

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY
INTERNATIONAL FOUNDATION FOR TELEMETERING

Spring 2012 Meeting Minutes

March 6, 2012
Radisson Hotel
Cape Canaveral, FL
(PAFB)

Opening & Quorum Determination

- Meeting called to order at 17:15
- Attendees were
 - Scott Brierley (m)
 - Diarmuid Corry (m)
 - Lee Eccles(m)
 - Brad Fleury (m)
 - Sheila Horan (m)
 - Lorin Klein(m)
 - Wayne Klein (m)
 - Myron Moodie (m)
 - Steve Nicolo (m)
 - Chuck Weaver (m)
 - Teresa Telles (RCC TG-Chair)

Legend:

(m) Is a member

(a) Is an alternate

(*) Invited Guest/past member

A quorum of members was present (10 full members).

Meeting Minutes

2/13

- Reviewed and approved agenda (approved)
- Reviewed and approved minutes of October 24, 2011 Fall meeting (approved)

Reviewed the following reports:

- Chairman
- Secretary Treasurer
 - Motion made & approved to accept minutes of last meeting (accepted).
- Committee Reports:
Nominating Committee, RF, Networks, Data Multiplex, Transducers,
Coding/Data Compression, Recorder/Reproduce, ETSC

iNet Status/Presentation was presented by Bruce Lipe (Presentation will be posted on web with reports).

Meeting Minutes

3/13

■ Chairman's Report and Action Items:

- Congratulations to Lee Eccles who was awarded the Pioneer Award at ITC 2011.
- Standards Review Work:
 - Draft document review of IRIG 118, *Test Methods for Telemetry Systems and Subsystems, Volume I* and focuses on Chapter 5 "Test Procedures for Telemetry transmitters." (Pink Sheet Review)
 - CCSDS 123 Red Book : "Lossless Multispectral & Hyperspectral Image Compression"
 - CCSDS 121.0-P-1.1: Lossless Data Compression
 - CCSDS 131.2-R-2 Red Book: Flexible Advanced Coding and Modulation Scheme for High Rate Telemetry Application
- C-Band Special session at ITC 2011 went well. All C-Band presentations are now on the TSCC web site.
- At the recommendation of the IFT the TSCC contacted the ICTS-International Consortium of Telemetry Spectrum www.telemetryspectrum.org to make each other aware of our organizations. We will put links to each other on our web site. The ICTS also told us about the AFTRCC Aerospace & Flight Test Radio Coordinating Council www.aftrcc.org. TSCC will contact the AFTRCC over the next report period.
- **ACTION:** S. Nicolo to have a link added to <http://telemetryspectrum.org> (ICTS- International Consortium for Telemetry Spectrum) on the TSCC web site and contact the AFTRCC www.aftrcc.org
- iNET standards can be found on WWW.TENA-SDA.ORG. TSCC members can request a site password. Password requests are typically granted in 1 day. Papers are not easily found so a link should be provided from the TSCC web site.
- **ACTION:** S. Nicolo to send out email telling members how to get a PWD to TENA-SDA.ORG web site for iNET standards. Additionally, a link should be generated on the TSCC site to the iNET standards on the TENA site.

Meeting Minutes

4/13

■ Chairman's Report and Action Items (Continued):

- Web site is up to date with the exception of the posting of the ITC 2011 Best Standards Paper. New web master volunteer is needed. Depending on the type of program used on the new TSCC web, Brad Fleury may be able to become web master (if tool is "Word Press").
- **ACTION:** S. Nicolo to look into what SW tool was used to generate the new web site and coordinate with Brad Fleury (possible new webmaster if SW tool is "Word Press").
- Plaques (awards) from previous vendor have become much to expensive. We have found a more cost affective vendor. Must get caught up on 1 Year TSCC performance plaques from new vendor.
- **ACTION:** S. Nicolo & W. Klein to get caught up in 1 Year plaques.
- Fall TSCC meeting will be held at ITC Show in Las Vegas on the Monday morning at 8:00 AM (Same as previous years).
- Two TSCC meetings were held in 2011: Spring at Vandenberg AFB with the RCC March 2, 2011 and Fall Meeting at Bally's in Vegas October 24, 2011
- TSCC awarded Best Standards Paper at ITC2011 (See Old Business). TSCC 2012 Best Standards Paper award: Steve Nicolo agreed to lead and coordinate with 2012 ITC Tech Chair.
- **ACTION:** S. Nicolo to coordinate Best Standards Paper Award with ITC Tech Chair and assemble TSCC review team.
- At the suggestion of the IFT, the TSCC contacted the ICTS (International Consortium for Telemetry Spectrum). Their site is <http://telemetryspectrum.org/> . We introduced each others organizations and we agreed to put links to each others web sites. The ICTS also made us aware of the AFTRCC (Aerospace & Flight Test Radio Coordinating Council). Their site is www.aftrcc.org . The TSCC will also contact AFTRCC.

