

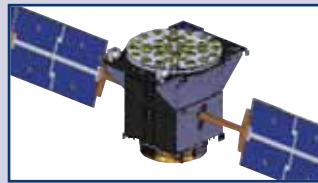
Telecommunications and Navigation Products and Services



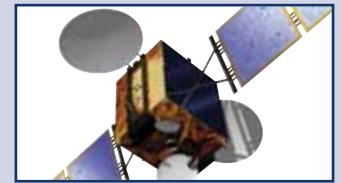
Complete capability

	GMP-D	GMP-T	GMP-L	Ground Station	Payloads & Integration
Niche Capacity	✓	✓	✓		✓
Filing Protection	✓	✓	✓		✓
Indigenous Capacity	✓	✓	✓		✓
Flexible Frequency Design	✓	✓	✓		✓
Payload Hosting	✓	✓	✓		✓
Technology and Service Validation	✓	✓	✓		✓
'Cradle to Grave' Capability	✓	✓	✓	✓	✓
Training Packages	✓	✓	✓	✓	✓

Products and services for every situation



GMP- D



GMP-T

Aims	Commercial return	✓	✓
	International partnership	✓	✓
	Industrial development	✓	✓
Applications	Security & Defence	✓	✓
	Navigation	✓	✓
	Telemedicine	✓	✓
	Star & Mesh Networks	✓	✓
	Distance Learning	✓	✓
	Broadcast – DTV, DTH, High Def	✓	✓
	High data rate IP broadband (1Gbit/s)**		✓
Requirements	Entry level capability	✓	✓
	Transfer Orbit		✓
	Direct Orbit	✓	
	Payload power 1kW	✓	
	Payload power 1.5kW		
	Payload power 3kW		✓
	Transponders*	10/12	24/30
	2.6m antenna accommodation		✓
	Flexible frequency configuration	✓	✓
	Multiband capability – C, KU, KA, S, X, L and UHF	✓	✓
	Low cost ground station solution available	✓	✓
	Multiple spot beams***	✓	✓
	24-36 month delivery (from contract)	✓	✓
	GEO	✓	✓
	MEO	✓	✓
LEO	← A range of platforms are available →		
15 year lifetime****		✓	
12 year lifetime****	✓		

*active/total allows for redundancy ** assumes contention 50:1 ***compatible with customer requirements

**** Depending on launch vehicle selection

SSTL Products and Services

Surrey Satellite Technology is the world's market-leading small satellite manufacturer. We provide reliable, low risk solutions, demonstrated by our heritage of 34 satellites completed and circa 200 satellite-years on-orbit experience. Our 100% record of mission success in the last 10 years, has been achieved by the use of proven equipment and full redundancy in design.

*Low risk reliability...
100% mission success in last 10 years*

SSTL can offer full turn-key missions, act as platform provider, or offer a range of services from payload integration through ground systems to training programmes. All projects are fixed price, delivered on time and on budget.

Our international customers include many 'blue chip' operators. We are preparing 5 missions for launch, and implementing an ESA contract for 14 satellites for the European Galileo navigation system.

GMP-D

400-1000kg* Direct Injection Orbit

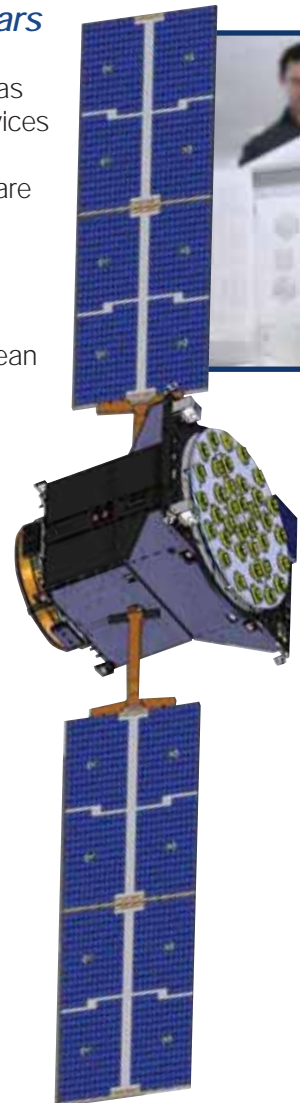
Ideal for shorter duration missions, the GMP-D is our entry level platform. The low launch mass and SSTL's rapid schedule offers customers cost-effective delivery of small payloads into geostationary orbit, exploiting occasional low cost direct injection launch opportunities.

