



## **Approved by General Counsel**

TR-34 Meeting Report

Date(s): 12/10/2015 - 12/10/2015

Location: TIA

Approved: 12/21/2015

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**TITLE:** TR-34 Meeting Report

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**DATE:** December 10, 2015

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**RECOMMENDATION:** Review and Approve

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**TR 34 Engineering Committee**  
**SATELLITE EQUIPMENT & SYSTEMS**  
**MEETING REPORT**  
**December 10, 2015**

**1. Call to Order and Introduction**

The Standards Committee, Satellite Equipment & Systems, TR-34, met at TIA's headquarters, 1320 North Courthouse Road, Arlington, Virginia and via teleconference. The Chair welcomed the participants and called the meeting to order at approximately 9:00 a.m.

GoToMeeting Dial-In & Screen Share Provided prior to meeting

The meeting ID for signing in was announced at the meeting.

**IMPORTANT NOTICE OF PARTICIPATION**

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**Intellectual property rights (early disclosure policy)**

The chairman read the TIA IPR statement, as found in the TIA Standards Development Procedures.

“TIA's Intellectual Property Rights Policy can be found in Statements of Policy (ANNEX D) and other clauses and annexes of this document. Participants in the work of the TIA Formulating Groups are urged to review the appropriate sections. Individual participants are encouraged to notify TIA of any patent(s) or published pending patent application(s) of which they are aware that may be essential to the practice of a proposed TIA Publication, including requirements introduced through normative references, early on in the development to reduce the possibility for delays in the development process and increase the likelihood that the proposed TIA Publication will become a Standard. However, a Patent Holder who has provided TIA with a TIA Patent Holder Statement with respect to the applicable proposed TIA Publication need not (but may elect to) identify its specific patent(s) or published pending patent application(s) that may be essential to the practice of the proposed TIA Publication in question. Patent searches are not required to comply with the TIA Intellectual Property Rights Policy.”

“TIA has an Intellectual Property Rights (IPR) Policy. We call to the attention of participants and attendees that TIA's Policy is to encourage, but not require, the voluntary disclosure (preferably early) of Essential Patent(s) and published pending patent application(s) that may be essential to the practice of a TIA Publication. Such disclosures are to be made following the procedures of

the TIA Intellectual Property Rights Policy. Additional information can be found in the TIA Intellectual Property Rights Guidelines.”

Participants in the work of the TR-34 are urged to review this policy. Participants were encouraged to notify TIA of any patents of which they are aware that are related to the practice of TIA publication early in the development of the TIA document to reduce the possibility for delays in the development process and increase the likelihood that the draft TIA publication will be approved for publication. If there is knowledge of patents, the use of which may be essential to any documents being considered by TIA TR-34. No new IPR was identified.

## 2. Attendance Registration

The meeting was attended by the following:

<b>Name</b>	<b>Company</b>
Noerpel, Tony	Hughes Network Systems
Jenkins, Teesha	TIA
Kramáriková, Marianna	TIA
Rozycki, Max	TIA
Beljour, Herald	CIV USARMY RDECOM
Hand, Jim	AASKI Technology, Inc.
Janardhan, Raghu	Hughes Network Systems
Reinking , Todd	Welkin Sciences
Mathes, Ray	Harris Corporation
Beeler , Michael	Comtech EF Data
Scardino , Paul	Globecomm

Quorum was achieved.

Apologies received:

None

## 3. Review and Approval of the Agenda

The proposed agenda, contribution 12.15.01, was modified to include legal verbiage to reflect TIA’s new operating procedures, then approved.

## 4. Introduction and Numbering of Contributions

Contributions and associated numbers received for this meeting were the following:

<b>Number</b>	<b>Title</b>	<b>Source</b>	<b>Notes/Disposition</b>
12.15.01	Meeting_Notice_Agenda	Tony Noerpel Chair	Approved
12.15.02_r0	TR 34 meeting report December , 2015	Tony Noerpel Chair	Review & approve by correspondence
12.15.03	Comment disposition to FAST document	Raghu Janardhan	comments

Number	Title	Source	Notes/Disposition
12.15.04	Draft standard FAST, version 1.1, November 13, 2015	Herald Beljour	Review and approve

## 5. Review and Approval of Meeting Report

Motion to approve TR-34 meeting report from 09/17/2015 was approved unanimously by voice vote.

The meeting report from this meeting, contribution 12.15.02, shall be circulated and approved by email after the meeting.

## 6. Correspondence and Liaisons

Tony Noerpel (Chair) reported on ETSI activities. TIA TR-34 has a liaison with ETSI SES MARESV to review and comment on technical reports regarding antenna performance characterization for GSO and NGSO mobile applications. TIA TR-34 has a liaison with ETSI SES SCN to review and comment on technical reports regarding receiver requirements. The Chair reported on new proposed receiver requirements for GNSS receivers in ETSI.

No DVB activity to report.

## 7. Ballot Results

The committee voted after discussion to ballot for approval the ANSI/TIA-5041 FUTURE ADVANCED SATCOM TECHNOLOGIES (FAST) OPEN STANDARD DIGITAL-IF INTERFACE (OSDI) FOR SATCOM SYSTEMS with one abstention. The ballot is to be open for 45 days. TIA staff Teesha Jenkins and Marianna Kramáriková explained the TIA balloting process as well as ANSI rules associated with balloting and approval of standards.

## 8. Working Group Activities

Two working group meetings were held to review the ANSI/TIA-5041 FUTURE ADVANCED SATCOM TECHNOLOGIES (FAST) OPEN STANDARD DIGITAL-IF INTERFACE (OSDI) FOR SATCOM SYSTEMS to be submitted to ANSI as a standard. Comments on the proposal for a standard were solicited. Raghu Janardhan, the document rapporteur, reported on the disposition of all comments. Dates of working group meetings were Thursday October 15, 2015 and Thursday November 19, 2015.

Comments were solicited as part of our liaison with ETSI SES on the drafting of receiver standards for GNSS receivers.

## 9. New Business

The Chair requested members to consider new activities associated with GEO, LEO satellite standards and regulatory affairs, in particular ITU's Public Consultation on 2016-2019 Strategy in which TIA TR-34 might participate. Members should consider of high altitude platforms, spectrum sharing issues, new frequency bands such as Q, V and W bands and opportunities related to 5G standardization.

Vice Chairman Lars Erup has retired. Nominations are solicited. Herald Beljour nominated Jim Hand as a candidate for the open Vice Chair position. Hand is considering the nomination.

**10. Assignments from the last Meeting**

- The Chair to continue as liaison to DVB. On-going
- The chair to continue as liaison to ETSI SES. On-going
- All to review FAST document. Completed

**11. Future Work and Assignments**

- Comments solicited from committee on draft FAST document. An ad hoc working group teleconference was scheduled for.
- The chair to continue as liaison to ETSI SES.
- Raghu Janardhan to begin editing the DRAFT FAST document.

**12. Future Meetings**

The Working Group agreed to meet on the Thursday February 18, 2016 with the option to meet earlier if there is need.

**13. Adjournment**

The meeting was adjourned at 10:30 a.m.

This meeting was conducted in accordance with the TIA Legal Guide and the engineering procedures.