



JGRE Update

NDIA Quarterly Meeting

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Agenda



- Robotics Technology Consortium (RTC) Member Update
- Request for Project Plan (RPP) Update
- Technology Advisory Board (TAB) Process Update
- Success Stories
- Robotic Range Clearance Competition (R2C2)



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Joint Ground Robotics Consortium

24 Nov - 182 Members

AL - 9

- 7 Trad Small Business
- 2 Non-Trad Small Business

AZ - 2

- 1 Trad Large Business
- 1 Non-Trad Small Business

CA - 29

- 12 Non-Trad Small Business
- 9 Trad Small Business
- 4 Trad Large Business
- 3 Trad Non-Profit
- 1 Trad Academic

CO - 2

- 1 Trad Small Business
- 1 Non-Trad Small Business

CT - 2

- 1 Trad Small Business
- 1 Non-Trad Large Business

DC - 5

- 2 Trad Small Business
- 1 Non-Trad Small Business
- 1 Trad Large Business
- 1 Trad Academic

FL - 4

- 1 Trad Small Business
- 1 Non-Trad Small Business
- 1 Trad Large Business
- 1 Trad Academic

GA - 2

- 1 Trad Small Business
- 1 Trad Academic

HI - 1

- 1 Trad Small Business

ID - 2

- 1 Non-Trad Small Business
- 1 Non-Trad Non-Profit

IL - 2

- 1 Trad Large Business
- 1 Non-Trad Small Business

IN - 1

- 1 Trad Small Business

KS - 1

- 1 Non-Trad Small Business

LA - 2

- 1 Non-Trad Small Business
- 1 Trad Academic

MA - 20

- 8 Non-Trad Small Business
- 4 Trad Small Business
- 6 Trad Large Business
- 1 Trad Non-Profit
- 1 Non-Trad Academic

MD - 9

- 4 Trad Small Business
- 3 Trad Large Business
- 2 Non-Trad Small Business

MI - 12

- 7 Trad Small Business
- 2 Non-Trad Small Business
- 1 Trad Academic
- 2 Trad Non-Profit

MN - 2

- 1 Trad Small Business
- 1 Non-Trad Small Business

NC - 2

- 1 Non-Trad Small Business
- 1 Non-Trad Academic

NH - 4

- 4 Non-Trad Small Business

NJ - 3

- 1 Non-Trad Small Business
- 1 Trad Small Business
- 1 Trad Large Business

NM - 3

- 2 Trad Large Business
- 1 Non-Trad Small Business

NY - 4

- 3 Trad Small Business
- 1 Non-Trad Small Business

OH - 6

- 4 Trad Small Business
- 1 Non-Trad Small Business
- 1 Trad Non-Profit

OR - 1

- 1 Trad Small Business

PA - 23

- 9 Non-Trad Small Business
- 7 Trad Small Business
- 3 Trad Academic
- 2 Trad Non-Profit
- 1 Trad Large Business
- 1 Non-Trad Large Business

SC - 2

- 2 Trad Non-Profit

TN - 1

- 1 Trad Large Business

TX - 8

- 1 Non-Trad Small Business
- 3 Trad Small Business
- 2 Trad Academic
- 1 Trad Large Business
- 1 Trad Non-Profit

UT - 2

- 2 Non-Trad Small Business

VA - 10

- 5 Non-Trad Small Business
- 3 Trad Small Business
- 1 Trad Academic
- 1 Non-Trad Non-Profit

