

MEMORANDUM

TO: AESS Board of Governors
SUBJECT: Committee on Transportation and Aerospace Policy
DATE: Fall 2013 (October 3rd, 2013)
FROM: Roger Oliva, AESS VP Tech Ops

Discussion: As previously reported, the AESS impact to this Committee will improve with a clear vector and suitable technical contributions supporting the magnitude and direction of particular efforts of interest.

Note: Roger Oliva serves as CTAP's Vice-Chair (2012-13)

- IEEE/USA President is taking action on the Committee concern that current software development efforts move forward with unnecessary complexity and may ultimately pose safety hazards.
- The Committee has also engaged on the prospects associated with the NASA Budget and is in the final stages of an IEEE/USA Position Paper to encourage investments leading to reducing cost to low earth orbit to ~\$400/lb.
- The Committee has also requested that a Department of Justice representative speak at the next meeting to clarify steps being taken and laws that will be enforced by the Bureau to assure citizens' personal privacy is maintained vs. electronic surveillance systems to include GPS tracking and aerospace generated imagery.
- Responses were submitted to "Unclean at Any Speed" from July's Spectrum. These responses discredit the author's negative perspective of EV's! An official IEEE/USA Position Paper was not prescribed beyond published support to the IEEE Transportation Electrification Initiative.
- Modifications to ITAR were also evaluated and although an official IEEE/USA Position was not published, CTAP Members did engage on this State Department activity.

Current priorities being addressed are:

- Upgrading and modernizing the national airspace system with cost-effective communications, navigation, surveillance and air traffic management technologies.
- Promoting the use of intelligent transportation systems to improve transportation safety, optimize traffic flow, ease congestion and reduce energy use.
- Advancing a technology-focused national space program that balances exploration, science, national security and international partnerships.

Proposed actions under consideration:

- International Partnerships for Space and Transportation

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- Near Earth Objects
- Near Zero Fatality Vision for Transportation
- Privacy and Security in Space and Remote Sensing
- Synthetic Aperture Radar

Other CTAP action items include:

- Obtain information on the current status of high speed rail infrastructure programs from experts.
- Seek more balanced IEEE communications on workforce shortage issues, especially in Spectrum.

Other potential issues I have shared or plan to share with CTAP are:

- Urban upgrades to **aging trains/subways** and infrastructure.
- Advances in **shipping/ocean-travel** efficiencies that can use aerospace technologists.
- Aerospace research science in partnership with **oceanographic exploration**.
- **Nano-electronics integration** with applications for avionics, remote sensing, communications, and computing.
- **Alternative energy solutions** to the transportation and aerospace infrastructure.
- **Embedded software security** concerns and recommended solutions.
- **Electric flight** advanced research, development, and implementation planning.

We have requested that CTAP identify ways by which the AESS BOG can better support its activities.

Recommendations: (a) Each AESS Board Member identify areas for collaboration, and identify areas that are absent that we would like to engage on (Recommended suspense, 11/1/13). (b) Send amended list of Systems Engineering interest items to include some of those listed above to Chapter Chairs for Chapter distribution and insight (Recommended suspense, 11/1/13). (c) Engage CTAP with Implementation Strategy to impact change (Recommended suspense, 11/4/13).