

SI IMAGING SERVICES

This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

CONTENTS

01 / INTRODUCTION

1-1. SI GROUP
SI / SIA / SIIS

02 / KOMPSAT IMAGERIES

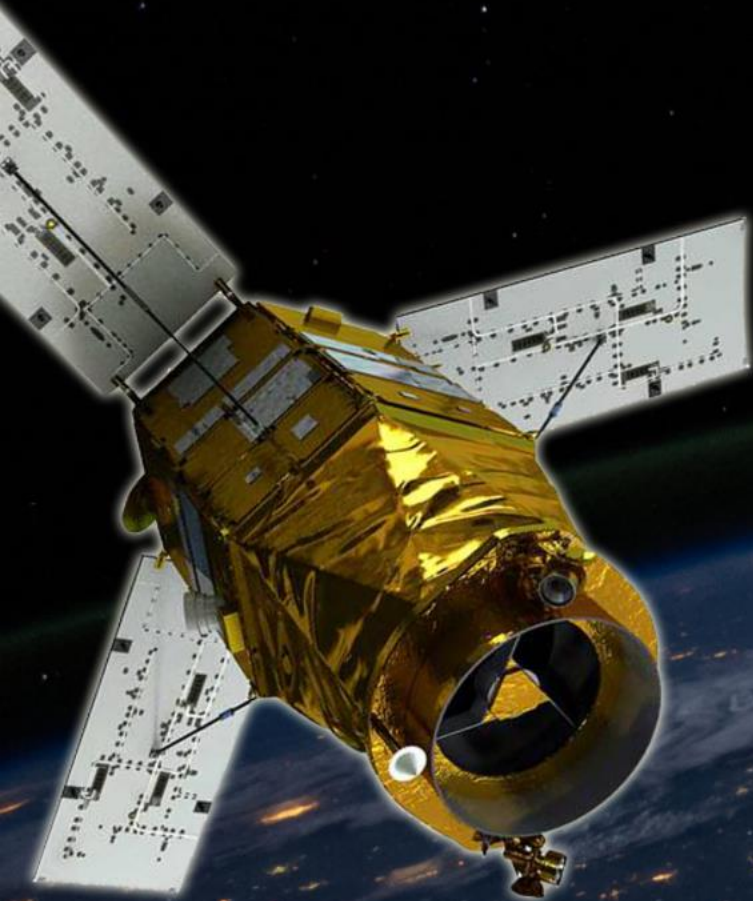
2-1. KOMPSAT Constellation
2-2. Imageries

03 / APPLICATIONS

3-1. Applications

04 / DRS

4-1. Direct Receiving Station



CONTENTS

01 / INTRODUCTION

1-1. SI GROUP
SI / SIA / SIIS

02 / KOMPSAT IMAGERIES

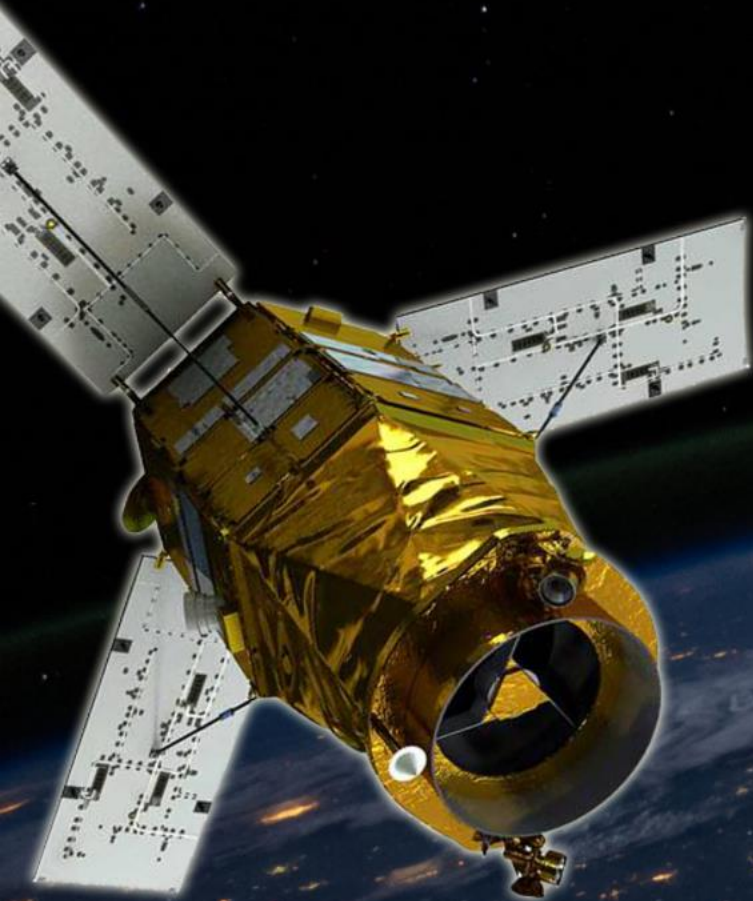
2-1. KOMPSAT Constellation
2-2. Imageries

