



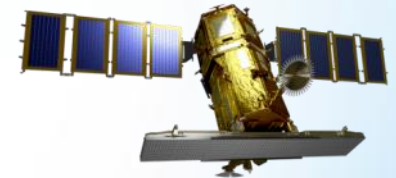
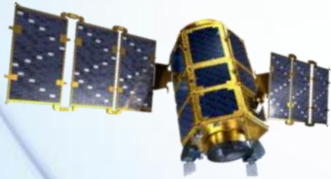
GISTDA

Fair Access to Space

KOMPSAT Workshop

- Discover the Earth at Sub-meter Resolution -

I. Introduction to SIIS



March, 2015

SI Imaging Services

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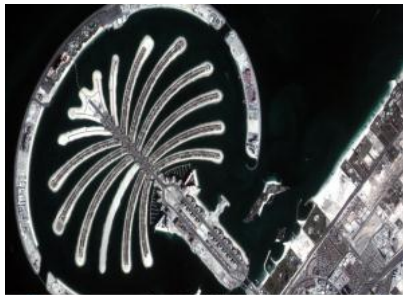


SI Imaging Services (SIIS)

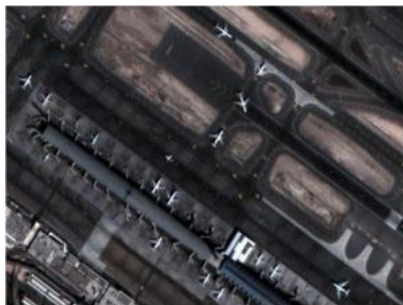


Satellite Imagery

Satellite Image



Value-added Service



❖ Established on 1st April, 2014

- Subsidiary of Satrec Initiative

❖ VHR satellite imagery & service provider

- Exclusive Worldwide Distributor of KOMPSAT-2, KOMPSAT-3 and KOMPSAT-5
- Worldwide distributor of DubaiSat-2
- Distributor of Deimos-2
- Distributor of TeLEOS-1 (2015)

