TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY
INTERNATIONAL FOUNDATION FOR TELEMETERING

TSCC Spring 2021 Chair Report

May 20, 2021 WebEx Telecon (Due to Covid)

TSCC Membership

- Academia (1)
 - Dr. Michael Marcellin
- Government (5)
 - Mark Bender
 - Albert Gabaldon
 - Richard Graham
 - (*1) Myron Moodie
 - Richard Graham
 - Tab Wilcox

- (*1) Myron is leaving. Has proposed a replacement (Todd Newton)
- (*2) Sergio P. & Joe S. are no longer in TSCC

- Industry (7)
 - Scott Brierley
 - Brad Fleury
 - Philip Ellerbrock
 - Wayne Klein
 - Steve Nicolo
 - (*2) Sergio Penna
 - (*2) Joe Sulewski
 - Gilles Freaud
 - Malcolm Weir
- Ex-Officios
 - Clifford Aggen (IFT Rep)
- Members Emeritus
 - Lee Eccles
 - Merv MacMedan
 - Erwin (Terry) Straehley

Agenda

13:00	Call to Order	S. Nicolo
13:00	Attendance and determination of Quorum	W. Klein
13:05	Review and Approve Agenda	S. Nicolo
13:10	Officer Reports	
	Chair Report	S. Nicolo
	Action Item Review	S. Nicolo
	Secretary-Treasurer Financial Status	W. Klein

Agenda (Continued)

13:30 Committee Reports

Nominating Committee

S. Nicolo

New nominations/follow-up on members & Votes

Discussions on open seats

Radio Frequency

Telemetry Data Processing

Networking and Protocols

Recorder / Reproducer

EITTS (former ETSC) Report

Cyber Security (SEE Cyber Report

S. Brierley

B. Fleury

S. Nicolo M. Weir

M. Buckley

G. Freaud

M. Weir

Agenda (Continued)

14:30 Website

14:40 Old Business S. Nicolo

15:00 New Business All

Fall Meeting

15:30 Adjourn All

Committee Changes

- We welcome Philip Ellerbrock as the new TSCC Chair. S.
 Nicolo will handle this meeting and Philip will take over after that. We must all give him our undivided support.
- As per the Bylaws Steve Nicolo will now become Chair of the Nominating Subcommittee
- Cyber Security Subcommittee has been disbanded because Cyber Security information can not be published.
- Steve Nicolo was acting chair of the Network Subcommittee.
 With the disbanding of the Cyber Security Subcommittee
 Malcolm Weir has agreed to become the new chair of the Network Subcommittee.

Subcommittee's & Reports

CURRENT SUBCOMMITTEE REPORTS

- Nominating Committee
- Radio Frequency
- Networking and Protocols
- Recorder / Reproducer
- Telemetry Data Processing
- Cyber Security (New SC No Report)
- EITTS (former ETSC Report)
 - EITTS (European Initiative for Test & Telemetry Standardization)

- S. Nicolo
- S. Brierley
- S. Nicolo (Acting Chair)
- M. Buckley
- B. Fleury
- M. Weir (NEW)
- G. Freaud

