

PCI Geomatica: Sensors supported in orthoengine

Toutin's Model

ASTER, AVNIR, CARTOSAT, CBERS, DEIMOS, DMC, DUBAISAT, EOC, EROS, FORMOSAT, GEOEYE, GF, GOKTURK, GOSAT, HJ, IKONOS, IRS, KAZEOSAT, KOMPSAT, LANDSAT, MERIS, ORBVIEW, PLEIADES, PRISM, QUICKBIRD, RAPIDEYE, RASAT, SJ9, SPOT, SSOT, TH, THAICHOTE, WORLDVIEW, YG, ZY

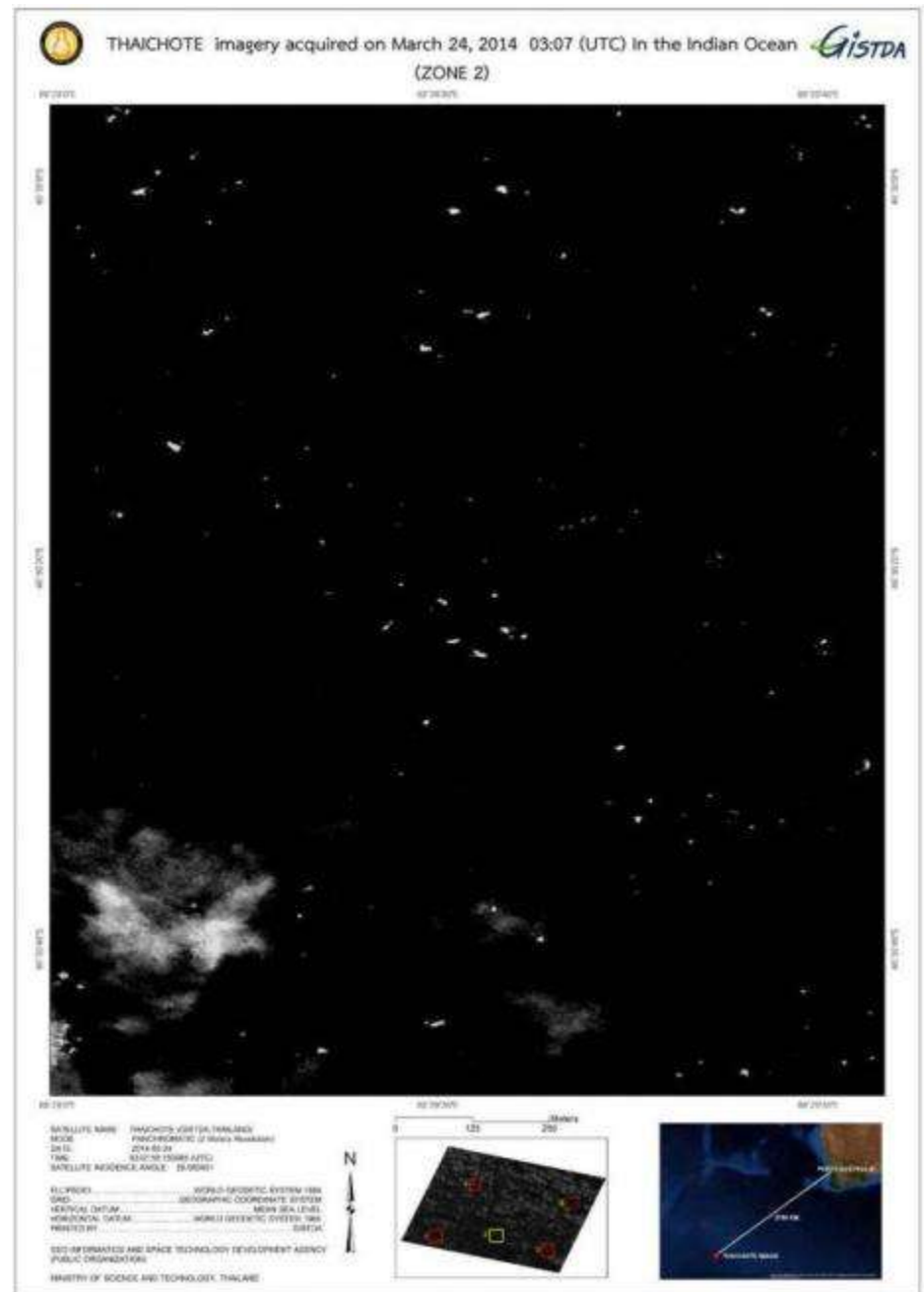
Common features in high resolution sensors

