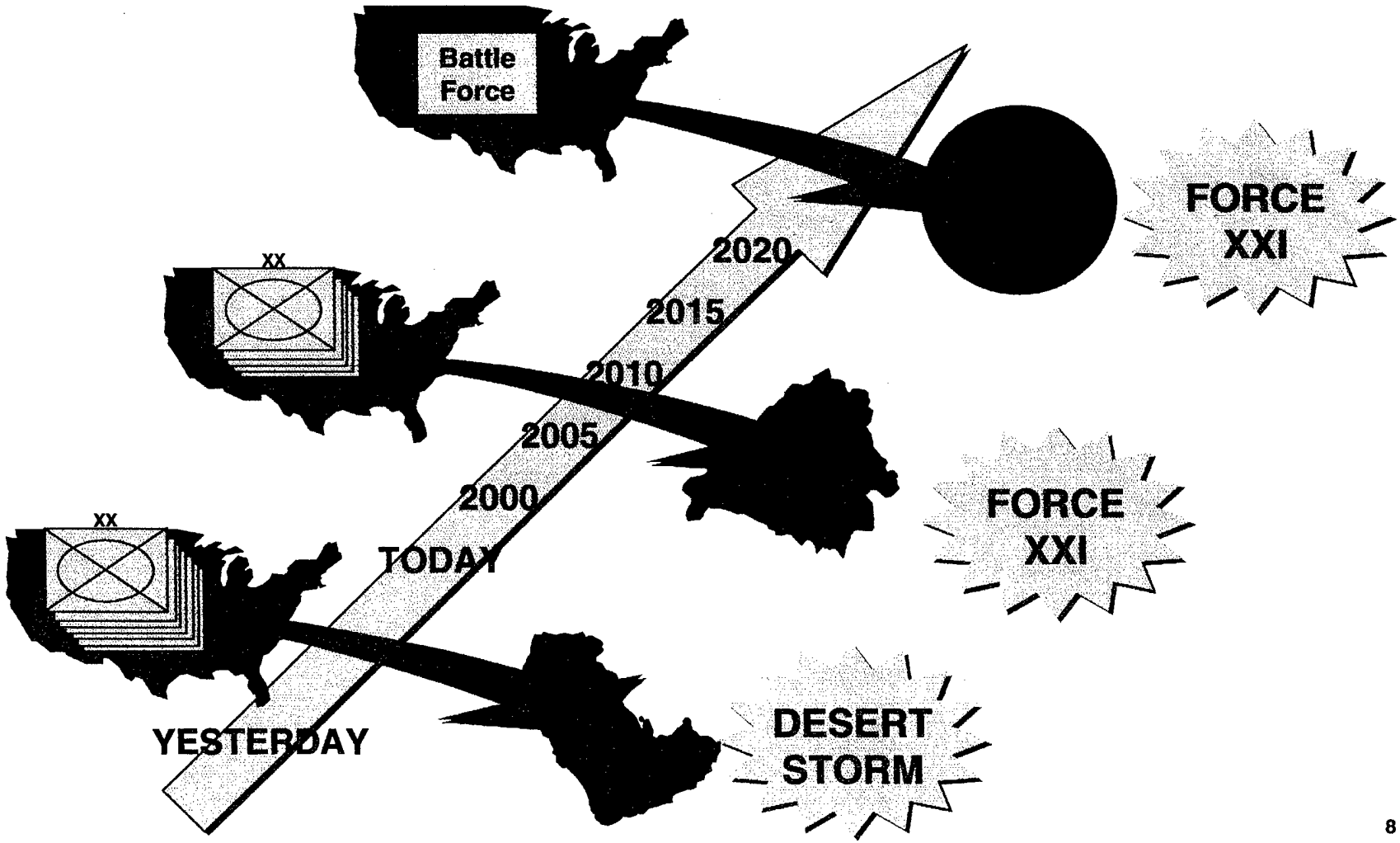
AIR DEFENSE ARTILLERY
- Implemented SHORAD system of systems
- Removed MANPADS
- Added Sentinel Platoon