Member Summary

		-		Member/alternat		0.55			-	
	Last	First	Association	e	Expires	Office	Committee	Last	First	Committee
1	Bender	Mark	Government	Aerospace Corp	2019	member	radio Freq			
	/	Scott	Industry	ULA	2021	Chair	radio Freq/transd	McNatt	William	radiofreq
3	Ellerbrock	Philip	Industry	Boeing	2023	Chair	TSCC			
								Rob		rec/rep;data
	Fleury	Brad	Industry	Edge Consulting	2020	Chair	Data multiplex / RF	Trepa	Edge	multi
_	Gabaldon	Albert	government		2021	member	R&R			
_	Gilles	Freaud	Industry	Airbus	2021	member		Mayer	Gerhard	
		Richard	Government		2023	member	R & R			
	Klein	Wayne	Industry	Apogee Labs	2022		Network&Protocol			data multi, Net
		Dr. Michael	academic	Univ of AZ	2019	member		Creusere	Charles	
10	Moodie	Myron	Government	SwRI	2019	member	Network&Protocol	Abbott	Ben	N&P
		O.		GDP						
11	Nicolo	Steve	Industry	Space/Ampex	2020	CI :	N	Weir	Malcolm	radiofreq
						Chair	Network&Protocol			
							Nominating			
							Committee		Leonardo de	
12	Penna	Sergio	Industry	Embraer	2010	member	Network&Protocol	Correa	Oueiroz	
12	Реппа	Sergio	industry	LITIDI dei	2015	Пешрег	Networkarrotocor	CULLEG	Quell 02	rec/ren
13	Sulewski	Joe	Industry	1_3	2018	member	Data Multiplex	Dehmelt	Chris	datamult Net
	Weir	Malcolm	Industry	Ampex	2010	Chair	Cyber	Deniner		datamuit, NCt
	Wilcox	Tab	government		2021	member	R & R			
13	WIICOX	Tub	government	110	2021	member	K W K			
	Aggen	Cliff	IFT			IFT				
	99011	J								
	Eccles	Lee	Emeritus	Boeing		member				
	MacMedan		Emeritus			member	data comp			
	Straehley		Emeritus			member	data multiplex			

TSCC Activities

- TSCC Spring 2020: Canceled due to Covid
- TSCC Fall 2020: ITC 2020 was canceled due to Covid. The Fall 2020 meeting will be a WebEx meeting.
- TSCC Spring 2021 is Webex
- ITC will resume in the Fall and in person meetings should resume.

TSCC Activities

R & R Group (More detail in R & R Report)

- IRIG 106 Chapters 6, 9R, 10, 11
 - 2021 Pink Sheet submitted and reviewed
 - In the queue with the RCC Tech Editor

RF Group

- IRIG 106 Chapter 2 Appendix 2A Frequency Considerations for Telemetry
 - 2021 Review of Pink Sheet, TG 177 rewrite of Appendix 2-A Redefines Modulations - The RFSC is of the opinion that although the three modulations described in this chapter were defined correctly, their definitions contained some inconsistencies that needed revision
 - NEW May 2021 Review of Pink Sheet, TG 176 This task addresses Adjacent Channel Interference (ACI) for coded waveforms and also revisits the ACI recommendations for non-coded waveforms given advancements in digital receiver technology over the last couple of decades.

IRIG 118 Vol 2

 2021 Review of Pink Sheet, TG 178 the chapter was written to address the testing of adaptive equalizers specifically.

Actions

- S. Nicolo to update member list on web site.
- W. Klein to look into new plaque vender with more reasonable cost. (DONE)
- Resolve/Update Attendance History Document (Treasurer will then take ownership)...... OPEN
- One year Plaques still need to go out... OPEN

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY INTERNATIONAL FOUNDATION FOR TELEMETERING

Treasurer Report – Spring 2021

May 20, 2021 WebEx

Treasurer Report

for the Period 12/1/20 thru 11/30/20 No Change in Finances

INCOME	E (Total)
--------	-----------

\$ 0.00

- EXPENDITURES (Total)
- Net Increase (Decrease) in Cash

- \$ (0.00)
- \$ 0.00

- Beginning Cash Balance
- Ending Cash Balance

- \$ 2478.00
- \$ 2478.00

- Note(s): 1) TSCC account #: xxxxxx2632
 - 2) Covid-19 Pandemic Continued

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY
TERNATIONAL FOUNDATION FOR TELEMETERI

TSCC FALL 2020 Nominating Subcommittee Report

November 30, 2020 WebEx Telecon (Due to Covid)

Nominating Sub-Committee Membership

- Current Nominating Subcommittee Membership
 - CHAIR ...S. Nicolo Chair
 - Scott Brierley United Launch Alliance
 - Wayne Klein Apogee Labs

Sub-Committee Focus

- The nominating sub-committee shall propose
 TSCC members and officers for approval by the membership.
- Prospective TSCC members and officers can be nominated by the TSCC membership or by a nominating subcommittee.
- All nominations must be approved by a membership vote.

