

Coalition Warfare Program

briefing to

PACOM Operational S&T Conference



Colonel Kathleen Hithe, USAF
Deputy Director, Coalition Warfare Program
OUSD(AT&L)/International Cooperation

July 2008



Overview

The Coalition Warfare Program (CWP):

Enables:

- Cooperative international research and development
- More effective operation of U.S. and friendly armed forces across the full spectrum of multinational operations.

By:

- Soliciting **nominations** on an **annual basis** for projects from COCOMs, Services, Defense Agencies, OSD staff, or other **government sponsors**
- Awarding **seed money** for **collaborative R&D projects** with foreign partners to selected projects
 - \$200k-\$700k per year for 2 years
 - Equitable financial or non-financial commitment from foreign partner



History and Funding

- Coalition Warfare Program was formally instituted within OUSD(AT&L)/International Cooperation in Fiscal Year 2000
 - Evolved from “NATO Cooperative Research and Development” (“Nunn funds”)
- FY08 budget increase, anticipated increase in FY09
 - Increase a result of PBD 709 (“Building Partnership Capacity”) during FY08-13 POM process

Fiscal Year	Budget (\$M)	Proposals Received	New Starts
FY04	5.704	15	7
FY05	5.643	20	9
FY06	5.777	35	8
FY07	5.669	47	7
FY08	10.047	48	15
FY09	14.030 (in PBR)	67	15



Coalition Warfare Team



**Under Secretary of Defense
for Acquisition, Technology
and Logistics
Mr. John Young**

**Director,
International Cooperation
Mr. Al Volkman**

**Director,
International Negotiations
Mr. Frank Kenlon**

**Director,
Planning & Analysis
Mr. Steve Austin**

**Director,
Pacific Armaments
Cooperation
Mr. Bruce Bade**

**Director,
Armaments Cooperation
Atlantic
Col Mark Price (Acting)**

**Deputy Director,
Coalition Warfare Program
Col Kathy Hithe**

**Ms. Merry Lutz
(Contractor)**

Army, PACOM, SOUTHCOM,
TRANSCOM

**Ms. Christa Cochran
(Contractor)**

Air Force, EUCOM,
NORTHCOM, STRATCOM

**Mr. John Noulis
(Contractor)**

Navy, Marine Corps, AFRICOM,
CENTCOM, JFCOM, SOCOM



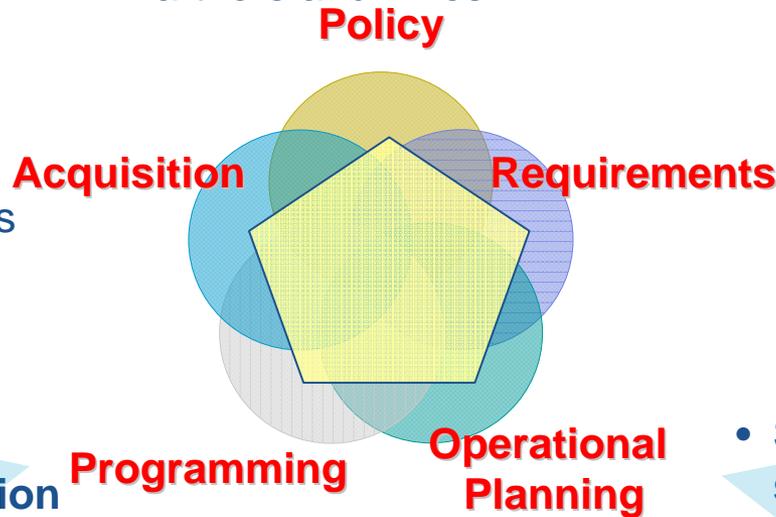
Strategy-Driven Process

- **Responds to Strategic objectives**

- Implements QDR findings including Building Partnership Capacity
- Develops relationships with Partners and Allies

- **Addresses:**

- Objective and orphan coalition requirements
- Priority needs of the COCOMs
- Capability gaps identified with Partners and Allies