- RGB + NIR + PAN (Pan – higher resolution for pansharpening)
- Ratio 4: 1 - maximum recommended by PCI Geomatica: 5:1
- Orbit: 450-850km; swath 10-20km; sub-metre to 2 metre (PAN)
- Pushbroom – directable / DEM generation potential
- Data \$12 / km + .. or need a quote

Thaichote (THEOS) 2010 2m Pan, 15m MS

300+ objects spotted in area
where Malaysian Airline jet
disappeared 2014

Ground receiving station



SATellite NAME: THAICHOTE-VIS/IR/THALASSE

MODE: PUSHBROOMING 27 HOURS (Non-scan)

DATE: 2014-03-24

TIME: 03:07:15 (GMT+07)

SATellite INCIDENCE ANGLE: 35.00001

FILE PREFIX: WORLD-GEOSTATIC SYSTEM (WGS)

GRID: GEOGRAPHIC COORDINATE SYSTEM

VERTICAL DATUM: MEAN SEA LEVEL

HORIZONTAL DATUM: WORLD GEOSTATIC SYSTEM (WGS)

PROJECTED BY: GISTDA

GOV. OF CHINA AND SPACE TECHNOLOGY DEVELOPMENT AGENCY

(PUBLIC ORGANOZATION)

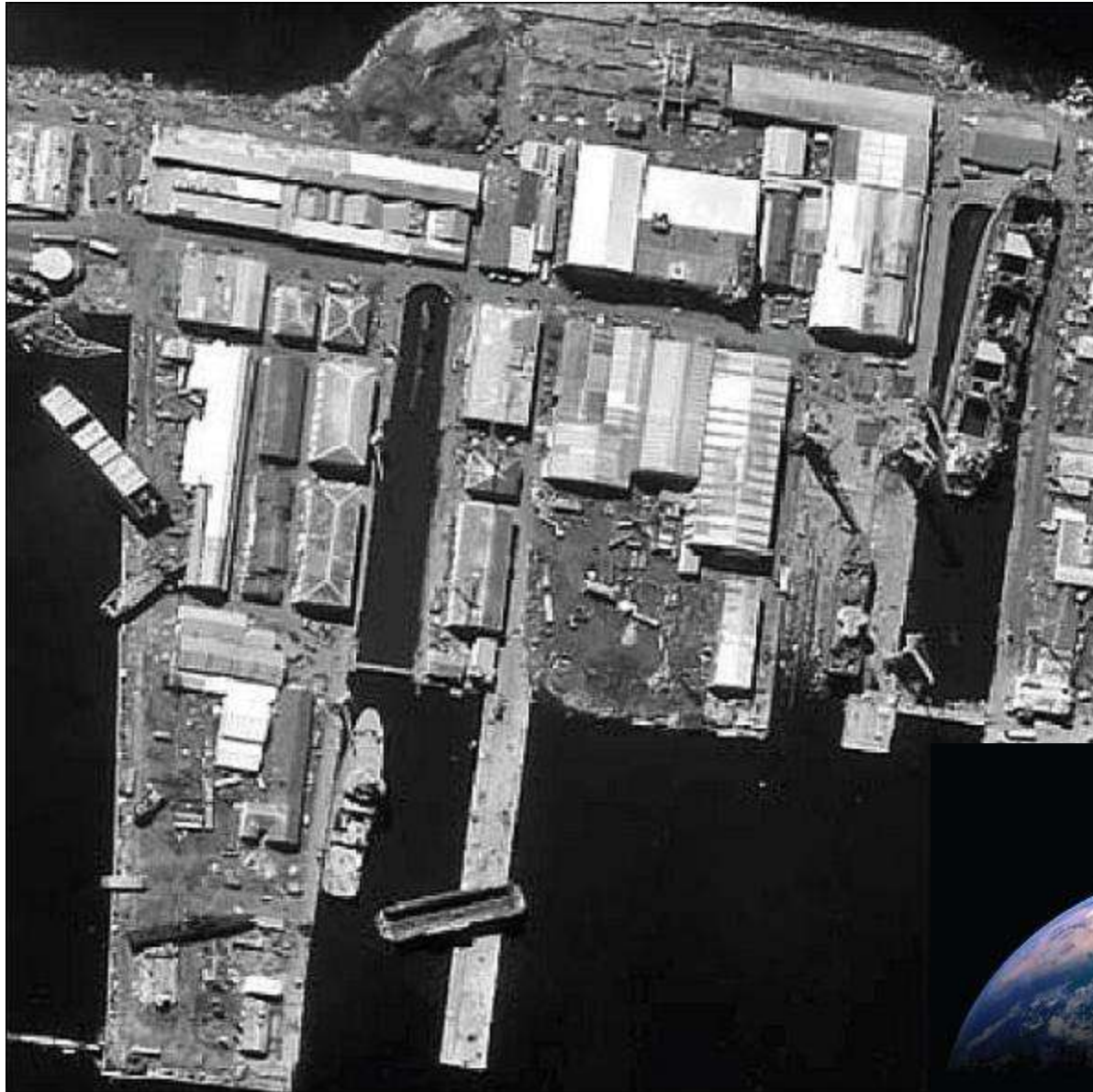
MINISTRY OF SCIENCE AND TECHNOLOGY (THAILAND)