TSCC Membership Rules

- The TSCC shall have **16 members**.
- Adequate representation shall always exist from the diverse groups constituting the telemetry community
- Representatives of government and commercial entities shall each constitute a minimum of onethird (1/3) of the regular TSCC Membership
- The remaining one-third (1/3) may include, but is not limited to those in commercial, government, and academic organizations
- Membership by representatives of non-US entities shall not exceed 25% of the total regular membership

Member Summary

			Member/alternat						
Last	First	Association	е	Expires	Office	Committee	Last	First	Committee
1 Bender	Mark	Government	Aerospace Corp	2019	member	radio Freq			
2 Brierley	Scott	Industry	ULA	2021	Chair	radio Freq/transd	McNatt	William	radiofreq
3 Ellerbrock	Philip	Industry	Boeing	2023	Chair	TSCC			
							Rob		rec/rep;data
4 Fleury	Brad	Industry	Edge Consulting	2020	Chair	Data multiplex / RF	Trepa	Edge	multi
5 Gabaldon	Albert	government		2021	member	R & R			
6 Gilles	Freaud	Industry	Airbus	2021	member		Mayer	Gerhard	
7 Graham	Richard	Government		2023	member	R&R			
8 Klein	Wayne	Industry	Apogee Labs	2022		Network&Protocol	Weaver	Bob	data multi, Net
9 Marcellin	Dr. Michael	academic	Univ of AZ	2019	member		Creusere		
10 Moodie	Myron	Government	SwRI	2019	member	Network&Protocol	Abbott	Ben	N&P
1.1 Ni I -	Chausa	To also about	GDP	2020			\\/ e !	Malaalaa	d: - 6
11 Nicolo	Steve	Industry	Space/Ampex	2020	Chain	Natural O Duata and	Weir	Malcolm	radiofreq
					Chair	Network&Protocol			
						Nominating Committee			
						Committee		Leonardo de	
12 Penna	Sergio	Industry	Embraer	2019	member	Network&Protocol	Correa	Oueiroz	
12 Cilia	Sergio	maastry	Embraci		ПСПІВСІ	Networker rotocor	COLICC	Quelloz	rec/ren.
13Sulewski	Joe	Industry	L - 3	2018	member	Data Multiplex	Dehmelt	Chris	datamult.Net
14 Weir	Malcolm	Industry	Ampex		Chair	Cyber			
15 Wilcox	Tab	government	YPĠ	2021	member	R & R			
		Ĭ							
Aggen	Cliff	IFT			IFT				
Eccles	Lee	Emeritus	Boeing		member				
MacMedan	Merv	Emeritus			member	data comp			
Straehley	Erwin	Emeritus			member	data multiplex			

TSCC Membership Terms

- TSCC Membership Terms are for five years
 - Terms are staggered so that the terms of 20% (rounded to the nearest integer) of the regular membership end each year
 - Members may be re-nominated for additional terms by the nominating sub-committee.
- 5 Year Term Expirations Fall 2019: (Must Vote)
 - Mark Bender (Government): Would like to serve another term-MUST VOTE
 - Dr Michael Marcellin (Academic): Dr Marcellin will stay another year (to the end of 2021) or until he can be replaced.
 - Recommended a replacement (Chuck Creusere from New Mexico State- I will contact Chuck)
 - Myron Moodie (Government): NO LONGER A MEMBEDR:
 - Recommend a replacement (Todd Newton)
 - Sergio Penna (Industry).:: NO LONGER A MEMBEDR
 - Joe Suleski: NO LONGER A MEMBEDR

Membership Changes

MEMBERS:

