

**Minutes of the Transport Stresses Working Group of the
Committee for European Environmental Engineering Societies
Held on 26th September 1996 at Grand Hotel Ritz in Rome**

Present at the Meeting of the Transportation Stresses Working Group (TSWG) were;

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| Mr M. Belotti | AITPA |
| Dr. U. Braunmiller | GUS |
| Mr. M. Dumelin | SSEE |
| Mr. R. Finger | SSEE |
| Mr. T. Hell | SEES |
| Mr. M. Juntunen | SEEF |
| Mr. D. Richards | SEE (Chairman) |
| Mr. G. Ruding | SEES |
| Mr. T. Trost | SEES |

Actions Arising

The meeting welcomed Tyggve Hell, Michele Belotti and Markku Juntunen.

A list of TSWG members, including corresponding members, was circulated. This is attached to the minutes.

Systematisation of Measurement Methodologies

A number of aspects were addressed under this heading.

CEN/TC 261 WG. Thomas Trost reported on the progress of this working group. As of the last meeting the status of the various papers was as follows;

- i. Determination of C of G - Final draft to SC1
- ii. Vertical Impact Test (by rotational drop) - new draft
- iii. Water Immersion Test - No revision needed.
- iv. Clamp Truck Test - Need for this is still to be decided.
- v. Random Vibration - WG 4 has asked for this work to be postponed until results from the SRETS work is available.

Following the brief presentation by Thomas (copy of VU foils attached) a discussion took place on the relationship with IEC-68 which is applicable to packaged equipment whilst CEN/TC 261 WG is addressing the actual packages.

CEN/TC/320 WG2 (Transport Quality). Ulrich Braunmiller reported that this working group had two (partially conflicting) proposals. At the last meeting these two proposals were merged. A draft of this combined draft was circulated by Ulrich and is attached.

DIN 30787. Ulrich Braunmiller reported for Ed Furrer on the progress of this DIN standard. The status of DIN 30782 to 9 are attached.

SRETS. Ulrich Braunmiller gave a brief presentation of the SRETS work program which has been funded by the EU since the workshop in February. Following the meeting Thomas Trost prepared a brief description of the project - this is attached.

Mil Std 810F. Marcus Dumelin reported from the last IES meeting that the Mil Std 810F vibration chapter was scheduled for issue in 1997. At the IES meeting it had been confirmed that the document would be issued as a Handbook (Hbk rather than Std).

Monograph on Round Robin Methodologies

Monograph. A brief discussion took place on this document. Although the chairman requested comments from the members, he stated that specific comments from Christian Lalanne were required. Unfortunately Christian was not at the meeting. It was observed by Rolf Finger that the working party had previously agreed to adopt the IES working practices on vibration and shock measurement and analysis (by Himenblau, Piersol et al). It was agreed that the title of the monograph could lead the user into thinking the two documents were in conflict. The chairman agreed to look at an alternative title to resolve this possible problem.

Bibliography The original bibliography was distributed to the various societies some time ago. Thomas Trost stated that he would be willing to collate any new references relating to transportation stresses.

Action. A general action was placed to submit any new references to transportation stresses to Thomas Trost.

Round Robin Exercise

Some discussion had taken place at the last meeting of the TSWG with regard the possibility of another round robin exercise. An example disc had been circulated a few weeks before the current meeting containing vibration and shock data. The purpose of the example disc was to ascertain whether the TSWG members could read and manipulate data the proposed data.

Several responses were voiced by the members briefly these were;

- i. Do the shocks need to be so close to the vibrations. { no }
- ii. Could not a time step be specified rather than a time base. { yes }
- iii. Could the data be placed on the internet. { yes but not initially }

The chairman asked whether the data format was acceptable. A discussion followed in which the analysis packages that could be used by the members present was set out. This clearly indicated that a wide range of packages were to be used and that the majority could accept the fixed format ASCII file used in the example disc. The following actions were placed

Action. All members agreed to look at the data before the end of November 1996 and inform the chairman whether they could read the data or not.

Action. The chairman agreed to prepare a statement of the objectives of the round robin exercise and circulate it to the members.

Action. The members agreed to consider how further participants could be recruited from the individual societies.

Thematic Network.

Information on thematic networks had been circulated to the majority of the TSWG members before the meeting. The concept of a thematic network had resulted from discussions between the CEEES president and EU representatives. Thematic network funding is intended to permit co-ordination of applicable research and facilitate the interchange of technology and know how. In practice this means the costs associated with meetings, translations etc. However, thematic network funding does not fund the research itself. As such if we are to use this approach a need exists to identify current or future research and development which is common to a number of TSWG members. One suggestion for a thematic network

was the technology involved in undertaking combined vibration and shock tests. Another suggestion was to expand the techniques of the original round robin exercise. The following actions resulted;

Action. All members to consider possible thematic network topics.

Action. The Chairman and Ulrich Braunmiller to look at the practicality of submitting a bid for thematic network funding.

Election of Chairman.

At the last CEEES meeting it was agreed that the working group chairmen should be elected every two years. In the absence of any other volunteers the existing chairman was re-elected.

Presentations

Two short presentations were made at the end of the meeting.

Markku Juntunen presented a work programme that had just been initiated at VTT in Finland on "Mechanical Design for Severe Environmental Conditions. The programme is expected to take 3 years and cost some 2500 000 Finnish Markka. Information on this work is currently presented on the Internet and copies of the vu-foils he used are attached.

The second presentation was by Tyggve Hell on the analysis of aircraft flight vibration data. He presented the approach used by SAAB to undertake validity and quality checks as well as parametric comparisons.

The working group thanked both Markku and Tyggve for the presentations.

Any Other Business

Markus Dumelin said that he had received a request from the EU (specifically DG12) to submit his details for an Experts List. For information a copy of the questionnaire he received is attached.

Next Meeting

The date of the next meeting of the TSWG is still to be decided.

Enclosures

1. Names and Addresses of TSWG Members
2. Progress of CEN TC 261/SC1 by Thomas Trost
3. Draft Paper CEN TC 320 WG2
4. Format of DIN 30787 From Ed Furrer
5. SRETS
6. Presentation of Mr. M. Juntunen
7. EU Expert List Questionnaire.

Distribution

Mr K. Ahlin
Mr M. Belotti
Dr. U. Braunmiller
Mr D. Charles
Mr. M. Dumelin
Dr P. Dehombreux
Mr. R. Finger
Mr. E. Furrer
Mr. T. Hell
Mr K. Janousky
Mr. M. Juntunen
Mr C. Karsberg
Mr. C. Lalanne
Mr J. Moriceau
Mr. D. Richards
Mr G. Ruding
Mr T. Schreiber
Mr H. Torstensson
Mr. T. Trost
Dr. K. Ziegahn
plus CEEES Secretariat

Enclosure 1

Enclosure 2

Enclosure 3

Enclosure 4

Enclosure 5

Enclosure 6

Enclosure 7