EROS – A and EROS – B : Israel ... mostly for defence

EROS-C planned for 2018

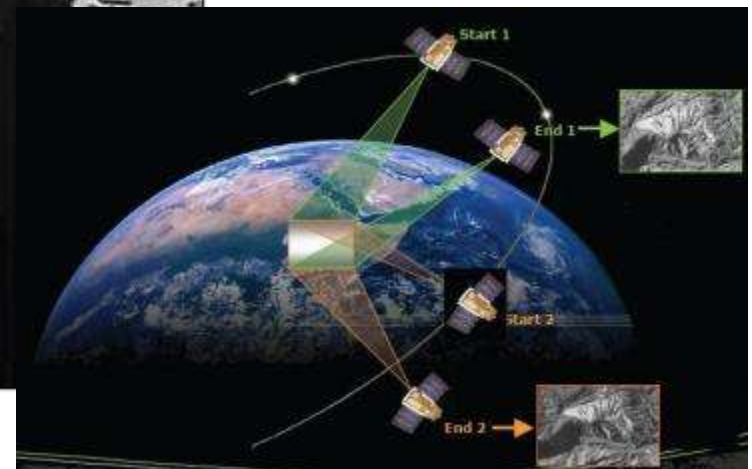
Parameter	EROS-A	EROS-B
Circular sun-synchronous orbit	~530 km	~ 520 km
GSD (Ground Sampling Distance)	1.9 m standard ~1.1 m hyper-sampled	0.70 m panchromatic
Swath width	14 km 9.5 km (hyperspectral)	7 km
Scanning scheme	Asynchronous pushbroom	Asynchronous pushbroom or Synchronous pushbroom
Spectral range of imagery	0.5-0.9 μm	0.5-0.9 μm
Data quantization	11 bit	10 bit
Downlink rate of imagery	70 Mbit/s	280 Mbit/s
LTDN (Local Time on Descending Node)	10:00 hours	14:00 hours
Launch - life expectancy (Ref. 2)	2000 -2012	2006-2018