- Short four members
- Members Retiring from TSCC: Joe Sulewski, Myron Moodie, Sergio Penna.
 - Dr Michael Marcellin (Retiring from TSCC at the end of 2021 or until we can replace him)
- Voting on Members & Alternates:
 - Member Replacement for Myron Moodie (Todd Newton)- Resume to be distributed for vote. Will vote by mail.
 - Alternate for Steve Nicolo (Propose Tim Kelly Delta Information Systems will distribute resume for a vote by mail)
- Alternates still needed for:
 - Mark Bender
 - Albert Gabaldon
 - Tab Wilcox
 - Malcolm Weir (Just became Full Member)
 - Richard A. Graham Jr (Has proposed alternate)
 - Steve Nicolo (Propose Tim Kelly Delta Information Systems)

TSCC Membership

- Academia (1)
 - (*3) Dr. Michael Marcellin
- Government (5)
 - Mark Bender
 - Albert Gabaldon
 - Richard Graham
 - (*1) Myron Moodie
 - Richard Graham
 - Tab Wilcox

- Industry (7)
 - Scott Brierley
 - Brad Fleury
 - Philip Ellerbrock
 - Wayne Klein
 - Steve Nicolo
 - (*2) Sergio Penna
 - (*2) Joe Sulewski
 - Gilles Freaud
 - Malcolm Weir
- **Ex-Officios**
 - Clifford Aggen (IFT Rep)
- **Members Emeritus**
 - Lee Eccles
 - Merv MacMedan
 - Erwin (Terry) Straehley 21

Open Membership Slots

- We currently have 12 of 16 full members as of Fall 2020.
- Need 1 Government member to maintain our approx 33% split between industry, academic and government.... 1 was proposed and resume will be sent out-Todd Newton
- NEED Additional
 - 1 + Academia
 - 1 + Industry

TSCC Officers

- Officers shall serve for a two year term of office
 - The term of office shall begin at the start of the TSCC Year in even calendar years
 - The TSCC Vice-Chair succeeds to the Chair's position to fulfill a two year term as Chair
 - The Secretary-Treasurer may be re-elected
 - Officer Terms up December 31, 2020
- Officers
 - Chair New Chair Philip Ellerbrock
 - Vice-Chair TBD
 - Secretary-Treasurer Wayne Klein
- Subcommittee Chairs
 - All filled at this time

Open Actions

- TSCC has 4 open position.
 - 1 + Gov 1 possible-Todd Newton)
 - 1 + Academia -1 recommended must contact
 - 1 + Industry
- Members needed (major focus)
- Alternates still needed for:
 - Mark Bender
 - Albert Gabaldon
 - Tab Wilcox
 - Malcolm Weir (Just became Full Member)
 - Richard A. Graham Jr (Has proposed alternate)
 - Steve Nicolo (Propose Tim Kelly –Delta Information Systemswill distribute resume for vote)

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY INTERNATIONAL FOUNDATION FOR TELEMETERING

RF Sub-Committee Report – Spring 2021

May 20, 2021 WebEx

Sub Committee Membership

- Scott Brierley, Chairman
- Members:
 - Johnny Pappas
 - Mark Bender
 - Mark Dapore
 - Brad Fleury
 - Lloyd Lautzenhiser
 - Bill McNatt
 - Rich Siegal
 - Brad Oney
 - James Carwell

Sub-Committee Focus

- RF Subcommittee reviews standards dealing with the Radio Frequency (RF) telemetry link
- Current standards
 - RCC IRIG-106
 - RCC IRIG-118
 - RCC RF Handbook
 - CCSDS-401
 - CCSDS-411
 - SGLS
 - STDN
 - 1451.5

Significant Activity

- Pink Sheet Review of IRIG-118, Volume 2, Chapter 10, TG-178
 - Test Procedures for implementing multipath channel conditions
 - IRIG 106 had added a telemetry channel model
 - IRIG-118 updated to add methods to test an IRIG-106 compliant multipath channel
 - Modulation scheme performance
 - Coding Gain
 - Characterizing equalizer gain
 - Etc
 - Standard reviewed by the RF Subcommittee and comments provided to RCC