❖ <http://www.si-imaging.com>

❖ Mission: Fair Access to Space

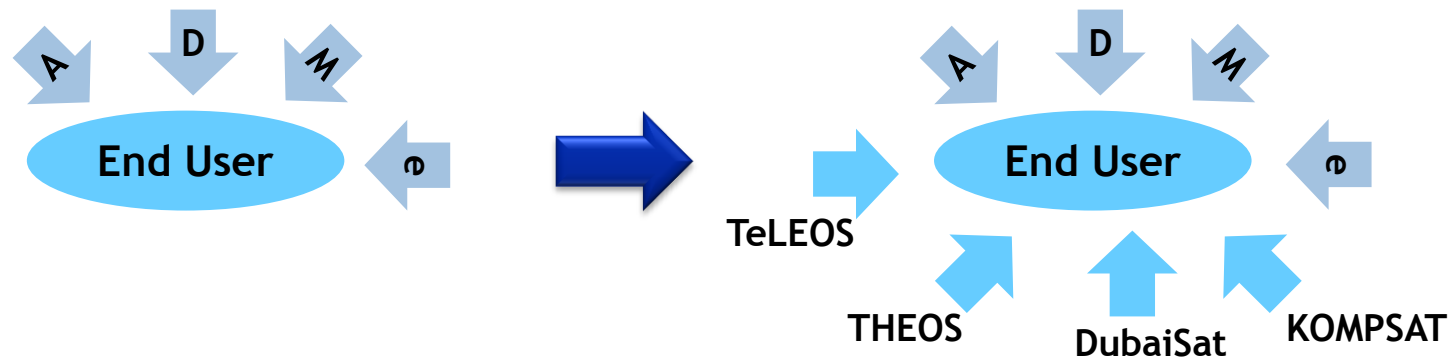
Recent/Future RS Satellites

Satellite	Launch	Operator	Specifications	Type
Gaofen-1	Apr. 2013	CNSA, China	2m PAN / 8m MS	Dual use
VNREDSat-1A	May 2013	VAST, Vietnam	2.5m PAN / 10m MS	National use
KOMPSAT-5	Aug. 2013	KARI, Korea	1m SAR	Dual use
DubaiSat-2	Nov. 2013	EIAST, UAE	1m PAN / 4m MS	Dual use
SkySat-1	Nov. 2013	Skybox, USA	1m PAN / HD Video	Commercial
EgyptSat-2	Apr. 2014	NARSSS, Egypt	1m PAN / 4m MS	Dual use?
KazEoSat-1	Apr. 2014	KGS, Kazakhstan	1m PAN / 4m MS	Dual Use
Deimos-2	Jun. 2014	Deimos, Spain	1m PAN / 4m MS	Commercial
SPOT-7 (Azersat)	Jun. 2014	Airbus, France	2.2m PAN / 8.8m MS	Commercial/ Dual use
WorldView-3	Aug. 2014	DigitalGlobe, USA	0.31m PAN / 16 bands	Commercial
Gaofen-2	Aug. 2014	CNSA, China	0.8m PAN / 3.2m MS	Dual use
Asnaro-1	Nov. 2014	USEF	0.5m PAN / 2m MS	National use
CBERS-4	Dec. 2014	China/Brazil	5m PAN / 10m MS	National use
KOMPSAT-3A	Mar. 2015	KARI, Korea	0.55m PAN / 2.2m MS 5.5 m MWIR	Dual use

SI Imaging Services (SIIS)

❖ Increase alternative sources for end users

- Through commercialization of data acquired by governmental program



❖ Alternative channel for governmental operator

- Additional distribution network for international government operator
- SIIS as operator-agnostic distribution network

Satrec Initiative (SI) at a Glance



Leading Small EO Satellite Manufacturer

180 full-time staff (60% with MSc or higher degree)

