

# Alex's Remote Sensing Imagery Summary Table

Last update on November 1st, 2004

High Resolution							
Sensor - Satellite	Sponsor	Lifespan	Spatial Resolution	Swath	Spectral Bands	Premise	
ORBView-3	Orbimage	June 2003 5 yrs mission	1m Pan 4m MS	8 km	MS 4 bands (450-520, 520-600, 620-690, 760-900nm) Pan (450-900nm)	Commercial	
Quickbird-2	DigitalGlobe	Oct. 2001 - ongoing	0.61m Pan 2.44m MS	16.5 km 165 km track	MS 4 bands (450-520, 520-600, 630-690, 760-890nm) Pan (450-900nm)	Commercial Quickbird-1 launch failed in Nov. 2000	
IKONOS-2	Space Imaging	Sept. 1999 - ongoing	1m Pan 4m MS	11.3 km wide at nadir	MS 4 bands (450-520, 520-600, 630-690, 760-900nm) Pan (525.8-928.5nm)	Commercial IKONOS-1 launch failed in April 1999	
EROS 1A	West Indian Space	Dec. 2000 - ongoing	1.8m Pan	12.6x12.6 km	Pan (500-900nm)	Commercial ?	
SPOT 5a	HGR & Vegetation	Spot Image	May 2002 > 5 yrs mission ?	2.5 & 5m Pan 10m MS 20m SWIR band	60 km	MS 4 bands (500-590, 610-680, 790-890, 1580-1750nm) Pan 510-730nm	Commercial
IRS-1C & 1D	LISS3 & WiFS sensors	INDIA (ISRO)	1C: Dec. 95 - ongoing 1D: Sept. 97 - ongoing	5m Pan 20m MS 180m WiFS	70x70 km Pan 142x142 km MSS 774x774 km WiFS	Pan 500-750nm MS 4 bands (520-590, 620-680, 770-860, 1550-1700nm) (SWIR at 70m pixel) WiFS 2 bands (620-680, 770-860nm)	Commercial (Vegetation & Land-Use)
IRS-P5 CartoSat-1		INDIA (ISRO)	Launch planned 2004	2.5m	30 km	Pan	
Multispectral							
Sensor - Satellite	Sponsor	Lifespan	Spatial Resolution	Swath	Spectral Bands	Premise	
Landsat	MSS	NASA/NOAA/USGS	1972-1992	60mx80m	185x185 km	MS 4 bands (500-600, 600-700, 700-800, 800-1100nm)	Science Commercial
Landsat 4 & 5	TM	NASA/NOAA/USGS	1984-?	30m MS 120m TIR	185x172 km	MS 7 Bands VNIR-TIR	Science Commercial
Landsat 7	ETM+	NASA/NOAA/USGS	April 15th 1999 - ongoing** 6 yrs mission	15m Pan 30m MS 60m TIR	185x172 km	Pan 520-900nm 5 Bands VNIR 2 Bands SWIR 1 Band TIR	Science Commercial
SPOT 1, 2, 3	HRV		Feb. 1986 - 1996	10m Pan 20m MS	60x60 km	MS 4 bands (500-590, 610-680, 790-890nm) Pan (510-730nm)	Commercial
SPOT 4	2xHRV-IR & Vegetation	CNES	March 1998 - ongoing ?	10m Pan 20m MS	60x60 km	MS 4 bands (500-590, 610-680, 790-890, 1580-1750nm) Pan (610-680nm)	Commercial
IRS-1A & 1B	LISS 1 & LISS 2	INDIA (ISRO)	March 1988(A)/Aug. 1991(B) - 1999 ?	36 & 72 m	74 & 148 km	Pan	
IRS-P2	LISS 2	INDIA (ISRO)	Oct. 1994	36 m	132 km		
IRS-P6 ResourceSat-1	LISS-4, LISS-3 & AWiFS	INDIA (ISRO)	Oct. 2003 - ongoing 5 yrs mission	5.8, 23.5 & 56m	23.9, 141 & 740 km	LISS-4 3 bands 520-860nm LISS-3 4 bands 520-1700nm AWiFS 4 bands 520-1700nm	
JERS-1	OPS	Japan	Feb. 1992 - Oct. 1998	18x24m	75x75 km	MS 8 bands VIS-SWIR	
ALI	EO-1	NASA	Dec. 1999 - ongoing ! (sept. 2003) 1 yr mission	10m Pan 30m MS	185 km	Pan 480-680nm MSS 9 bands 433-2350nm	Experimental

