



**Telecommunications Industry Association**

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**Approved by General Counsel**

TR-8.18

Meeting Date(s): 5 February 2020

Location: Renaissance New Orleans Pere Marquette French Quarter  
Area Hotel – New Orleans, LA

Approved: 13 February 2020

# TR-8.18 Wireless Systems Compatibility – Interference and Coverage Meeting Report

20-007

**Presiding:** Jim Eastwood, Chairman 360-303-3274 / jim.eastwood@motorolasolutions.com  
**Date:** Wednesday, February 5, 2020  
**Place:** Renaissance New Orleans Pere Marquette French Quarter Area Hotel

## Participation Notice

TIA is actively seeking participation in projects from the “User” and “General Interest” communities.

## Important Notice for Participation

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of and agreement to be bound by all provisions of TIA Standards Development Procedures and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA’s web site, in whole or in part, on a non-exclusive basis by TIA or TIA’s licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by the head of the TIA Standards Department on a case-by-case basis.

## Intellectual Property Rights (IPR) Policy and Early Disclosure Request

TIA’s Intellectual Property Rights Policy can be found in Statements of Policy (ANNEX C) and other clauses and annexes of TIA Standards Development Procedures. 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.

### 1. Call to Order:

The Chair called the meeting to order at approximately 11:10 Central Time (New Orleans local time) and volunteered to act as secretary. The Chair indicated that all relevant documents are in the TR-8.18 folder of the “TR-8 2020-02 New Orleans” library on TIA Connect.

### 2. Record of Attendance:

Participants were advised to record their attendance with TIA staff and a summary of the attendance is provided later in this report. A quorum was established with 20 of 21 eligible voting organizations present.

### 3. Review and Approve Agenda:

The Chair noted that the meeting agenda had been distributed prior to the meeting and that it is available as 20-001. The Chair then called the participants’ attention to the Participation Notice and Important Notice for Participation (see above) and asked for a motion to accept the February meeting agenda. Dwight Smith moved, and Bernie Olson seconded, a motion to accept the February meeting agenda as written. The motion passed unanimously by voice vote.

### 4. Review and Approve Last Meeting Report:

The Chair noted that the previous meeting report had been distributed by TIA prior to the meeting and that it is available as 19-013. The Chair then asked for a motion to accept the October meeting report. Dwight Smith moved, and Bernie Olson seconded, a motion to accept the October meeting report as written. The motion passed unanimously by voice vote.

### 5. TIA IPR Policy:

The Chair called the participants’ attention to Note 2 on the meeting agenda for information regarding the TIA IPR Policy (see above) that was read to the participants earlier in the day. The Chair asked the question “is there knowledge of patents, the use of which may be essential to any document being considered during this meeting that anyone would like to disclose at this time”? There was no new IPR identified.

## 6. Old Business:

The Chair called the participants' attention to 20-005 for a summary of subcommittee activities since the previous meeting. The Chair then called the participants' attention to slide 2, and noted that no conference calls were held since the October meeting.

### **a. Disposition of TIA-PN-88.2-F Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 2: Propagation and Noise:**

The Chair called the participants' attention to slide 3 and indicated that the TIA assigned project number for the 7<sup>th</sup> Edition is TIA-PN-88.2-F. The Chair also indicated that Motorola Solutions is the editor and that it is a Working Group 2 document.

The Chair provided the following recap of the status that was provided during the October 9<sup>th</sup> quorum meeting:

- Motorola Solutions identified an issue regarding the Local Clutter Attenuation values being required by consultants in cases where they do not necessarily apply
- Softwright noted that the reference to NLCD 2011 should be updated to recently released NLCD 2016 (National Land Cover Database)
- ACD Telecom proposed a new subclause for "Seasonal Variation"
- Various organizations proposed combining Tables 2 – 5 as a result of the proposed revisions
- Working Group 2 held six conference calls to discuss the preceding items in the June – September timeframe

The Chair indicated that Motorola Solutions and Softwright proposed revisions to the Environmental RF Noise text and tables during the November 12<sup>th</sup> Working Group 2 conference call. The Chair also indicated that Working Group 2 held six conference calls since the October quorum meeting to discuss and revise the Revision F draft proposal. The Chair then indicated that there was consensus among those present during the January 28<sup>th</sup> Working Group 2 conference call that the Revision F draft proposal is ready consideration to ballot. The Chair proceeded to slide 4.