Over 20 Years Space Experience

Over 20 International & National Space Programs

Listed on KOSDAQ Exchange Market

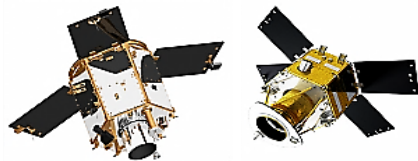
AS9100 & ISO 9001 certified



SI Business Portfolio

Space

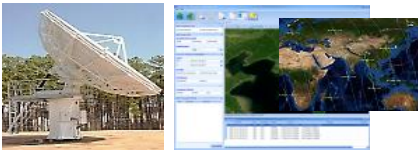
Satellite Platform



Payload



Ground Station



Core Business

Defense

Mobile Ground Station



UAV Ground Station



Satellite



Adjacent Business

Radiation Safety

EFRD 3300



EFRD Metro



Spin-off Products

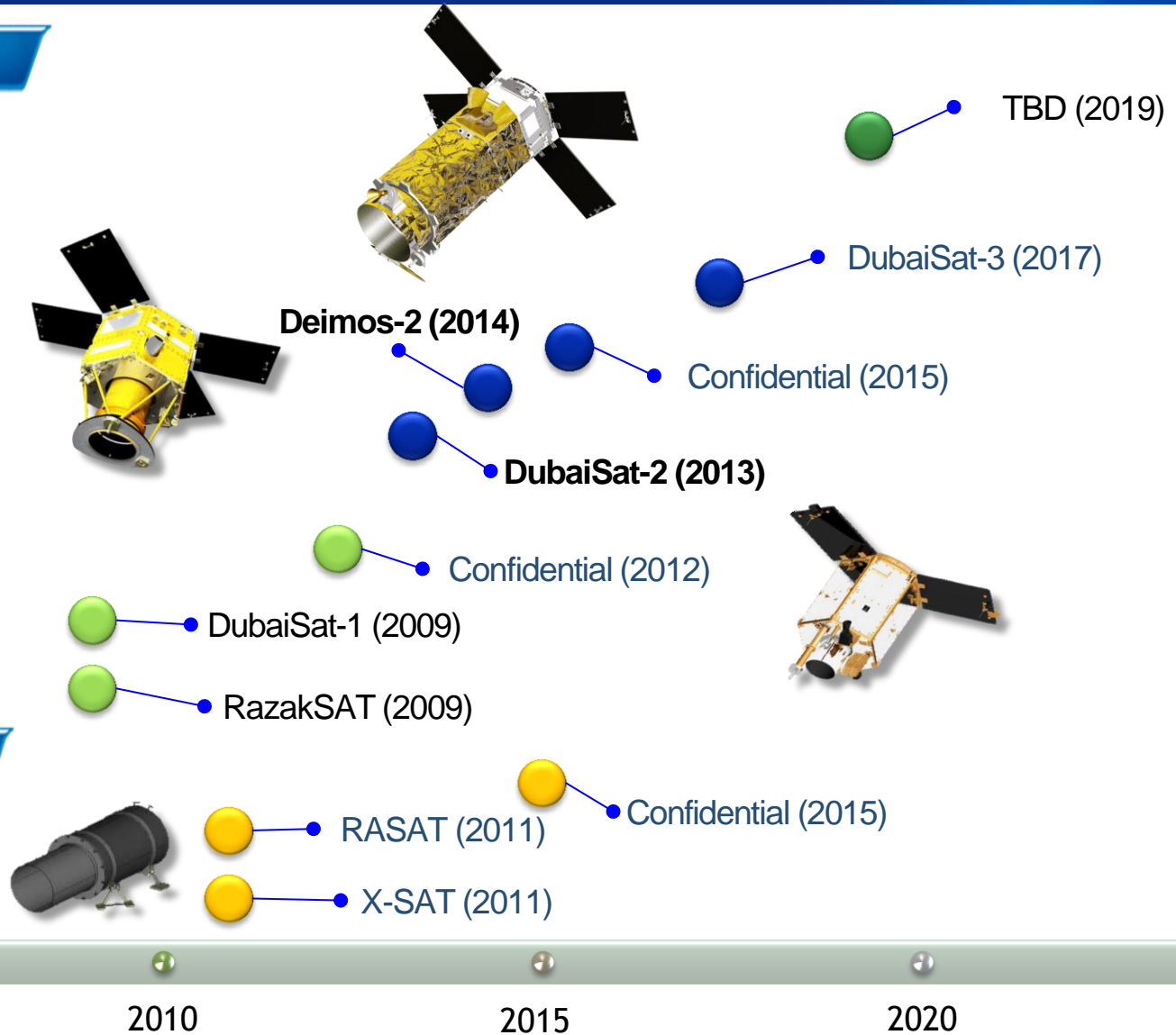
SI's Satellite Systems

SpaceEye-X (0.5m)

SpaceEye-1 (1 m)

SpaceEye-2 (2.5 m)

SpaceEye-10 (10 m)



2005

2010

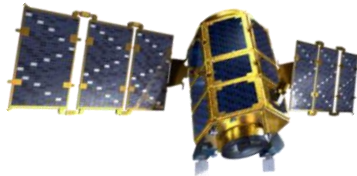
2015

2020

SIIS Products (1/2)

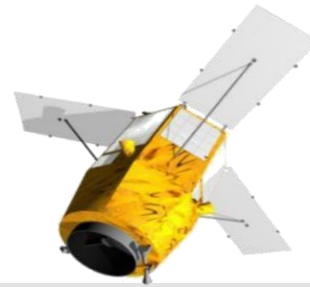
❖ KOMPSAT Constellation

- National program : KARI (Korea Aerospace Research Institute)
- Integrated solution for optical and radar
- Unique combination for imaging time (10:50, 13:30, 06:00/18:00)
- Korean government's long term commitment → data continuity



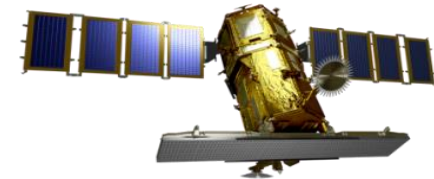
KOMPSAT-2

- Launch in July, 2006
- Optical
- LT: 10:50
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN: 1 m (15 km)
- MS: 4 m (15 km)



KOMPSAT-3

- Launch in May, 2012
- Optical
- LT: 13:30
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN: 0.7 m (16 km)
- MS: 2.8 m (16 km)



KOMPSAT-5

- Launch in August, 2013
- Radar
- LT: 06:00/18:00
- Spotlight: 1 m (5 km)
- Strip: 3 m (30 km)
- ScanSAR: 20 m (100 km)

SIIS Products (2/2)

❖ SpaceEye-1 Constellation

- New 1m resolution solutions
- DubaiSat-2 operated by EIAST, UAE
- Deimos-2 operated by Deimos, Spain
- Identical design



