AGENDA - SEM Annual Conference 2001

- Introductions
  - Dr Richard Burguete / Prof. Eann Patterson
- ASTM E08 - Standard guide for evaluating non-contacting optical strain measurement
  - Prof. Mike Sutton
- Standards development in Japan for full-field optical strain measurement methods
  - Prof. Yoshihari Morimoto
- The SPOTS initiative in Europe
  - Prof. Eann Patterson
- New projects
  - Dr Richard Burguete
- Discussion
  - All

RATIONALE

- Massive expansion in full field optical stress and strain measurement
- Potentially VERY valuable to industry
- Optical non-contact methods readily applied to complex problems
- High measurement and spatial resolution

- Standards will enhance acceptance of results

CURRENT STATUS

- No international standards for procedures, materials or equipment
- Some acceptance of methods for certification in aerospace
- Some examples of best practice e.g.
  - Measurements Group's Tech Notes & Instruction Bulletins
  - BSSM Code of practice

AIMS OF VAMAS

- The development of test methods
- The comparison of test results
- The production of reference materials
- The establishment of databases of material properties
- The agreement of nomenclature

AIMS of TWA 26

- To develop standard practice
  - some exist
- Acceptance by standards and certification authorities
  - currently fragmented
- Enhance profile for optical methods
  - Industrial usage
  - Funding for further research
  - Profile of experimental methods

ROUTE TO STANDARDISATION

- Standardisation is an enormous project
  - Pre-normative research
  - Preparation of standards
- Optical methods share much technology
  - Exploitation will lead to more efficient route
- Distribution of labour across nations
  - Reduced duplication of effort
  - Improved chances of funding

CONCLUSIONS

- Problem of standardisation exists and needs to be addressed
- Time is right to tackle the issue now
- Greater collaboration would benefit ESA in general
- Could improve the prospects of ESA to become a more widely used industrial tool

MODUS OPERANDI

- Documentation and guidelines from VAMAS
  - See VAMAS web site: www.vamas.org
  - VAMAS secretariat email: vamas@nist.gov
- Structure of TWA
  - Project coordinator: richard.burguete@baesystems.com
  - Project participants (see website: www.twa26.org)
- All requests for information/help to

  Chair/Co-chair ➔ TWA steering committee ➔ VAMAS steering committee