Indicative Programme : Actual Device Types Are tbd Or If Mentioned Are Subject To Change

Radiation Evaluation of COTS Devices, Phase 3, Hirex (F)

Large Capacity Memories (SRAM, DRAM, EEPROM, Flash)

Radiation Pre-Evaluation of FPGA, Phase 5 SES (S)

SEU testing of Actel 54S... and Xilinx types at high clock frequency

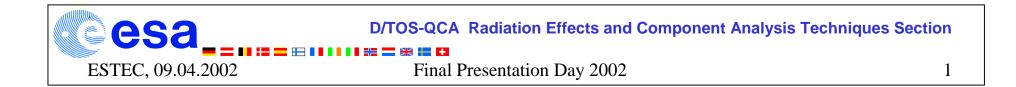
Radiation Testing of Optocouplers (TID, SEE, Proton, Neutron)

Radiation Testing of Commercial Power MOSFET (non-US types)

Transient Effects Characterisation on Linear Device types

Characterisation of APS (STAR-250 & IRIS-2, Fillfactory) & CCDs (TH7890M & TH7863D, Atmel, CCD57-10 & CCD55-20, Marconi Applied Tech.)

& many more part types under consideration (mostly dependent on project need confirmation)



Utilisation of Pulsed Laser for SEE Testing

continuation of activities started with Hirex (F) & Matra BAe Dynamics (UK)

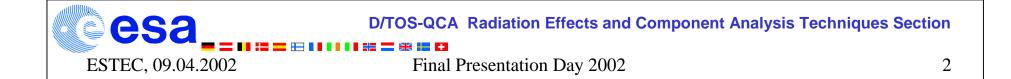
Influence of the Tilt Parameter during SEE Characterisation with Heavy Ion Beams (UCL (B))

Radiation Effects in Cryogenic Electronics & Advanced Semiconductor Materials, Ph.2 (IMEC (B))

RadFET Development and Characterisation (NMRC, IRL)

Miniature Radiation Monitor (SENSYS (NL) // Matra BAe (UK)) SENSYS MRM prototype to flying on PROBA

Displacement Damage Study - "NIEL Tool" (University of Cologne (D))



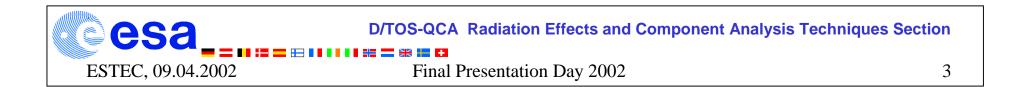
Miniature SREM Development (with TOS-ESM, Contraves Space (CH)), contin.

Low Power, Radiation Tolerant Microelectronic Design Techniques (leader : TOS-ESM) in the frame of Galileosat NSGU Support Technologies Progr. & TRP

New Technology (MH2-RT) and Component Developments at Atmel (with CNES)

Following the successful test campaigns in 2001, 2 more are scheduled in 2002 to explore and

enhance the complementary capabilities (w.r.t. HIF) of the JYVÄSKYLÄ (FIN) facility for component testing (considered as potential 3rd ESA Radiation Test Facility)



SREM Batch Procurement : de facto completed

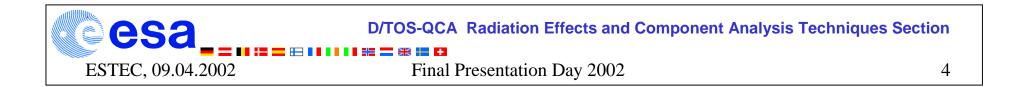
confirmed/foreseen missions : PROBA, PROBA 2, ROSETTA, GSTB, HERSCHEL, PLANK, GOCE, (IREM on Integral)

New Generation SREM development under discussion

Component Technology Test Bed (CTTB) in advanced state of preparation

Several flight opportunities for Radiation Instrument Packages under discussion

Gammabeam at ESTEC :Co60 Re-Load completed in November 2001 (2000 Curie)Test Control & Support Improvements largely completedTest opportunities available



QCA Homepage and ESA RADIATION EFFECTS DATA BASE

https://escies.org => Enter => Public Area => Radiation

The Presentations of today, the 5th QCA Presentation Day will be posted there

Major update of the Data Base will be complete by the end of April 2002

What We Would Like to Have

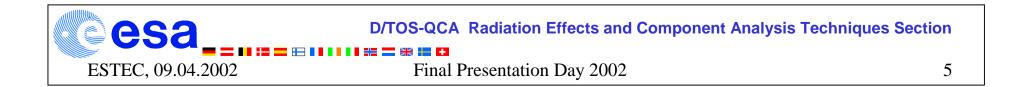
Is Your Feedback - Comments and Suggestions

Work in progress on

ECSS E-20-02 Standard on Method for the Calculation of Radiation Effects and Margin Policy

ECSS Q-60-0x Standard on Radiation Hardness Assurance

Short Course(s) on Radiation Effects for project engineers (at first for ESA internal purposes)



NSREC 2002

IEEE Nuclear and Space Radiation Effects Conference

July 15 – 19, 2002

Pointe South Mountain Resort – Phoenix, Arizona

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RADECS 2002 Workshop

Radiation Effects on Components and Systems

September 19 – 20, 2002

University of Padova, Italy

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RADECS 2003 Conference

Radiation Effects on Components and Systems

September 15 – 19, 2002

Huis ter Duin, Noordwijk, The Netherlands



D/TOS-QCA Radiation Effects and Component Analysis Techniques Section

Final Presentation Day 2002