MINUTES

Standards Liaison Group for Automatic Test

2012-1 Meeting
31st May 2012

Venue: Rohde & Schwarz, Fleet
Start: 10:00 am
Chair: Malcolm Brown   DE&S – EngTLS TM Development
Secretary: Terry Coles   Cassidian Test Engineering Services Ltd

Those present:

Alex	Barrett	MBDA (UK) Ltd
Pete	Cassidy	DSG, Sealand
Chris	Gorringe	Cassidian Test Engineering Services Ltd
James	Gibson	Rohde & Schwarz UK Ltd
Ashley	Hulme	Independent Consultant
Ian	Tonge	Serco Technical and Assurance Services
Keith	Ellis	AKE Consultants
Andrew	Parkinson	Teradyne Ltd
Tom	Phillips	SELEX Galileo
Keith	Randall	Rohde & Schwarz UK Ltd

1.   APOLOGIES

Apologies for absence were received from:

Roland	Andrews	DiagnoSYS Ltd
Kevin	Clutton	Serco
Bob	Collins	Ametek
Matt	Cornish	Cassidian Test Engineering Services Ltd
Paul	Fowler	Raytheon
Phil	Gilham	Rohde & Schwarz UK Ltd
Steve	Kelly	DSG, Sealand
Penri	Jones	Cassidian Test & Services Ltd
Simon	Krank	DSG, Sealand
Howard	Saward	Cassidian Test & Services Ltd
William	Sinclair	SELEX Galileo
Colin	Sycamore	Intepro Systems
Simon	Tanner	Intepro Systems
Terry	Tinsley	Aeroflex Test Solutions
Bill	Tulley	MBDA (UK) Ltd
Alain	Vervin	Teradyne Ltd
Graham	Ward	Astrium
James	Wilford	Amtek
Jochen	Wolle	Rohde & Schwarz GmbH & Co. KG

2.   CHAIR'S INTRODUCTION

The Chair opened the meeting with a round of introductions.

3.   REVIEW OF MINUTES OF LAST MEETING

No errors in content or accuracy were reported in the minutes of the 2011-1 meeting. The minutes were accepted as an accurate record of the meeting.

4.   OVERVIEW OF DE&S (TLS) ACTIVITIES AND UPDATES TO TEST POLICY

a)   TLS Organisational Changes

With the aid of a Presentation, (distributed with these Minutes), MB explained the recent changes to the Through Life Support Organisation:

- The head of Support Chain Management (SCM) is moving on.
- Dan Smith is now responsible for all TLS throughout the group.
- There will be a reduction in numbers in the next few months.
- Richard Denning is now predominantly concerned with Reliability.
- Vimbai Fedrick has been promoted to manage Test and Measurement. Her main role is to manage document Policy and to provide advice and guidance. She has taken on C Turner, James Orton, J Wilson and Billy Trousdale. Billy is now predominantly concerned with Weapon Testing.
- MB now has a new title and is currently working alone. His roles include:
  - Identification of Support Equipment.
  - SCC20.
  - Development of Standards and the identification of gaps.
  - Relationships between organisations. Looking to improve interoperability between governments.
  - Review of Mod Standards with respect to test to identify other International Standards that might be used instead.

Post Meeting Note: The new head of SCM took over on the same day as the Meeting. He is Brigadier Mark Dunn.

b)   Test Policy Update

A number of policy documents were taking comments or scheduled for release at the time of the meeting:

- Def Stan 66-31 Pt 8 has received some comments from attendees.
- JSP 886 Vol 7 Part 8.06 (Test Equipment) has been rewritten and was due for release the following week. Chapter 2 of this document covers UADs (User Access Devices) with the aim of reducing the number of laptops, tablets, etc in the field. The James Project Team has purchased a number of assets but there were some issues, mainly proprietary. The new chapter was intended to minimise these issues.
- JSP 886 Vol 7 Part 8.07 (Support Equipment) was awaiting comments.
- JSP 886 Vol 7 Part 8.17 (Calibration) was awaiting authorisation and was expected at about the same time as 8.06.
- JSP 509 was referred to in all of the above documents and was currently being revamped. This covers any topics related to Test Equipment. The work has been outsourced to DSG.

