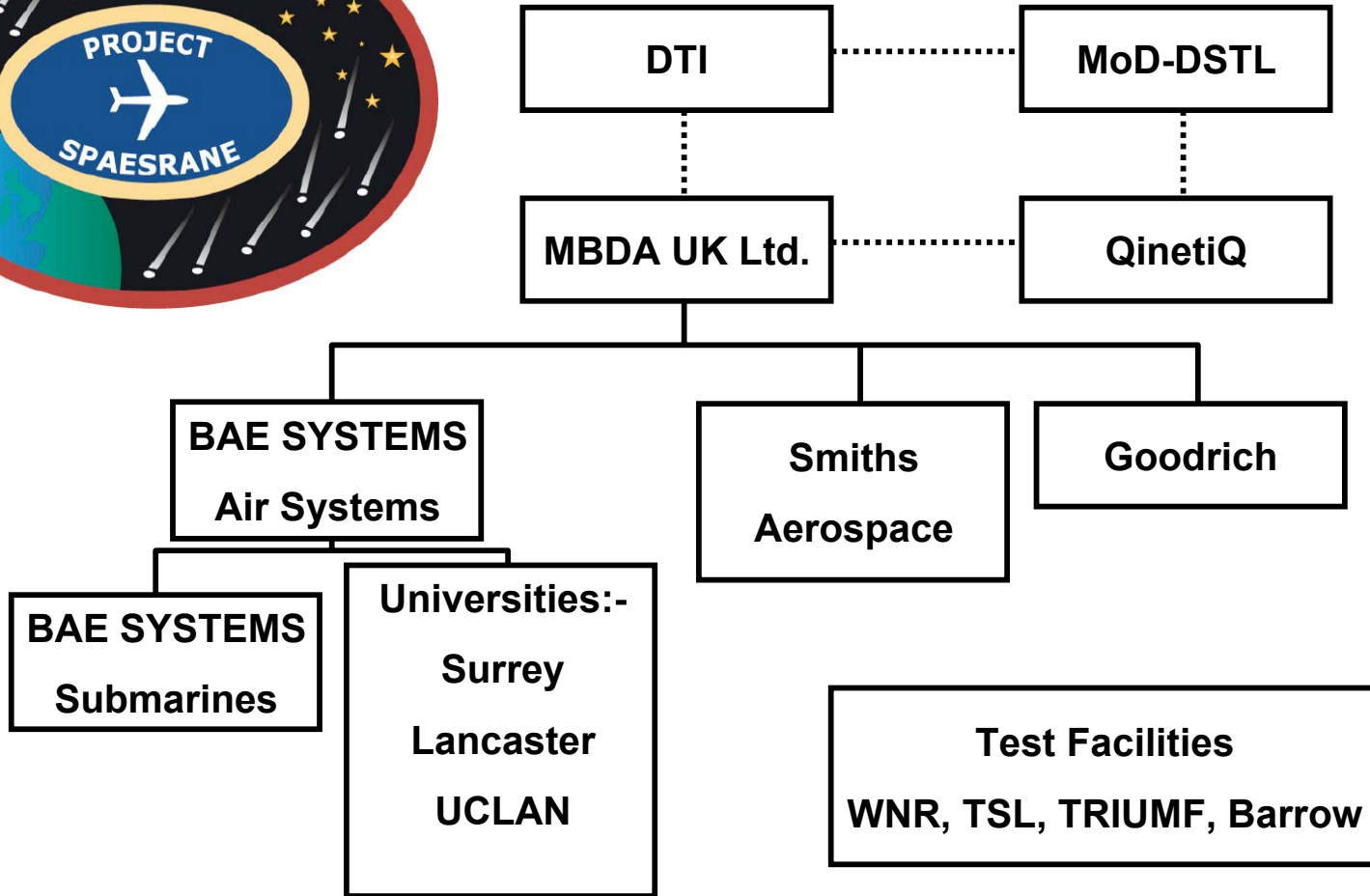


SPAESRANE

Solutions for the Preservation of Aerospace Electronic Systems Reliability in the Atmospheric Neutron Environment

By Andrew Chugg, Technical Expert, Radiation Physics

- Upsets and failures of microchips by the action of individual radiation particles is known as Single Event Effects (SEE)
- SEE is probably now the predominant threat to the reliability and safety of electronic systems at flight altitudes
 - Natural background radiation particles (especially neutrons) are hundreds of times more common at flight altitudes than at sea-level
- Implication: SEE is a vital strategic concern for the aerospace industry
- Consequently the UK Department of Trade and Industry is co-funding the SPAESRANE research consortium to maintain the competitiveness of the aerospace industry in the face of the SEE threat
- MBDA Radiation Effects Effects Group is leading the SPAESRANE research programme



SPAESRANE Work Packages