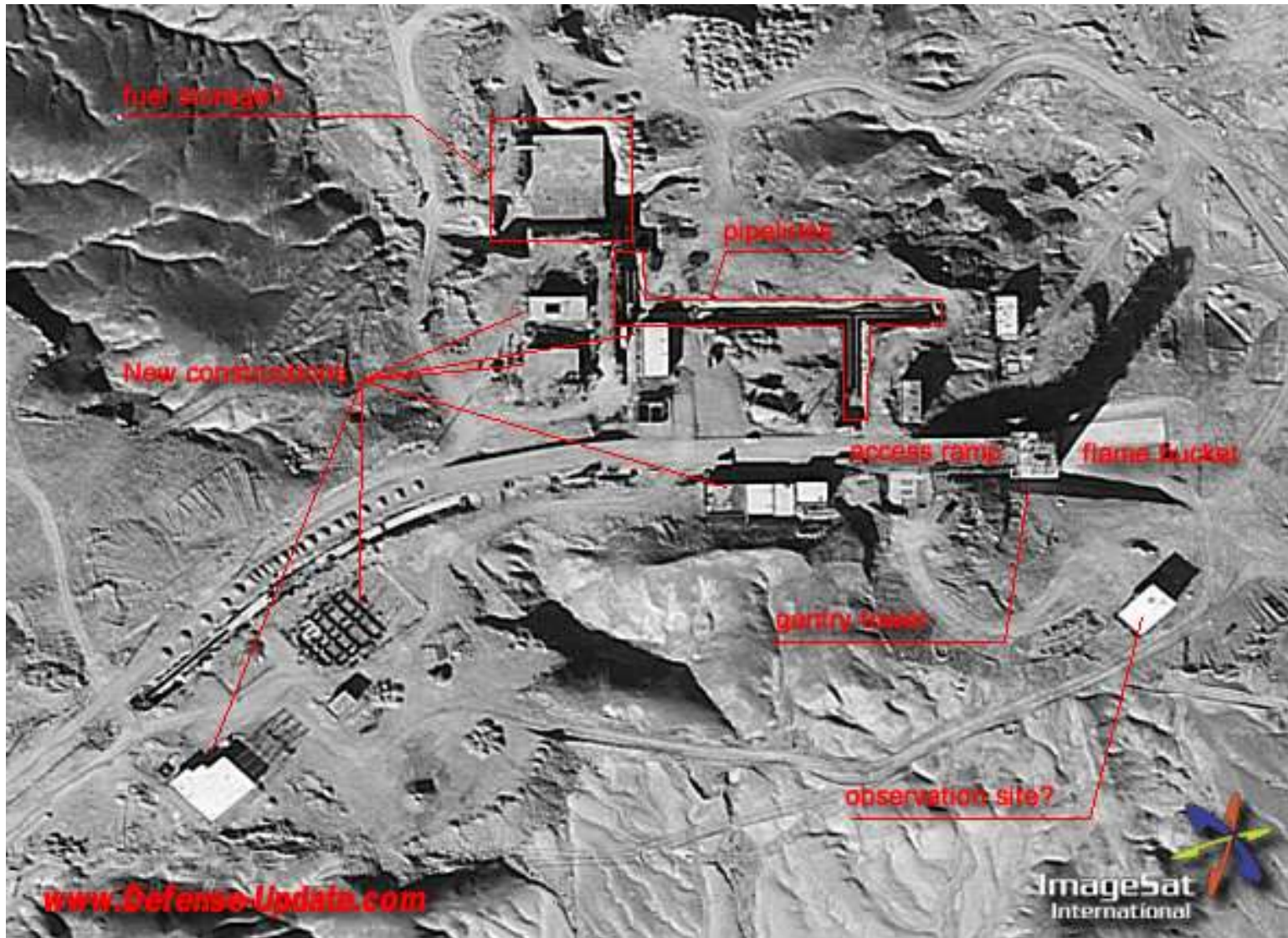
Disaster Monitoring

Chile, 2010 after
8.8 earthquake

DEM generation



Special interest in potential nuclear / missile facilities in Iran



http://defense-update.com/photos/semnan_space_center_200509.html