Army Deployability Initiatives

- Airlift:
  - Procurement of additional C-17s (36 of 120)
  - Complete by FY04
- Sealift
  - RO/RO 31 of 36 acquired
  - LMSR 4 of 19 acquired
- Railcars:
  - 1226 of 1405 acquired (87%)
  - Complete by FY00
- Containers:
  - 3759 of 17983
  - Complete by FY03
- C2:
  - Power Projection Automation Support
- APS:
  - Total value of APS is $15B

We're Making Steady Progress

21st Century Power Projection



8

NMD

OPERATIONAL CONCEPT

- Provide homeland defense against proliferating weapons of mass destruction and ballistic missiles.
- Develop and test elements of an initial NMD system within three years FY97-99.
- Conduct integrated system test NLT 1999 to support an informed deployment decision in 2000.
- Following the integrated test and if threat so warrants and a decision to deploy, procure and deploy an NMD system over the following five years (year 2000 through 2005).
- If the decision is not to deploy, continue enhancements of elemental technologies until a decision for deployment is made.

OPERATIONAL REQUIREMENT

- Defend United States homeland (50 states) against limited strategic ballistic missile attack by a rogue nation, should such a threat emerge.
- Provide some capability against a small accidental or unauthorized launch of a strategic ballistic missile from nuclear-capable states.
- NMD ORD validated by JROC - March 1997.

FIELDING

- Potential FY05 deployment (IOC - 05).
- Raytheon design selected as the NMD Exoatmospheric Kill Vehicles (EKV).
- Prototype ground-based radar (GBR) and test facilities at Kwajalein complete and radar is operational.
- Commercial-off-the-shelf booster selected as the Ground Based Interceptor booster.
- At least two candidate system deployment sites - North Dakota and Alaska.

ISSUES

- No Lead Service for the NMD program.
- No lead for user support (Army - Combat Developer).
- Anti-ballistic Missile Treaty will require modification once deployment decision is made.
- Details of transition of funding from Joint Program Office to Army.

THAAD

LTC Jordan/DAMO-FDE/697-1087

OPERATIONAL CONCEPT

- Normally Integrated into a Task-Organized Force with Other Members of the Family of Systems (FoS) to Provide Near Leakproof Two Tier Defense
  - Against the Short and Medium Range Ballistic Missiles
- Maintains Wide Area Coverage Against Critical Assets and Selected Geopolitical Targets
- Employs Shoot-Look-Shoot Firing Doctrine (Preferred) with Final Kill Assessment and Hand-over to Lower Tier System, if Required
- In the TMD Task Force, one THAAD Btry will Operate with a Lower Tier System (e.g., Patriot Bn, MEADS Bn)

OPERATIONAL REQUIREMENT

- Provides Defense Against Medium Range Ballistic Missiles (MRBM)
- When Coupled with a Lower Tier System, Provides Near Leakproof Protection and an Upper Tier Capability against Short Range Threats
- Uses Hit-to-Kill Technology for Defense Against WMD
- Interoperable With Other Army, Services, and Allied systems
- High Single Shot Kill Probability; Higher with Double Shots; Highest with Two Tier
- Large Defended Area

FIELDING

- Contingency Capability FY02; FUE FY08
- Total Fielded Program Includes: 1233 Missiles; 80 Launchers, 12 Radar/10 BMC4I's Support Equip

ISSUES

- Failure to Achieve Intercepts in Test Program (5 of 5 Non-Hits)
- Congressional and OSD Support Exists for Continuing Test Program (5 Shots Remaining)
- Insufficient Funding to Maintain FY07 FUE; Slipped to FY08
- Congressional Appropriation of $445.3M versus $822M in PB
- BMDO and PEO, AMD Reworking Program Based on Latest Guidance

ATACMS Block I/IA

OPERATIONAL CONCEPT

- Engage targets long-range, laterally, and at depth. Disrupt and destroy threat forces and long-range weapons before they can influence the battle.
- Advanced, non-nuclear family of long-range missiles and munitions to attack maneuver, C2, air defense assets, and key logistic facilities.