03 / APPLICATIONS

3-1. Applications

04 / DRS

4-1. Direct Receiving Station



World-leading earth observation solution provider



Satellites



Satrec Initiative



Ground Stations



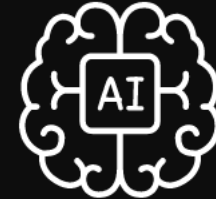
Satrec Initiative



Imageries



SI Imaging Services



Analytics

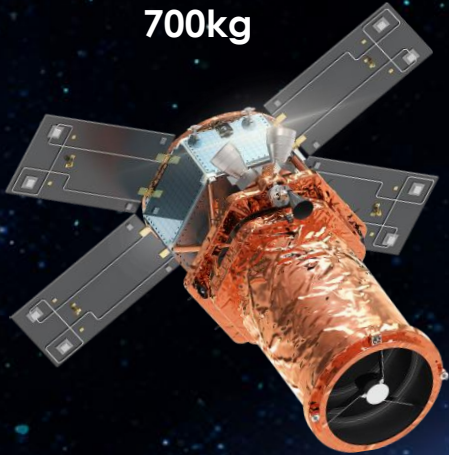


SI Analytics

Satrec Initiative

Satellite Systems

SpaceEye-T (0.3m)
700kg



Under Development

SpaceEye-X (0.5m)
400kg



Confidential('22)

SpaceEye-1 (1.0m)
300kg



KhalifaSat('18)
TeLEOS-1('15)
Deimos-2('14)
DubaiSat-2('13)

SpaceEye-M (1.0m)
50kg



SpaceEye-2 (2.5m)
200kg



Confidential('12)
DubaiSat-1('09)
RazakSAT('09)

SpaceEye-W (5.0m)
100kg



NeuSAR('21)
Confidential('15)
RASAT('11)
X-SAT('11)

SIA (SI Analytics)

AI Specialist for Satellite and Aerial Imagery Analysis

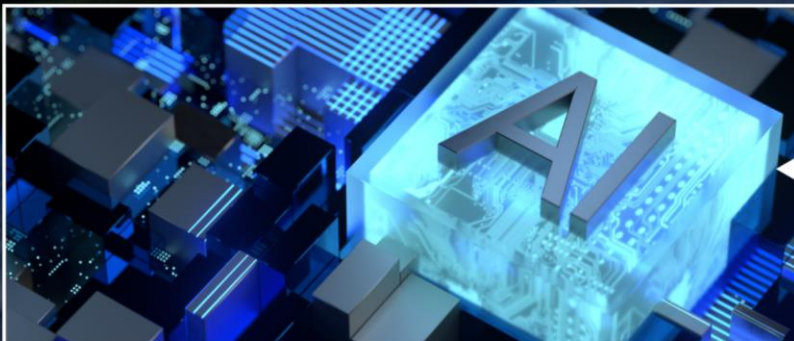
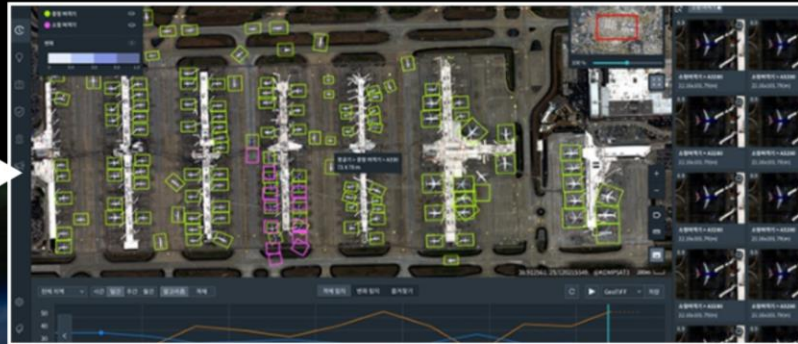


LABEL EARTH

Production software for deep learning model
Specialized for satellite imagery
Customized Inference Service & Platform
On-demand analysis (subscription basis)

OVISION

Satellite image analysis and the result monitoring
software using artificial intelligence
Coming in the first half of 2021



TRAIN EARTH

AI model training / evaluation software for satellite
Imagery
User-Owned AI Model Learning Function
Performance Evaluation of Trained AI Models
Re-training Function of Existing AI Models

SI Imaging Services

The Worldwide Distributor of KOMPSATs

01

IMAGERY & SERVICE

Satellite Imagery products are consist of
Standard and VAP
And we also provide operation service for
KOMPSAT series



Standard Product
1R & 1G & 1O
Bundle & PS



Value Added Product



Telemetry Service



Direct Receiving Station

SI Imaging Services

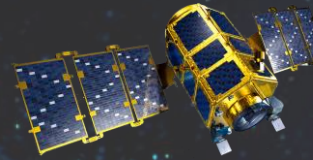
Exclusive Worldwide Distributor of KOMPSATs

