

Future Combat Systems

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Chief of Staff

Objective Force Task Force

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Future Combat Systems Concept Teams

The Boeing Team



*The Boeing Company, Seattle, WA
New Definitions, Inc., Tacoma, WA
Vector Research, Inc., Ann Arbor, MI
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Signature Research, Inc., Calumet, MI
National Institute of Standards and Technology (NIST),
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Krauss-Maffei Wegmann (KMW), Germany*

Team Full Spectrum



*SAIC
United Defense, LP
ITT Industries
Northrop Grumman Corp
Logistics Management Institute (LMI)
SRI International
Strategic Perspectives Inc.
Omnitech Robotics International LLS
University of Texas Center for Electromechanics
VRI*

Team Gladiator (Consortium)



*TRW
Lockheed Martin
CSC/Nichols Research
Battelle Institute
Carnegie Mellon
IITRI/AB Technologies*

Team FoCuS Vision (Consortium)



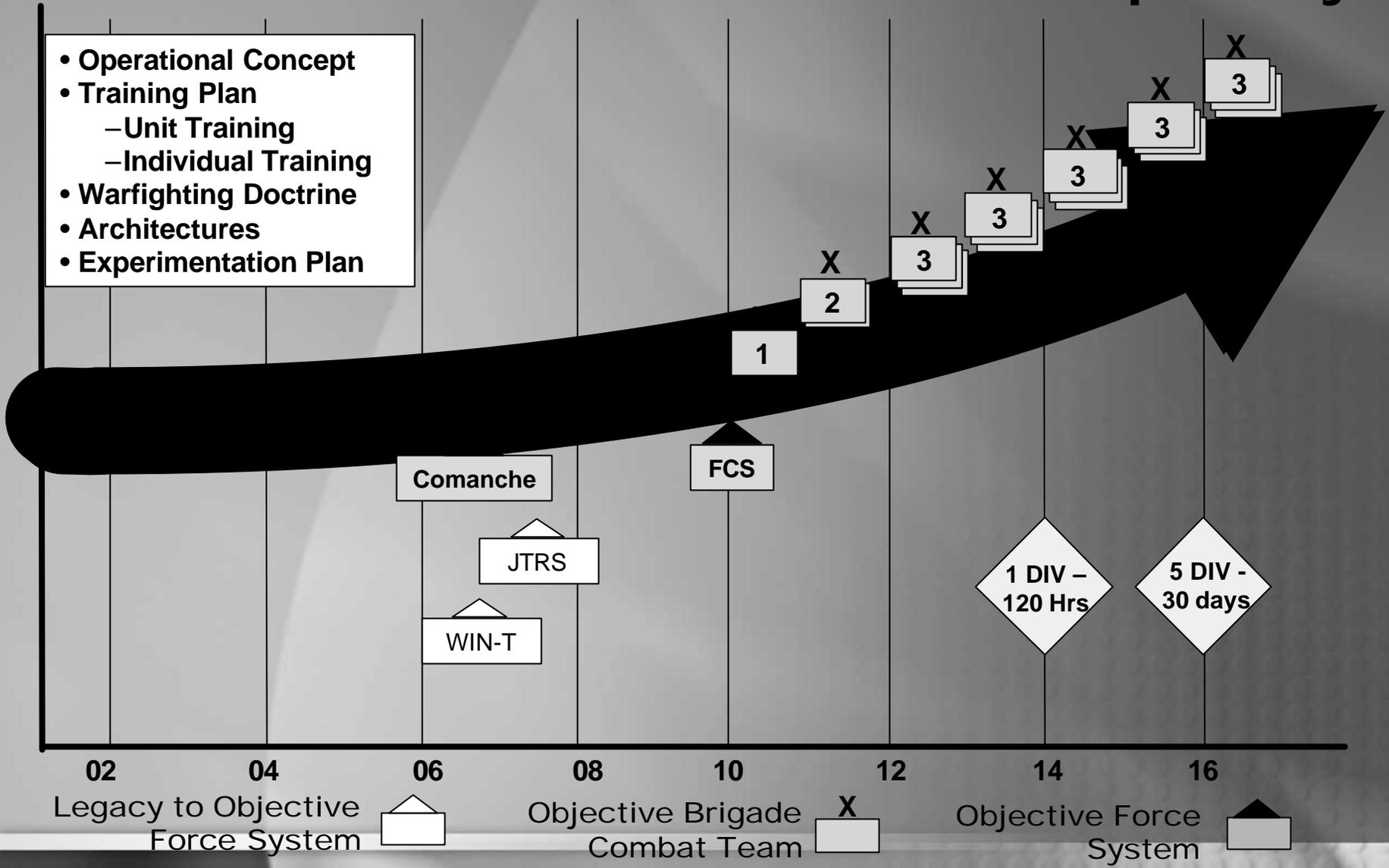
*Team FoCuS vision led by General Dynamics Land Systems
Inc., Sterling Heights, Michigan and Raytheon Company,
Plano, Texas.*

