



BUILDING GLOBAL COMMUNICATIONS

## Approved by General Counsel

TR-8 Meeting Report

Date: 10/06/04

Location: St. Louis, MO

Approved: 10/14/04

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**TELECOMMUNICATIONS INDUSTRY ASSOCIATION**  
Meeting Report  
TR-8 Mobile and Personal Private Radio Standards Committee

PRESIDING: Alan Wilson, Vice Chairman

DATE/TIME: October 6, 2004

LOCATION: St. Louis, MO

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1. Call to Order

The chair called the meeting to order at 14:10.

2. Record of Attendance

The chair circulated the TIA attendance rosters. A list of attendees is attached. The attendance rosters were forwarded to TIA. The chair did a roll call to determine a quorum of 22 out of 27 voting members.

3. Approval of Agenda

Terry Mansfield moved to approve the agenda. Steve Nichols seconded. The motion passed unanimously.

4. Approve Meeting Notes of August 5, 2004

Terry Mansfield pointed out that Al Wiczorek was still listed as presenting the TR-8.6 report instead of Terry Mansfield. The chair acknowledged the comment and said he would correct the notes. Harrison Reves moved to approve the meeting notes. Joe Noce seconded. The motion passed unanimously.

5. Identify Intellectual Property Rights

The chair explained that the TIA patent policy is given in the Engineering Manual. The chair asked if anyone wanted to disclose any patents for any documents in TR-8. No patents were disclosed.

6. Review Status of Old Assignments

No old assignments were recorded from the meeting of August 5, 2004.

7. TR-8.1 Measurement Procedures – Terry Mansfield.

PN 3-4231 RV3: TIA-603-C Methods of Measurements– Publication held due to a technical issue.

PN 3-4232 RV2: TIA-102.CAAA-B Method of Measurement – Publication held due to a technical issue.

PN 3-4232 RV3: TIA-102.CAAA-C Method of Measurement – Draft 3 submitted for review.

PN 3-0168: TIA-902.CBAA – Wideband Data Methods of Measurement, IOTA – Issue D submitted for review.

PN 3-0087: TIA-905.CAAA Wideband Data Methods of Measurement – Issue I submitted for review.

The TDMA Off-Slot Power measurement method issues were resolved and the method was accepted as proposed.

In preparation for ballot consideration of TIA-902.CBAA issue D review and comment, and issue E submission, the dates of November 17 and December 3 respectively were set.

TR-8.1 passed a motion approving TR-8.18 to include the Expanded Delay Spread Method in TSB88.

8. TR-8.3 Encryption – Richard Brockway  
TR-8.3 did not meet in October. The subcommittee was scheduled to meet in January 2005.
9. TR-8.4 Vocoder – Rich Frye  
New Project:
  - PN-3-0201, TSB-102.BABE, P25 Vocoder Evaluation MOS TestProjects due for re-affirmation:
  - TIA/EIA-102.BABB
  - TIA/EIA-102.BABCThe discussion of these two documents was tabled by TR-8.4 until further action in other committees affecting Vocoder documents.
10. TR-8.5 Data – Jeff Anderson  
TR-8.5 did not meet in October. There was no activity to report. The subcommittee was scheduled to meet in January 2005.
11. TR-8.6 Transceiver Performance – Terry Mansfield
  - PN 3-4231-RV3: TIA-603-C Methods of Measurements– Publication held due to a technical issue.
  - PN 3-4613 RV2: TIA-102.CAAB-B Method of Measurement – Published 7/20/04.
  - PN 3-4613 RV3: TIA-102.CAAB-C Method of Measurement – Draft 2 submitted for review.
  - PN 3-0171: TIA-902.CBAB Wideband Data Methods of Measurement, IOTA – Issue C submitted for review.
  - PN 3-4924: TIA-905.CAAB Wideband Data Methods of Measurement – Issue I submitted for review.

EADS was to provide additional explanation on the proposed F4FM Half Rate Modulation sensitivity limit value. EADS presented an overview of channel equalizer techniques.

12. TR-8.7 SDR

TR-8.7 had no chairman and it did not meet in October.

13. TR-8.8 Broadband Data Systems – Larry Nyberg

TR-8.8 reviewed progress on the development of a proposed work plan leading to the development of a broadband interoperable standard. During discussions, the committee was made aware of recent action in which the FCC clarified the definition of power in the unlicensed bands, specifically in section §15.407. TR-8.8 then unanimously passed a motion requesting that TR-8 request that PRS forward to the Commission a recommendation to similarly clarify the definition of power relative to the 4.9 GHz spectrum by making §90.1215 consistent with §15.407. A motion was made by Bob Speidel of Tyco, and seconded by Terry Mansfield of Motorola, and was unanimously passed.