- Block I (950 M-74 APAM) -- 165km
- Block IA (300 M-74 APAM) -- 300km

OPERATIONAL REQUIREMENT

- Attack enemy combat forces not yet engaged, destroy enemy capabilities w/immediate impact on the tactical battle
- Current cannon/rocket munitions are inadequate to effectively attack or defeat high payoff, moving or stationary point and area targets at operational depths
- Analysis: ORD approved Jan 99, MS IV COEA Final Report Sep 93.

FIELDING

Block I: FUE AMC 4Q90 -- 683 msls
USAREUR 4Q91 -- 407 msls
EUSA 4Q91 -- 344 msls

Block IA: FUE EUSA 2Q98 -- 150 msls
AMC 3Q99 -- 234 msls
USAREUR 1Q01 -- 117 msls

ISSUES

- Production is complete on Block I.
- No issues.
- Professional Staffers: John Young (SAC), Steve Nixon (HAC), John Barnes (SASC), Bob Lauthrup (HASC).
- REP Bill Young (FL) (Chairman, House Appropriations Subcommittee - National Security), REP Silvestre Reyes (TX - ATACMS missile "built" in Horizon City), SEN Hutchison (TX)

11

ATACMS Block II/IIA-BAT

LTC Reagle/DAMO-FDG/693-4873

OPERATIONAL CONCEPT

- Engage targets long-range, laterally, at depth. Advanced, non-nuclear family of long range missiles and munitions to attack moving armor, MRLs, and SSM TELs.
- BAT -- moving armored formations
  - P3I BAT -- stationary or moving/hot or cold armored combat vehicles and SSM TELs.
- Block II (w/13 BAT or P3I BAT) -- 140km
- Block IIA (w/6 P3I BAT) -- 300km.

OPERATIONAL REQUIREMENT

- Kill multiple targets in the deep battle; accommodate for large target location error (TLE)
- Current cannon/rocket munitions are inadequate to effectively attack or defeat high payoff, moving or stationary point and area targets at operational depths.
- Analysis: ORD approved Jan 99, Block II COEA Final Report Jan 95.

FIELDING

Block II: FUE AMC 4Q00 -- 626 msls
EUSA 2Q01 -- 219 msls
USAREUR 3Q01 -- 311 msls

Block IIA: FUE AMC 1Q04 -- 309 msls
EUSA 3Q04 -- 109 msls
USAREUR 3Q05 --155 msls

ISSUES

- ATACMS/BAT requesting LRIP decision from DAB on 22 Feb 99.
- Highly successful Production Qualification Tests concluded in Dec 98.
- Professional Staffers: John Young (SAC), Steve Nixon (HAC), John Barnes (SASC), Bob Lauthrup (HASC).
- REP Bill Young (FL) (Chairman, House Appropriations Subcommittee - National Security), REP Silvestre Reyes (TX - ATACMS missile "built" in Horizon City), SEN Hutchison (TX), SEN Sessions (AL) - BAT production to be moved to Redstone Arsenal.

SADARM

OPERATIONAL CONCEPT

- SADARM munitions are urgently needed to defeat stationary threat systems such as self propelled artillery, infantry fighting vehicles, and other armored combat vehicles to support operations.
- SADARM will significantly enhance the artillery's effectiveness by providing the capability to attack & destroy enemy armor formations beyond line of sight.
- SADARM will be used in the Counterfire, Close Support, Interdiction, and Suppression of ADA.

OPERATIONAL REQUIREMENT

- SADARM must be able to rapidly engage and destroy large numbers of self-propelled artillery with reduced expenditure of ammunition.
- SADARM must facilitate a rapid rate of kill to counter the threat posed.
- ORD is classified secret

FIELDING

- Initial Operational Capability will occur in 4QFY00 with delivery of 550 Projectiles.
- SADARM will be made available to contingency units, when required. The first 50% of SADARM will remain in swing stocks (CONUS depots and Prepositioned Afloat). This includes the IOC quantity of 550 rounds. After reaching 50% of production, CINCs would receive the second 50% to allocate as necessary. When produced, SADARM P3I quantities would be similarly managed.