ASTER	Terra	MITI/NASA	July 1999 6 yrs mission	15m VNIR 30m SWIR 90m TIR	60 km x 60 km	3 bands VNIR 520-860nm, 7 bands SWIR 1600-2430nm, 5 bands TIR 8125-11650nm, Bands for stereography 760-860nm		Scientific
CBERS-1		CHINA-BRAZIL	Oct. 1999 - ongoing ? 2 yrs mission	20, 80 & 260m	113, 120 & 890 km	CCD 4 bands@20m 450-890nm + Pan IR-MSS 3 bands@80m 500-2350nm + TIR WFI 2 bands@260m 630-900nm		?
CBERS-2		CHINA-BRAZIL	Oct. 2003 - ongoing	20, 80 & 240m	132-1056 km	CCD-XS (4 bands), CCD-Pan (1 band), IRMS (4 bands, 80m), WFI (3 bands, 240m)		?
<b>Hyperspectral</b>								
<b>Sensor - Satellite</b>		<b>Sponsor</b>	<b>Lifespan</b>	<b>Spatial Resolution</b>	<b>Swath</b>	<b>Spectral Bands</b>		<b>Premise</b>
EO-1	Hyperion	NASA	Dec. 1999 - ongoing ! (sept. 2003) 1 yr mission	30m	7.5 km x 100 km	220 bands 400nm to 2500nm @10nm Grating Imaging Spec		Experimental
EO-1	LEISA AC	NASA	12/1/1999 1 yr mission	250m	7.5 km x 100 km	309 Bands 850-1600nm @2.4nm Wedge Imaging Spec		Experimental
Envisat-1	MERIS	ESA Aerospatiale France, Cannes, ACRI	May 2002 5 yrs mission	300m @nadir and 1200m global	1150 km	15 bands programmable 390-1040nm @2.5nm		Scientific (Oceanographic, atmospheric and land observations)
ADEOS-2	GLI	NASDA	Dec. 2002 - Oct. 2003 3 yrs design	250/1000m		19 bands 375-865nm @8-20nm 4 bands 460-825nm @50-110nm 6 bands 1050-2210nm @20-220nm 7 bands 3715-12000nm @330-1000nm		Scientific (Oceanographic)
<b>Radar</b>								
<b>Sensor - Satellite</b>		<b>Sponsor</b>	<b>Lifespan</b>	<b>Spatial Resolution</b>	<b>Swath</b>	<b>Spectral Bands</b>		<b>Premise</b>
ERS-1	C-Band SAR	Europe	July 1991 - March 2000	30m	100x100km	C-Band (5.3GHz, WL=5.66cm) SAR VV Polarization		Commercial
ERS-2	C-Band SAR	Europe	1995 - ongoing	30m	100x100km	C-Band (5.3GHz, WL=5.66cm) SAR VV Polarization		Commercial
JERS-1	L-Band SAR	Japan	Feb. 1992 - Oct. 1998	18x24m	75x75 km	L-Band (1275GHz, WL=23.5cm) SAR HH Polarization		
RADARSAT-1	C-Band SAR	CSA/MDA	Nov. 1995 - ongoing	10, 25, 50, 100 m	50-500 km	C-Band (5.3GHz, WL=5.66cm) SAR HH Polarization		Commercial
RADARSAT-2	C-Band Multi Pol ASAR	CSA/MDA	Not yet launched Anticipated: 2005 7 yrs mission	3-100 m	20-500 km	C-Band (5.405GHz), Multi polarization SAR Multi beam Mode		Commercial
Envisat-1	ASAR	ESA	May 2002 5 yrs mission	30, 150, 500m	5-406 km	C Band ASAR (5.331GHz) Multi Pol Imagettes to ScanSAR		Scientific (Oceanographic, atmospheric and land observations)
Space Shuttle	SIR-C	NASA, DARA (Germany), ASI (Italy)	April-October 1994	25m	15 to 90 km	X, C & L-band SAR		
Space Shuttle Endeavour	SRTM	MIMA/NASA/DLR/ASI	February 2000 11 days total	30m	About 50 km	X (3.1 cm), C (5.8 cm) Bands C-Band IFSAR Generate DEM		Defence Scientific

**DISCLAIMER:** You are using this list at your own risk. *Please submit errors and updates to: [arsist@matox.com](mailto:arsist@matox.com)*  
*Special thanks to Andrew Dyk, from NRCan, who allowed me to use his sensor list. Sincere thanks to all contributors.*  
 This summary table concentrate on sensors procuring publicly available data of landsat-like spatial resolution or better.

Other sources for similar information:

- The Applied-GIS-RS mailing list
- Jonathan's Space Report
- Belgian Earth Observation Sensor list
- Satellite-Related WWW Sites
- MIR Télédétection - my actual employer...