- **Provides impetus to fulfill coalition interoperability requirements**

- **Enables and guides use of best practices**

- Common standards and architectures
- Information exchanges
- International agreements
- Technology control

- **Promotes U.S. Service actions to include coalition requirements in POM**

- **Influences scope and timing of Partner and Allied investments in capabilities**

- **Supports regional security cooperation activities**

- Responds to COCOM lessons learned
- Supports the Global Defense Posture



Global Partnerships through CW Projects





CWP Proposal FY10 Timeline

		
31 Aug	"Call Memo" released	Project Manager identifies partners, begins work on necessary agreements
Sep	CWP Kickoff Conf	
16 Jan	Executive Summaries due	
27 Feb	Final Submissions due	CW Team consults Embassies, COCOMs, Services, and other SMEs to determine project viability and utility
Mar-May	Evaluation process	
Jun	"Results" memo released	
15 Sep	Fiscal documentation due	PM submits project plan, SOW to CWP
Oct-Feb	Funding disbursed	CW Team disburses funding, PM obligates
Oct 09- Sept 11	Project execution	PM submits monthly financial reports and quarterly progress reports



Initial CWP Proposal Requirements

Sponsors submit proposal abstracts with the following:

- Overview (abstract, objective, deliverable, jointness)
- Status of required elements of international projects
 - Disclosure/export control issues
 - International agreement
 - Engagement with project's foreign partners
 - Equitability
 - Benefits/Risks
- Description of product
 - RDT&E content
 - Demonstration and testing plan
 - Portability
 - Transition aim
 - Current and proposed technical maturity level
 - Metrics for success
- Financial Information
- Points of Contact

CWP Website and CWP Management Plan (with proposal format requirements): <http://www.acq.osd.mil/ic/cwp.html>



Evaluating a CWP Proposal

Does the proposal:

- ✓ Show RDT&E content?
- ✓ Have a government sponsor?
COCOM support?
- ✓ Show firm foreign commitment?
(Has the foreign partner agreed to equitable financial or non-financial contributions?)
- ✓ Show agreement from an IPO? (I.e., has an IPO looked at disclosure/export control/international agreement issues?)
- ✓ Request funds commensurate with the proposal's scope?
- ✓ Identify a transition aim?
- ✓ Have practical metrics for success?
- ✓ Have congressional or high-level interest?

Will the project:

- ✓ Benefit the Warfighter?
- ✓ Have a tangible outcome?
- ✓ Have any necessary international agreements in place in time to start?
- ✓ Meet an identified U.S. mission need, COCOM shortfall or IPL, or a JROC-approved need?
- ✓ Have value to other COCOMs or Services?
- ✓ Provide a unique solution to a problem? (I.e., does it offer a solution different from other, similar products either in the U.S. or elsewhere?)



Project Management Responsibilities

- After a project is selected for funding, the project manager agrees to provide:
 - Refined spend plan and project plan
 - Monthly budget reporting
 - Funds execution metrics
 - Notification of major events and demonstrations
 - Quarterly program report
 - Final report of project completion





FY09 Portfolio: Funds Collaboration with 24 Foreign Partners

	Bilat.	Multilat.			Bilat.	Multilat.	
• UK	2	8		• Turkey	0	1	
• Canada	3	4		• Singapore	2	0	
• Australia	1	6		• Japan	1	0	
• Italy	0	3		• Argentina	0	1	
• France	1	3		• Honduras	0	1	
• New Zealand	0	3		• Chile	0	1	
• NATO	0	5		• Panama	0	1	
• Germany	0	3		• Sierra Leone	0	1	
• Sweden	0	2		• Ghana	0	1	
• Norway	0	1		• Israel	1	0	
• Bulgaria	0	1		• Finland	0	1	
• Romania	0	1		• Spain	0	1	



Past PACOM AOR Project Examples

FY02-03: Coalition Wide Area Network

- Objective: To provide a secure, reliable WAN for coalition support to escort and maritime interdiction missions for Operation ENDURING FREEDOM. To enable PACOM Coalition Networking Initiative strategy & exploit Asia Pacific Network

FY02-03: Coalition Readiness Management System

- Objective: To provide U.S. and coalition forces interoperability training and combined mission rehearsal capability.

