International Technology Cooperation

Dr Tony Sinden
Defence Science and Technology Counsellor, British Embassy
• Why Collaborate

• How to Collaborate
Why Collaborate?
Why Collaborate?

More effective pursuit of military goals

More capable national equipment
More capable Allies
Coalition technological interoperability

Collaborative Development & Procurement

Access to new TECHNOLOGY
Access to new EXPERTISE
Access to new FACILITIES
Long-term personal RELATIONSHIPS

PROVIDED THROUGH COLLABORATION
Collaboration is not new…

- In October 1957 UK and US committed to cooperate on Defense Science and Technology for “mutual benefit”
- Subsequently joined by Canada, then Australia and New Zealand to form – The Technical Cooperation Program
- Not the only collaboration but one of the most enduring and approaching its Fiftieth Anniversary in October 2007…
The Technical Collaboration Program

The 50th Anniversary Meeting has the theme of “A Stable Partnership in a Changing World” with the recently approved Banner Statement of:

TTCP will develop, share and integrate emerging defense science and technology to advance the military capabilities of the five member nations. TTCP will provide a trusted, productive and creative network that allows us to develop our best people, advance our best ideas and make full use of our collective opportunities.
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PROVIDED THROUGH COLLABORATION
US benefits from overseas equipment development
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Provided through collaboration
<table>
<thead>
<tr>
<th>Examples of Coalition Operations</th>
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<td>WWII</td>
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<td>Cold War</td>
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<td>Korea</td>
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<td>Vietnam</td>
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<td>Kuwait/Iraq (Desert Shield)</td>
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<td>Kuwait/Iraq (Desert Storm)</td>
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<td>Kuwait/Iraq (UNIKOM)</td>
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<td>Former Yugoslavia (UNPROFOR)</td>
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<td>Sierra Leone</td>
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<td>Mediterranean (Active Endeavour)</td>
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<td>Afghanistan (Enduring Freedom)</td>
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<td>Afghanistan (ISAF)</td>
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<td>Bosnia &amp; Herzegovina (SFOR II)</td>
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<td>Iraqi Freedom</td>
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  - Long-term personal RELATIONSHIPS

Provided through collaboration
We operate side-by-side around the world

Iraq - 2003

1 Marine Expeditionary Force

3 Commando Brigade

15 Marine Expeditionary Unit
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Provided through collaboration
### Top National Research Priorities

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<th>Category</th>
<th>Australia</th>
<th>Canada</th>
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<td>Urban Operations</td>
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**Implications for:**

- **Government** program managers – other people are working on the same problems as you…
- **Industry** managers – there are other markets for your ideas…
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Provided through collaboration
US benefits from overseas technology
US benefits from overseas facilities
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PROVIDED THROUGH COLLABORATION
Established *relationships* between TTCP scientists enables each nation individually and *collectively* to tackle the threats we all face in Iraq, Afghanistan and elsewhere.
Why Collaborate?

More effective pursuit of military goals

- More capable national equipment
- More capable Allies

Access to new technology & procurement
- Access to new expertise
- Access to new facilities

Long-term personal relationships provided through collaboration

OR - Shared research & development costs for mutual benefit
Outline

- Why Collaborate
- How to Collaborate
How to Collaborate

US Program
- US Government
- US Industry

Allied Program
- Allied Government
- Allied Industry
Government – Government

Sources of Information (for US Government staff):

• **US National Representatives to collaborative fora** (e.g. TTCP, NATO) – for advice on Allied programs and collaborative channels

• **Overseas US S&T Staff** – for advice on Allied programs, collaborative channels and processes

• **DDR&E International Technology Programs staff** – for advice on collaborative channels and processes

• **DoD International Agreements staff** – for advice on collaborative processes

• **Defense S&T staff in Allied Embassies** – for advice on Allied programs, collaborative channels and processes
How to Collaborate

US Program
US Government
US Industry

Allied Program
Allied Government
Allied Industry

Multinational Government–Industry Partnership, e.g. JSF, Network & Information Sciences International Technology Alliance
ITA Overview

- UK MOD - US Army
- Consortium, led by IBM
- Fundamental research in **Network and Information Sciences**
- Transition results
- A 5 year, $58M, research programme started in May 06
- Builds on the success of UK Defence Technology Centres and US Army Collaborative Technology Alliances
The ITA Concept

- Long-term research and Innovation
- Applied research and Exploitation
- Defence relevance
- International Research Collaboration
- The Alliance
Objectives

• Research and evaluate affordable state-of-the-art technologies
• Design in interoperability
• Promote collaboration between leading industrial and academic organisations in both nations
• Close working between consortium and government
Process

- Government-Government talks on principles
- Open competition
- Proposals evaluated by joint government team
- Government-Government Project Arrangement
- Awards made to successful consortium
  - Fundamental Research Component
    - US award instrument (on behalf of both nations)
    - Consortium cost-sharing was not required, but was offered
  - Technology Transition Component
    - Separate US and UK award instruments
ACADEMIA
1. Carnegie Mellon University
2. City University of New York
3. Columbia University
4. Pennsylvania State University
5. Rensselaer Polytechnic Institute
6. University of California Los Angeles
7. University of Maryland
8. University of Massachusetts

INDUSTRY
9. BBNT Solutions LLC
10. The Boeing Corporation
11. Honeywell Aerospace Electronic Systems
12. IBM Research
13. Klein Associates

ACADEMIA
1. Cranfield University, Royal Military College of Science, Shrivenham
2. Imperial College, London
3. Royal Holloway University of London
4. University of Aberdeen
5. University of Cambridge
6. University of Southampton
7. University of York

INDUSTRY
8. IBM UK
9. LogicalCMG
10. Roke Manor Research Ltd.
11. Systems Engineering & Assessment Ltd.
Technical Programme

• Consortium Technical Activities
  – 4 technical areas
  – 12 projects
• Each Project:
  – One Project Champion
  – Researchers from Academia, Industry, Government
  – Spans multiple technical areas

- Network Theory
- Security across a System of Systems
- Sensor Information Processing & Delivery
- Distributed Coalition Planning & Decision Making

Project Champion

UK University
US University
MoD/Dstl
ARL
UK Industry
US Industry
Sources of Information (for US Industry staff):

- **Allied S&T Managers** – for advice on Allied programs and opportunities

- **Overseas US S&T Staff** – for advice on Allied programs, opportunities and processes

- **Allied Contracts Bulletins, etc.** – for advice on Allied programs and opportunities

- **Defense S&T staff in Allied Embassies** – for advice on Allied programs and processes
Questions? OR LUNCH?

For further information please contact:

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