ISSUES

- FUE slipped due to a $25M Congressional appropriation reduction in production funds. New FUE date is 4QFY00.
- OPTEC's Operational Test, System Evaluation Report found SADARM "not suitable and not effective" - mainly due to reliability at maximum ranges.
- OSD Comptroller's Office has placed $30.2M under technical withhold pending approval of Program's Path Forward Plan.
- The objective system, Product Improved SADARM, will be carried by an XM982 Projectile.

HERCULES

OPERATIONAL CONCEPT

The fielded M88A1 lacks the necessary horsepower and braking to safely support the recovery of the Abrams fleet. Improvements incorporated into HERCULES fix these operational shortcomings. In addition, the increased winching and lifting capability accommodate all Abrams tank models including the 70 ton M1A2. Without the improvements incorporated in the HERCULES, units must use two recovery vehicles or a recovery vehicle and another Abrams to tow a disabled tank.

OPERATIONAL REQUIREMENT

- Replaces M88A1
- Safely tow 70 ton Abrams tanks and future 70 ton class combat systems
- Reduce O&S costs over M88A1
- 70 ton winch
- 35 ton hoist / boom
- Increased ballistic protection
- Crew: 3 mechanics

FIELDING

Fielding to 1st Cavalry Division began in July 1997. At the conclusion of FY99, there will be a total buy of 101 M88A2s. The current fielding plan is 46 to the 1st Cavalry Division (4QFY98), 27 to the 4th Infantry Division (2QFY99), 18 to TRADOC (1QFY98-1QFY01) and 10 to the National Training Center (3QFY00). The remaining Force Package 1, 2 and 3 units will not be filled.

AAO = 953 APO = 629 (101 funded)

ISSUES

- The Army decided not to continue funding the procurement of the HERCULES in the FY00-05 POM. This decision was based solely on affordability within Army modernization accounts in a fiscally constrained environment.
- The HERCULES is on the Army's FY00 1-N list.

FUTURE SCOUT CAVALRY SYSTEM

OPERATIONAL CONCEPT

- Conduct area, zone, and route reconnaissance to provide real time intelligence to the tactical cmdr; screen and reconnoiter to provide time and space to the commander, force the enemy to deploy, and identify the enemy's main effort.
- Detect threat beyond target acquisition range; identify enemy beyond direct fire engagement range. Improved survivability, lethality, payload capacity, and mobility over current reconnaissance vehicles (HMMW and M2/3 BFV)

OPERATIONAL REQUIREMENT

- Manned ground scouts are needed on the battlefield; current systems are deficient; the HMMWV is unprotected and lacks mobility and the Bradley is too big and detectable; non-material solutions have not solved the problem.
- May 1997 FSCS Cooperative Program Exploratory Analysis (CPEA)
- Full Joint AoA planned parallel with the ATD (FY98 to FY01)

FIELDING

- 1076 ea Estimated Fielding; FUE FY07
- Fields six hvy Div's and Two ACR's
- 1 Cav Div 110 ea by FY08
- 3 ID 110ea by FY 09
- 3 ACR 95ea
- 2 ACR 95ea
- 2ID 102 ea
- 4ID 110 ea
- 1ID 110 ea
- 1AD 110 ea by FY16
- TNG/APL 234 ea (between FY08-16)

ISSUES

- New start!
- Cooperative Program with the UK. US/UK will cost share (50/50) the ATD and EMD phases resulting in increased competition and cost savings
- Impact Reserve Component: FSCS will trigger the cascading of some 600 LRAS3 systems to ARNG Battalion Scout Platoons.