WA - 2

- 1 Non-Trad Small Business
- 1 Trad Academic

WI - 1

- 1 Trad Large Business

WV - 1

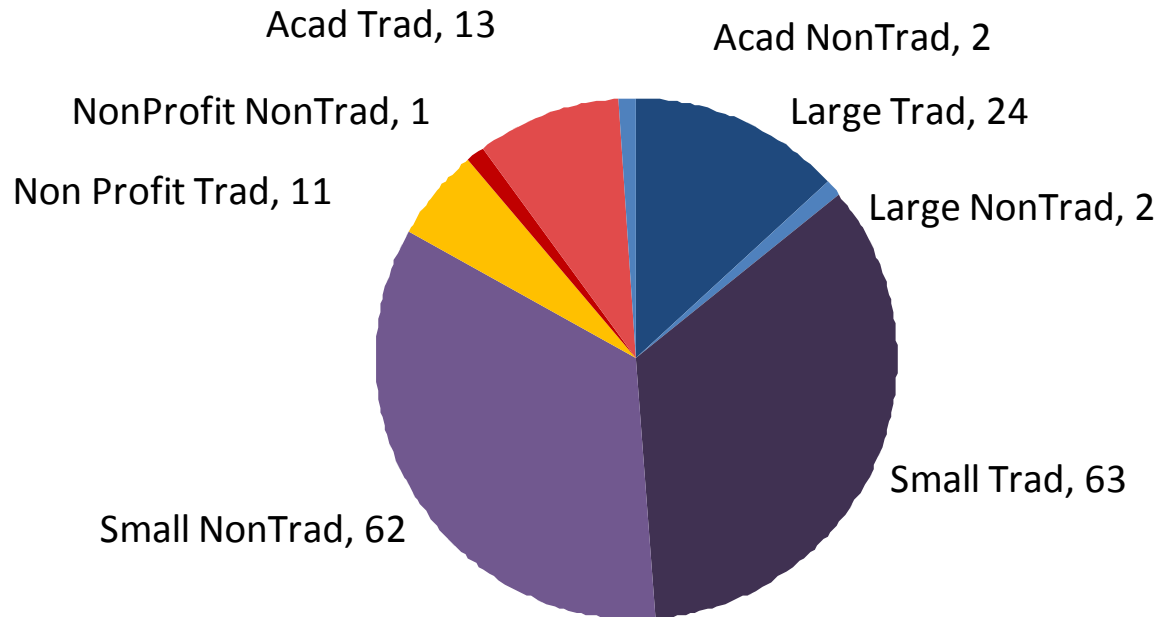
- 1 Trad Non-Profit

WY - 2

- 1 Trad Academic
- 1 Trad Small Business



RTC Membership



182 Members
~37% are Non-Traditional



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RPP1 Stats



Number of Proposals Received: 64

Date RPP Issued: 7 Oct 2008

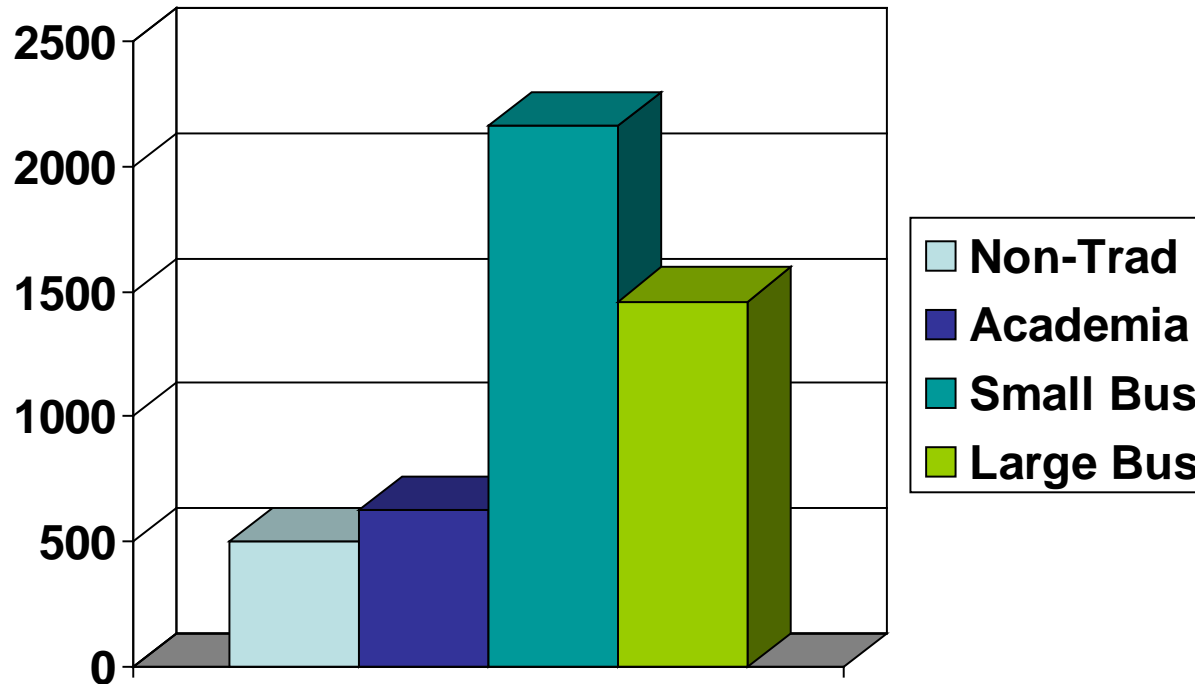
Date Proposals Received: 1 December 2008