FY06-07: US/ROK Ground Battlefield Simulation

Interoperability

- Objective: To achieve interoperability in ground combat simulation models as a first step toward enabling broader interoperability between the US family of battlefield simulation models and those being developed by KS



Ongoing PACOM Projects Examples

US-Singapore Unmanned Vehicle

Start: 2008

Sponsor: PACOM

Foreign Partner: Singapore

US Partner: US Navy

Objective: To develop and integrate a remotely operated small arms mount with two SPIKE missiles and .50 caliber gun onto the SPARTAN 7-meter RHIB; to expand operations for SPARTAN over-the-horizon by use of a Tactical Unmanned Air Vehicle.

Deliverable: An unmanned boat that integrates the a missile onto the SPARTAN Scout Rigid Hull Inflatable Boat.





New Start PACOM Projects Examples

Global Personnel Recovery System Pilot Implementation Project for New Zealand and Australia-GPRS

Start: 2009

Sponsor: JFCOM

Foreign Partner: Australia, New Zealand

US Partner: PACOM

Objective: To demonstrate ability of GPRS to quickly identify, accurately locate, and communicate with warfighters conducting combat operations.

Deliverable: Implementation plan and associated documentation (CONOPS, TTP, etc) at the completion of the military utility assessment.



FY09 New Selections

Funding 15 new start projects in FY09 in two tiers (COALWNW project (JTRS JPEO) pre-approved in previous selection process.) **Tier 2 projects will be funded if DoD Appropriations Bill funds CWP PE at requested level.**

Tier 1:

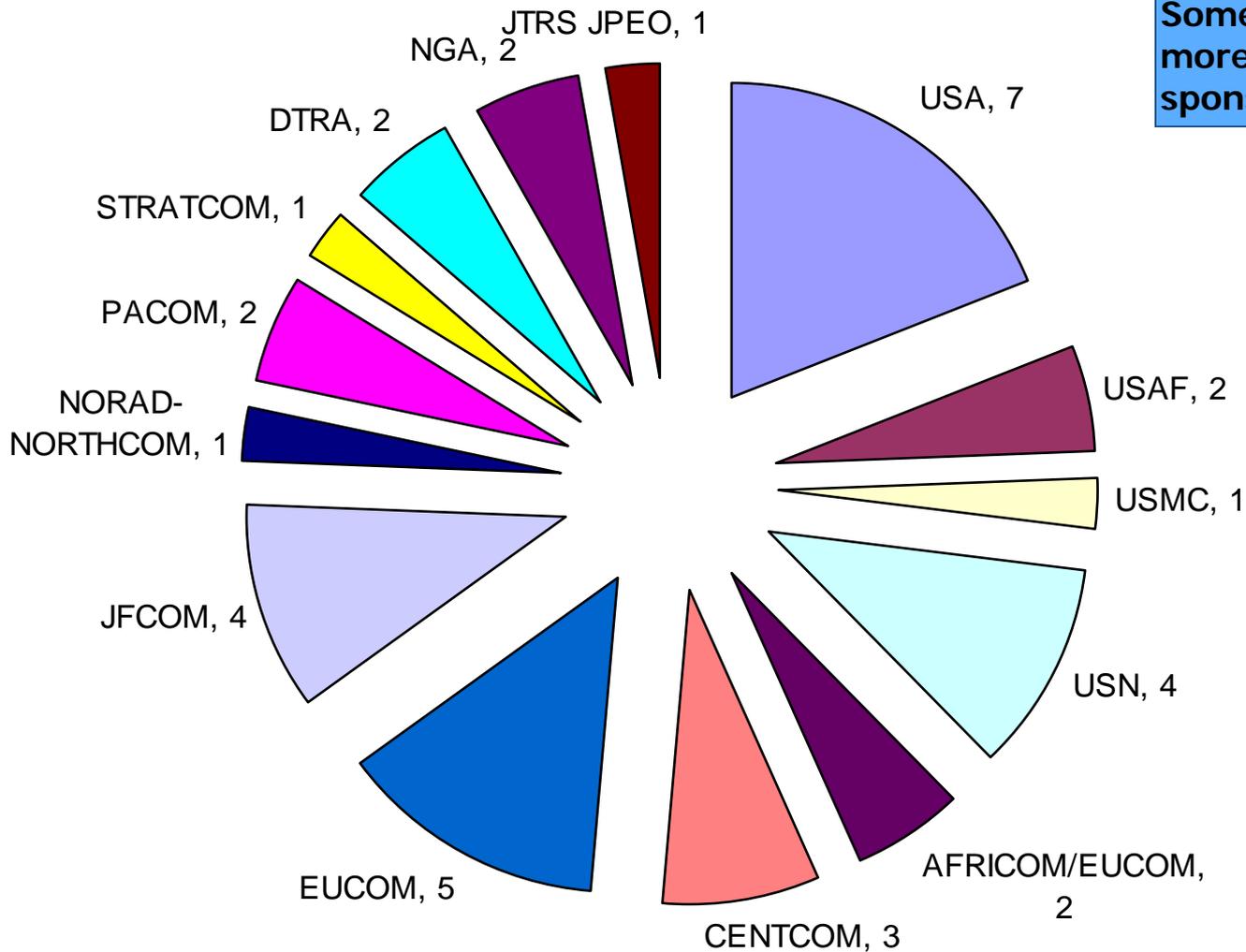
- The Web Service for All-source Releasability and Dissemination (OUSD (USD(I)), NGA)
- Service Oriented Architecture Development for C2 Gap Filler Block 1 (NORAD-NORTHCOM)
- FBCB2/SIR Interoperability Solution (US Army)
- Pathogen Analysis in West Africa (US Navy)
- Global Personnel Recovery System Pilot Implementation Project for New Zealand and Australia (JFCOM)
- Service-Oriented Architecture Foundation Text-to-Text Machine Translation Services (US Army)
- Passive and Active Detection of Special Nuclear Material (DTRA)

