

# AESS Technical Operations

Presented to Board Officers  
By Roger Oliva, VP Technical Operations

# Panel Structure

- 1) Gyro and Accelerometer Panel
- 2) Radar Systems Panel
- 3) Space Systems Panel
- 4) Target Tracking Systems Panel
- 5) Aerospace Systems Integration Panel
- 6) Aerospace Control & Guidance Systems
- 7) Aerospace Workforce Panel
- 8) Cyber Security Panel
- 9) Unmanned Aerospace Vehicles Panel
- 10) Avionics Systems Panel

# GYRO and ACCELEROMETER

## Goals and Plans:

- expand membership with an emphasis on IMU community
- reach out to unrepresented organizations within the inertial community
- resolve all currently known errata by the end of this year
- assign legacy documents for review to appropriate committee based on due date and state of document
- Sensor and Systems Committee objectives

# RADAR

Goals and Plans: to be reported soon.

Accomplishments:

- had two Panel meetings last year. Both minutes available
- reviewed/realigned committees
  - 20 inactive members/dropped, 5 new added.
- focusing on each member to be on at least one committee
- two new committees: Civilian Radar, and Waveform Diversity
- created vice chair: M. Greco
  - focus on international and women member diversity

# SPACE SYSTEMS

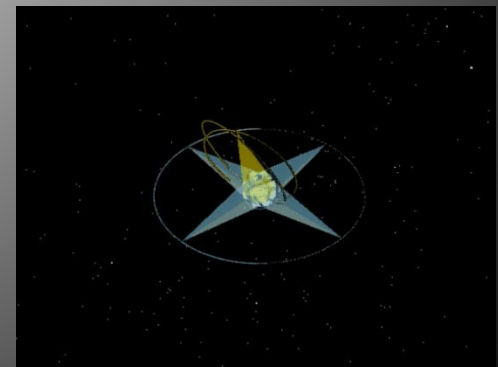
*Satellite Communications Systems*

*Space Exploration and International Space Station*

*Space-based Navigation and Synthetic Aperture Radars*

*Launch infrastructure, Range Safety and Debris mitigation*

- organizing and supporting *conferences* and workshops
- updating or generating space systems standards
- generating and reviewing papers on space systems
- maintaining a technical bibliography for space systems
- encouraging engineering education



# TARGET TRACKING SYSTEMS

Goals and Plans: to be reported soon



# AEROSPACE SYSTEMS INTEGRATION ENGINEERING

Goals and Plans: to be reported soon

# AEROSPACE CONTROL and GUIDANCE

Goals and Plans: to be reported soon



# AEROSPACE WORKFORCE

Goals and Plans: to be reported soon

“...would like someone else to lead but I would like to contribute”

# CYBER SECURITY

Goals and Plans: to be reported soon

“...has been dormant for a while and did nothing in 2012. I would like to restart the panel and revamp the plan for the panel. In particular, I think that it should focus more on embedded systems and less on general network security. I believe that this fits the IEEE membership interests. Repopulating the panel should not be a problem.”

# UNMANNED AEROSPACE VEHICLES

Goals and Plans: to be reported soon

“...has not done much as a panel per se but some of the members have been active with the universities and with other organizations that are active with remote piloted vehicles.”

# AVIONICS SYSTEMS

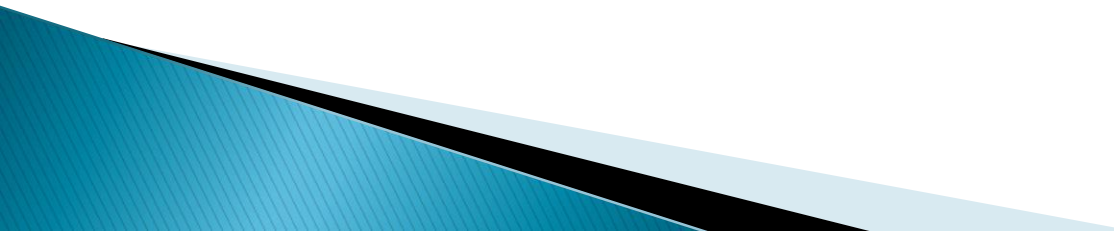
Goals and Plans: to be reported soon

“... is just starting off and we're still defining our interest areas, so any input thoughts would be appreciated.”

# BACKUP SLIDES

# What We Do?

The field of interest shall be the organization, systems engineering, **design**, development, integration, and operation of complex systems for space, air, **ocean**, or ground environments. These systems include but are not limited to navigation, avionics, **mobile electric power** and electronics, radar, **sonar**, **telemetry**, military, **law-enforcement**, **automatic test**, **simulators**, and **command and control**.







# PANEL STATUS

- Gyro and Accelerometer: more robust plan recommended
  - RADAR: seems on track
  - Space: stronger plan needed
  - Target Tracking: stronger plan needed
  - Aerospace Control and Guidance: fantastic info but stronger plan needed
  - Aerospace Systems Integration Engineering: stronger plan needed (not staffed at the moment)
  - Aerospace Workforce: stronger plan needed (not staffed at the moment)
  - Avionics: stronger plan needed
  - Cyber Security: stronger plan needed (not staffed at the moment)
  - UAVs: stronger plan needed (not staffed at the moment)
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