Other participants with GDLS and Raytheon include:

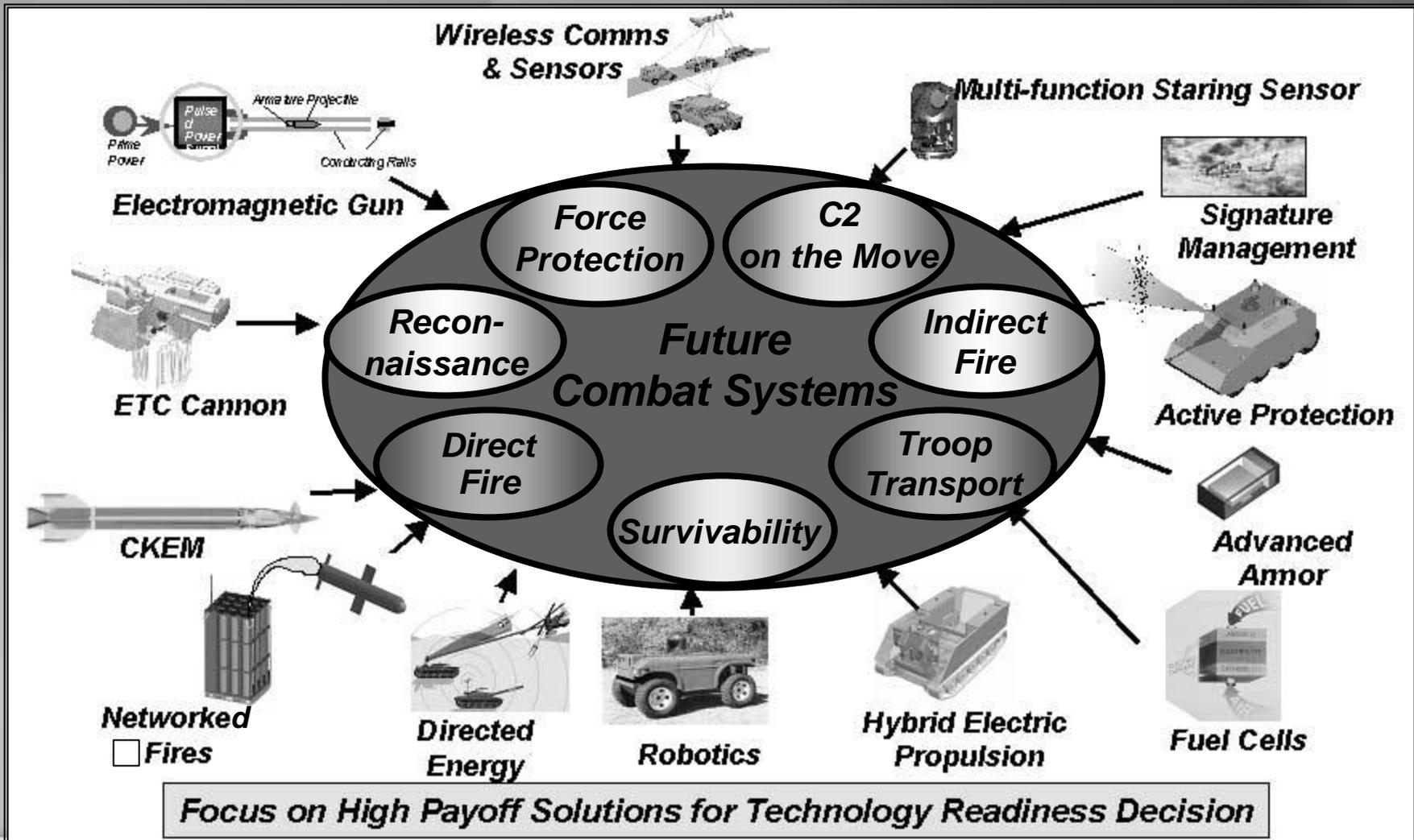
*Aurora Flight Sciences
Carnegie-Mellon University
Honeywell
Maxwell Physics International
Stanford Research Institute International
Sensis
Sensor.com Wireless Integrated Network Sensors
Whitney Bradley & Brown Inc.
Los Alamos National Laboratory*