Tier 2:

- Ultra High Performance Concrete Material Properties Characterization (DTRA)
- ADNS Coalition Network Interoperability (US Navy)
- International Recognition of Combat Vehicles (US Army)
- Common Ground (US Army)
- GPS Multinational Receiver Core Development (US Air Force)
- Maritime Domain Awareness Offshore West Africa (US Navy)
- ITA Sensor & Policy Software Tools and Protocols for Networking of Disparate ISR Assets (US Army)



FY 09 New Start Sponsors and Partners



Some projects have more than one sponsor/partner



Wrap-up: Benefits of Coalition Warfare Program

- Warfighters benefit from having effective coalition partners
 - 2006 QDR Report: Building Partnership Capacity
 - COCOM Theater Security Cooperation Annexes
 - USD(AT&L) aims to increase interoperability with allies and partners
- R&D cooperation with coalition partners helps close capability/ interoperability gaps
 - Such gaps have compromised operational effectiveness and jeopardized force protection (e.g., fratricidal incidents)
- Small investments early in the R&D process can yield large dividends (e.g., Joint Strike Fighter)

• **Desire for strategy driven cooperation**
• **Services/COCOMS benefit from support to building their international relationships**



Need for Coalition Warfare Funding



Contact Information

Obtain more information at:

www.acq.osd.mil/ic/cwp.html

Or by emailing:

Coalition.Warfare@osd.mil



Current Portfolio



Current Projects (FY07-08)