Date Project Milestone and Payment Instruction Issued: 30 April 2009

Time to Complete: 205 days



RPP1



•6 of the awards had teaming efforts involving 11 subcontractors, of which:

- 7 were non-trationals (NT)
- 3 academics
- 1 small business



RPP2 Stats



Number of Proposals Received: 62

Date RPP Issued: 24 Feb 2009

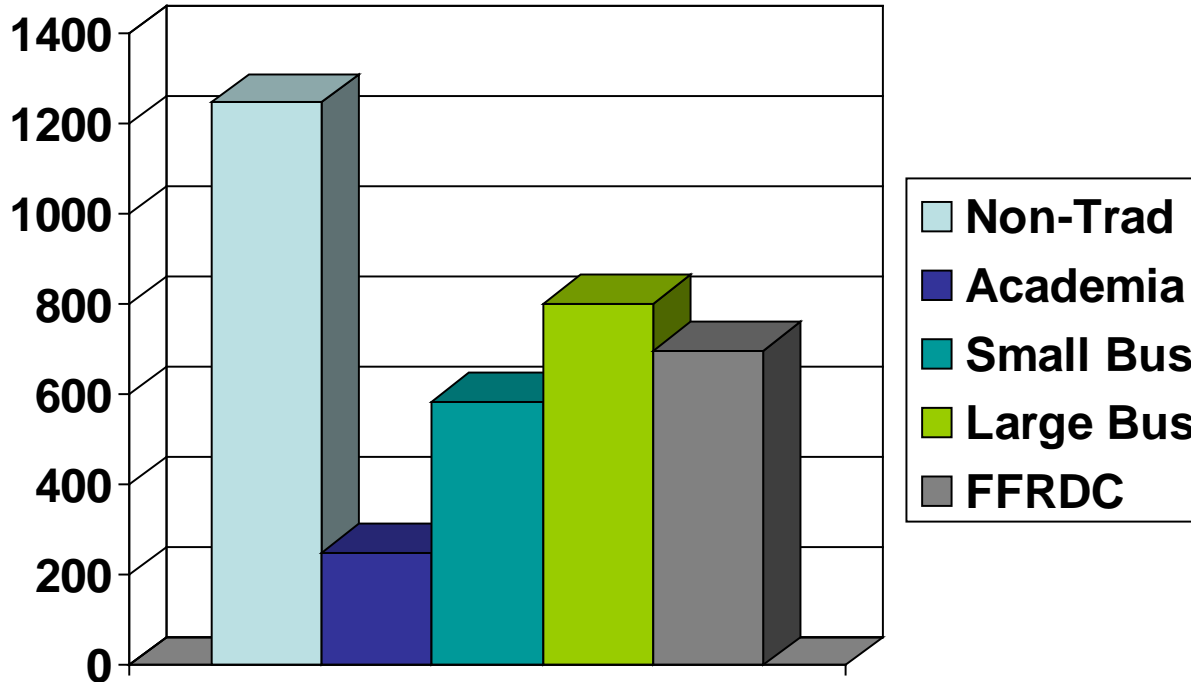
Date Proposals Received: 24 March 2009

Date Project Milestone and Payment Instruction Issued: 11 June 2009

Time to Complete: 107 days



RPP2



•5 of the awards had teaming efforts involving 8 subcontractors, of which:

