



48th CEEES Meeting

Minutes of R and ESS TAB

Meeting location : Mercure Hotel Noordwijk

Date : 28^h September 2007

Attendees : see list hereafter



Name	1 st name	Company/Society	phone	fax	email
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1 - ADOPTION OF THE 47rd CONGRESS R&ESS MEETING MINUTES

The minutes are adopted.

2 - Apologies FOR ABSENCES

Michel Holy and Colin Weetch are apologized.

Dave Corben is quitting plot and CEEES after a change in his job.

Gunnar Ruding , 83 has won the right for a happy retirement.

3 - INTRODUCTION OF MEMBERS

Harry Roosien , from Sony Ericsson Mobile International. Are making accessories for mobile phones.

The mobile phone are made in Sweden and they do accessories in Holland, such as headsets, watches. He is taking over of Dave Corben within PLOT , where they have 3 meetings²per year .

They have a reliability, a mechanical and a Halt working groups. In this latter group they have now some return of experience and they have discussions on the theory at the basis of Halt.. In the Reliability group they work on models : for example understanding Weibull models, In the mechanical working group, the issues concern ESS and vibration tests within Halt.

Jan Geerse, from Dutch Space. He is test facility manager and is involve in high temperature tests , vacuum tests . He is defining the test strategies, not only for tests done in the company but elsewhere in France, in Germany. He is secretary from PLOT, and participates since a long time in the working group on reliability within PLOT.

Chris Peterson, is a HALT HASS consultant. She chaired the IEC maintenance team for climatic chambers and ISO vibration team . She is involved in a team rewriting the standard 810 , she is in a HALT HASS working group within IEST, She is helping within IEEE in a workshop on accelerated testing. She tries keep involved as much as possible at the international level. She has been working 3 years with Angelantoni ACS and her contract has finished this month. She is coming back to America .

Helge Palmen is with VTT in Finland that is a research center. Kotel is the organisation in which are the working groups. He is the secretary of the Reliability working group. He is involve in reliability of electronic components and reliability analysis.

Francisco AZEVEDO is from Portugal. He is secretary of the Portugese society called Sobsar, that is linked with University. He is developing projects with professor Britto on risk assessment, with relations with company assurance on the issues relative to the calculation of the premium of assurance.

Boudewijn Jacobs, He is working with Philips Medical Systems, where he is manager of the Halt activity. He is concerned by safety and also reliability.

Marco Perego from Angelantoni CS . He was formerly the head of "Polit " department and is now in charge of solar sets.

Henri Grzeskowiak, head of environmental test department at French MOD (LRBA) from 74 to 83 , then at Matra, became MatraBaeDynamics from 1983 to 1997 , and then as expert at MBDA . Now on his own since 2006 as HG Consultant.



5- ESS ACTIVITY

Definition of terms paper was reviewed. Near completion.

See the attached draft1 .

6- R ACTIVITY

Discussion turned about some parts of the document essentially HALT and HASS (see attached draft 1).

6.1 Different types of tests

6.1.1 List of tests

Type of test	In charge of	
feasability , design aid	Colin	Done
Development test	Michel	Done
<u>Reliability growth test (RGT)</u>	Colin	
Higly accelerated tests	Henri	Done
Accelerated tests	Helge	Done
<u>Qualification</u>	Michel	
<u>Reliability demonstration</u>	Colin	
ESS including HASS	Henri	To be validated by Chris Peterson
<u>Acceptance test</u>	?	
<u>Production reliability acceptance test (PRAT)</u>	?	
<u>Pre production (zero production)</u>	Gunnar initially	Must we maintain this type of test
<u>Life duration</u>	Colin	
<u>Verification (validation)</u>		Must we maintain this type of test

There are still several type of tests which have to be developed : **In red : all the tasks under progress or to be realized.**

Chris Petersson proposed to rewrite the part of the draft that is **overlined in green.**

Henri will propose for the next meeting a first draft of the integrated recommended practice.

He will add a text " For a mature product since the beginning of its deployment " as a first part of the document.

6.1.2 Template to apply to each of these tests

1	Test objective (purpose,definition...)
2	What is driving you for performing the test ?
3	Level of assembly of the product submitted to test
4	Number of items submitted to test
5	Type of product relevant to be submitted to the test (mass volume low price product ,...)
6	Test duration (days, weeks, months..)
7	Separate or combined environments
8	Product strength and environment stress variabilities are or aren't considered (in the process of deriving the test severity)
9	Does the test bring knowledge on reliability parameters ?
10	Does the test consume totally or partially the life potential of the equipment submitted to test ?
11	main norms , standards, technical references relative to this type of tests



6- TOUR OF TABLE

- Jan Geerse :

“In Space area, each product is specified to a very well defined environment , in contrary of the commercial products which meet a less known environment for each product : the specification is then defined as an envelope for a family of products, so I couldn't tell about what is happening for commercial products.environment”
- Harry Roossien
 - o The conditions to which failures might occur
 - o The customers want to know when they buy a phone or a head set the uptime they have without a failure
 - o There is a switch of more and more companies from compliance to specifications towards more robust products ; so there is a bulding up of knowledge and competence in this domain.
 - o Some customers are requesting to have a Halt Test report
- Helge
 - o KOTEL –project, TUPA: A handbook is developed with a general process and methodology for cost effectively manufactured, transported and assembled environmentally compatible product design and packaging.
 - o A new project proposal : Virtual environmental condition testing of a product – linked to the Swedish corresponding EUREKA project
 - o EU –project has started : Magic, management of ageing of I&C equipment of NPPs
 - o EU –project in preparation : LOTUS, long term use of electronics – emphasis on advanced IC technologies (DSM, nanotechnology etc.), VTT interest is in the methods for evaluation (accelerated testing, life testing, simulation of these, models)
- Marco Perego :
 - o 2 sessions (2 days per session) of training are organized per year , each with 2 levels : low and high (around 20 to 30 people per session , i.e. 80 to 120 persons trained per year)
 - o A training has been given by Equipment Reliability Institute (ERI) of Wayne Tustin in the USA : around 10 persons attending
- Henri :
 - o ASTE working group which has produced the guide “Environmental Stress Screening for Electronic Equipment using Highly accelerated Tests” .is willing to write a recommendation on the practical aspects of HALT and HASS



List of virtual members

Current members + following list.

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