Project Title (Sponsor)	Objective	Foreign Partners
Coalition Communications Interoperability And Data Sharing Using Everything Over IP Technology (EOIP) (DISA)	To develop a migration strategy and network performance metrics that will serve as a guide to the entire Coalition and COCOM Community for achieving net-centricity and to identify obstacles to the operational implementation of EoIP technology.	Canada, UK
INMARSAT System (EUCOM)	To provide two INMARSAT intercept systems to a coalition partner in support of US interests in the EUCOM AOR	Coalition Partners in EUCOM's AOR
Joint Coalition Flight Trials of Mode 5 Identification Friend/Foe Interoperability (US Air Force, US Navy)	To complete jointly sponsored flight trials with collaboration by multiple nations to demonstrate the interoperability of production-ready Mode 5 IFF transponders and interrogators.	France, Italy, NATO, UK
Multinational C4 Network Planning System (MC4NPS) (EUCOM)	To enhance the usability of the C4 Interoperability Planning Guide developed during Combine Endeavor exercises by integrating with a German database tool. This tool will be made available for Coalition Task Forces.	Germany



Current Projects (FY07-08)

Project Title (Sponsor)	Objective	Foreign Partners
Passive, Remote and Open Situation Awareness System (PROSAS) (US Army, US Navy, US Coast Guard, USMC; NGA)	To build network-centric enterprise services system architecture for effective use of netted multi-static RF sensors and UAV-based C4ISR systems to develop an integrated land and surface track management capability. To enable "in-time" decision-making using signature filter techniques and decision timeline analyses.	UK
Preplanned Response and Emergency Action (PRACT) (SOUTHCOM)	To contribute to increased regional stability in the US Southern Command's (SOUTHCOM) Area of Responsibility through the provisioning of a collaborative planning and coordinated response capability (technology and business practices) that enables accurate assessments, situational awareness, dynamic planning, and synchronized response to international disasters.	Belize, Costa Rica, El Salvador, Honduras, Guatemala, Nicaragua, Panama
Dual Signal Processor and Underwater Network (Unet) Common Protocol for Communications (SOCOM, US Navy)	To advance acoustic communications technology and protocols for attaining through-water interoperability amongst coalition maritime assets	Australia, Canada, UK



On-going Projects (FY08-09)

Project Title (Sponsor)	Objective	Foreign Partners
Advanced Dynamic Magnetometer for Static and Moving Applications (US Navy (SPAWAR))	To develop a compact and inexpensive micro-fluxgate magnetometer for use in multiple COCOMs. To continue T&E with joint services and apply lessons learned to provide wide range of surveillance/detection solutions.	Italy, Sweden
Miniature Automated Chemical Agent Detector (MACAD) (US Army (EBRC))	To develop a miniaturized, automated detector that will perform the same function as the current M256A1, with increased user friendliness and decreased detector response time. To communicate agent detection to user via audible, visual and/or physical (vibration) method, and be reusable following decontamination.	Japan
Multi-National Turnkey C2 (JFCOM)	To assist NATO in developing the ability to more rapidly form a Multi-National HQs with robust C2 capabilities that enable effective coalition-wide C2 using Mission Templates to serve as guidelines for determining the required C2 capabilities. The Mission Templates would include historically required capabilities and supporting architectural views.	NATO ACT /C4I



On-going Projects (FY08-09)

Project Title (Sponsor)	Objective	Foreign Partners
Multinational Virtual Learning Environment for International Security Cooperation Objectives (MVLE) (US Navy (SPAWAR))	To establish the South Eastern Europe/Black Sea Region MVLE Training Site and to establish a real-time, online communications that includes a multilingual machine language translation and natural language interface development in support of the Bulgarian, Romanian, and Ukrainian languages.	Bulgaria, Norway, Romania, UK
NATO Friendly Force Information (NFFI) Interface Prototype Standard Project (NIPS) (JFCOM)	To permit US, allied, and/or coalition countries to view personnel and asset position, status, and location information on national or NATO Common Operational/Tactical Pictures by: 1) improving the current US Joint BFSA XML to permit a robust data exchange with future versions of the NATO Friendly Force Information data exchange standard, 2) permitting transfer of information between the US and partners via secret communications architectures through the use of robust cross-domain solutions, 3) setting the improved JBFSA XML as the interim US standard for position/location information exchange with our coalition and allied partners, and 4) migrating this capability into net-enabled command and control (NECC).	NATO