Achieving Objective Force Capability

- Operational Concept
- Training Plan
 - Unit Training
 - Individual Training
- Warfighting Doctrine
- Architectures
- Experimentation Plan

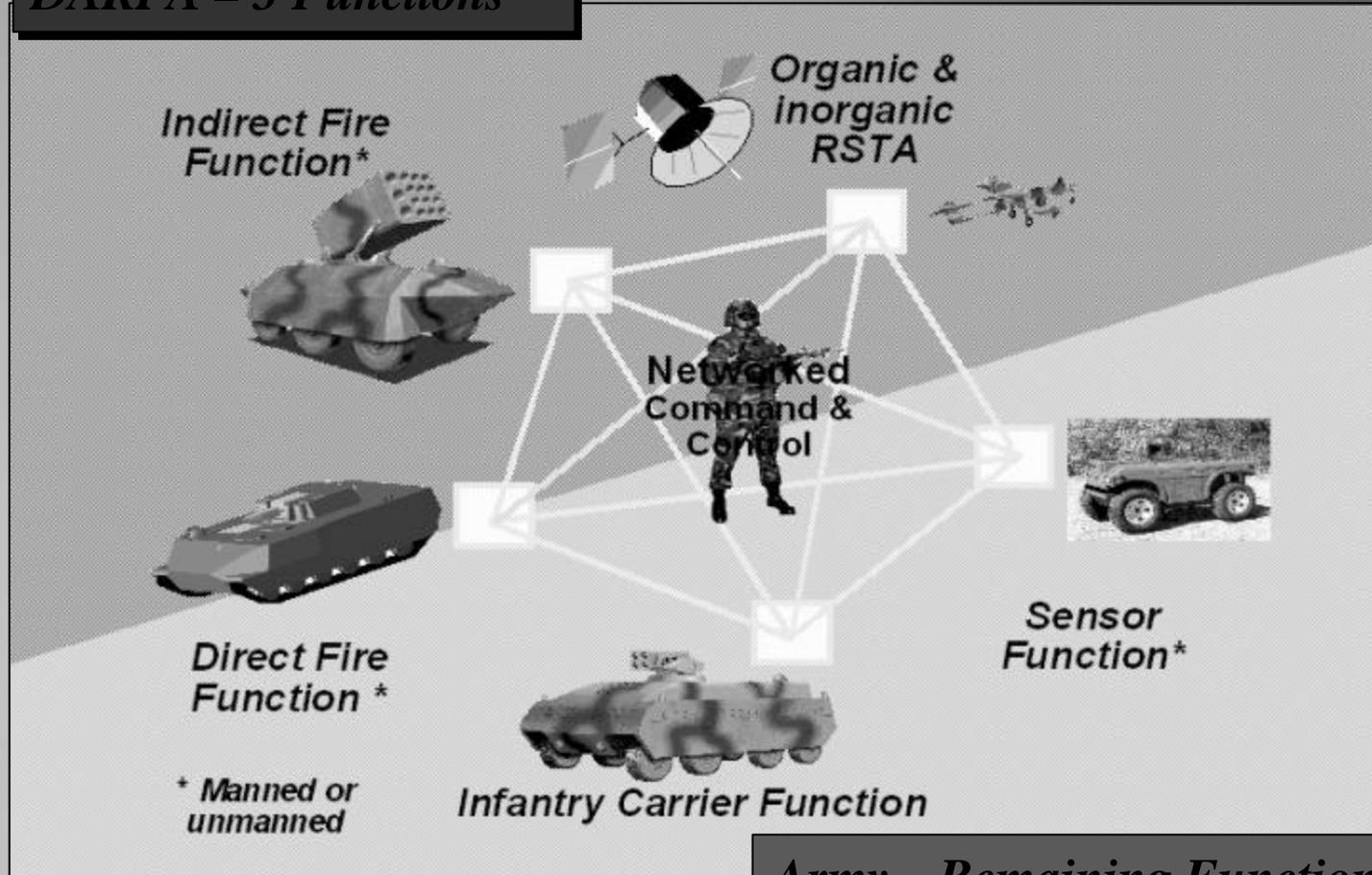


Develop Fullest Range of Technology Options for FCS



How Do We Get There A Partnership with DARPA

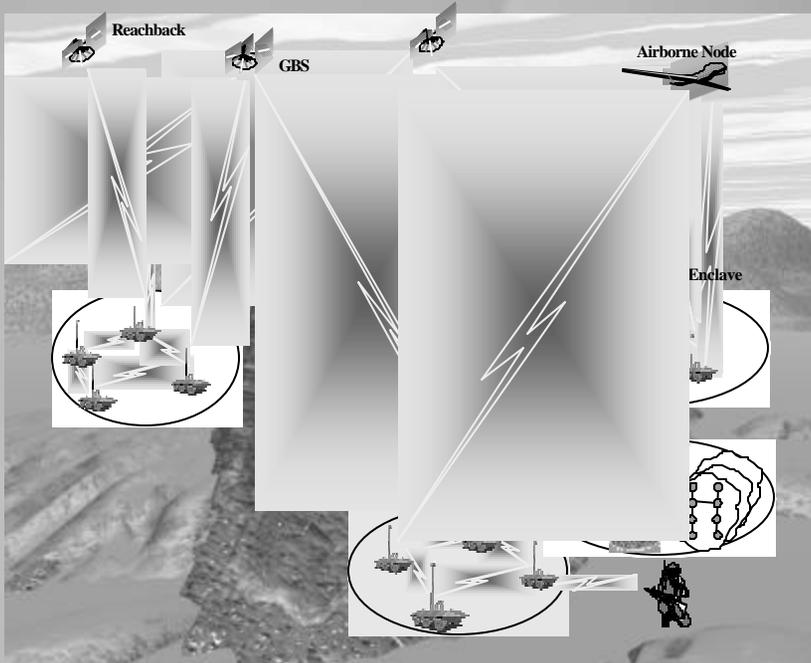
DARPA – 3 Functions



Army – Remaining Functions

C4ISR Overview – Role in the Force

C4ISR



Means to
achieve

INFORMATION
SUPERIORITY

Enabling
key operational
capabilities

DEPLOYABLE
VERSATILE