Post Meeting Note: JSP 886 Vol 7 Parts 8.06 and 8.17 were published on the same day as the meeting.

There were a number of questions:

- MB was asked for a description of the changes to the Calibration Policy document. He explained that this was now only a two page document. It still contains a statement about the measurement of uncertainty.

- With respect to the UADs policy, MB explained that a study of existing devices had been performed by LogNEC with the conclusions that there should be a policy. The policy would cover environment, Technical Publications, support and the equipment being used with the devices. Also, the team wanted to standardise on a specific connector type. The aim was to standardise on a specific UAD or group of UADs, to enable testing closer to the front line. MB was looking at what was needed and what could be done and Cranfield University may be performing a study.

c)   Validation & Compliance

TJC gave a short presentation (slides included with these Minutes) of the IEEE 1641 Validation toolset recently produced for MB to help project teams understand the requirements to meet the AOF. The toolset includes a Guidance Document, with associated Presentation to educate personnel and support Training. Also included are a Validation Process Document and Compliance Matrix which allow project teams to formulate requirements.

There were a number of questions:

- Would the document be updated to include new techniques as they became available, eg statistical methods of establishing uncertainty? MB confirmed that if appropriate, updates would be included.
- How would modern instruments be catered for, since most people no longer write drivers; they are supplied with the instrument? After some discussion it was agreed that in some organisations, drivers were still produced and wrappers could also be used.
- How does IEEE 1641 support data buses? CCG said that providing that the data bus protocol met a published standard, then only the messages being passed needed to be defined in the IEEE 1641 definition. The real problem arises when proprietary buses are used, because the physical specification and protocol definition would then have to form part of the signal definition. TJC emphasised that the whole point of the Standard was to pass information on to future project teams and there was no requirement to divulge how the signal was generated only what was generated. There was considerable discussion on this point and it was noted that this was mainly a problem in the development of military hardware, because the commercial world had largely settled on International Standard buses.

5.   DEFENCE STANDARDS

MB gave an update of the status of test related Defence Standards:

- Def Stan 00-53 – Safe Operating Limits. This was reviewed and updated in 2007. MB asked if this standard was still required, eg, should it be kept (as obsolescent) or removed. After some discussion it was agreed that it should be retained and updated because the document was still current and had a bearing on Boundary Scan, which was now much more prevalent. MB stated that he would review this to determine if it should be updated. It was suggested that the title could be changed to 'Safe Operating Limits for Component Test'.

                                                                    Action MB

- Def Stan 00-70 – Standard Serviceability Test. This document had been made obsolescent, but had been reinstated to cover Weapon Testing. It was generally considered to be a good document. It was noted that the

document references Def Stan 00-14, which was defunct. MB stated that he would review and update the document.

<div align="right">Action MB</div>

- Def Stan 00-42 Part 4 – Testability. There was a call for comments on this document, which was due to be rewritten. There was some discussion regarding whether IEC 60706-5 could be utilised instead, but it was agreed that the Def Stan needed to be much simpler than the IEC document to fulfil its purpose. There was some discussion regarding content and it was agreed that the document could include processes to cover obsolescence, No Fault Founds and the ability to run BIT in a deconstructed state. MB stated that he would review the document to see if anything needed to be added.

<div align="right">Action MB</div>

6.   REPORT ON SCC20 ACTIVITIES & 2012–1 (NASA) MEETING

a)   Organisational and SA rule Changes

With the aid of a Chart, (distributed with these Minutes), CCG explained the recent changes to the SCC20 Organisation.

There had also been changes to balloting procedures but these mainly affected the chairman.

b)   Status of ATML

CCG said that the process was happening and most of the Trial Use Standards that had not been challenged were being pushed through. The exceptions were UUT Description and Test Description, which were being normalised.

c)   Revision of 1641 User Guide (IEEE 1641.1)

There had been a brief meeting on this document (Draft G) and it had been agreed that the document was suitable to go forward for ballot. Since the meeting, AH had released the document at Draft 1 and a copy is included with these Minutes.