Subsequent to the January 28<sup>th</sup> Work Group 2 conference call, Motorola Solutions identified a concern with the vegetation seasonal path-loss range specified in the 2<sup>nd</sup> paragraph of section 6.8.3. Motorola Solutions worked with CSI Telecommunications and found that the range included frequencies greater than 1 GHz; so incorporated a change to reduce the range from "2.5 to 5 dB" (was previously "2.5 to 7 dB"). This change was incorporated in the 20-004 Revision F draft proposal that was distributed February 4<sup>th</sup>. Since this range is more appropriate than the range that was discussed during the January 28<sup>th</sup> conference call, the Chair proposed that it would still be appropriate to consider the Revision F draft proposal for ballot and handle any additional concerns during ballot comment resolution.

The Chair asked if there was any discussion. None was offered.

The Chair then asked if there was a motion from the floor to issue a ballot for Revision F of TSB-88.2.

Tom Rubinstein moved, and Todd Summers seconded, a motion to issue a ballot for contribution 20-004, Revision F draft proposal for the Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 2: Propagation and Noise 7<sup>th</sup> Edition, with project number TIA-PN-88.2-F. The motion passed unanimously by voice vote. The Chair took an assignment to submit a Ballot Authorization form to the TIA Standards Department for the Revision F draft proposal.

The Chair indicated that the next Working Group 2 conference call is scheduled for March 17<sup>th</sup> at 4pm eastern time, 1pm pacific time.

**b. Disposition of TIA-PN-88.1-E Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 1: Recommended Methods for Technology-Independent Narrowband Performance Modeling:**

The Chair called the participants' attention to slide 5 and indicated that the TIA assigned project number for the 6<sup>th</sup> Edition is TIA-PN-88.1-E. The Chair also indicated that the document was published in November 2018, Softwright was the document editor, and that it is a Working Group 1 document.

The Chair indicated that CSI Telecommunications identified the possibility of near-far interference issues for radios with wide pre-selectors in proximity of short-tower cellular systems at 700 and 800 MHz that may impact TSB-88.1-E and/or TSB-88.3-E. The Chair also indicated that Working Group 1 held six conference calls since the October 9<sup>th</sup> quorum meeting to discuss/refine the content regarding the issues under consideration, but most of the meeting time was regarding content for Revision F of TSB-88.3 which is covered in the next agenda item. The Chair then indicated that Working Group 1 is continuing to discuss/refine the content for the near-far interference issue.

Todd Summers indicated that he recently received addition input for CSI Telecommunications and that information will be discussed during Working Group 1 conference calls.

The Chair indicated that the next Working Group 1 conference call is scheduled for February 18<sup>th</sup> at 3pm eastern time, noon pacific time.

**c. Disposition of TIA-PN-88.3-E Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 3: Recommended Methods for Technology-Independent Narrowband Performance Verification:**

The Chair called the participants' attention to slide 6 and indicated that the TIA assigned project number for the 6<sup>th</sup> Edition is TIA-PN-88.3-E. The Chair also indicated that the document was published in November 2018, Softwright was the document editor, and that it is a Working Group 1 document.

The Chair indicated that L3Harris identified an issue regarding the use of attenuators during coverage verification testing and provided draft text to address the issue. The Chair also indicated Motorola Solutions provided proposed revisions to the draft text. The Chair then indicated that CSI Telecommunications identified the possibility of near-far interference issues for radios with wide pre-selectors in proximity of short-tower cellular systems at 700 and 800 MHz that may impact TSB-88.1-E and/or TSB-88.3-E and has proposed some initial content.