LETHAL
AGILE
SUSTAIN
SURVIVE
RESPONSIVE

Objective Force Linkage

Comanche initiates the process of enabling these concepts and FCS will round out the process

See First

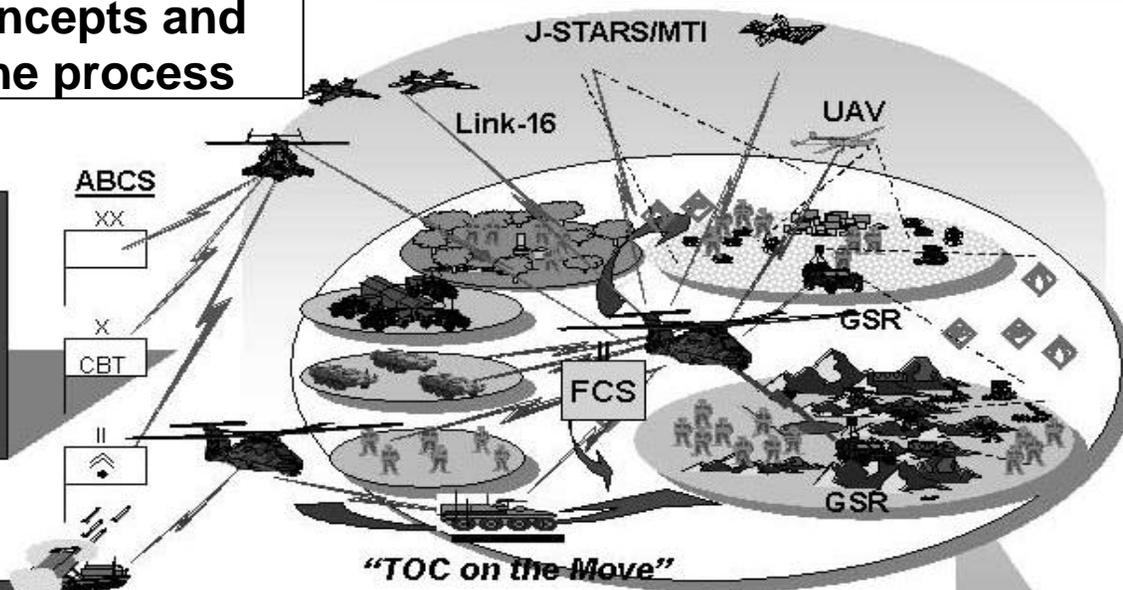
Situational Awareness:

- Onboard Sensors
- External Sensors
- Data Collection
- Reporting
- See parts / aggregate / environment

Understand First

Situational Understanding:

- Sensor Fusion
- Aggregate Display
- Analysis
- Interaction
- Connectivity
- Highlight Vulnerabilities
- See the pattern / anticipate



Act First

Situational Knowledge:

