

HJ-1A&B Satellites

Archived Data Coverage of Land Surface of Whole Earth

Launched on 6 September 2008, HJ-1 is composed of 2 optical satellites HJ-1A and HJ-1B, HJ-1A is equipped with 1 CCD camera and 1 hyperspectral imager, and HJ-1B is equipped with 1 CCD camera and 1 infrared camera. The 2 CCD cameras adopt the same design, and placed symmetrically at nadir and split the field of view and observe in parallel and realize imagery of 700 km swath, 30m resolution and 4 spectral bands. The hyperspectral imager enables HJ-1A 50km swath, 100m resolution and 110~128 bands and $\pm 30^\circ$ oblique viewing angle. The infrared camera enables HJ-1B 720km swath, 150/300m resolution and 4 spectral bands.

Technical Specifications

Number of satellites	2 identical satellites: HJ-1A and HJ-1B			
Launch time	September 6, 2008			
Mission life	3 years			
Orbit	Sun-synchronous, 10:30 am, descending node, 649 km altitude, 97.95° inclination angle			
	HJ-1A		HJ-1B	
Operational	Operational		Retired	
Cameras	2 x CCD	Hyperspectral	2 x CCD	Infrared MS
Resolution	30 m	100 m	30 m	150 m
Sensor bands	Blue, green, red and near-infrared	110th-128th bands	Blue, green, red and near-infrared	Red-edge 1, red-edge2, coastal blue and yellow
Swath Width (at nadir)	700 km	50 km	700 km	720 km
Dynamic range at imaging	8 bits	12 bits	8 bits	10 bits
Revisit capacity	4 days	4 days	4 days	4 days