The Chair indicated that Working Group 1 held six conference calls since the October 9<sup>th</sup> quorum meeting to discuss/refine the content regarding the issues under consideration. The Chair also indicated that the latest draft proposal for Revision F of TSB-88.3 is 20-003-R1 which is still a work in progress. The Chair then indicated that the content regarding the use of attenuators during coverage verification testing is basically complete, but Working Group 1 is continuing to discuss/refine the content for the near-far interference issue.

The Chair indicated that it was the consensus of those present during the January 28<sup>th</sup> conference call that it would be appropriate to consider opening a project for Revision F of TSB-88.3. The Chair then asked if there was a motion from the floor to open a project for Revision F of TSB-88.3.

Todd Summers moved, and Bernie Olson seconded, a motion to open a project for Revision F of TSB-88.3 Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 3: Recommended Methods for Technology-Independent Narrowband Performance Verification with scope of addressing the content proposed by Working Group 1. The motion passed unanimously by voice vote. The Chair took an assignment to submit the appropriate form to the TIA Standards Department to open a project for TIA-PN-88.3-F which would ultimately be published as TSB-88.3-F.

The Chair indicated that the next Working Group 1 conference call is scheduled for February 18<sup>th</sup> at 3pm eastern time, noon pacific time.

**d. Work Summary:**

The Chair called the participants' attention to slide 7 for a summary of current and future work items for the subcommittee and provided a brief statement regarding each one.

The Chair indicated that the draft proposal for Revision F of TSB-88.2 Propagation and Noise was approved for ballot.

The Chair indicated that Working Group 1 is continuing to review the near-far interference issue at 700/800 MHz and make recommendations regarding possible revisions to the Recommended Methods for Technology-Independent Narrowband Performance Modeling Revision E (TSB-88.1-E) and/or revisions to the Recommended Methods for Technology-Independent Narrowband Performance Verification Revision F (TSB-88.3-F) work in progress.

The Chair indicated that Working Group 1 has reviewed the L3Harris proposal and refined the content in a Revision F draft proposal for TSB-88.3 and that a project was approved for Revision F of the Recommended Methods for Technology-Independent Narrowband Performance Verification.

The Chair indicated that the new TSB "NOTICE" page has been applied to all TSBs published by TR-8.18 except TSB-88.2-E since that document will be cancelled and replaced by TSB-88.2-F later this year.

The Chair then called the participants' attention to slide 8 for a summary of TIA documents published by this subcommittee and noted that the summary is provided for informational purposes.

**7. New Business:**

The Chair asked if there was any new business to bring before the TR-8.18 subcommittee. None was offered.

**8. Review of Assignments:**

The Chair was to submit an Existing Project Request form to the TIA Standards Department for revision of project number TIA-PN-88.2-E, Wireless Communication Systems Performance in Noise and Interference-Limited Situations Part 2: Propagation and Noise. [Complete]

The Chair is to hold a 15-day email quorum vote to approve the TSB-88.2 Revision F draft proposal for ballot once drafting in Working Group 2 is complete. [Not necessary, ballot approved during this meeting]

The Chair is to submit a Ballot Authorization form to the TIA Standards Department to issue Ballot TIA-PN-88.2-F for the Wireless Communication Systems Performance in Noise and Interference-Limited Situations Part 2: Propagation and Noise Revision F draft proposal 20-004. [New]

The Chair is to submit an Existing Project Request form to the TIA Standards Department for revision of project number TIA-PN-88.3-E, Wireless Communication Systems Performance in Noise and Interference-Limited Situations Part 3: Recommended Methods for Technology-Independent Narrowband Performance Verification. [New]

**9. Schedule Next Meeting:**

The Chair requested 30 minutes of meeting time on the schedule for the next meeting.

**10. Adjourn:**

Dwight Smith moved, and Jerry Drobka seconded, a motion to adjourn the meeting at approximately 11:39 Central Time (New Orleans local time). The motion passed unanimously by voice vote. An attendance roster is on file with the TIA Standards Department.