On-going Projects (FY08-09)

Project Title (Sponsor)	Objective	Foreign Partners
Optimizing Coalition Leader & Team Operational Readiness to Achieve Technical Interoperability in Network Centric Operations (US Navy (NAVAIR))	To define critical knowledge and skills required to work in a multinational net-centric operational environment and develop a repository of NCE human behavior factors for acquisition and operational consideration.	Australia, Canada, UK
Stake Holder Asset-Based Planning Environment (SHAPE) (USA USACE/ RDECOM; SOUTHCOM)	To develop requirements for a joint, interagency, and multi-national response; identify existing and emerging best in class methods and technologies that can support this whole of government and multi-national response; and then deliver those capabilities to the user communities.	Colombia
Tactile Situation Awareness System (TSAS) (US Navy (NAMRL))	To enlarge the surface area of the tactical situation awareness garment to include complete forward flight control (pitch and roll). To deliver a technology to the aviation helicopter community that will reduce the workload of pilots, increase the situation awareness of pilots, and reduce the incidence of brownout mishaps in the desert environment.	Canada



On-going Projects (FY08-09)

Project Title (Sponsor)	Objective	Foreign Partners
US Joint Tactical Radio System (JTRS) & UK Bowman Radio C2 Interoperability through the JTRS-Bowman Waveform (JTRS JPEO)	To port JTRS Bowman Waveform onto a JTRS platform and demonstrate interoperability between JTRS and Bowman radios.	UK
Stabilized Weapons System Installation (US Navy (NSWG))	To design and test a stabilized weapon system module for combatant craft boats, in order to provide increased offensive and defensive fires capacity, improved maintenance, and minimum impact to deck arrangements.	Foreign Partner
Virtual Regional Maritime Traffic Center (VRMTC) (SOUTHCOM)	To develop the capability to: detect, track, identify, and display information on surface vessels 20 meters and longer out to 25 nautical miles from ports, harbors, and critical assets; identify cooperative traffic supporting IMO conventions, such as the AIS; collaborate and share information such as vessel ID, manifest, and cargo, with desired users; enable participation in cross-language information sharing; and eventually, enable Partner Nations to acquire, own, operate, and maintain the capability without US DoD support.	Chile, Panama <i>Argentina, Colombia, Brazil</i>



On-going Projects(FY08-09)

Project Title (Sponsor)	Objective	Foreign Partners
Projects That Are Not Yet Complete, But Will Not Receive FY09 Funding		
Coalition Warfare Command & Control Interoperability Enhancement (CWC2IE) (US Army (PEO C3T))	To enhance coalition fire support capability where each Fires Coordination organization of partner nations may coordinate Fires from supporting coalition platforms and other Fires Coordination organizations.	France, Germany, Italy, UK
US-Singapore Unmanned Vehicle (SPARTAN) (PACOM, US Navy)	To develop and integrate a remotely operated small arms mount with two SPIKE missiles and .50 caliber gun onto the SPARTAN 7-meter RHIB; to expand operations for SPARTAN over-the-horizon by use of a Tactical Unmanned Air Vehicle.	Singapore
Pre-approved FY09 New Starts		
Coalition Wideband Network Waveform (COALWNW) (JTRS JPEO)	To commonly develop a specification for a coalition-wide wideband networking waveform and associated crypto to support a NATO STANAG.	Australia, France, Germany, Italy, UK, Finland, Sweden, Spain



New Starts in FY09 (Tier 1)