Larry Nyberg made a motion, seconded by Bob Speidel, requesting that PRS recommend to the Commission that the Commission clarify the definition of power relative to the 4.9 GHz spectrum by making §90.1215 consistent with §15.407. There was no further discussion. The motion passed unanimously.

14. TR-8.10 Trunking and Conventional Control – Stan Hansen

PN-3-4623: TIA-102.AABB-A “Project 25 – Trunking Control Channel Formats” – voted to send to TIA publication

PN-3-4661: TIA-102.AABC-B “Project 25 – Trunking Control Channel Messages” – voted to send to TIA publication

PN-3-3629: TIA-102.AABD-A “Project 25 – Trunking Procedures” – A revision was available on the server for comment. Motorola reviewed EADS comments of August 19 and Motorola’s response. EADS will provide a Threat Document by end of October for Unauthorized Radio Inhibit, and Unauthorized Radio Unit Monitoring. EADS, M/A-Com, and Motorola will respond in January. Recommended once features are through UNS, then TR-8.10 updates control channel messages to incorporate those features. Motorola will update for inter-system roamers by January.

PN-3-3603: TIA-102.AABF-A “Project 25 – Link Control Word Formats and Messages” - Sent to TIA for publication in September. M/A-Com is looking into updating unit identity fields.

PN-3-3604: TIA-102.AABG “Project 25 – Conventional Control Messages” – Tait is looking into an addendum for telephone interconnect.

Nominations remained open for Vice-Chair.

15. TR-8.11 Antennas – Lou Meyer

WG-4 – Reaffirmation of the existing TIA-329-B-1 with corrections, updates and additions. The final document was renamed TIA-2329. This WG had monthly conference calls headed by Alan Davidson. Their latest report and working document PN-3-4606e was on the server.

WG-5 – ‘Antenna System’ Return Loss comparisons to ‘Antenna only’ Return Loss. Lou Meyer polled interested parties and expected to have some activity started by the next meeting.

WG-6 – Standard Format for Digitized Filter Characteristics.  
The TIA-929 Standard was published.

WG-7 – Signal Booster Standards

There was one additional conference call since the Montreal meeting, and good progress was made. PN 3-0167c2 was on the server.

16. TR-8.12 Two-Slot TDMA – Ernie Hofmeister

PN-3-0044 (to develop TIA-905.BAAA, Two-Slot TDMA Common Air Interface Physical Layer)

This document continued in the ballot resolution process. A working session was held in Denver on September 8 and 9, 2004 to review the then current revision of the document, PN30044\_TIA905BAAA\_prop\_M (TR8.12-04-08-22), and discuss outstanding issues. This discussion continued in the October 6, 2004 TR-8.12 meeting in St. Louis. Because of the close coupling of the physical layer document and the MAC layer document (PN-3-0073 to develop TIA-905.BAAC MAC Layer), there was general agreement in the committee to address both documents together in TR-8.12 subject to concurrence of the TDMA Task Group where the primary recent work on the MAC layer document has been done.

PN-3-0073 (to develop TIA-905.BAAC, Two-Slot TDMA Common Air Interface MAC Layer)

Work continued on the drafting of this document primarily in the TDMA Task Group. Per the note above, there is consideration to move this document into TR-8.12 and work on both the Physical Layer and MAC Layer documents together.

PN-3-0074 (to develop TIA-905.BAAD, Two-Slot TDMA Common Air Interface LLC Layer)

Work is continued on the drafting of this document in the TDMA Task Group.

17. TR-8.15 Common Air Interface – Alan Wilson

TR-8.15 did not meet this month. The next meeting was scheduled for January 2005.

18. TR-8.17 RF Exposure – Bob Speidel

PN-3-0120 (Development of TSB-150 outlining suggested report format for RF Exposure SAR Test Reports on portable equipment) – Received unanimous approval to authorize ballot of the draft of TSB-150 dated 10/1/2004. Chairman will complete necessary ballot authorization forms with TIA upon return to office and provide TIA with copies of the document needed for ballot.

PN-3-0200 (Development of TSB-159 outlining suggested report format for RF Exposure Compliance Reports on mobile equipment) – Project Initiation form completed and Project Number received for this new subcommittee action.