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY
NTERNATIONAL FOUNDATION FOR TELEMETERING

TSCC Spring 2021 Telemetry Data Processing Committee Report

Brad Fleury
Edge Consulting and Sales

May 20, 2021

WebEx

Committee Members

 Brad Fleury – Director Edge consulting and sales

Alternate – looking for a new person

Sub-Committee Standards

- Current standards
 - IRIG-106 -17 (-19)
 - Telemetry App's Handbook.
 - TMATS use cases, complete but updates are made as needed
 - RCC XML handbook for IHAL and DDML XML

Sub Committee Membership

Looking for new members

Jon Morgan – possible replacement needed Joe Sulewski – Joe Merritt – part time Kratos Jack Sheldon Erwin Straehley Duane Wheaton

Sub-Committee Focus

- Very low activity last year
- Discussion about release of 218-19
 - ■Tm over ip spec has been released
 - Vendors and customers are using new spec

Open Actions

- Support RCC ongoing efforts:
 - TMATS Handbook releases
 - IRIG standards
- ■Support RCC –TG Telemetry Data Processing telecons and RCC meetings.

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY

INTERNATIONAL FOUNDATION FOR TELEMETERING

TSCC FALL 2021 Networks Subcommittee Report

May 20, 2020 WebEx Telecon (Due to Covid)

Sub Committee Membership

- Steve Nicolo, (Previous Acting Chair) GDP Space Systems, Ground Telemetry - Malcolm Weir is the new Network Subcommittee Chair -Ampex
 - Ben Abbot, Southwest Research Institute
 - Rich Hoffman, GDP Space Systems
 - Gary Thom, Delta Information systems
 - Wayne Klein, Apogee Labs
 - William Malatesta, NAVAIR
 - Hyong Yi, Curtiss-Wright Controls, Avionics and Electronics
 - Robert Weaver, Apogee Labs
 - Chris Dehmelt, L3 Telemetry East
 - Malcolm Weir, Ampex
 - Dave Buckley, Curtiss-Wright Controls

Subcommittee Focus

Standard	Location	Contact
RCC IRIG-218		New release coming out if 2019
RCC IRIG-106 Chapters21-28	irig106p2-chpt21-28.zip	Secretariat Range Commanders Council
		U.S. Army White Sands Missile Range New Mexico 88002-5110
SCPS	http://www.scps.org	http://www.scps.org/html/contact_points.html
CCSDS	http://public.ccsds.org/default.aspx	http://public.ccsds.org/about/contact_us.aspx
ТСР	http://www.faqs.org/rfcs/rfc793.html	
(Transmission Control Protocol)		
UDP	http://tools.ietf.org/html/rfc768	
(User Datagram Protocol)		
SNMP	http://tools.ietf.org/html/rfc3411	http://tools.ietf.org/html
(Simple Network Management Protocol)		
EEE-1588	http://ieee1588.nist.gov	http://www.ieee-ims.org/site/index.php
(A Precision Clock		
Synchronization Protocol for		
Networked MEasurement and		
Control Systems)		
FTP	FTP	FTP
(File Transfer	(File Transfer	(File Transfer
Protocol) http://www.ietf.or	Protocol) <u>http://www.ietf.org/rfc/rf</u>	Protocol)http://www.ietf.org/rfc/rfc959.txt
g/rfc/rfc959.txthttp://tools	c959.txthttp://tools.ietf.org/html	http://tools.ietf.org/html
<u>.ietf.org/html</u>		

TSCC Activities

- IRIG 218 20 was released last year (Major Task)
- Network Related work covered in the RR Report

Open Actions

As an ongoing action we have been looking for a permanent chairmen of the TSCC Network Subcommittee. With the disbanding of the Cyber Security Subcommittee (because Cyber Security information can not be published) Malcolm Weir has agreed to become the new chair of the Network Subcommittee.

TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY INTERNATIONAL FOUNDATION FOR TELEMETERING

Recorders & Reproducers Report – Spring 2021

May 20, 2021 WebEx

Sub Committee Membership

- Mark Buckley (Telspan Data), Chairman
 Albert Gabaldon (NAVAIR-CL), Alternate Chairman

 - Balázs Bagó
 Bob Baggerman
 Paul Carrion

 - 4. Chris Dehmelt
 5. Justin Denning
 6. Paul Ferrill
 7. Tim Gatton
 8. Dan Green

 - Bill Harrison
 - 10. Eric Lamphear

 - 11. Jake Layer 12. Mike Lockard
 - 13. Hung Mach

 - 14. Gary Marker 15. Doug Novak 16. Johnny Pappas 17. Steve Proudlock

 - 18. Charles Reyzer 19. Christian Rueck
 - 20. Malcolm Weir
 - 21. Craig Wierzbicki 22. Rick Williams

Safran

ATAC

Calculex

L3-Harris

EAFB

ATAC

Aerogear Telemetry (MIA)

Safran

Smartronix

Telspan Data

Smartronix

EMC Corp

Boeing

Wideband

Tyndall AFB Safran

Net Acquire

Boeing

Databus Tools

Ampex

Curtiss Wright

SDS

Sub-Committee Focus

- Data Recorders, Ground and Airborne
- Standards in Place
 - IRIG 106 Range Commanders Council (RCC) Telemetry Standards
 - http://www.wsmr.army.mil/RCCsite/Pages/Publications.aspx
 - <u>STANAG 4575</u> North Atlantic Treaty Organization (NATO)
 Standard Agreement (STANAG) NATO Advanced Data Storage Interface (NADSI) Allied Engineering Documentation Publication (AEDP)

http://www.nato.int/STRUCTUR/AC/224/standard/4575/4575.htm

- RCC Telemetry Group Recorder & Reproducer Committee
 - IRIG 106 Chapters 6, 9R, 10, 11
 - 2021 Pink Sheet submitted and reviewed
 - Editorial comments from Christian Rueck
 - Corrections made
 - *In the queue with the RCC Tech Editor*

Changes to This Edition of Chapter 11				
Paragraph	Change Request	Description		
11.2.2.3	RR_20_CR-01	Additions and corrections to PCM format 2		
11.2.1.1.g	RR_20_CR-04	Clarification of overflow bit		
11.2.10	RR_17_CR-03	Institutional adjustment for video formats		
11.2.10.2	RR_17_CR-03	Video Format 1 is Deprecated.		
11.2.10.3	RR_17_CR-03	Video Format 2 is Laundered.		
11.2.10.4	RR_17_CR-03	Video Format 3 is Deprecated.		
11.2.5.3	RR_19_CR-05	Place Holder for Analog Data Packet, Format 2		
11.2.5.4	RR_19_CR-05	Added Analog Data Packet, Format 3 (IF I/Q Recording)		
<u>11.2.1.5</u>	RR_17_CR-01	Added note regarding 'proposed' version 2 header		
Changes to Chapter 9R				
Chapter 9	RR_20_CR-03	Typo for the ARINC 429, sub-channels should be busses		
<u>Chapter 9</u>	RR_17_CR-03	Added/updated Video attributes for information details		
Chapter 9	RR_19_CR-05	Added Analog Data Packet, Format 3 attributes		
Changes to Chapter 6				
<u>Chapter 6</u>				

- Weekly Telcons held since Dec 2020
- Worked with TDP committee to resolve

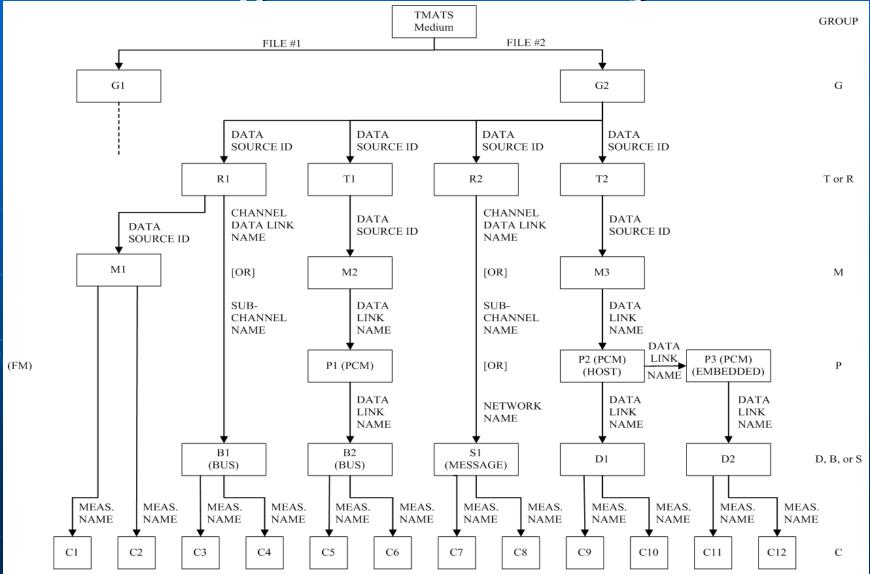
Q-Group) (formally S-Group)