M1A2 SEP

OPERATIONAL CONCEPT

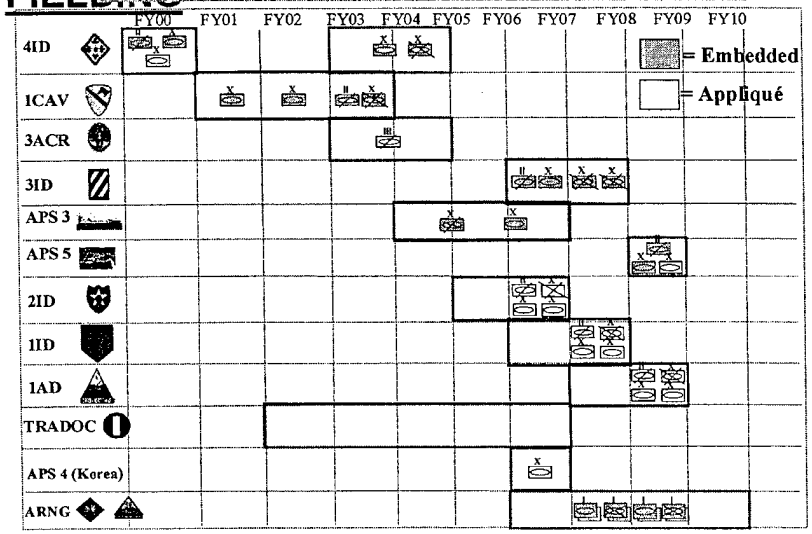
- The principal armored combat system on the battlefield to defeat enemy forces using fire and movement
- Spearhead the assaulting elements of the combined arms team in the offense
- In the defense, exploit the mobility and agility to move to positions of advantage over the enemy

OPERATIONAL REQUIREMENT

- Increased 120mm probability hit/kill
- Increased target acquisition and engagement rates
- Commander's Independent Thermal Viewer (provides hunter/killer capability)
- Integration of 2d GEN FLIR
- Increased range capability of eye safe laser range finder
- ACOE compliant

FIELDING

FUNDED FLEET MODERNIZATION SCHEDULE



ISSUES

- Armored System Modernization Report
- Industrial Base
- Gun mounts (50/50 split - GDLS and Rock Island Arsenal
- Lima Army Tank Plant
- DU Armor
- Committees - SASC (Jon Barnes, Dan Cox) SAC (Kraig Siracuse, Tom Hawkins) HASC (Roger Smith,
Doug Necessary) HAC (Trish Ryan, Greg Dahlberg)
- Foreign Military Sales - Greece and Turkey

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M2/3 BRADLEY FIGHTING VEHICLE (ODS/A3)

OPERATIONAL CONCEPT

- Combined Arms partner to M1A2 SEP and M1A1D
- Infantry Fighting Vehicle provides protected transport to infantry squad to conduct close fight
- Defeats enemy infantry carriers and other light armored vehicles. Able to defeat tanks out to 3750 meters with TOW IIA/B
- Provides Infantry, Cavalry, Air Defense, and Field Artillery versions

OPERATIONAL REQUIREMENT

- A2 ODS: LRF, POSNAV, Integrated GPS, BCIS ready, FBCB2 Applique
- A3: Advanced technologies integration, 2nd GEN FLIR, digital C2, Commanders Independent Viewer (with 2d GEN FLIR), improved BFV acquisition system, Commanders/squads tactical displays

FIELDING

A3

• 4ID	FY 00-01
•1CD	FY 01-03
•APS 5	FY08
•APS3	FY 04
•3ID	FY06

ODS

• 3ID	(FIELDED)
•4ID	(FIELDED)
•APS3	(FIELDED)
•1CD	(ON GOING)
•3ACR	FY03
•1AD	FY08
•APS 5	FY08
•NTC	FY02
•2ID	FY07

ISSUES

Congressional Interest (Past)

Concern over delayed fielding of A2 BFV to ARNG - Congress added $95M (98) and $70M (99) for ODS for ARNG. ARNG expresses concern over AO survivability

- Congress directed that A0 to A2 upgrades continue until complete
- Committees - SASC (John Barnes, Dan Cox); SAC (John Young, Tom Hawkins); HASC (Roger Smith, Bob Lautrop); HAC (Trish Ryan)

Unfunding M6A1 (FY04-07) during POM 00-05 and increasing M6 requirement caused current shortfall of 72 Linebackers.