Meeting Minutes

5/13

- **Secretary-Treasurer Report and Actions**

- Review of Minutes of October 24. 2010 (approved)
- Reviewed current finances
 - TSCC requested and received \$1,000 (Feb 2012) from IFT for 2011
- Domain name paid for up until January 2015

- **Nominating Committee Report and Actions**

- Reviewed distribution of members. We are currently at 15 total full members. We are missing 1 full member. We are also missing 3 alternates.
 - Member Candidate from Nova (Mark Geoghegan) approved at last meeting declined due to issues with his sponsoring company (Nova).
 - Looking for suggestions on candidates for open slot for 1 new full member
 - Alternate for Greg Kazz (Scott Burleigh) was voted in.
- **ACTION**: M. Bender, W. Klein & F. Macias to propose a candidate alternate.
- In Spring 2013 Brad Fleury (currently Vice-chair) will replace Steve Nicolo as Chair. Steve Nicolo will assist in the transition.
- **ACTION**: D. Corry to confirm correct spelling and logo for his new company name (Curtiss-Wright) who recently purchased Acra. Diarmuid to send this information to S. Horan and cc S. Nicolo.

Meeting Minutes

6/13

■ Radio Frequency Committee Report and Actions (Scott Brierley)

- IRIG 118 Chapter 5 Pink Sheet review was closed in Nov 2011. Mainly editorial comments.
- RF Subcommittee Chair Scott Brierley presented from a standards prospective at the C-Band special session held at ITC 2011

■ Data Multiplexing Committee Report and Actions (Brad Fleury)

- IRIG 106-13 Pink Sheets are scheduled to be released for review in June 2012 timeframe.
- The TMATS Handbook was released last year and is available. Data Multiplexing Subcommittee continues in the support of the ongoing efforts on future TMATS Handbook releases and the efforts to keep TMATS IRIG 106 Chapter 9 and XML Scheme Current
- **ACTION:** B. Fleury to remove Alain Hackstaff & Straehley from his subcommittee and the web site.
- Efforts are in process to get additional group members.
- **ACTION:** B. Fleury to work on finalizing subcommittee membership.

Meeting Minutes

7/13

- Networking & Protocols Committee Report and Actions (Diarmuid Corry)
 - Membership for this new group is completed. D. Corry will now focus on defining additional standards to focus on (i.e. IEEE 1588, TMoIP, IPv6 & other upcoming releases of iNET).
 - **ACTION:** D. Corry to define additional standards to focus on (i.e. IEEE 1588, TMoIP, IPv6 & other upcoming releases of iNET). These should then be submitted for listing on web, and included in the next report.

Meeting Minutes

8/13

■ Recorder Reproducer Committee Report and Actions (Lorin Klein)

- Current focus is on IRIG 106-13, Chapter 10 change request (CR) process for upcoming Pink Sheet cycle leading to 2013 release. Several changes are also under consideration for STANAG 4575. Meeting is scheduled (4575 meeting) in Italy on April 18 -19. The primary topic of this meeting will be to review and update 4575 (including AEDP-6) that incorporates Ethernet as an alternative download protocol to Fiber Channel

■ Transducer Committee Report and Actions (Lee Eccles)

- Activity in this area was little to none related to our industry.
- IEEE 1441
 - 1441.2 UART & SPI Interfaces has been balloted but not submitted to IEEE
 - 1441.5 TEDS: Some activity in this area (standard is being revised)
- Since there was very little activity in this area the Fall report is included.

Meeting Minutes

9/13

- **Coding/Data Compression Committee Report and Actions (S. Horan)**
 - Standards Reviewed: CCSDS 123 Red Book : "Lossless Multispectral & Hyperspectral Image Compression"; CCSDS 121.0-P-1.1: Lossless Data Compression; CCSDS 131.2-R-2 Red Book: Flexible Advanced Coding and Modulation Scheme for High Rate Telemetry Application
 - Standards Distributed for review: iNet Documents- Com Link Standard section 4.5 (Comments due by March 31) and REN/JTC-DVB-301 Digital Video Broadcasting (Comments due by March 31)
 - **ACTION**: S. Horan to send out web updates to S. Nicolo
 - **ACTION**: S. Horan to send S. Brierley updated spec (Encryption Link Layer)

- **ETSC Committee Report and Actions (Nicolo reported for Gerhard)**
 - Steve N. presented the ETSC report provided by Gerhard Mayer. ETSC is focused on preparation for a special open session at ETSC. The subject is "Standards on wire-bond and wireless transducer buses and impact to data acquisition systems."
 - ETSC has started a new subcommittee (SC-4 Networking Telemetry). They have an open call for members and they are currently defining the scope of this new group.
 - **ACTION**: Steve to present TSCC status report at ETSC meeting in Munich (June 14 & 15)
 - Subcommittee 1 (SC-1 RF Spectrum) continue to focus on spectrum availability, SC-2 (Data Acq & Processing) focus is on IRIG 106-11, Chapter 4 and SC-3 Data Recording & Storage continue focus on IRIG 106-09, Chapter 10 and XidML 3.0.