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

## Current Projects

TIA Project Number	Title	Status	WG
TIA-PN-88.2-F	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 2: Propagation and Noise	balloting	WG-2
TIA-PN-88.2-F	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 3: Recommended Methods for Technology-Independent Narrowband Performance Verification	drafting	WG-1

## TIA Published Documents

TIA Number	Title	Date	WG
TSB-88.1-E	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 1: Recommended Methods for Technology Independent Narrowband Performance Modeling	November 2018	WG-1
TSB-88.2-E	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 2: Propagation and Noise	January 2016	WG-2
TSB-88.3-E	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 3: Recommended Methods for Technology-Independent Narrowband Performance Verification	November 2018	WG-1
TSB-88.4	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 4: Recommended Methods for Technology-Independent Broadband Performance Modeling	December 2016	WG-4
TSB-88.5	Wireless Communications Systems Performance in Noise and Interference-Limited Situations Part 5: Recommended Methods for Technology-Independent Broadband Performance Verification	December 2016	WG-4
TSB-176-A	Radiowave Propagation – Path Loss – Measurement and Validation	March 2017	WG-2
TIA-845-B	Radiowave Propagation Path Loss Measurement Presentation Format	December 2010	WG-2

**Voting Organizations**

The following table shows the voting organization participation for previous meetings and current voting qualification. A check mark (✓) indicates the organization was present for the indicated meeting.

<b>Voting Organizations</b>	<b>Atlanta GA 06/20/2018</b>	<b>San Antonio TX 10/17/2018</b>	<b>Mesa AZ 02/06/2019</b>	<b>Charlotte NC 10/09/2019</b>	<b>New Orleans LA 02/05/2020</b>	<b>Eligible to Vote at Next Meeting</b>
(1) ACD Telecom	✓	✓	✓	✓		Yes
(2) APCO International	✓	✓	✓	✓	✓	Yes
(3) Bird Technologies	✓	✓	✓		✓	Yes
(4) BK Technologies	✓	✓		✓	✓	Yes
(5) Codan Radio Comm.	✓	✓	✓		✓	Yes
(6) CSI Telecommunications	✓	✓	✓	✓	✓	Yes
(7) E.F. Johnson Technologies	✓	✓	✓	✓	✓	Yes
(8) Etherstack	✓		✓	✓	✓	Yes
(9) FBI	✓	✓	✓	✓	✓	Yes
(10) Icom America Inc.	✓	✓	✓	✓	✓	Yes
(11) InterTalk Critical Info Sys	✓	✓	✓	✓	✓	Yes
(12) ISICSB (State of Iowa)	✓	✓	✓	✓	✓	Yes
(13) JVCKenwood Corporation	✓	✓	✓	✓	✓	Yes
(14) L3 Harris Technologies	✓	✓	✓	✓	✓	Yes
(15) Motorola Solutions, Inc.	✓	✓	✓	✓	✓	Yes
(16) Softwright Engineering	✓	✓	✓	✓	✓	Yes
(17) State of South Carolina	✓	✓		✓	✓	Yes
(18) U.S. Coast Guard	✓	✓	✓	✓	✓	Yes
(19) U.S. DHS CISA	✓	✓	✓	✓	✓	Yes
(20) U.S. DoI	✓	✓		✓	✓	Yes
(21) Zetron	✓	✓		✓	✓	Yes

## Non-Voting Organizations

A check mark (✓) indicates the organization was present for the indicated meeting.

Non-Voting Organizations	Atlanta, GA 06/20/2018	San Antonio, TX 10/17/2018	Mesa, AZ 02/06/2019	Charlotte, NC 10/09/2019	New Orleans, LA 02/05/2020
(1) Booz Allen Hamilton				✓	
(2) Compliance Testing, LLC					✓
(3) dbSpectra		✓			
(4) Dept. of Emergency Management				✓	
(5) Fairfax County	✓		✓		
(6) FirstNet				✓	
(7) FirstNet Built with AT&T			✓		
(8) Grundy County 911		✓	✓	✓	✓
(9) Harris County Central Tech.		✓			
(10) Iowa DPS		✓			
(11) National Sheriff's Association				✓	
(12) NC Dept. of Public Safety				✓	
(13) NYSP	✓	✓	✓	✓	
(14) PTIG	✓	✓	✓	✓	✓
(15) State of California				✓	✓
(16) State of Connecticut					✓
(17) State of Indiana - IPSC			✓		
(18) TIA			✓		
(19) TX DPS	✓	✓	✓	✓	✓
(20) University of Melbourne Australia					✓
(21) Viavi Solutions		✓		✓	✓