Main Contractor: UDLP (York, Pennsylvania plant)

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AVENGER

OPERATIONAL CONCEPT

• The Avenger is a Line-of-Sight Air Defense Platform for defeating low altitude aerial targets, including UAVs and cruise missiles. The Avenger has 8 ready to fire Stinger surface to air missiles and a .50 caliber machine gun. The system protects friendly assets in the division and corps areas. Current upgrade is for the Slew-to-Cue capability, which automatically slews the turret onto the target.

OPERATIONAL REQUIREMENT

• Requirements are for 48 per special division, 36 per light and heavy division, 24 per light ACR and 8 per heavy ACR.
•ARNG requirement is for 36 per Corps Avenger battalion.
•ARNG eSBs require 12 per light BDE, 6 per heavy BDE, and 8 per heavy ACR.

FIELDING

• The Avenger is fielded to the AC divisions and 9 ARNG Corps Battalions.
•The last of nine ARNG Avenger battalions (SC) will be fielded in FY99.
•Procurement in FY99 through 07 are for seven COMPO 4 Avenger battalions in the ARNG.

ISSUES

• STC funding was eliminated in FY00 by OSD. This will postpone fieldings by one year to all units after 4th ID and 82nd ABN Division

M6 LINEBACKER

OPERATIONAL CONCEPT

•The Bradley Linebacker provides dedicated forward air defense fire units with the capability to fire Stinger missiles while the crew remains under armor protection. The system also has the 25mm chain gun and a 7.62mm machine gun. The Stinger missile can engage threat aerial platforms, including UAVs and cruise missiles. The M6 is a highly mobile, survivable vehicle compatible with the combined arms team.

OPERATIONAL REQUIREMENT

•The M6 is authorized 24 per heavy division and 12 per ACR.
•APS 3 and 5 also require 24 systems.

FIELDING

•FY99 fieldings are to 3ID, 4ID, 1CD.
•FY00 fielding to 3ACR.

ISSUES

• 99 Linebackers have been procurred for all FP1 units (3 ID, 1 CAV, 3 ACR) and partial FP2 (4ID)
• UFR for 72 systems to complete AC requirement. Currently 1ID, 1AD, and 2ID do not have the M6.
• Integration cost of integrating the FAADC2 and FBCB2 onto a common installation kit is unfunded.

SWORD

OPERATIONAL CONCEPT

• SHORAD with Optimized Radar Distribution (SWORD) is an S&T project in SMDC. The concept is for a radar directed, kinetic kill missile to intercept and destroy multiple 240mm rockets. The system is focused on the North Korean chemical rocket threat. Concept is for a Battery (3 platoons to defend critical assets in Korea.

OPERATIONAL REQUIREMENT

• There is no MNS or ORD for this proposed system.
•8th U.S. Army submitted an ONS in Jun98. HQDA provided an interim response in Sep98.
•FDJ has submitted the ONS for staffing prior to establishing a requirement.

FIELDING

•None- system is not funded.

ISSUES

• OSD directed DARPA to conduct an analysis of the concept to see if it is technically feasible. DARPA's preliminary conclusions are that it may be feasible, but extremely risky and may not be able to accomplish its designed mission.
•SMDC conducted a concurrent study on the feasibility of the project. Their conclusion was that it was technically feasible.
•Funding remains an issue. OSD will not fund unless DARPA recommends to do so. The Army has no funds to conduct further research.

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FAADC2

OPERATIONAL CONCEPT

•Forward Area Air Defense Command and Control (FAADC2) integrates weapons, sensors, and command, control, communication, and intelligence architecture to counter the entire spectrum of the air threat to the forward area.

•The digital real-time/near real-time Air Defense early warning and command and control to the Forward area; essential link between sensor and shooter.

OPERATIONAL REQUIREMENT

•Provides automated air picture, A2C2 data, Force and Engagement Operations, and interface with ABCS to the combined arms team at Division level and below.