Meeting Minutes

10/13

■ Old Business

- ITC2011: Special Session held Wednesday Oct 26: Session 8 C-Band Special Session set up for ITC2011 -Joint session with TSCC & C-band working group (STANDING ROOM ONLY). This open session was a big success and included presentations from the C-Band Working Group (DoD), academia (Dr Rice), TSCC, the Spectrum Program Office (DoD), as well as a variety of vendors with current C-Band products. Presentations are posted on TSCC web site
- Best telemetry standards paper was awarded at ITC 2011. The title of the winning paper was: "DESIGN CONSIDERATIONS FOR XML-BASED T&E STANDARDS". Authors: Tim Darr (Lead), John Hamilton & Ronald Fernandes (Knowledge Based Systems, Inc) and Charles H. Jones (EAFB)
- Two meetings of the TSCC in 2011
 - Spring 2011: March 2 in Santa Ynez Valley (Vandenberg) in conjunction with RCC meeting
 - Fall 2011: October 24th Bally's Las Vegas in conjunction with ITC

Meeting Minutes

11/13

■ New Business

- Fall Meeting: Next meeting Monday October 22 at ITC2012 at 8:00 AM
- iNet focus for future: TSCC subcommittees to determine which iNet standards pertain to their particular committee.
- **ACTION:** All TSCC Subcommittee Chairs to review iNet standards to determine which are applicable to their groups. Once this is done, the appropriate iNET standards are to be placed on the subcommittee web page. Standards can be obtained from TENA Web site (see next action).
- **ACTION:** S. Nicolo to send out email telling members how to get a PWD to TENA-SDA.ORG web site for iNET standards. Additionally, a link should be generated on the TSCC site to the iNET standards on the TENA site.
- Special Session at ITC: No TSCC lead special session this year at ITC 2012. It was agreed that 2 possible current topics could be iNET and C-Band. It was thought that there would be several sessions on iNet and that there was not enough change in 1 year to warrant another C-Band special session (possibly 2013). S. Nicolo will talk to the C-Band working group to see if they concur.
- TSCC 2012 Best Standards Paper award: Steve Nicolo agreed to lead and coordinate with 2012 ITC Tech Chair.

Meeting ACTIONS

12/13

■ S. Nicolo

- **ACTION:** S. Nicolo to send out email telling members how to get a PWD to TENA-SDA.ORG web site for iNET standards. Additionally, a link should be generated on the TSCC site to the iNET standards on the TENA site.
- **ACTION:** S. Nicolo to look into what SW tool was used to generate the new web site and coordinate with Brad Fleury (possible new webmaster if SW tool is "Word Press").
- **ACTION:** S. Nicolo & W. Klein to get caught up in 1 Year plaques for TSCC members.
- **ACTION:** S. Nicolo to coordinate Best Standards Paper Award with ITC 2012 Tech Chair and assemble TSCC review team.
- **ACTION:** S. Nicolo to have a link added to <http://telemetryspectrum.org> (ICTS-International Consortium for Telemetry Spectrum) on the TSCC web site.
- **ACTION:** Steve to present TSCC status report at ETSC meeting in Munich (June 14& 15)
- **ACTION:** S. Nicolo to have a link added to <http://telemetryspectrum.org> (ICTS-International Consortium for Telemetry Spectrum) on the TSCC web site and contact the AFTRCC www.aftrcc.org

■ B. Fleury

- **ACTION:** B. Fleury to remove Alain Hackstaff & Straehley from his subcommittee and the web site.
- **ACTION:** B. Fleury to work on finalizing subcommittee membership.

■ S. Horan

- **ACTION:** S. Horan to send out web updates to S. Nicolo
- **ACTION:** S. Horan to send S. Brierley updated spec (Encryption Link Layer)

Meeting ACTIONS (Continued) 13/13

- D. Cory
 - **ACTION:** D. Cory to confirm correct spelling and logo for his new company name (Curtiss-Wright) who recently purchased Acra. Diarmuid to send this information to S. Horan and cc S. Nicolo.
 - **ACTION:** D. Cory to define additional standards to focus on (i.e. IEEE 1588, TMoIP, IPv6 & other upcoming releases of iNET). These should then be submitted for listing on web, and included in the next report.

- M. Bender, W. Klein & F. Macias
 - **ACTION:** M. Bender, W. Klein & F. Macias to propose a candidate alternate.

- ALL Members
 - **ACTION:** All TSCC Subcommittee Chairs to review iNet standards to determine which are applicable to their groups. Once this is done the appropriate iNET standards are to be placed on the subcommittee web page. Standards can be obtained from TENA Web site (Documents on TENA web site).