

**Joint Robotics Program
Working Group
(JRPWG)**

Dec 3-4, 2002

Destin, Florida

Minutes of Meeting

1. The 13th semiannual Joint Robotics Program Working Group (JRPWG) was held at the Embassy Suites in Destin, Florida, from 8:00 AM, December 3, 2002 until 4:00 PM, December 4, 2002.
2. The meeting agenda is provided at [TAB A](#), and the attendees list at [TAB B](#).

DAY ONE:

3. A “Newcomers Brief” was given prior to the start of the meeting. There were 22 attendees. The briefing is at [TAB C](#).
4. Mr. Jeff Kotora made opening administrative comments.

COMMAND WELCOME

5. Mrs. Lorene Stanford, Director, Combat Support Systems, AAC/WMO, gave the official command welcome. Ms. Stanford provided an Armament Product Directorate overview including locations, vision and product lines. Her briefing is at [TAB D](#).

BRIEFINGS

6. **JRP COORDINATOR’S REMARKS:** Mr. Michael Toscano, the Joint Robotics Program Coordinator (JRPC), opened the meeting with preliminary remarks. He stressed the importance of communications and teamwork in the robotics community. He also brought up that we must communicate everything we are doing in support of “Enduring Freedom”. He stated his preference of using the term “Unmanned Systems” vs robotics due to the connotation of robotics.

Mr. Toscano explained that the Joint Architecture for Unmanned Ground Systems (JAUGS) has been changed to Joint Architecture for Unmanned Systems (JAUS) to include all unmanned systems and the desire to help establish an industrial standard for interoperability. He pointed out that due to events such as the Defense Science Board and NRAC, the highest levels of the military/government are looking at unmanned

systems. This can also be seen by the recent visit of the Secretary of Defense's visit to SPAWAR. It is imperative that we now have all training and logistical support included early in our development process to insure there is no false sense of capabilities. There are now 6 programs that will hit MS C between now and 2006.

Mr. Toscano discussed the Small Robot Pool started by DARPA and now residing at SPAWAR. He stated his commitment to helping the pool grow in order to get out robots to the field including military, industry and academia in order to help generate requirements.

Finally, Mr. Toscano gave a brief update on the current plan for "devolvement". Currently, the JRP will remain at OSD level while PSE and JUXOCO will move to the Army by Oct 1, 2003. Mr. Toscano's slides can be found at [TAB E](#).

7. US Army Engineer School, DCD, Ft Leonard Wood, MO: MAJ Raymond (Butch) Boyd briefed the current operational requirements which include an approved ORD on Vehicle Teleoperation (CRS) and Robotic Combat Support System (RCCS) and a draft ORD for the Combined Operations Battlefield Robotic Asset (COBRA). He also discussed FCS Assured Mobility and filling the UGV gap between UA and UE. His brief can be found at [TAB F](#).

8. US Army Infantry School, DCD, Ft. Benning, GA: Mr. James Lynn briefed the Platoon Organizational Structure in 2015 and Unit of Action Operational Radius of the Platoon. His briefing can be found at [TAB G](#).

9. Unit of Action Maneuver Battle Lab (UAMBL), Ft Knox, KY: SFC John Ranum briefed the entire concept of Army Transformation and the direction of the Unit of Action as well as where unmanned systems fit into the equation. His briefing can be found at [TAB H](#).

10. Future Combat Systems, Lead System Integrator, Unmanned Ground Vehicle, Huntsville, AL: Mr. Tim Cummings briefed the LSI organization and acquisition concepts with key dates in the timeline. Programs of interest to the LSI for purchase include Soldier Man-Packable UGV (SUGV), the Multi-Role Utility/Logistics Equipment (MULE) Platform, the Armed Robotic Vehicle (ARV), and Autonomous Navigation System (ANS). His briefing can be found at [TAB I](#).

11. Air Force Research Laboratory (AFRL)/Air Force Explosive Ordnance Disposal, Eglin AFB, FL: AFRL and Eglin EOD provided a full afternoon demonstration/reception demonstrating the following technologies/projects:

- ARTS w/ ARMS
- EOD exploitation capabilities and procedures
- RONS and standard EOD equipment
- Laptop OCU, PDA, AR-10 Enhanced SMUD Rifle and Power Rake

The demo was well received and appreciated by all in attendance. Photos from the demo can be found at [TAB J](#).

DAY TWO

12. **NAVEODTECHDIV, Indian Head, MD:** SMSgt Bonnie Richardson briefed a Joint EOD Requirements Overview. The briefing included the history of robotics, current use, new systems in development, Next Generation EOD Robot, and future mission requirements. EOD has the most robotic systems fielded. Mr. Toscano made a point that it is imperative we get the word out on just how many systems we have fielded. He also pointed out that the JRP community should contact EOD to insure we let them know how we can contribute and what technologies we have available for their use. SMSgt Richardson's briefing can be found at [TAB K](#).