•Analysis of FAADC2 has occurred during several tests and exercises since the systems inception in 1993. TFXXI AWEs have served as a recent tool to evaluate the systems success. Existing ADA early warning systems include visual detection through voice early warning; FAADC2's leap-ahead technology can hardly be compared to the current system.

FIELDING

UNIT	FY	UNIT	FY
3ACR	98	2LCR	02
1-204 (MS)	98	2-265(FL)	03
25ID	98	2-263(SC)	03
1-200(NM)	99	BN#10	04
1ID	99	BN#11	04
1AD	99	BN#12	05
3-200(NM)	00	BN#13	05
3-265(FL)	00	BN#14	05
4-200(NM)	01		
1-265(FL)	01		
2-174(OH)	02		

Previously fielded
101st, 1CAV, 2ID,
3ID 10MTN, 82nd, 4ID

ISSUES

•Developing software to merge FAADC2 with FBCB2. Will realize significant hardware and communications equipment savings.

•Significant funding shortfalls include CHS-2 for initially fielded divisions and digital radio IK retrofit for EPLRS.

•Current POM and EPP funding stream is sufficient to field all 16 ARNG EAD Battalions and 17 Enhanced Separate Brigades.

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RAH-66 COMANCHE

OPERATIONAL CONCEPT

Comanche is Army Aviation's #1 priority. Resolves the #1 battlefield deficiency: Armed Recon. Comanche is a versatile, self deployable, day/night, lethal, and supportable weapon system for the 21st Century battlefield. Comanche replaces legacy systems such as the OH-58A/C, OH-58D and AH-1. Comanche is a critical element of our nation's defense; a key element of gaining and maintaining full-spectrum information dominance.

OPERATIONAL REQUIREMENT

- A fully-digitized, simple-to- maintain aircraft with improved optics, auto target detection and classification, low RCS / IR signatures, and a wide range of armaments.
- Key Performance Parameters (KPPs):
  - VROC - 500fpm (threshold)
    750 fpm (Objective)
  - RCS - Classified
  - IR- Classified
  - Target ID- Classified
  - Link 16 - Digital exchange with Joint and Combined forces

FIELDING

- IOC Dec 06 / FUE FY07 (1st Cav Div)
- Strategic Reserve fielding complete in FY26.
- Comanche will be fielded to AC and RC Div Cav Squadrons, Light Attack Battalions, and ACR's.
- AAO: 1292 (1213 with elimination of TARCS/TARPS)

ISSUES

- Comanche funding increases in FY04-05 as procurement ramp-up begins.
- OSD CAIG believes the program is underfunded $150M. Army Cost Position is the program is fully funded - a review will be conducted again in July 99.
- A Comanche+ variant is a possible AH-64D replacement starting in FY18.

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APACHE LONGBOW (LBA)

OPERATIONAL CONCEPT

- **Employ as a maneuver element supporting the Corp/Division Commander's scheme of maneuver.**
- **Provide a highly mobile and lethal attack capability against personnel, ground and air targets.**
- **Conduct missions during day and night, in nuclear, biological, and chemical and extreme environments across the spectrum of conflict from operations other than war to major regional conflict.**

OPERATIONAL REQUIREMENT

- Increased system performance over the AH-64A:
  - Adverse weather and obscured battlefield capability.
  - Versatility, lethality, survivability and supportability.
  - Operator and maintainer efficiency.
- Fire and Forget missile
- Digitization: High speed transmission and receipt of data
  - FCR transmit TGT handover messages to other AC
- Fixes all Operation Desert Storm shortfalls:
  - Communications
  - Navigation
  - RAM

FIELDING

- Acquisition Procurement Objective: 746 AH-64D
- CSA Decision: Resourced Constrained to Procure 530 AH-64D by FY05.
  - First Multi-Year (MY,FY96-00) covers 232 LBAs.
  - Second MY (FY01-05) covers 298 LBAs.
- Field by FY05: 15 AC AHBs, 1 AC ACR, 2 NGB AHBs, and 1 USAR AHB; by FY06-08: 7 NGB AHBs and 1 USAR AHB
  - 1-227th AHB, 1st CAV, Ft Hood IOC Date: Nov 98
  - III Corps "digitization" units fielded by FY04.
- Funded for 241 Fire Control Radars (FCR).
- Cascade 216 AH-64A to the NGB to retire "legacy" AH-1s fleet.