SSTL's GMP-D platform is also suitable for non-geostationary communications and navigation applications. Its first flight was as GIOVE-A, Europe's first GNSS satellite, launched in 2005 and still performing well in 2010, having exceeded its mission lifetime by over a factor of two.

Key Platform Characteristics

Mission lifetimeup to 10 years
Payload power availableup to 1kW
Spacecraft wet mass400-1000kg
Payload mass accommodation.....up to 100kg
Delivery schedule24-36 months

*Launch mass

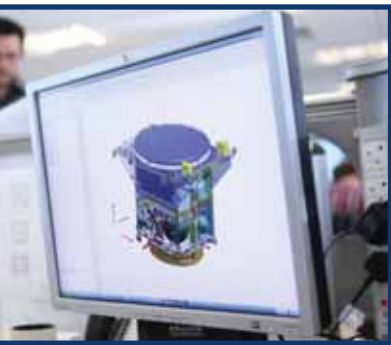


GMP-T

2000-2700kg Transfer Orbit

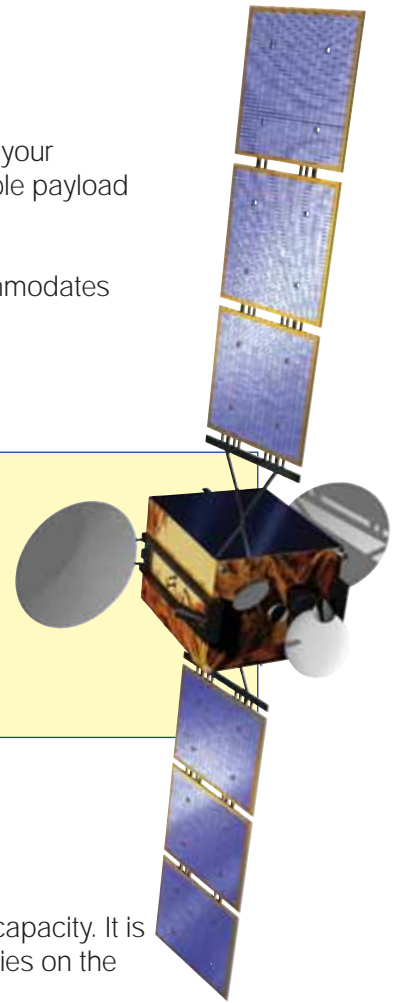
Our core Geostationary platform, the GMP-T offers a highly cost-effective solution to your operational needs, combining SSTL's heritage reliability and rapid delivery with flexible payload capacity and launch opportunities.

The platform has been designed to maximise capacity and performance and accommodates either industry standard or custom-built payloads.



Key Platform Characteristics

Mission lifetime	up to 15 years
Payload power available	up to 3kW
Payload mass accommodation.....	up to 250kg
Delivery schedule	24-36 months



GMP-L

1400-1600kg 'Lite' Transfer Orbit

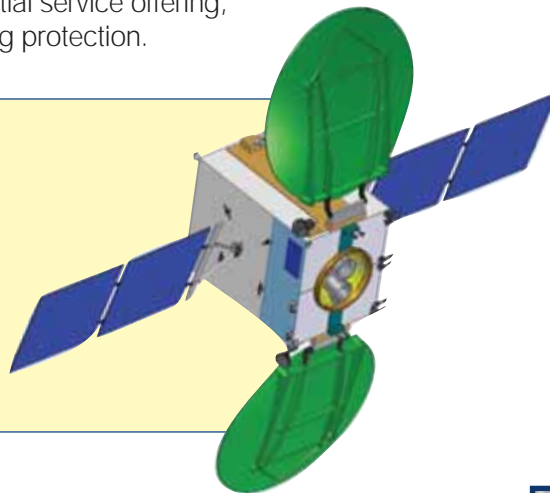
The GMP-L is our compact geostationary product offering more modest** payload capacity. It is designed to enable customers to take up cost-effective dedicated launch opportunities on the Cyclon-4 and Falcon 9 vehicles, and co-passenger slots on the Zenit.

The GMP-L's hybrid propulsion system design maximises payload capacity and lifetime making it ideal for applications such as initial service offering, augmentation of existing service or frequency filing protection.

