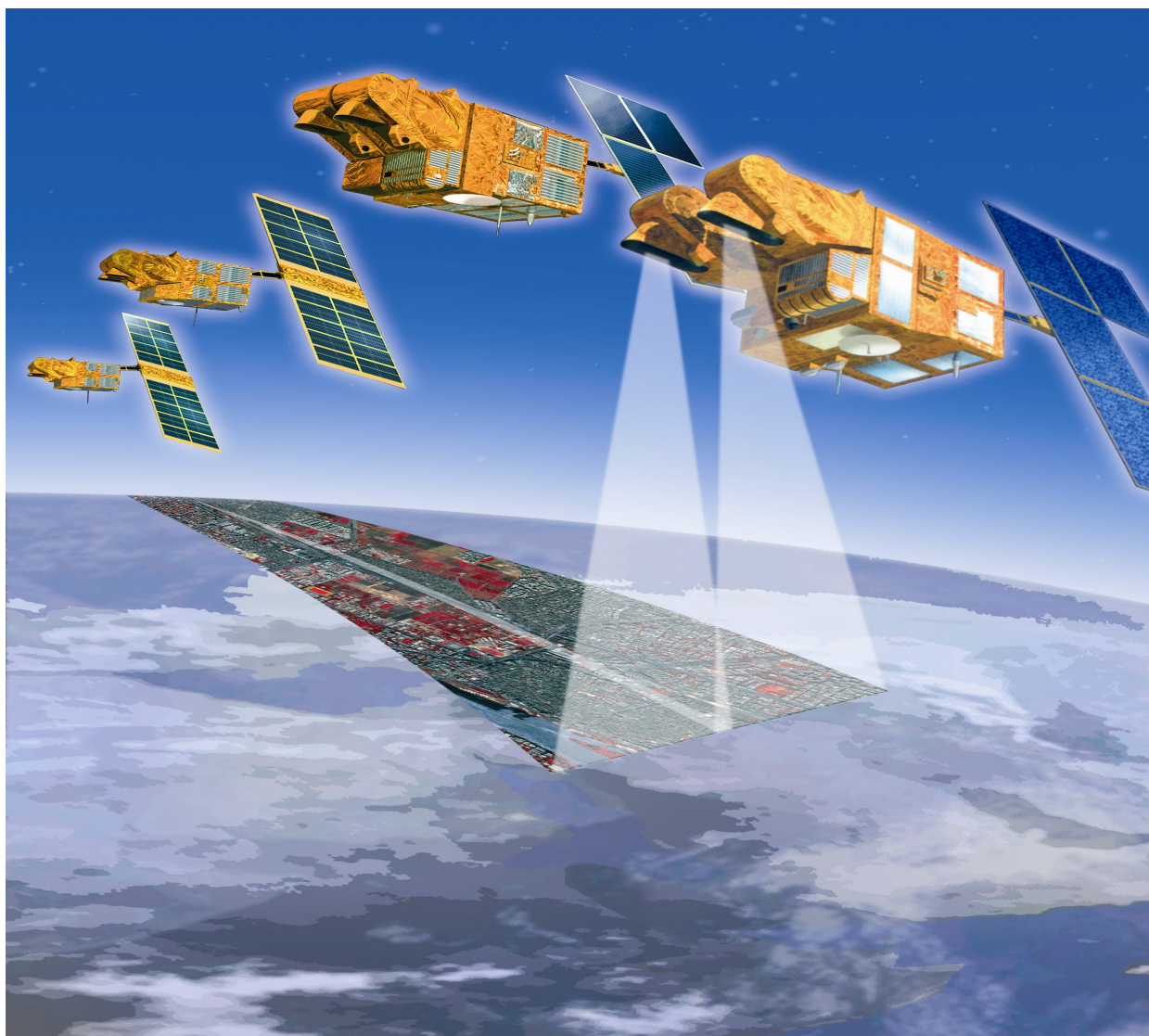
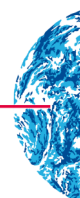