ISSUES

- Additional program cost:
  - Increase FCR buy to compensate for AHB "Interim" design, FY06-17.
  - Cost to SLEP and to maintain 216 AH-64A in NGB, FY06-24.
- FCR mix: Aviation Attack/Reconnaissance AoA due 1 OCT 99.
- TRADOC opposes interim force structure design (24 to 21 ship AHBs)
- 2nd Gen Aviation FLIR lead (HTI or PEO Aviation) and clarification Comanche/Apache system requirements.
- Prime Vendor Support concept is crucial to LBA readiness & cost savings (Rep Ortiz (TX) - Chrmn Depot Caucus represents CCAD district)

M1 BREACHER (GRIZZLY)

OPERATIONAL CONCEPT

- Digitized Armored Breaching system for breaching simple and complex obstacles in support of a Abrams or Bradley based force.
- Provides a full-width clear lane (4.2m) through minefields, rubble, tank ditches, wire, and other obstacles while under armor.
- The current heavy force cannot breach many obstacles w/o stopping to conduct a deliberate breaching operation. The Grizzly will enable the force to breach all obstacles in stride.

OPERATIONAL REQUIREMENT

- Mobility, survivability, & sustainability comparable with M1A2
- Clear standard minefield (down to 12" deep) at 4.5 mph in a single pass
- Reduce standard anti-tank ditch within 5 minutes
- Grizzly is a new capability and does not replace any existing system. COEA demonstrates a clear improvement in force capability & survivability over separate, non-survivable tools which the commanders currently use.

FIELDING

1 Cav Div (FY04: 24; FY05: 12)
3 In Div (FY06: 12, FY07: 24)
3 ACR (FY07: 6)
5 Engr Bn (FY08: 12)
2 In Div (FY08: 12, FY09: 24)
4 In Div (FY11: 36)

ISSUES

- Prime Contractor is UDLP (York, PA). Is in Congressman Goodling's district.
- Army has no under armor complex obstacle breaching capability. Fielding the Grizzly to meet this requirement is the #1 priority for our mobility systems.
- TRADOC & USAES are developing new fielding plans which will provide Grizzlies to the National Guard Enhanced Brigades.

HEAVY ASSAULT BRIDGE (WOLVERINE)

OPERATIONAL CONCEPT

- Digitized armored bridging system which supports M1A2 based force with survivable, mobile assault gap crossing capability
- Provides a MLC 70 bridge which can bridge a gap 50% longer than existing systems.
- Similar maintainability/supportability as supported force through use of M1A2 SEP chassis and Abrams compatible spares and TMDE.

OPERATIONAL REQUIREMENT

- Cross gaps up to 24 m wide
- Support MLC 70 crossing @ 16 kph
- Bridge emplaced within 5 minutes
- Mobility, survivability, & sustainability comparable with the M1A2.
- EMD II testing - launch times & bridge durability met operational requirements
- LFTE - improve survivability over AVLB

FIELDING

4 In Div (FY00: 12, FY02: 12)
1 Cav Div (FY03: 24, FY04: 12)
3 ACR (FY05: 15)
3 In Div (FY06: 36)
5 Engr Bn(FY07: 12)
2 In Div (FY08: 36)

ISSUES

- Primecontractor is GDLS (MI - Senator Levin)
- SAC decremented $6.6M in FY99 RDTE. Is Army's #32 priority to be restored.
- Wolverine is built on a common chassis with the Abrams M1A2 SEP. All changes to that program have a direct impact on Wolverine procurement & production
- Wolverine will be fielded to 4 RC corps mechanized engineer units. Displaced AVLBs will be cascaded to RC.
- Wolverine fielding is very slow. Buy one En Bde per year through the POM & EPP.