13. **US Army Chemical School, DCD, Ft. Leonard Wood, MO:** Mr. Robin Simino briefed the Chemical Sensor Suites and how they are being integrated on various platforms. He also updated the group on current Chemical LOE's. A demonstration of a Matilda with chemical sensors attached was made. His briefing can be found at [TAB L](#).

14. **US Marine Corps Combat Development Command, Quantico, VA:** Mr. Robert Parks provided an overview of the Gladiator Tactical Unmanned Ground Vehicle (TUGV) Program. The program is currently scheduled to reach Milestone B by FY 04 with demonstrations scheduled for Feb and Oct 03. His briefing can be found at [TAB M](#).

15. **US Special Operations Command (USSOCOM) Tampa, FL:** Mr. Sal Strano gave an overview of the SOF exploration of various payloads for integration onto the Gemini, Talon, and Matilda UGV Platforms. They are leveraging from various unmanned systems offices with a project demonstration scheduled for June 03. His briefing can be found at [TAB N](#).

16. **US Air Force Air Combat Command, Civil Engineering Directorate, Langley AFB, VA:** Mr. Jim Russell provided a briefing on the Air Force's concept of "Airborne Engineers". Lessons learned in the Balkans and SWA indicate the need for rapidly insertable EOD, NBC, Toxic Industrial Material and Fire Rescue response capabilities. The recent SAFE FLAG exercise successfully demonstrated the feasibility of this concept. His briefing can be found at [TAB O](#).

17. **Robotics Division, MANSCEN DCD, Ft Leonard Wood, MO:** Mr. David Knichel provided background on the Maneuver Support Center (MANSCEN), which is TRADOC's Proponent for UGV Technology Assessment. Dave provided the history of past assessments and the future goals of the Robotics Division. His briefing can be found at [TAB P](#).

18. **US Army Counter Mine/Counter Booby Trap Center, Ft. Leonard Wood, MO:** Mr. Terry O'Donoghue gave an overview of the recently developed Counter Mine/Counter Booby Trap Center. Among several purposes of the center, one is to focus the S&T community on developing new technologies to counter mine and booby trap

threats that support countermine technologies for Objective Force assured mobility. His briefing can be found at [TAB Q](#).

19. **Technical Support Working Group (TSWG), Arlington, VA:** Mr. Bob Bezanson gave an overview of the Combating Terrorism Technology Support Office (CTTSO) and its mission to conduct the U.S. national interagency research and development program for Combating Terrorism. Specifically, he addressed the work being conducted in the area of Next Generation EOD Remote Control Vehicles (NGEODRCV). His briefing can be found at [TAB R](#).

20. **Space and Naval Warfare Systems Center (SPAWAR), San Diego, CA:** Mr. Gary Gilbreath provided a briefing outlining the work that has been accomplished in developing a Multi-Robot Operator Control Unit (MOCU) as well as future development plans. His briefing can be found at [TAB S](#).

21. **Space and Naval Warfare Systems Center (SPAWAR), San Diego, CA:** Mr. Aaron Burmeister briefed the group on the current status of the Small Mobile Robot Pool at SPAWAR and the purpose of having the pool for users to help define their requirements. He provided instructions to access the web site to determine what was available and lessons learned about each robot as well as how to request them. His briefing can be found at [TAB T](#).

22. **US Air Force Special Forces Battle Lab, Lackland AFB, TX:** SMSgt Kenneth (Mike) Mikell provided an overview of Project REDCAR. The initiative looks at the use of an integrated family of robotics platforms to carry out remote detection, challenge and response (REDCAR). His briefing can be found at [TAB U](#).

23. **NSWC DD Coastal Systems Station, Panama City, FL:** Mr. Helmut Portmann provided an briefing on Joint Unmanned Systems Common Control (J-USC2) as an ACTD candidate. This is an attempt at integrating the 4 key technology components of Machine Interface (non-proprietary), Communications (RF WAN), Open Architecture Processing (non-proprietary) and Unmanned Systems Management Interface. His briefing can be found at [TAB V](#).

24. **NEXT MEETING:** The next meeting is tentatively scheduled for June 2003 in Huntsville, Al, hosted by the Army.

25. **ADJOURNMENT/ACKNOWLEDGMENTS:** Mr. Toscano recognized the Air Force community for their contributions in hosting the JRP. The meeting adjourned at 4:15 PM.