## Spot satellite technical data



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S P O T  
I M A G E





## Spot satellite technical data

	General features		
	SPOT 5	SPOT 4	SPOT 1, 2 & 3
Launch date	May 4, 2002	March 24, 1998	SPOT 1 – February 22, 1986 SPOT 2 – January 22, 1990 SPOT 3 – September 26, 1993
Launch vehicle	Ariane 4		Ariane 2/3
Nominal lifetime	5 years		3 years
Deorbitation	In orbit	In orbit	SPOT 1 – November 17, 2003 SPOT 2 – July 30, 2009 SPOT 3 – November 1996 (end of life)
Orbit	Sun-synchronous		
Local Equator crossing time (descending)	10:30 a.m.		
Altitude at Equator	822 km		
Inclination	98,7°		
Velocity	7.4 km/s		
Altitude control	Earth-pointing and yaw-axis controlled (to compensate for effects due to Earth's rotation)	Earth-pointing	
Orbital period	101.4 minutes		
Orbital cycle	26 days		
Total mass	3,000 kg	2,760 kg	1,800 kg
Dimensions	3.1 x 3.1 x 5.7 m	2 x 2 x 5.6 m	2 x 2 x 4.5 m
Solar array (end of life)	2,400 W	2,100 W	1,100 W
Recording capacity	90-Gbit solid-state memory (~ 210 images with an average decompressed file size of 144 Mb)	Two 120-Gbits recorders plus 9-Gbit solid-state memory (~ 560 images on each recorder + 40 images, with an average decompressed file size of 36 Mb)	Two 60-Gbit recorders (~ 280 images on each with an average decompressed file size of 36 Mb)
Onboard image processing	Up to 5 images acquired simultaneously, 2 downlinked in real time AND 3 stored onboard using a 2.6 compression ratio (DCT)	Two images acquired simultaneously, then downlinked OR recorded using a 1.3 compression ratio (DPCM)	Two images acquired simultaneously, then downlinked OR recorded using a 1.3 compression ratio (DPCM, panchromatic imagery only)
Image telemetry link (8 GHz)	2 x 50 Mb/s	50 Mb/s	



# Spot satellite technical data



	High-Resolution Instruments		
	SPOT 5	SPOT 4	SPOT 1, 2 & 3
Instruments	2 HRGs	2 HRVIRs	2 HRVs
Spectral bands and resolution	2 panchromatic (5 m), combined to generate a 2.5-metre product 3 multispectral (10 m) 1 short-wave infrared (20 m)	1 panchromatic (10 m) 3 multispectral (20 m) 1 short-wave infrared (20 m)	1 panchromatic (10 m) 3 multispectral (20 m)
Spectral range	P: 0.48 – 0.71 µm B1 (green): 0.50 – 0.59 µm B2 (red): 0.61 – 0.68 µm B3 (NIR): 0.78 – 0.89 µm B4 (SWIR): 1.58 – 1.75 µm	M: 0.61 – 0.68 µm B1 (green): 0.50 – 0.59 µm B2 (red): 0.61 – 0.68 µm B3 (NIR): 0.78 – 0.89 µm B4 (SWIR): 1.58 – 1.75 µm	P: 0.51 – 0.73 µm B1 (green): 0.50 – 0.59 µm B2 (red): 0.61 – 0.68 µm B3 (NIR): 0.78 – 0.89 µm
Imaging swath	60 km x 60 km to 80 km		
Image dynamics	8 bits		
Absolute location accuracy (no ground control points, flat terrain)	30 m (1 σ)*	350 m (1 σ)*	
Relative internal distance accuracy (level 1B)	0.5 x 10 <sup>-3</sup> (1 σ)		
Programmable	Yes		–
Angle of incidence	± -31.06°		
Average revisit interval over a 26-day orbital cycle, depending on latitude	2 to 3 days		–

\* Location accuracy is evaluated on the basis of a statistic calculated from a large number of scenes acquired from September 2003, across the globe.