*This document can be downl  
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<b>Other Sensor Specs</b>	<b>Repeat Cycle</b>	<b>Pricing</b>	<b>Links on html table</b>
±45° off nadir	< 3 days	No public data available before 2004	A: Official website
QB 2 polar orbit ±30° in all directions Stereo Capability	1-3.5 days	22.5\$/sqkm worldwide New: 64sqkm min Archive: 25sqkm min	A: Official website B: Archive search tool
±26° inclination 11 bits data	1-3 days	North America: Archive from 7\$/sqkm min 49sqkm New from 15\$/sqkm min 100sqkm	A: Official website B: Archive search tool
	1.8-4 days	1500\$/Full scene Sub-scene possible 200\$ for tasking	A: Official website B: Pricelist
Also Vegetation Instrument	3 to 26 days ±31° inclination	New 2.5m pan scene: 7750\$	A: Official website B: Archive search tool (SIRIUS)
Pan ±26° inclination	24 days 5-24 off-nadir Pan	From 900\$ (23km x 23km subset) to 3000\$/scene	A: Archive search tool (SI) B: NRSA website
	22 days		
<b>Other Sensor Specs</b>	<b>Repeat Cycle</b>	<b>Pricing</b>	<b>Links on html table</b>
	18 days		A: Archive search tool (USGS)
	16 days		A: Archive search tool (USGS) B: Free world coverage data (UMD) C: Free worldwide mosaics (NASA)
** Data quality dropped significantly since the SLC failure in June 2003.	16 days	About 600\$, but huge collection of free Landsat 7 data online	A: USGS website, B: Archive search tool (USGS), C: Free world coverage data (UMD), D: Free data (for Canada)
	3 to 26 days ±30° inclination	Archives from 1200-2700 euros	A: Official website B: Archive search tool (SIRIUS) C: Free SPOT-Pan 10m data (NIMA)
Also Vegetation Instrument at 1.1km pixel	3 to 26 days ±27° inclination	Archives from 1200-2700 euros	A: Official website B: Archive search tool (SIRIUS) C: Free SPOT-Vegetation data
	22 days		A: Archive search tool (SI)
	24 days		
	24 days ±27° inclination		A: Specs website
Optical sensor barely operational and failed early during the mission ?	44 days		A: JERS-1 OPS website
	16 days	New acquisition 2000\$ Archived data 500\$	A: USGS EO-1 website B: Archive Search Tool (USGS)

ASTER DEM product available, about 30m accuracy.	16 days	Level 1B & DEM Free Other: 60\$/scene	A: JPL's ASTER website B: Archive search tool (USGS) C: Free Level 1B & DEM download
±32° 3day revisit	26 days	CCD: 200\$US/scene, see link B	\$0
	?		A: Website
<b>Other Sensor Specs</b>			
<b>Other Sensor Specs</b>	<b>Repeat Cycle</b>	<b>Pricing</b>	<b>Links on html table</b>
		New acquisition 2000\$ Archived data 500\$	A: USGS EO-1 website B: Archive Search Tool (USGS)
5 identical sensors	35 days		A: Official MERIS website B: ESA archive search tool
Failed prematurely on october 25 2003			A: Official website
<b>Other Sensor Specs</b>			
<b>Other Sensor Specs</b>	<b>Repeat Cycle</b>	<b>Pricing</b>	<b>Links on html table</b>
Interferometry possible	35 days	PRI product: 1600\$Can/scene	A: Official ERS website B: ESA archive search tool
Interferometry possible	35 days	PRI product: 1600\$Can/scene	A: Official ERS website B: ERS 1/2 interferometry C: ESA archive search tool
Interferometry & Stereoscopy possible (band 3 & 4)	44 days		A: Official JERS-1 website
Right looking Interferometry & stereoscopy possible	16 days	Archives older than 1999: 2025\$Can/scene, any mode	A: Radarsat International website B: CCRS archive search tool
Left/Right looking	24 days		A: Radarsat-2 official info page
Interferometry possible, Alternating polarization: HH/HV or VV/HH or VV/VH with 25m pixels	35 days		A: Official ESA website B: ESA archive search tool
Multipolarization in C band (HH, HV, VH, VV).	N/A	Free	A: Official SIR-C website B: USGS SIR-C website C: SIR-C Download Index map
Interferometry & DEM products available (3 & 1 arc-second, near-worldwide coverage)	N/A	Free SRTM DEM	A: Official website B: SRTM DEM ftp site C: USGS Seamless download engine D: UMD degree tiles SRTM download

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