

**ASTM International Committee on Homeland Security Applications;
Operational Equipment; Robots (E54.08.01)**



Location: Renaissance St. Louis Grand and Suites Hotel
St. Louis, MO

Date: June 7-9, 2010 (Mon-Wed), 9:00 am – 6:00 pm

The goal of the upcoming meeting of the ASTM International standards committee on Homeland Security Applications; Operational Equipment; Robots (E54.08.01) is to provide an update on each working group’s efforts with an emphasis on getting the bulk of the existing test methods to ballot. Draft standard texts and apparatus design specifications will be reviewed, along with results and feedback captured at the March 2010 Response Robot Evaluation Exercise at Disaster City, TX. Due to the short timeframe since the exercise, we expect only a small subset of our emergency responder advisory panel will be able to attend to provide guidance on our discussions, but the technical folks will press on with detailed discussions. So the focus of the meeting will be on addressing comments to the draft standard texts for each working group and discussing the balloting status.

As always, we will be briefing the entire standards committee on our progress, but the real work at these events gets done in the “breakout meetings.” These breakout meetings will focus on accomplishments that each working group is ready to discuss and allow us to dig deeper into issues and ideas. We will also refine future directions. Everyone is welcome to attend ALL the breakout meetings to contribute or simply to watch. There are often good lessons to learn from other groups further along the standards process. Since many players are involved in multiple working groups, we do these meetings sequentially as show below:

| <u>MONDAY, JUNE 7</u> | <u>LOCATION</u> |
|--|-----------------|
| <p>Mon 1:00 – 1:30 TOPIC: TERMINOLOGY (Hui-Min Huang) Discuss ASTM requirements for repeatability and reproducibility of standard test methods. Discuss proposed naming conventions for the various suites of test methods.</p> | SHAW BOARDROOM |
| <p>Mon 1:30 – 2:00 TOPIC: LOGISTICS (Ann Virts) Discuss recent changes to the Cache Packaging form, robot configuration identification including new center of gravity balance, targeted video captures (battery changes, manipulator removal, etc), and photo booth results from Disaster City exercise.</p> | SHAW BOARDROOM |
| <p>Mon 2:00 – 4:00 TOPIC: RADIO COMMS (Dennis Camell) Discuss results from Disaster City regarding new test method stations using figure-8 path with video/audio targets. Discuss status of repeatability data capture and balloting.</p> | SHAW BOARDROOM |

Mon 4:00pm – 6:00 SHAW BOARDROOM
TOPIC: SENSORS (Hui-Min Huang, Rick Norcross)
 Discuss results from Disaster City regarding new Directed Search test method apparatuses. Demonstrate and discuss new Two-Way Audio test method, and new Audio Spectrum test method. Validate robot test plan for repeatability data capture.

Mon 7:00 pm (*rally*) Hotel lobby bar

TUESDAY, JUNE 8 LOCATION

Tue 8:00 – 9:00 FLORA
TOPIC: E54.08 Committee Meeting – Operational Equipment
 Adam will represent us. Others are welcome but not required to attend.

Tue 9:00 – 11:00 ROOM 543, 5TH FLOOR
TOPIC: MOBILIY (Bill McBride, Andy Moore)
 Review draft standard documents for Slaloms (Yellow, Orange, Red terrains), Inclined Plane, Gap, Pipe Step, Stairs (wood/metal/wet). Discuss tether routing issues for figure-8 test procedures. Validate robot test plan for repeatability data capture.

Tue 11:00 – 12:00 ROOM 543, 5TH FLOOR
TOPIC: MANIPULATION (Adam Jacoff)
 Discuss results from Disaster City regarding the weighted pick and place cylinders (wood, aluminum, and steel), and reach obstacles (open, reach-over, reach-under). Validate robot test plan for repeatability data capture.

Tue 12:00 – 1:00 (*lunch*) TBD
LUNCH

Tue 1:00 – 3:00 ROOM 543, 5TH FLOOR
TOPIC: ENERGY (Karl Reichard)
 Discuss Disaster City results capturing the first 20 laps of several robots with the data logger and results of desktop cycling tests. Validate robot test plan for repeatability data capture.