DubaiSat-2



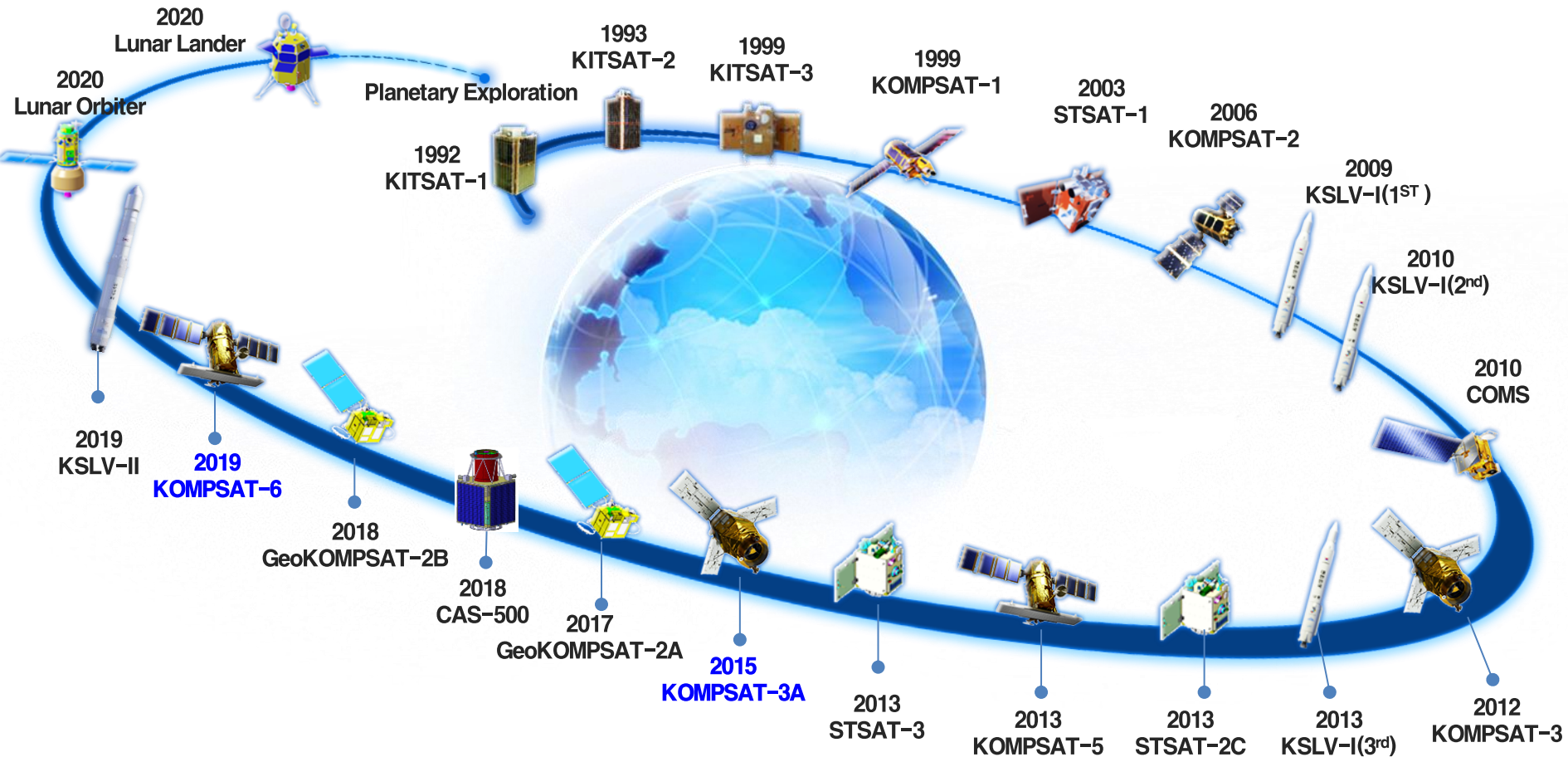
Deimos-2

- Launch in November , 2013
- Optical
- LT: 10:50 (Descending)
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN: 1 m (12 km)
- MS: 4 m (12 km)

- Launch in June, 2014
- Optical
- LT: 10:50 (Ascending)
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN: 0.75m/1.0 m (12 km)
- MS: 4 m (12 km)

Data Continuity of KOMPSAT

❖ Governmental Space Development Plan



KOMPSAT-3A

❖ KOMPSAT-3A will be launched on 26 March, 2015

❖ **Mission objectives**

- Data continuation after KOMPSAT-3
- Provision of the high-resolution EO (Electro-Optical) images
- Provision of IR (Infrared) images

