ASTM F45 Meeting Notes (by Roger Bostelman)

Atlanta, GA; April 6-7, 2016

Main Committee

[20 participants]

Roger presented F45 Committee status Adam Norton presented NERVE center test facility

Docking - check def. in 91

Payload test method – future need for standard

Onboard equipment to vehicle – simple to complex (i.e., building blocks)

How to measure ground truth overtime is an area that could be a useful standard

More help is needed to develop standards. ASTM to develop a document to solicit others to support F45.

Julia Lively, Manager, Technical Committee Operations, <u>ilively@astm.org</u> will replace Pat Picariello as the new ASTM Admin Support for F45 after this meeting.

F45.91

[16 participants]

Define: close proximity

Search all doc's for test supervisor, etc.

Document ready for ballot. Next, split document into several groups of terms (e.g., 10 each) so that ballots include fewer terms for bests chance at passing.

F45.01

[9 participants]

IEC 60529 = IP Code 2013? Degrees of Protection Provided by Enclosure – dust and water

SAE J1455 – dust and humidity

IEST

Color spectrum for light intensity

Euro-standard for emission by AGV's

F45.02

[15 participants]

Defined space definition
Direction of travel

Define setback on 'b' drawing

Design the report – will help define how we make rewrites

Summarize user input ??

Paragraph on: methodology taken

F45.03

[17 participants]

Next - characterizing

What obstructions can vehicle detect?

Combination of navigation with obstacle detection/avoidance

Rated maximum speeds – throughout document

Put specific B56.5 reference to test clause i.e., clause 8

Add: Matt, Adam, Greg, Vaida

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Get Pat a list of work items. 03 will be revisited first by Mitchell and Roger and then send to Pat to form as a work item.

F45.04

[12 participants] Roger ran meeting on Irv's behalf

IEEE standards

How does Cisco measure wireless performance in hospitals?

Zigby – tool to duplicate signal frequency - use to interfere with same freq. of A-UGV comm.

Semi-conductor industry standards

Low-level comm. – e.g., A-UGV with tray station

Pinging vehicle throughout facilities using laptops

Command response

- Measure degradation
 - Disturbances e.g., storage racks

Provided infrastructure – network

OUTLINE FOR TEST METHOD

Baseline of installed infrastructure

- Maximum and Average Latency
- Normal Vehicle performance

Performance of installed A-UGV

- During deployment, typical operation and extreme operation
- Comm. conditions:

What happens when comm. is:

- Normal
- Degraded
- Lost
- Recovered
- Handed-off / node transfer

Modes of responses to comm. conditions:

- Completes the task as expected
- Fails task
- Interrupted task slower rate
- Delayed task completion
- Complete the task with human intervention
- Stops in place
- Uncontrolled motion

Methods

• Check DARPA grand challenges degradation instrumentation

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Officers Wrap-up Meeting

[7 participants]

Ballot terminology doc

- ASTM will give it to editorial staff 1 wk
- Send it back
 - o 2-3 people break-up doc in blocks of terms
 - Send to Julia

Revisit section 4 of 02

Mitchell and Roger to rewrite 03 to be more broad as performance measurement and less to dovetail with B56.5. Potential copyright issue with B56.5 that ASTM will discuss with ITSDF wrt using test piece stop distance test method in 03.

Less in docs vs. more

ASTM E54 – January and June meetings

August 8th week – NIST

Ask Dave Emanuel to present membership roster - user, manuf., other ratio

January 30th wk – Norfolk, VA

June 12th wk – Toronto

F45.01 meeting – move to Monday, Apr 18th

Talk to Malcolm and Mitchell about regular meeting days per month

- F45.01 3rd Friday/month, 10 AM 12 noon next meeting April 15th
- F45.02
- F45.03
- F45.04 1st Wed/month from 1-3 PM next meeting May 4th
- F45.91

User interest

ASTM will send out a document to recruit more interest. If full committee can each send two contacts, Pat can recruit there as well.

Pat suggests polling for a Vice Chairman to help Irv with 04.

Adjourned at 3:15 PM.