## Attendance Roster Summary

Participant	Organization	Participant	Organization
Chris Wilson	<i>APCO International</i>	Jerry Drobka	<i>Motorola Solutions, Inc.</i>
Tim O'Brien	<i>Bird Technologies</i>	Jim Eastwood	<i>Motorola Solutions, Inc.</i>
Amy Sanvido	<i>Bird Technologies</i>	John Lambrou	<i>Motorola Solutions, Inc.</i>
Jim Holthaus	<i>BK Technologies</i>	Sam Makhoul	<i>Motorola Solutions, Inc.</i>
Werner Hoepf	<i>Codan Radio Communications</i>	Tim Woodward	<i>Motorola Solutions, Inc.</i>
Chris Lougee	<i>Compliance Testing, LLC</i>	Stephen Nichols	<i>PTIG</i>
Bernie Olson	<i>CSI Telecommunications</i>	Todd Summers	<i>SoftWright LLC</i>
Tom Rubinstein	<i>CSI Telecommunications</i>	John Lemmon	<i>State of California</i>
Josh Johnson	<i>E.F. Johnson Technologies</i>	Scott Wright	<i>State of Connecticut</i>
Dwight Smith	<i>E.F. Johnson Technologies</i>	George Crouch	<i>State of South Carolina</i>
Doug Chapman	<i>Etherstack</i>	Christie Bielby	<i>TX DPS</i>
Richard Massie	<i>FBI</i>	Geoff Spring	<i>University of Melbourne Australia</i>
Chris Kindelspire	<i>Grundy County 911</i>	Sonia Kendall	<i>U.S. Coast Guard</i>
Masaaki Takahashi	<i>ICOM America Inc.</i>	James Middleton	<i>U.S. Coast Guard</i>
Glenn Shirley	<i>InterTalk Critical Info. Systems</i>	Joshua Black	<i>U.S. DHS CISA</i>
Thomas Lamp	<i>ISICSB (State of Iowa)</i>	Jim Downes	<i>U.S. DHS CISA</i>
Chris Maers	<i>ISICSB (State of Iowa)</i>	Brian Heitman	<i>U.S. DHS CISA</i>
Angelina Seay	<i>JVC Kenwood Corporation</i>	Britany Higdon	<i>U.S. DHS CISA</i>
Mac Hartless	<i>L3 Harris Technologies</i>	April O'Reilly	<i>U.S. DHS CISA</i>
Paul McCarty	<i>L3 Harris Technologies</i>	Brandon Diemer	<i>U.S. DoI</i>
Harrison Reves	<i>L3 Harris Technologies</i>	Chad McAsey	<i>Viavi Solutions</i>
Andy Davis	<i>Motorola Solutions, Inc.</i>	Randy Richmond	<i>Zetron</i>