Post Meeting Note: The balloting group is now open for membership until 29th June 2012.

d)   New Projects

It had been decided by SLGAT, at the previous meeting, that P1693 (Standard for Modular Interconnect Packaging for Scalable Systems) wouldn't be supported. A new version of the document will be produced by the HI Group within SCC20. MB had reviewed and commented on the document and concluded that 50% of it was not worth retaining because there was another standard that covered it. The document is available on the IEEE website.

Two other new standards had been started:

- P1871.1 – Recommended Practice for Specifying Synthetic Instruments.
- P1871.2 – Recommended Practice for Identifying Path Loss. In response to a question CCG confirmed that this included the use of S Parameters.

e)   Other

CCG also mentioned that the Diagnostic maintenance and Control Committee had put some SIMICA common definitions out for ballot, although these were currently suspended.

A number of other standards were queued for ballot.

Post Meeting Note: The SCC20 minutes can now be downloaded from the SCC20 website http://grouper.ieee.org/groups/scc20/.

7.   Overview of OSA RTS

With the aid of a Presentation, (distributed with these Minutes), CCG provided an overview of an ongoing project to produce an Open Systems Architecture Runtime System. He amplified the presentation with a number of comments:

- During earlier demonstrations of ATML, 'Best of Breed' tools were used to show off ATML capabilities. However, nothing else happened after that until a FATS bid was produced to build on this work to produce an OSA RTS.
- The system was deliberately componentised to make it easy to use with other COTS tools.
- A paper will be presented at Autotestcon to describe the system. It was suggested that Teresa Lopes be asked to review this.
- After a query, MB confirmed that if this was implemented by suppliers, it would be seen as an acceptable approach to comply with the AOF.

8.   ANY OTHER BUSINESS

a)   Statistical Limits as Opposed to Tolerancing

There was some discussion about this technique, which is being used by Selex. MB said that he would look into it.

Action MB

9.   DATE OF NEXT MEETING

The next meeting will be held after Autotestcon, probably in November 2012 (date to be advised).

The Chairman closed the meeting at 2:30 pm

Terry Coles   Malcolm Brown
(Secretary)   (Chair)

Circulation List

Alain	Vervin	Teradyne Ltd
Alex	Barrett	MBDA (UK) Ltd
Andrew	Parkinson	Teradyne Ltd
Andy	Mugford	BAE SYSTEMS
Ashley	Hulme	Cassidian Test Engineering Services Ltd
Bill	Tully	MBDA (UK) Ltd
Bob	Collins	Ametek
Chris	Gorringe	Cassidian Test Engineering Services Ltd
Colin	Sycamore	Intepro Systems
Darren	Nichols	Rohde & Schwarz UK Ltd
Darren	Winter	BAE SYSTEMS
Dave	Joel	Lanson Consultants
Dean	Freestone	GE Aviation
Graham	Ward	EADS Astrium
Howard	Saward	Cassidian Test & Services Ltd
Ian	Tonge	Serco Technical and Assurance Services
Jack	Taylor	SELEX-Galilieo
James	Wilford	AMETEK
Jochen	Wolle	Rohde & Schwarz GmbH & Co. KG
Keith	Ellis	AKE Consultants
Keith	Randall	Rohde & Schwarz UK Ltd
Kevin	Clutton	Serco Technical and Assurance Services
Malcolm	Brown	DE&S – Head of ATS
Matt	Cornish	Cassidian Test Engineering Services UK
Mike	Davis	SSBV
Paul	Attwell	CIMTEK
Paul	Fowler	Raytheon
Penri	Jones	Cassidian Test Engineering Services Ltd
Pete	Cassidy	DSG
Peter	Lawson	GAMBICA
Phil	Gilham	Rohde & Schwarz UK Ltd
Peter	Wilson	Terotest Ltd
Richard	Padley	GE Aviation
Richard	Stonham	BAE SYSTEMS
Roland	Andrews	DiagnoSYS Ltd
Simon	Krank	DSG
Simon	Tanner	Intepro Systems
Steve	Brenner	Terotest Ltd
Steve	Kelly	DSG
Terry	Coles	Cassidian Test Engineering Services Ltd
Terry	Roblett	EADS Astrium Ltd
Terry	Tinsley	Aeroflex Test Solutions
Tom	Phillips	SELEX Galileo
Vimbai	Fedrick	DE&S
William	Sinclair	SELEX Sensors and Airborne Systems Ltd

