# SSTL sub-systems and services



SSTL supports a wide range of small satellite products and services, with a core business of providing turn-key space missions, which can include elements of training for your organization. SSTL offers a number of services appropriate to your space mission. Sub-systems are appropriate for a variety of design-to-cost missions from LEO to GEO, and can be tailored to requirements. SSTL has recently acquired the Intellectual Property rights to SIL (UK) sub-systems.

# **Applications**

- Nano, Micro and Minisatellites
- Spacecraft in LEO, and GEO
- Space Science, EO, Communications and **Technology Validation**

# **Sub-systems**

#### ADCS

- · Small reaction and momentum wheels
- · Torque coils and torque rods
- Magnetometers
- **Sun Sensors**
- **GPS** attitude receiver

#### · Data Handling

- · CAN based local area network
- INTEL 80C186 based On-Board Computer
- INTEL 80386/7 based On-Board Computer
- StrongArm based On-Board Computer
- Transputer based image processor
- **Digital Signal Processor board**

#### Ground Support

- CCSDS packetiser / depacketiser
- Uplink sweep generator
- Low cost groundstations (VHF/UHF/S-band)

#### · Instruments

- **Medium resolution cameras**
- Machine Vision video imaging system
- Radiation monitoring payload
- Navigation
- GPS receiver
- Power
- Complete power systems regulated/unregulated
- **NiCd Battery**
- **Battery Charge Regulator**
- Power conditioning / Power distribution
- Propulsion
- Cold-gas systems
- Low thrust butane propulsion system
- Controller electronics
- Resistojets
- Software
- Operating systems (PACSAT / LINUX)
- SILORB Astrodynamics modeling
- SILMAG Geomagnetic field modeling
- **SILPMP Power management**
- SILBUD System budgeting
- Structure
- · Separation systems
- · Instrument and Gravity Gradient booms
- TT&C
- · VHF, UHF, L-band, S-band, X-band
  - transmitters and receivers
  - transceivers
  - Diplexer
- · Conical spiral, quadrifilar, patch, and blade antennas

Please contact SSTL to discuss your detailed requirements for sub-systems and services with our engineers and business development staff.

## **Services**

- Programme management
- Mission design
- Systems engineering
- Low cost launch consultancy
- **Expert witnesses**
- Electronic design for space
- Mechanical design for space
- Flight manufacturing to ESA standards
- Solar cell lay-down
- **Space Operations**
- · Custom short courses



#### **Contact**



# Surrey Space Centre

University of Surrey Guildford, Surrey GU2 7XH United Kingdom

Tel: (44) 1483 259278 Fax: (44) 1483 259503 E-mail: info@sstl.co.uk www: www.sstl.co.uk

### **Issue Number & Notice**

SSTL-9999-01 07/11/00. This data sheet is for preliminary information purposes and can be changed without any notice. Please contact SSTL (see above) for further information.