Project Title (Sponsor)	Objective	Foreign Partners
The Web Service for All-source Releasability and Dissemination (WiSARD) (OUSD (USD(I)), NGA)	To provide a web service for net-centric, SOA-based operations that would improve streamlined, timely releasability of intelligence products to our most trusted allies.	Australia; Canada; NATO; UK
Service Oriented Architecture Development for C2 Gap Filler Block 1 (NORAD-NORTHCOM)	To prove the SOA approach prior to large scale implementation in the C2 Gap Filler JCTD. The SOA C2 Gap Filler initiative's operational objectives are to provide N-NC air defense operations an interoperable coalition C2 integration and data fusion/correlation capability.	Canada
FBCB2/SIR Interoperability Solution (FSIS) (US Army (PM FBCB2))	To reduce the time it takes to exchange C2 data and information between FBCB2 and SIR by enabling the data exchange to occur at a lower echelon in the battlespace while meeting the requisite policy, information assurance, national security constraints.	France
Pathogen Analysis in West Africa (US Navy)	To improve situational awareness and force protection in areas with endemic pathogens through use and demonstration of the Resequencing Pathogen Microarray (RPM) platform, data model and satellite communications.	Ghana, Sierra Leone



New Starts in FY09 (Tier 1)

Project Title (Sponsor)	Objective	Foreign Partners
Global Personnel Recovery System Pilot Implementation Project for New Zealand and Australia (GPRS) (JFCOM (Joint Personnel Recovery Agency))	To demonstrate an operational assessment involving the recovery of isolated US and coalition personnel and interoperability of the GPRS Implementation Project at a) Hardware level; b) Network level; c) Software application d) Security level.	Australia; New Zealand
Service-Oriented Architecture Foundation Text-to-Text Machine Translation Services (SOAF Translation Services) (US Army (CERDEC))	To integrate high-quality machine translation products from multiple MT developers to the SOAF-A, and create accessible and reliable MT web services on a secure network. Improvements are: text-to-text translation of Thai, Korean, Japanese and Indonesian, and Character Recognition (CR) of Arabic, Urdu, and Pashto, and machine translations of Chinese, Indonesian and Malay	Singapore
Passive and Active Detection of Special Nuclear Material (DSNM) (DTRA)	To demonstrate the ability of near-term passive detection systems to achieve stand-off detection of kilogram quantities of special nuclear material and equip boarding party teams to locate and identify small quantities of these materials.	Black Sea Nations; France; Turkey; UK



New Starts in FY09 (Tier 2)

Project Title (Sponsor)	Objective	Foreign Partners
Ultra High Performance Concrete Material Properties Characterization (UHPC) (DTRA)	To fully characterize the material properties of UHPC as it reacts to blast, penetration, Mach Stem and Munroe Effects. This characterization will be accomplished in two concurrent phases and will determine production requirements, material characterization and modeling.	Australia
ADNS Coalition Network Interoperability (ACNI) (US Navy (SPAWAR))	To demonstrate an interoperable, manageable and secure coalition network based on existing and emerging standards, using, where possible, commercial services and products. The end goal is a managed IP network supporting and facilitating C2 between coalition platforms supporting a joint operation.	Australia; Canada; New Zealand; UK
International Recognition of Combat Vehicles (US Army (Night Vision and Electric Sensors Directorate))	To collect and process imagery of coalition platforms for inclusion into Recognition of Combat Vehicles and provide a sharing capacity of the trainer to all participating nations.	Australia, Canada, Germany, New Zealand, UK
Common Ground (US Army (ERDC))	To provide a common geospatial information foundation supporting coalition C2 processes to include planning, intelligence preparation of the battlespace, course of action analysis, mission rehearsal, and execution monitoring.	NATO NC3A



New Starts in FY09 (Tier 2)

Project Title (Sponsor)	Objective	Foreign Partners
GPS Multinational Receiver Core Development (US Air Force)	To enable coalition users to take advantage of commercial, off-the-shelf GPS display and mapping software without relying on the civilian GPS engines.	Canada
Maritime Domain Awareness Offshore West Africa (US Navy)	To expand and improve automation of existing SAR analysis tools and use these software tools to analyze SAR imagery covering the Exclusive Economic Zone of West and Central African nations.	NATO
ITA Sensor & Policy Software Tools and Protocols for Networking of Disparate ISR Assets (US Army (ARL))	To develop a set of sensor & policy algorithms and software tools for networking disparate ISR assets from coalition forces. The resulting sensor & policy networking technology will jointly address the physical constraints of sensor networks and policy of sharing information.	UK