- Qualitative rapid decisions
- Develop situation out / in contact
- Employ forces on favorable terms
- Seamless transition :

Finish Decisively

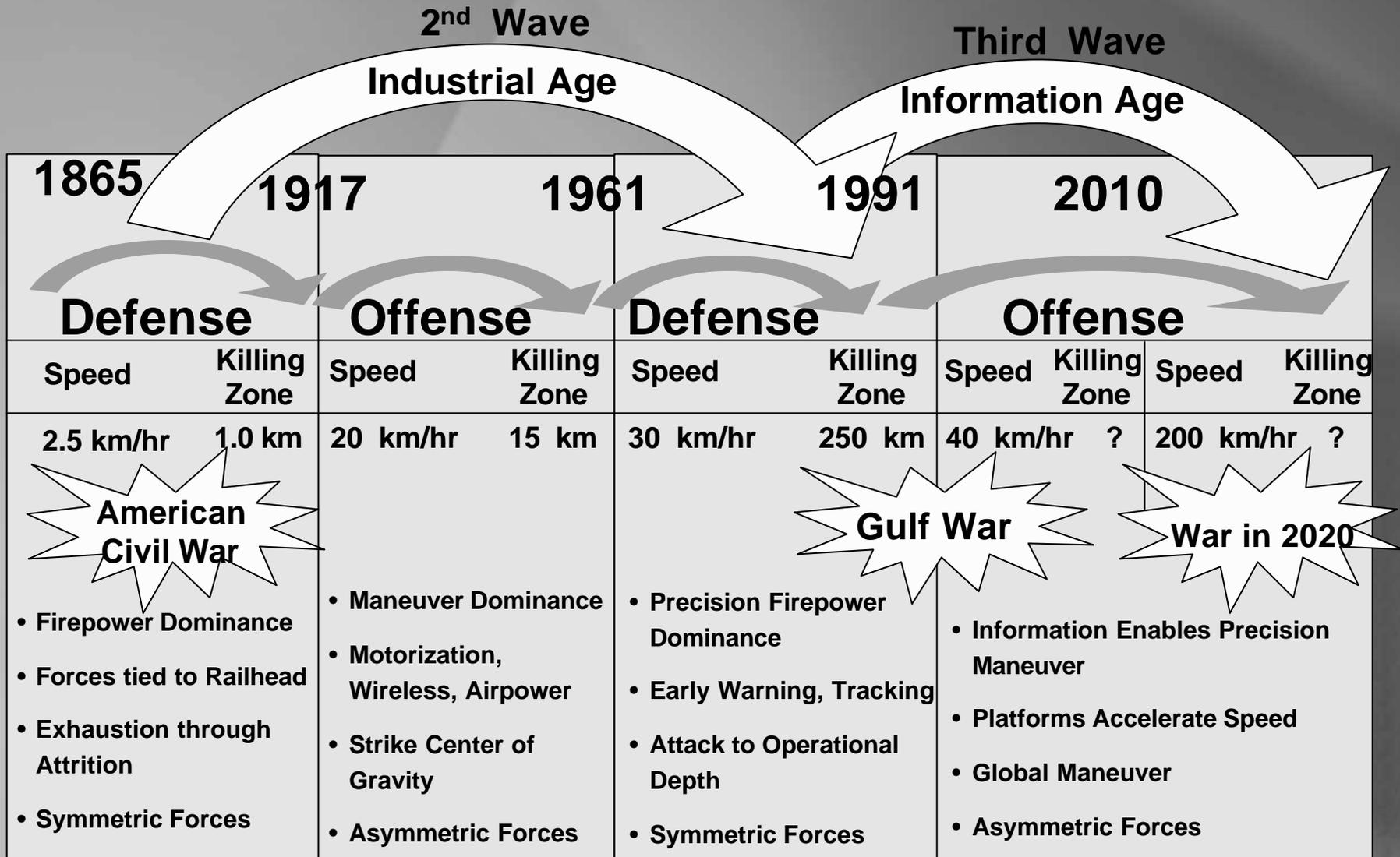
Synchronize organic & external fires & maneuver

Challenge to the Team

- **Provide C4ISR Systems that give the commander a truly shared and fused Common Operating Picture.**
 - To achieve that we require sensor and data fusion on a near real time basis.
 - Integrated sensor suites
- **BLOS Fires**
- **Historically SU was an Art. We must turn it into science**

Backup

Changes in the Art of War Follow Technology Driven Cycles



Reference: Future Warfare, MG Robert H. Scales, Jr., Strategic Studies Institute, 1999