- 5 were non-traditionals (NT)
- 1 academics
- 1 small business



RPP3 Stats



Number of Proposals Received: 10

Date RPP Issued: 4 May 2009

Date Proposals Received: 4 June 2009

Date Proposals to TM: 15 June 2009 (2 days earlier than scheduled)

Date Project Milestone and Payment Instruction Issued: 31 August

Time to Complete: 119 days



RPP3 Metrics



- 1 Award was made
 - 1 Large Business Traditional
- \$774,942 awarded for 12 Months
 - Large Business Traditional will receive \$774,942 (100%)



RPP4 and RPP5



- RPP4 and RPP5 evaluations are complete
 - Proposals were submitted against all 17 potentially awarded research areas
 - 74 proposals received in response to RPP4
 - 35 proposals received in response to RPP5
- Program Milestones and Payment Instruction should be issued in Q2 FY10
- RPP6 was released in CANINE
- RPP7 will be released 2Q FY10
 - Potential of 1 research areas



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FY10 TAB Teams



Battlespace Awareness

2 Government/2 RTC

Protection

2 Government/2 RTC

Force Application

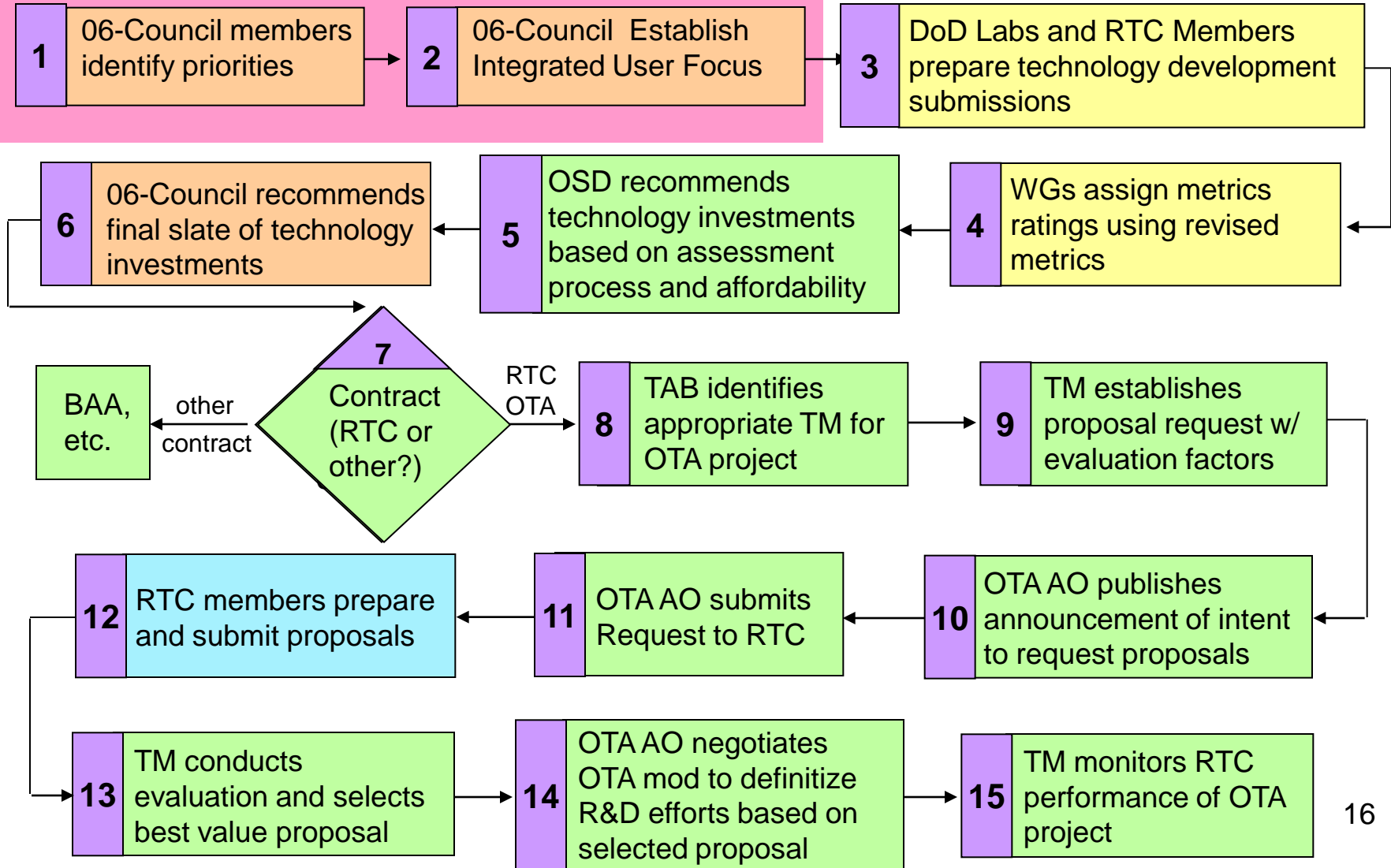
2 Government/2 RTC

Logistics

2 Government/2 RTC



TAB Process Overview





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- Robotics Technology Consortium (RTC) Member Update
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- **Success Stories**
- Robotic Range Clearance Competition (R2C2)



Success Stories RTC

- Enhanced Company Operations, Limited Objective Experiment 3.2
 - Main Objective: Evaluate the utility of a UGV in:
 - Supply distribution for small units operating beyond the capability of mutual support
 - Casualty evacuation for small units operating beyond the capability of mutual support
 - The technologies provided through the JGRE allowed the Marine Corps Warfighting Lab to conduct a live-force experiment which met the Main Objective
 - Results: Concept of Operations developed for UGV's has merit