## Correspondence Log

Number	Date	Author	Subject
17-001	01-10-2017	Jim Eastwood	TIA-PN-88.3-D-1 Ballot Summary Report
17-002-R2	01-25-2017	Todd Summers	TIA-PN-88.3-D-1 Ballot Comment Matrix
17-003	01-10-2017	Jim Eastwood	TIA-PN-176-A Ballot Summary Report
17-004-R2	01-25-2017	Tom Rubinstein	TIA-PN-176-A Ballot Comment Matrix
17-005-R1	01-24-2017	Todd Summers	TIA-PN-88.3-D-1 Post Ballot Draft Proposal
17-006-R1	01-24-2017	Tom Rubinstein	TIA-PN-176-A Post Ballot Draft Proposal
17-007-R1	01-31-2017	Jim Eastwood	January 2017 Activity Report
17-008	01-31-2017	Bob Shapiro	Shapiro Nomination for Vice-Chair
17-009	04-10-2017	Jim Eastwood	January 2017 Attendance Log - Next Meeting Vote Eligibility
17-010	04-10-2017	Jim Eastwood	January 2017 Meeting Report
17-011-R1	06-16-2017	Jim Eastwood	June 2017 Activity Report
17-012-R1	09-22-2017	Jim Eastwood	October 2017 Meeting Notice and Agenda
17-013	10-18-2017	Jim Eastwood	October 2017 Activity Report
17-014	10-18-2017	Tom Rubinstein	WG-1 ACD Telecom Proposal for TSB-88.3-E
17-015	10-18-2017	Sam Makhoul	WG-1 Motorola Proposal for BAPC-CAR
17-016	10-18-2017	Jim Eastwood	Template for Comments on TSB-88.1-D
17-017	10-18-2017	Jim Eastwood	Template for Comments on TSB-88.3-D
17-018-R7	06-14-2018	Todd Summers	WG-1 Combined Comment Matrix for TSB-88.1-E
17-019-R11	06-14-2018	Todd Summers	WG-1 Combined Comment Matrix for TSB-88.1-E
17-020	11-28-2017	Tom Rubinstein	WG-1ACD Telecom Proposal for TSB-88.3-E section 3.1
17-021	11-28-2017	Tom Rubinstein	WG-1ACD Telecom Proposal for TSB-88.3-E section 5.0
17-022	11-28-2017	Tom Rubinstein	WG-1 ACD Telecom Proposal for TSB-88.3-E section 5.7.1.5.2
17-023	11-28-2017	Tom Rubinstein	WG-1 ACD Telecom Proposal for TSB-88.3-E section 5.7.2
17-024-R2	12-13-2017	Sam Makhoul	WG-1 MSI BAPC-CAR Proposal for TSB-88.1-E
17-025-R2	12-13-2019	Sam Makhoul	WG-1 MSI BAPC-CAR Proposal for TSB-88.3-E
17-026-R1	01-31-2018	Sam Makhoul	WG-1 MSI Feedback on 17-019 Comments
17-027-R2	01-31-2018	Jim Eastwood	October 2017 Attendance Log - Next Meeting Vote Eligibility
17-028	11-28-2017	Jim Eastwood	October 2017 Meeting Report
17-029-R8	10-01-2018	Todd Summers	WG-1Draft Proposal for TSB-88.1-E
17-030-R12	10-01-2018	Todd Summers	WG-1 Draft Proposal for TSB-88.3-E
17-031	12-22-2017	Todd Summers	WG-1 Softwright Proposal for 17-019 comment A09
17-032	01-03-2018	Tom Rubinstein	WG-1 ACD Telecom Proposal for 17-019 comment A07 (3.0)
17-033	01-03-2018	Tom Rubinstein	WG-1 ACD Telecom Proposal for 17-019 comment A07 (5.6.3)
17-034	01-03-2018	Tom Rubinstein	WG-1 ACD Telecom Proposal for 17-019 comment A04 (3.1)
17-035	01-03-2018	Tom Rubinstein	WG-1 ACD Telecom Proposal for 17-019 comment A04 (5.0)
17-036	01-03-2018	Tom Rubinstein	WG-1 ACD Telecom Proposal for 17-019 comment A04(Annex B
18-001-R1	01-12-2018	Jim Eastwood	February 2018 Meeting Notice and Agenda
18-002	01-11-2018	Sam Makhoul	WG-1 MSI Feedback on ACD Contributions 17-032 to 17-036
18-003	02-07-2018	Jim Eastwood	TSB "NOTICE" Page Issue Correspondence to TIA
18-004-R1	02-07-2018	Jim Eastwood	February 2018 Activity Report
18-005	03-09-2018	Jim Eastwood	February 2018 Attendance Log - Next Meeting Vote Eligibility
18-006	03-09-2018	Jim Eastwood	February 2018 Meeting Report
18-007	03-22-2018	Todd Summers	Table A1 Proposed Revisions
18-008	03-22-2018	Sam Makhoul	Example BAPC-CAR Diagram for TSB-88.1-E
18-009	03-22-2018	Sam Makhoul	BAPC-CAR Draft Proposal v3
18-010	04-05-2018	Jim Eastwood	May 2018 Meeting Notice and Agenda