SCC-20 Organization - 2012

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│ IEEE Staff Liaison  │ - - - - -│ Chair: Mike Seavey (Northrop Grumman)     │- - - - - │ IEEE-SA Standards Board │
│ Kathryn Bennett     │          ├─────────────────────────────────────────┤          └──────────────────────┘
└─────────────────────┘          │ Vice Chair: Chris Gorringe (CASSIDIAN Test│
                                 │ Engineering Services UK)                  │
                                 │ Secretary: Teresa Lopes (Teradyne)        │
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Liaisons
John Sheppard (CS), Joe Stanco (I&M), Joe Stanco (AES),
Bill Ross/Chris Giggey (DoD), Malcolm Brown (MoD),
Les Orlidge (NDIA)

Administrative (ADMIN)
SCC20 Vice-Chair
Chris Gorringe

Hardware Interfaces (HI)
Co-Chair: Mike Stora (Sysintech)
Co-Chair: Steve Mann (BCO)
Secretary:

Diagnostic and Maintenance Control (DMC)
Co-Chair: John Sheppard (Montana State University)
Co-Chair: Mike Bodkin (Lockheed Martin)
Secretary: John Sheppard (Montana State University)

Test and ATS Description (TAD)
Co-Chair: Ashley Hulme (CASSIDIAN Test Engineering Services UK)
Co-Chair: Ion Neag (Pioneering Decisive Solutions)
Secretary: Mike Rutledge (EADS North America)

Test Information Integration (TII)
Co-Chair: Teresa Lopes (Teradyne)
Co-Chair: Chris Gorringe (CASSIDIAN Test Engineering Services UK)
Secretary:

Hardware Interfaces (HI)

IEEE-1505
Receiver Fixture Interface (RFI)

IEEE-P1505.1
Common Test Interface Pin Map

IEEE-P1505.1.1
Common Test Interface XML Instance

IEEE-P1505.3
Test Interface and Pin Configuration
for Portable/Bench Top Test

IEEE-P1693
Standard for Modular Interconnect
Packaging for Scalable Systems

Diagnostic and Maintenance Control (DMC)

IEEE-1232
AI-ESTATE

IEEE-P1232.3
AI-ESTATE Users Guide

IEEE-1636
SIMICA

IEEE-1636.1
Test Results and Session Information

IEEE-P1636.2
MAI

IEEE-P1636.99
SIMICA Common

IEEE-1445
DTIF

IEEE-1546
DTIF Guide

Test and ATS Description (TAD)

IEEE-1641
STD

IEEE-1641.1
Guide to the use of STD

IEEE-716
C/ATLAS

IEEE-771
Guide to the use of ATLAS

IEEE-1671.1
Test Description

IEEE-1671.3
UUT Description

Test Information Integration (TII)

IEEE-1671
ATML Overview and Architecture

IEEE-P1671.0
Guide for the Use of ATML

IEEE-1671.2
Instrument Description

IEEE-1671.4
Test Configuration

IEEE-1671.5
Test Adapter

IEEE-1671.6
Test Station

IEEE-P1871.1
Recommended Practice: IEEE 1671.2
Instrument Description Templates

IEEE-P1871.2
Recommended Practice: IEEE 1671
Intrinsic Signal Path Information

Legend:

In IEEE Ballot Process	
Published Trial-Use Standard	
Published Standard	
Project in Work: Not Previously Published	
Shadow indicates there is a PAR for the development of or revision to	

As of March 7, 2012