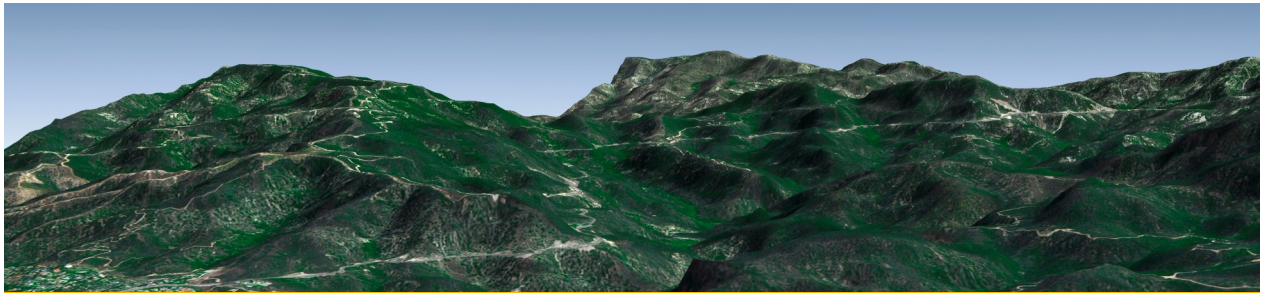
	VEGETATION Instrument	
	SPOT 5	SPOT 4
Passenger instrument	VEGETATION 2	VEGETATION 1
Spectral bands	4	
Electromagnetic spectrum	B0: 0.45 – 0.52 µm B2: 0.61 – 0.68 µm B3: 0.78 – 0.89 µm B4: 1.58 – 1.75 µm	
Resolution	1,000 m	
Imaging swath	2,250 km	
Image dynamics	10 bits	
Revisit interval	1 day	



# Spot satellite technical data

Instrument	Stereoscopic Instruments			
	SPOT 5		SPOT 4	SPOT 1, 2 & 3
	HRS along-track stereoviewing	HRG stereoviewing capability across track	HRVIR stereoviewing capability across track	HRV stereoviewing capability across track
Spectral bands and resolution	1 panchromatic (10 m) (resampled every 5 m along track) → 10 m across track, 5 m along track	2 panchromatic (5 m) combined to generate a 2.5-metre product 3 multispectral (10 m) 1 short-wave infrared (20 m)	1 panchromatic (10 m) 3 multispectral (20 m) 1 short-wave infrared (20 m)	1 panchromatic (10 m) 3 multispectral (20 m)
Spectral range	P: 0.49 – 0.69 µm	P: 0.48 – 0.71 µm B1: 0.50 – 0.59 µm B2: 0.61 – 0.68 µm B3: 0.78 – 0.89 µm B4: 1.58 – 1.75 µm	M: 0.61 – 0.68 µm B1: 0.50 – 0.59 µm B2: 0.61 – 0.68 µm B3: 0.78 – 0.89 µm B4: 1.58 – 1.75 µm	P: 0.51 – 0.73 µm B1: 0.50 – 0.59 µm B2: 0.61 – 0.68 µm B3: 0.78 – 0.89 µm
Imaging swath	600 km x 120 km	60 km x 60 km to 80 km		
Image dynamics	8 bits			
Base/height ratio (B/H)	~ 0,84 (± 20°)	0.5 to 1.1		
Absolute location accuracy (no ground control points, flat terrain)	10 m (1 σ)*	30 m (1 σ)*	350 m (1 σ)*	
Time between two images	90 seconds (simultaneous)	Variable		

\* Location accuracy is evaluated on the basis of a statistic calculated from a large number of scenes acquired from September 2003, across the globe.



3D view - Los Angeles, USA - 06/2002

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