Number	Date	Author	Subject
18-011-R3	04-12-2018	Sam Makhoulf	MSI Adjacent Tile Proposed Revisions
18-012	04-12-2018	Todd Summers	April 12 <sup>th</sup> WG-1 Meeting Slide Deck
18-013-R1	06-07-2018	Jim Eastwood	June 2018 Meeting Notice and Agenda
18-014	06-20-2018	Sam Makhoulf	Adjacent Test Tile Failure Examples - MSI
18-015	06-20-2018	Jim Eastwood	June 2018 Activity Report
18-016	06-20-2018	Jim Eastwood	TSB "NOTICE" Page Issue Resolution
18-017	08-21-2018	Jim Eastwood	June 2018 Attendance Log - Next Meeting Vote Eligibility
18-018	08-21-2018	Jim Eastwood	June 2018 Meeting Report
18-019	08-04-2018	Jim Eastwood	TIA-PN-88.1-E Ballot Summary Report
18-020-R3	10-01-2018	Todd Summers	TIA-PN-88.1-E Ballot Comment Matrix
18-021	08-04-2018	Jim Eastwood	TIA-PN-88.3-E Ballot Summary Report
18-022-R2	10-01-2018	Todd Summers	TIA-PN-88.3-E Ballot Comment Matrix
18-023	08-21-2018	Jim Eastwood	October 2018 Meeting Notice and Agenda
18-024-R1	10-17-2018	Jim Eastwood	October 2018 Activity Report
18-025	11-05-2018	Jim Eastwood	October 2018 Attendance Log - Next Meeting Vote Eligibility
18-026	11-05-2018	Jim Eastwood	October 2018 Meeting Report
19-001	01-02-2019	Jim Eastwood	February 2019 Meeting Notice and Agenda
19-002	02-06-2019	Jim Eastwood	February 2019 Activity Report
19-003	02-06-2019	Jim Eastwood	Eastwood Nomination for Chair
19-004	02-06-2019	Jim Eastwood	Eastwood Support Letter for Chair
19-005	02-12-2019	Jim Eastwood	February 2019 Attendance Log - Next Meeting Vote Eligibility
19-006	02-12-2019	Jim Eastwood	February 2019 Meeting Report
19-007	08-30-2019	Jim Eastwood	October 2019 Meeting Notice and Agenda
19-008-R4	01-14-2020	Marty Barringer	L3Harris TSB-88.3 – Attenuator + MSI Input
19-009	09-20-2019	Todd Summers	88.2 Section 5 Revision
19-010	09-10-2019	Sam Makhoulf	88.2 Revision F draft proposal
19-011-R1	10-09-2019	Jim Eastwood	October 2019 Activity Report
19-012	10-19-2019	Jim Eastwood	October 2019 Attendance Log - Next Meeting Vote Eligibility
19-013	10-19-2019	Jim Eastwood	October 2019 Meeting Report
19-014	11-11-2019	Bernie Olson	CSI Telecom Near-Far Interference Proposal for 88.3 and 88.1
20-001	01-09-2020	Jim Eastwood	February 2020 Meeting Notice and Agenda
20-002	TBD	Todd Summers	<reserved for Revision F draft proposal for TSB-88.1>
20-003-R1	01-14-2020	Todd Summers	TSB-88.3 Revision F Draft Proposal
20-004	02-04-2020	Sam Makhoulf	Revision F draft proposal for TSB-88.2
20-005-R1	02-05-2020	Jim Eastwood	February 2020 Activity Report