Tue 3:00 – 5:00 ROOM 543, 5TH FLOOR
TOPIC: MAPPING (Chris Scraper, Alex Kleiner, Johannes Pellenz)
 Discuss maps generated earlier with new map fiducials inserted into the Random Maze, new Hallway Labyrinth, and new Feature Maze apparatuses. Validate robot test plan for repeatability data capture.

Tue 5:00 – 6:00 ROOM 543, 5TH FLOOR
TOPIC: HRI (Adam Jacoff)
 Discuss Random Maze Search test method procedure, recent results. Discuss new Navigation test method, Underbody Search apparatus, and checklist items for interface and other system capabilities. Validate robot test plan for repeatability data capture.

Tue 7:00 pm (*rally for dinner*) Hotel lobby bar
TOPIC: Discussion: anything but standards!



WEDNESDAY, JUNE 9

LOCATION

Wed 9:00am - 11:00

SHAW BOARDROOM

TOPIC: REVIEW/SUMMARY OF OPEN ISSUES

Discuss unresolved issues from previous meetings and make plans to address them.

Wed 11:00 – 12:30

MAJESTIC C

TOPIC: E54 Main Committee Meeting

- Phil represents us, Adam is a backup. All the rest can go to lunch.

Wed 1:00 – 3:00

SHAW BOARDROOM

TOPIC: ADDRESS COMMENTS, NEXT STEPS

(Done!)

OVERVIEW OF GENERAL E54 COMMITTEE WEEK

| ASTM Committee E54 | | MONDAY 6/7/2010 | | | |
|--------------------|---------------------------|------------------------------|--|--|----------|
| 7:00 AM | | | | | 7:00 AM |
| 8:00 AM | | | | | 8:00 AM |
| 9:00 AM | | | | | 9:00 AM |
| 10:00 AM | | | | | 10:00 AM |
| 11:00 AM | | | | | 11:00 AM |
| 12:00 PM | | | | | 12:00 PM |
| 1:00 PM | E54.90 Executive | E54.08 .01 Robotics Group | | | 1:00 PM |
| 2:00 PM | | | | | 2:00 PM |
| 3:00 PM | ... E54.92 Terminology | | | | 3:00 PM |
| 4:00 PM | ... | | | | 4:00 PM |
| 5:00 PM | | ... | | | 5:00 PM |

| ASTM Committee E54 | | TUESDAY 6/8/2010 | | | |
|--------------------|---|---|------------------------------|--|----------|
| 7:00 AM | | | | | 7:00 AM |
| 8:00 AM | E54.08 Operational Equipment | E54.03 Decontamination | E54.08 .01 Robotics Group | | 8:00 AM |
| 9:00 AM | ... | | | | 9:00 AM |
| 10:00 AM | | | | | 10:00 AM |
| 11:00 AM | | | | | 11:00 AM |
| 12:00 PM | | ... | | | 12:00 PM |
| 1:00 PM | E54.01 CBRNE Sensors & Detectors | E54.02 Private Sector TG | | | 1:00 PM |
| 2:00 PM | | ... E54.02 Emergency Preparedness, Training, & Procedures | | | 2:00 PM |
| 3:00 PM | ... E54.04 Personal Protective Equipment (PPE) | | | | 3:00 PM |
| 3:30 PM | | ... | | | 3:30 PM |
| 4:00 PM | ... E54.04 TG on High-Strength Materials used in Ballistic-Resistant Applications | | | | 4:00 PM |
| 5:00 PM | | | ... | | 5:00 PM |
| 6:00 PM | ... | | | | 6:00 PM |

| ASTM Committee E54 | | WEDNESDAY 6/9/2010 | | | |
|--------------------|-----------------------|------------------------------|--|--|----------|
| 7:00 AM | | | | | 7:00 AM |
| 8:00 AM | | E54.08 .01 Robotics Group | | | 8:00 AM |
| 9:00 AM | | | | | 9:00 AM |
| 10:00 AM | | | | | 10:00 AM |
| 11:00 AM | E54 Main Committee | | | | 11:00 AM |
| 12:00 PM | | | | | 12:00 PM |
| 12:30 PM | | | | | 12:30 PM |
| 1:00 PM | ... | | | | 1:00 PM |
| 2:00 PM | | | | | 2:00 PM |
| 3:00 PM | | | | | 3:00 PM |
| 4:00 PM | | | | | 4:00 PM |
| 5:00 PM | | ... | | | 5:00 PM |