❖ **Bus**

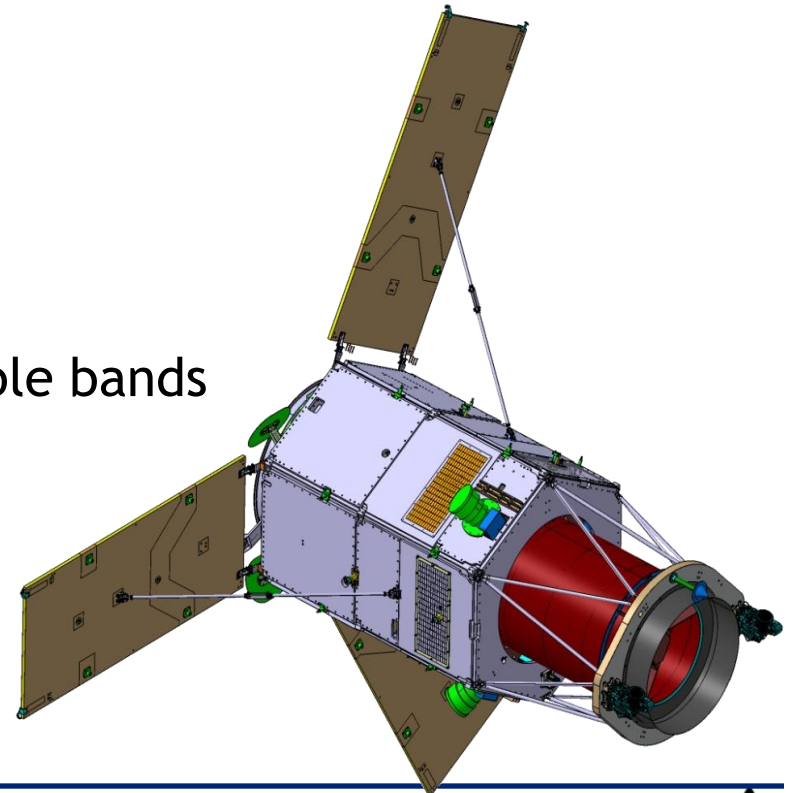
- Identical with KOMPSAT-3

❖ **Payload: AEISS-A**

- Identical with KOMPSAT-3 for visible bands
- Additional IR band

❖ **Orbit**

- 528 km altitude
- Better GSD than KOMPSAT-3



KOMPSAT-3A

❖ Specifications

Ground Sampling Distance	PAN : 0.55 m @altitude 528km(nadir) MS : 2.2 m @altitude 528km(nadir) IR: 5.5 m @altitude 528km(nadir)
Swath Width	>13km (nadir)
Spectral Bands	PAN : 450 ~ 900 nm MS1 (Blue) : 450 ~ 520 nm MS2 (Green) : 520 ~ 600 nm MS3 (Red) : 630 ~ 690 nm MS4 (NIR) : 760 ~ 900 nm MWIR : 3.3 μ m~ 5.2 μ m
Modulation Transfer Function	System MTF at Nyquist fr. For PAN : 8% System MTF at Nyquist fr. For MS : 12% System MTF at Nyquist fr. For MS : 8%
NETD	0.05K @ 300K

How to Connect to Us

❖ Homepage : www.si-imaging.com

❖ Catalog

- KOMPSAT : arirang.kari.re.kr
- DubaiSat-2: uis.eiast.ae

❖ Local representative

- GISTDA

❖ SIIS personnel

- Ms. Minyo Hong (minyo.hong@si-imaging.com)
- Ms. Jiyeon Moon(jiyeon.moon@si-imaging.com)

❖ Newsletter

- Subscribe to Ms. Jennie IN (jen@si-imaging.com)

❖ SI Imaging services at linkedIn and facebook pages



Constellation of VHR EO & SAR
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FEBRUARY, 2015

Upcoming Events

GISTDA KOMPSAT workshop

Discover the Earth at Sub-meter Resolution

With the power of Earth Observation at sub-meter resolution, so called a Very High Resolution Imagery (VHRI), the Earth's surface can be daily discovered clearer. No matter what business you are in, location-based and spatial information are coming in the way. You can watch and monitor the World change closely every day. GISTDA works in partnership with a leading satellite provider, SI Imaging Services of Korea, to bring in the latest technology to Thai users in this coming March.

*Date: March 17, 2015

*Time: 9:00~15:30

*Venue: Silvasatel Le Concorde Bangkok Hotel, Ratchadapisek Road

[Read More...](#)



**KOMPSAT
At Your Service**

Colombo
Sri Lanka