Key Platform Characteristics

Mission lifetime	up to 12 years
Payload power available	up to 1.5kW
Payload mass accommodation.....	up to 150kg
Delivery schedule	24-36 months

**e.g. GMP-L can accommodate up to 12 Ku-band or 12 Ka-band physical transponders



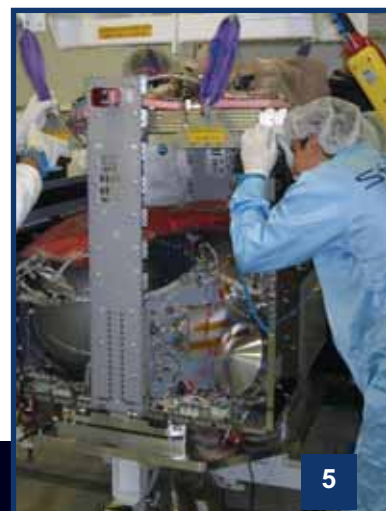
SSTL platforms can be accommodated on a range of launch vehicles: Ariane 5, Proton, Soyuz, Zenit, GSLV, Cyclon-4, Falcon 9

Ground Station

We have extensive experience in supplying complete operational ground stations, delivered as part of a complete mission or as a stand alone project, as well as providing hardware to upgrade existing facilities.

Payloads & Integration

As well as delivering complete turnkey missions, SSTL is highly experienced in payload integration.



Applications

Surrey's geostationary product range of reliable small satellites is designed to provide flexible, cost-effective options to meet a wide range of real-world applications. Our proven architecture, used across all our spacecraft, is designed to meet mission lifetime and performance requirements across all applications.

Security and defence communications

SSTL rapidly delivers systems offering portable, transportable or permanent communications, for overseas or homeland security. For dedicated military use X-band systems can be supplied, compatible with a range of widely available terminal equipment.



IP Broadband Web Connectivity

High data rate broadband services can be quickly and cost effectively put in place, enabling such services as Distance Learning and Telemedicine across wide areas.



Communications

Our highly reliable communications systems provide connectivity between densely populated regions as well as broadband data services between VSATs and Gateway Hub stations.



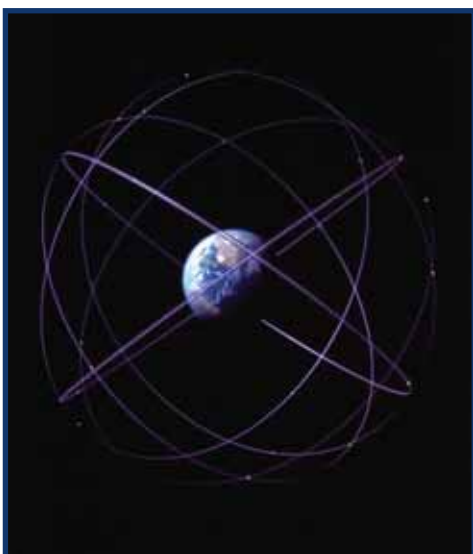
Broadcast – DTV, DTH and High Definition

SSTL's small satellite systems can quickly be operational to offer full digital TV capability either Direct to the Home or via distribution. All HD formats can be supported.



Navigation

Our entry level GMP-D satellite is also suitable for non-geostationary communications and navigation applications. SSTL's proven reliability and design capability has been recognised by ESA in the award of the contract for 14 Galileo GNSS satellites due for launch from 2013.



British company SSTL wins key role in Europe's Galileo programme

Surrey Satellite Technology Ltd has been selected by ESA for the deployment phase of the Galileo satellite navigation system announced by the European Commission (EC). As part of the winning consortium, SSTL takes full responsibility for the navigation payloads onboard the satellite that will form the heart of the Galileo navigation system.

SSTL's pioneering earlier work as prime contractor for the GIOVE-A satellite, and in testing the Galileo

signals will prove invaluable for the execution of this contract. GIOVE-A was the first part of the in-orbit validation programme for Galileo, broadcasting the first signal to successfully secure the critical Galileo frequency filing with the International Telecommunications Union (ITU). GIOVE-A was required to work for 27 months and has greatly exceeded this, still performing well in its fifth year of operations.

Press Coverage 8 January 2010

Aims & Objectives

Industrial development and training

From academic training to complete design and construction, using satellites as the foundation of an industrial development programme has consistently been proved to bring sustainable industrial development. SSTL has delivered 15 tailored training programmes as part of contracts with our international customers.