- Much discussion on <u>Distributed DAU's</u> and multiple R groups
- After ~5 years finally making progress on <u>V2 header</u>

- The Q-Group
 - Started life as small upgrade to existing S-Group
 - A GREAT DEAL of effort...
 - Left S-Group alone
 - Created Q-Group
 - Still need to finalize
 - Comments received from the Pink Sheet
 - Updates to the handbook
 - Responsibility of the TDP committee
 - TG-Tasks 170 & 171

Distributed DAUs

- Started Life due to one vendor's implementation and interpretation of CH9. Figure 9-1 (next slide)
- Namely: MULTIPLE R's
 - **NOT** illegal or unlawful
 - **NOT** uncompliant
 - **BROKE** lots of software suites!!!
- Numerous and varied installations of Distributed DAUs
 - All legal, All compliant, All a software nightmare
- Dr. Bago wrote up a white paper describing the various use Cases
- AI. Create a new CR to implement RECOMMENDED implementations of Dist DAUs



- The infamous Version 2 Header
 - CR that is ~5 years old
 - (Requirements are varied...)
 - Attempt No 1
 - Combine with TmNS Header (?)
 - Save software efforts, development, costs
 - This will 'eventually' become UDP Format 4
 - Attempt No 2
 - Mr. Weir suggested:
 - Existing secondary header meets most of the requirements
 - Tweak the existing reserved bits to meet last requirements. (32Bit)
 - BUTT UGLY but doesn't break anything (In the recorder.)

Open Actions

- 1. Complete Q-Group
- 2. Create and finalize CR for Distributed DAUs
- 3. Finalize UDP Format 4
- 4. Finalize V1-2021 header RnR CRs for 2021+

CR No	Description	Status
RR_17_CR-006 (CR)	UART, First Packet Flag	Working
RR_18_CR-015 (CR)	PCM, unpacked 16bit	Working
RR_19_CR-005	IF Recording – Format 3 Format 2 - TBD	Format 3 competed Format 2 ????
RR_17_CR-001	Ver 2 Packet Header	Working
RR_19_CR-003	Message Data Structure Packet	Finalized?
RR_19_CR-004	Network Based Files (STANAG Format)	Working
TSCC_RR_20_CR-02	.CMD for open/closed files	Proposed

Weekly Telcons

- VERY Productive
- 2. Very short
- 3. Wednesday's 9-10/11AM (Calif time)

Note. DoD's M\$ Teams contract (aka CVR) will sunset 15 June.

New Teams URL will be required.

Unknown if other than DoD will be able to access it.





TELEMETERING STANDARDS COORDINATION COMMITTEE



SPONSORED BY INTERNATIONAL FOUNDATION FOR TELEMETERING

Cybersecurity Subcommittee Report – Spring 2021 LAST REPORT FOR THIS COMMITTEE

May 20, 2021 WebEx

Sub-Committee Focus

- Cybersecurity for Test Articles, Telemetry Links and Ground Systems
- Standards in Place
 - None Identified
 - See next slide

 At the Fall 2020 meeting it was recommended that the Cyber Security Subcommittee be disbanded due to the fact that we can not publish Cyber Security information on open TSCC Site because of its sensitive nature. This is the last Cyber Security report.