 - Further experimentation and refinement before transition
 - Recommendation: Expand on unmanned re-supply experimentation
 - Continue with higher MAGTF level experimentation
 - Refinement on the ConOps for future experimentation informed by the results of ECO LOE-3.3





Success Stories TAB



- Computer Assisted Robotic Manipulator (CARMAN)
 - Provide increased precision of manipulator control and increased ease of operation
 - 30% reduction in the time required to manipulate the robotic arm;
 - 70% reduction in the number of inadvertent contacts of the manipulator arm
- Computer Assisted Tele-Operation (CATO)
 - Improves the tele-operated mobility of Unmanned Ground Vehicles through an improved interface
 - 20% reduction in straight line error (i.e. swerving);
 - 30% reduction in the number of inadvertent contacts while navigating



Due to the successful demonstration, these technologies are being inserted into existing platforms, in coordination with the NSWC EOD Technology Division.



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Robotic Range Clearance Competition (R2C2)



- Kick-off Meeting was held 22 October
- Industry Day was held 10 December
- Letters of Intent to Compete and Categories for Competing
 - Will be found on roboticrangeclearance.com
- Qualification Trials scheduled August-September 2010 (T)
 - Will be held at Camp Guernsey in Guernsey, WY
- Final Competition scheduled Summer 2011 (T)
 - Will be held at Camp Guernsey in Guernsey, WY



Prize Scope



- **Unmanned** vegetation clearance (\$250K)
- **Unmanned** geophysical mapping (\$250K)
- **Unmanned** surface debris clearance (\$250K)
- **Unmanned** sub-surface UXO clearance (\$250K)
- **End Goal: Range Area Cleared of UXO (\$1M) using Unmanned Technologies**

Focus is on increasing safety and operational effectiveness via robotics automation as well as reduce time and cost



Questions?