Many national space agencies in existence today have their foundations in programmes undertaken in partnerships with us.

Commercial return

The lower cost of procurement of satellites, pioneered by SSTL, makes ownership of dedicated space systems commercially attractive. With our wide experience of working with customers to refine their business case, SSTL offers proven skills to assist you in establishing and developing a commercially successful operation.

SSTL's small satellites, with their proven reliability and rapid production timescales perfectly meet the needs of customers looking for cost-effective solutions to their operational requirements, including frequency filing and filing protection, Service start up and phased capacity building through progressive deployment.

Progressive deployment

Small, rapid delivery satellites are ideally suited to progressive deployment. Phased capacity roll-out avoids unused capacity and can be economically tailored to meet growing market needs as illustrated in the graph on the right.



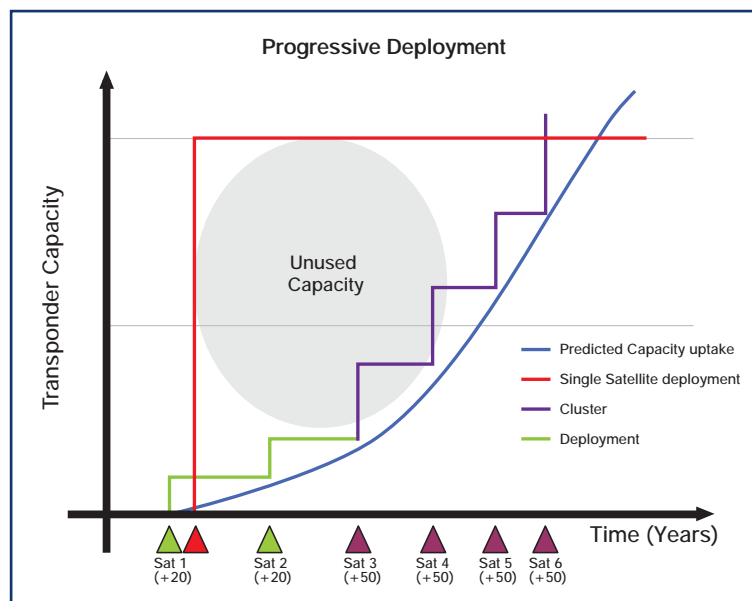
EIRP Contour Plot

Case studies and proving the business case

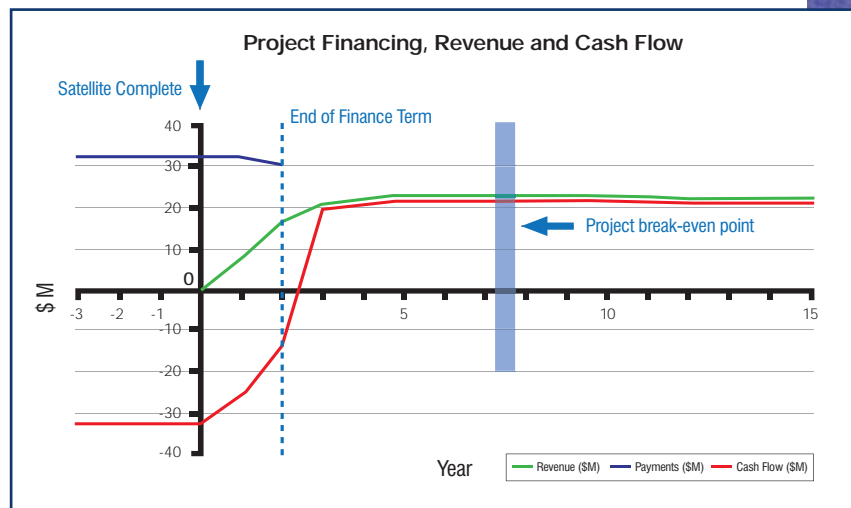
It is widely acknowledged that small satellites provide a very effective, scalable solution to many Telecommunications requirements. SSTL has many years experience in working with our customers in proving and refining working models.

International partnership

Surrey has pioneered the partnership approach to satellite operation, enabling many countries to establish collaborative space programmes.



Progressive deployment tracks market demand for capacity



A typical GMP financial model showing annual payments and revenue



Changing the economics of space



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