Alex's Remote Sensing Imagery Summary Table

Last update on November 1st, 2004

Sensor - Satellite		Sponsor	Lifespan	Spatial Resolution	Swath	Spectral Bands	Premise	Other Sensor Specs	Repeat Cycle	Pricing	Links on html table
High Resolution											
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	±45° off nadir	< 3 days	No public data available before 2004	A: Official website
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	QB 2 polar orbit ±30° in all directions Stereo Capability	1-3.5 days	22.5$/sqkm worldwide New: 64sqkm min Archive: 25sqkm min	A: Official website B: Archive search tool
IKONOS-2		Space Imaging	Sept. 1999 - ongoing	1m Pan 4m MS	11.3 km wide at nadir	MS 4 bands (450-520, 520-600, 630-690, 760-900nm) Pan (525.8-928.5nm)	Commercial IKONOS-1 launch failed in April 1999	±26° inclination 11 bits data	1-3 days	North America: Archive from 7$/sqkm min 49sqkm New from 15$/sqkm min 100sqkm	A: Official website B: Archive search tool
EROS 1A		West Indian Space	Dec. 2000 - ongoing	1.8m Pan	12.6x12.6 km	Pan (500-900nm)	Commercial ?		1.8-4 days	1500$/Full scene Sub-scene possible 200$ for tasking	A: Official website B: Pricelist
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	Also Vegetation Instrument	3 to 26 days ±31° inclination	New 2.5m pan scene: 7750$	A: Official website B: Archive search tool (SIRIUS)
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)	Pan ±26° inclination	24 days 5-24 off-nadir Pan	From 900$ (23km x 23km subset) to 3000$/scene	A: Archive search tool (SI) B: NRSA website
IRS-P5 CartoSat-1		INDIA (ISRO)	Launch planned 2004	2.5m	30 km	Pan			22 days		
Multispectral											
Sensor - Satellite		**Sponsor**	**Lifespan**	**Spatial Resolution**	**Swath**	**Spectral Bands**	**Premise**	**Other Sensor Specs**	**Repeat Cycle**	**Pricing**	**Links on html table**
Landsat	MSS	NASA/NOAA/USGS	1972-1992	60mx80m	185x185 km	MS 4 bands (500-600, 600-700, 700-800, 800-1100nm)	Science Commercial		18 days		A: Archive search tool (USGS)
Landsat 4 & 5	TM	NASA/NOAA/USGS	1984-?	30m MS 120m TIR	185x172 km	MS 7 Bands VNIR-TIR	Science Commercial		16 days		A: Archive search tool (USGS) B: Free world coverage data (UMD) C: Free worldwide mosaics (NASA)
Landsat 7	ETM+	NASA/NOAA/USGS	April 15th 1999 - ongoing** 6 yrs mission	15m Pan 30m MS 60m TIR	185x172 km	Pan 520-900nm 5 Bands VNIR 2 Bands SWIR 1 Band TIR	Science Commercial	** Data quality dropped significantly since the SLC failure in June 2003.	16 days	About 600$, 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)
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		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)
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	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
IRS-1A & 1B	LISS 1 & LISS 2	INDIA (ISRO)	March 1988(A)/Aug. 1991(B) - 1999 ?	36 & 72 m	74 & 148 km	Pan			22 days		A: Archive search tool (SI)
IRS-P2	LISS 2	INDIA (ISRO)	Oct. 1994	36 m	132 km				24 days		
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			24 days ±27° inclination		A: Specs website
JERS-1	OPS	Japan	Feb. 1992 - Oct. 1998	18x24m	75x75 km	MS 8 bands VIS-SWIR		Optical sensor barely operational and failed early during the mission ?	44 days		A: JERS-1 OPS website
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		16 days	New acquisition 2000$ Archived data 500$	A: USGS EO-1 website B: Archive Search Tool (USGS)
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	ASTER DEM product available, about 30m accuracy.	16 days	Level 1B & DEM Free Other: 60$/scene	A: JPL's ASTER website B: Archive search tool (USGS) C: Free Level 1B & DEM download
CBERS-1		CHINA-BRAZIL	Oct. 1999 - ongoing ? 2 yrs mission	20, 80 & 260m	113, 120 & 890 km	CCD 4 bands@20m 450-890nm + Pan IR-MSS 3 bands@80m 500-2350nm + TIR WFI 2 bands@260m 630-900nm	?	±32° 3day revisit	26 days	CCD: 200$US/scene, see link B	$0
CBERS-2		CHINA-BRAZIL	Oct. 2003 - ongoing	20, 80 & 240m	132-1056 km	CCD-XS (4 bands), CCD-Pan (1 band), IRMS (4 bands, 80m), WFI (3 bands, 240m)	?		?		A: Website
Hyperspectral											
Sensor - Satellite		**Sponsor**	**Lifespan**	**Spatial Resolution**	**Swath**	**Spectral Bands**	**Premise**	**Other Sensor Specs**	**Repeat Cycle**	**Pricing**	**Links on html table**
EO-1	Hyperion	NASA	Dec. 1999 - ongoing ! (sept. 2003) 1 yr mission	30m	7.5 km x 100 km	220 bands 400nm to 2500nm @10nm Grating Imaging Spec	Experimental			New acquisition 2000$ Archived data 500$	A: USGS EO-1 website B: Archive Search Tool (USGS)
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)	5 identical sensors	35 days		A: Official MERIS website B: ESA archive search tool
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)	Failed prematurely on october 25 2003			A: Official website
Radar											
Sensor - Satellite		**Sponsor**	**Lifespan**	**Spatial Resolution**	**Swath**	**Spectral Bands**	**Premise**	**Other Sensor Specs**	**Repeat Cycle**	**Pricing**	**Links on html table**
ERS-1	C-Band SAR	Europe	July 1991 - March 2000	30m	100x100km	C-Band (5.3GHz, WL=5.66cm) SAR VV Polarization	Commercial	Interferometry possible	35 days	PRI product: 1600$Can/scene	A: Official ERS website B: ESA archive search tool
ERS-2	C-Band SAR	Europe	1995 - ongoing	30m	100x100km	C-Band (5.3GHz, WL=5.66cm) SAR VV Polarization	Commercial	Interferometry possible	35 days	PRI product: 1600$Can/scene	A: Official ERS website B: ERS 1/2 interferometry C: ESA archive search tool
JERS-1	L-Band SAR	Japan	Feb. 1992 - Oct. 1998	18x24m	75x75 km	L-Band (1275GHz, WL=23.5cm) SAR HH Polarization		Interferometry & Stereoscopy possible (band 3 & 4)	44 days		A: Official JERS-1 website
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	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
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	Left/Right looking	24 days		A: Radarsat-2 official info page
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)	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
Space Shuttle	SIR-C	NASA, DARA (Germany), ASI (Italy)	April-October 1994	25m	15 to 90 km	X, C & L-band SAR		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
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	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

DISCLAIMER: You are using this list at your own risk. *Please submit errors and updates to: 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
- Satellite-Related WWW Sites
- Jonathan's Space Report
- MIR Télédétection - my actual employer…
- Belgian Earth Observation Sensor list

This document can be downloaded from
www.matox.com/agisrs/arsist/
html and pdf formats available