The Chairman reported there is no encryption source code in any of the documents under the jurisdiction of this subcommittee

19. TR-8.18 Wireless Systems Interference and Coverage – Bernie Olson

PN-3-4744: TSB-88-B was published when the TIA resolved the Trademark Issue with a September publication date.

PN-3-4744.1: TSB-88-B.1 was being drafted. Requested comments by 11/17 so that a new version can be circulated with the goal of approval for publication in January.

The current draft versions of 88.1, 88.2 and 88.3 were presented. Work to incorporate data began and inputs were requested.

Simulcast delay spread of greater than 30  $\mu$ S cannot be limited to VHF. It needs to be applied to all bands principally due to high sites causing high delay spread close to the base of the sites.

Automated roaming of Phase 2 systems recommendation for frequency coordination based on a -8 dB C/I, the 48 dB $\mu$  adjacent channel contour vs. the 40 dB $\mu$  Service Area contour. Intra Phase 1 systems still not agreed upon. Most of these scenarios are pre-existing.

20. TR-8.19 Wireline Systems Interface – Jerry Drobka

TR-8.19 continued to work on PN-3-3796-UG, TIA-102.BACA-A, ISSI Messages and Procedures.

TR-8.19 had new project and document number for the Console Subsystem Interface Overview. The project number was PN-3-0193 and the document was TSB102.BAGA.

TR-8.19 was going to be working on an Addendum to TIA-102.BADA for Conventional PSTN Interconnect. A project number will be taken out before the next meeting.

Due to discussion during the Montreal meeting the TR-8.19 chairman sent a letter to the chairman of TR-8 asking him to forward it to APIC asking for review and recommendations for developing NM standards. The thought was that APIC could approach the users regarding help in this area. The chair did not believe this item was forwarded to APIC. The chair put the note in APIC's folder on the server.

## 21. TR-8 Documents

Jim Downes put the next draft of PN-3-0150, Interoperability Test Procedures for Trunking Voice, on the server. Eldon Haakinson indicated that another revision will be necessary to change the test for system-wide calls. Jim and Eldon anticipated that the revised document would be sent to the members of TR-8 before the meeting in January 2005.

## 22. New Business

- Encryption Source Code

The chair explained that TIA had to comply with Export Administration Regulations as given by the US Department of Commerce. These regulations pertain to the export of various technologies, and particularly encryption source code. TIA therefore requested TR-8 to review documents by subject matter experts for encryption source code. The chair reminded everyone that he had mentioned this topic in every TR-8.x subcommittee meeting. The document review is especially focused on the TR-8.3 Encryption subcommittee. The chair also requested the APIC task groups to review documents for encryption source code.

The TIA specifically requested a review of these four documents currently on hold by TIA staff.

- TIA-102.AAAC, *DES Encryption Conformance*
- TIA-102.AACC, *OTAR Conformance*
- TIA-102.AACD, PN-3-0130, *Key Fill Device*
- TIA-102.BAAB-B, PN-3-3525RV2, *CAI Conformance*

An additional five documents are listed under the responsibility of TR-8.3, and also subject to review.

- TIA/EIA-102.AAAA-A, *DES Encryption Protocol*
- TIA-102.AAAB, *Security Services Overview*
- TIA/EIA-102.AAAD, *Project 25 Block Encryption Protocol*
- TIA/EIA-102.AACA &-1, -2; *OTAR Protocol*
- TIA-102.AACB, *OTAR Operational Description*

The chair named the following experts to review the documents. The chair designated Mike Bright to lead the review. The experts are to report to TR-8 in January and also the Private Radio Section Ad Hoc committee on export control.

- EADS – Roy McClellan
- EFJ – Mark Nispel
- FBI – Harrison Reves

- FPIC – Bill Pomper
  - M/A-COM – Tom Hengeveld
  - Motorola – Mike Bright
  - Thales – Dave Vander Staay
- Update Standards referenced by FCC
 

The following TIA standards were included in the FCC regulations. The FCC regulations needed to be updated with the latest versions of the standards.

    - ANSI/TIA/EIA-102.BAAA, *Project 25 FDMA Common Air Interface*, September 2003
    - ANSI/TIA/EIA-102.BABA, *Project 25 Vocoder Description*, December 2003
    - ANSI/TIA/EIA-102.BAEA-A, *Project 25 Data Overview*, June 2004
    - ANSI/TIA/EIA-102.BAEE-A, *Project 25 Radio Management Protocol (RMP)*, June 2004
    - ANSI/TIA/EIA-102.AAAD, *Block Encryption Protocol*, July 2002
    - ANSI/TIA/EIA-102.BAEB, *Project 25 Packet Data Specification*
      - To be submitted to default ballot by TR8.5
    - TIA-902.BAAB has been upgraded to ANSI as TIA-902.BAAB-A (SAM Physical Layer)
    - TIA-902.BAAD has been upgraded to ANSI as TIA-902.BAAD-A (SAM Radio Channel Coding Layer)
    - These 4 TIA standards will upgrade to ANSI standards in the next 6-9 months.
      - TIA-902.BAAC
      - TIA-902.BAAE
      - TIA-902.BAEB
      - TIA-902.BAAF

Wayne Leland moved to affirm the ANSI/TIA standards for the Private Radio Section to request updates in the FCC regulations. Steve Nichols seconded the motion. There was no further discussion so the chair called the question. The motion passed unanimously.

- Project MESA Technology Review
 

A new draft (September 2004) of SYS0070008v123, *“Technologies with Potential Applicability to Project MESA”* was available for comment before the next meeting of Project MESA on October 19-22. It is requested that PRS and or TR-8 review relevant portions of this document and provide updates and comments back to TIA staff by October 12 for collection into one MESA input document. Specifically, section six involves Project 25 and it may be useful to include additional information on Wideband Data Project, P25/34.

Larry Nyberg volunteered to review the document.



23. Review of New Assignments

- Jim Downes to circulate revised draft of PN-3-0150 before the next TR-8 meeting.
- Larry Nyberg to review Project MESA Technology document.

24. Schedule Next Meeting

The next meeting is scheduled for the week of 10-14 January 2005 in Mesa AZ. After some discussion the committee recommended a subsequent meeting for the week of 18-22 April 2005 in Charleston SC. This avoided the Easter date of 27-March and the IWCE meeting the following week. The meeting schedule for 2005 is as follows.

- 10-14 January           Mesa AZ
- 18-22 April             Charleston SC
- June                     Seattle, Buffalo, or Vancouver
- August                 Denver CO
- October                 Pittsburgh PA

25. Adjourn

Bob Speidel moved to adjourn. Harrison Reves seconded. The motion passed and the meeting was adjourned at 15:20.

This meeting was conducted in accordance with the TIA legal guides and manual of organization and procedure. The attendance roster has been filed with the TIA Engineering Department.

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Alan Wilson  
TR-8 Vice Chairman

**Attendance TR-8**

**6-October-2004**

**St. Louis MO**

**Person**

**Company**

Rob Barden	Aeroflex
John Powell	APCO International
Jim Blocker	Booz, Allen & Hamilton
Joe Noce	City of Mesa
Mark Putnam	Customs & Border Protection
Robert Small	Daniels Electronics
Irwin Morse	Datron World Communications
Hubert Azemard	EADS-DSN
Bill Book	EADS-DSN
Gerard Marque-Pucheu	EADS-DSN
Roy McClellan	EADS-DSN
Neville Rego	EADS-DSN
Francois Piroard	EADS-DSN
Richard Brockway	Etherstack
Charles Lee	FBI
Harrison Reves	FBI
William Sanchez	Harris
Masaaki Takahashi	Icom America
Edwin Kelley	Interoperable Wireless
T.J. Glidden	JITC
Joel Berger	Kenwood USA
David Berneking	Midland Radio
Alan Wilson	Motorola
Terry Mansfield	Motorola
Wayne Leland	Motorola
Steve Adler	Motorola
Bernie Olson	Motorola
Mike Bright	Motorola
Jerry Drobka	Motorola
Stan Hansen	Motorola
Andy Davis	Motorola
Manny Kahana	Motorola
John Lambrou	Motorola
Ariel Sharon	Motorola
Randy Bloomfield	NCS
Jackson Chan	Nortel
Rich Frye	Orbacom Systems
Don Pfohl	Oregon State Police
Steve Lombardi	Smartlink Radio Networks
Dan Murphy	Smartlink Radio Networks
Glen Nash	State of California
Bruce Meyers	State of Florida
Richard Roley	State of Georgia
Maribel Martinez	State of New York

Paul Daigneault	Tait
Rex Nisbet	Tait
Brian Conrad	Technisonic
Steve Nichols	Thales Communications
David Vander Staay	Thales Communications
John Derr	TIA
Robert Speidel	Tyco Electronics
Ernest Hofmeister	Tyco Electronics
Mac Hartless	Tyco Electronics
John Kimmons	Tyco Electronics
Jim Downes	US Department of Homeland Security
Eldon Haakinson	US Dept of Commerce
Randy Richmond	Zetron