02

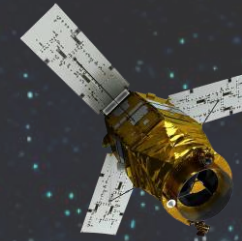
OPERATIONS

We participate in KOMPSAT operation

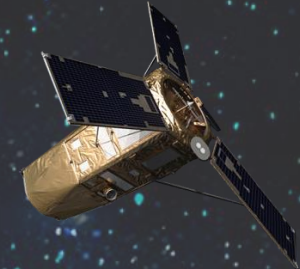
EO



KOMPSAT-2



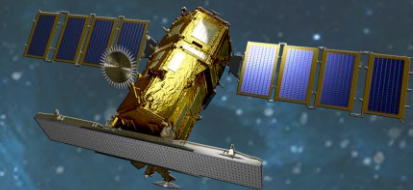
KOMPSAT-3



KOMPSAT-3A



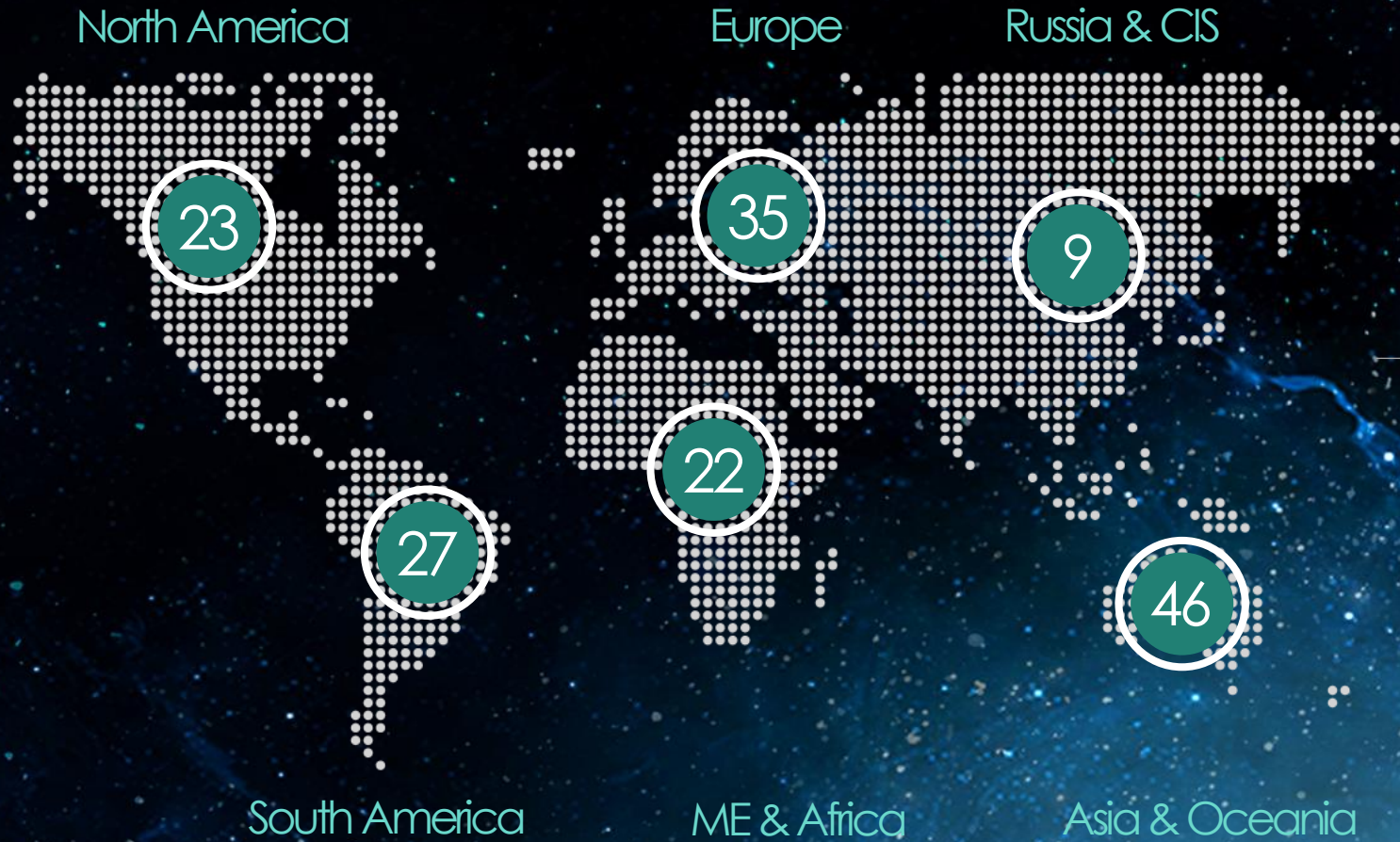
SAR



KOMPSAT-5

SI Imaging Services

Exclusive Worldwide Distributor of KOMPSATs



03

PARTNER NETWORK

162 Partners, 65 Countries
(2022.07)

One-Stop Integrated Solutions for EO Missions



Satellites



Ground Stations



Imageries



Analytics



CONTENTS

01 / INTRODUCTION

1-1. SI GROUP
SI / SIA / SIIS

02 / KOMPSAT IMAGERIES

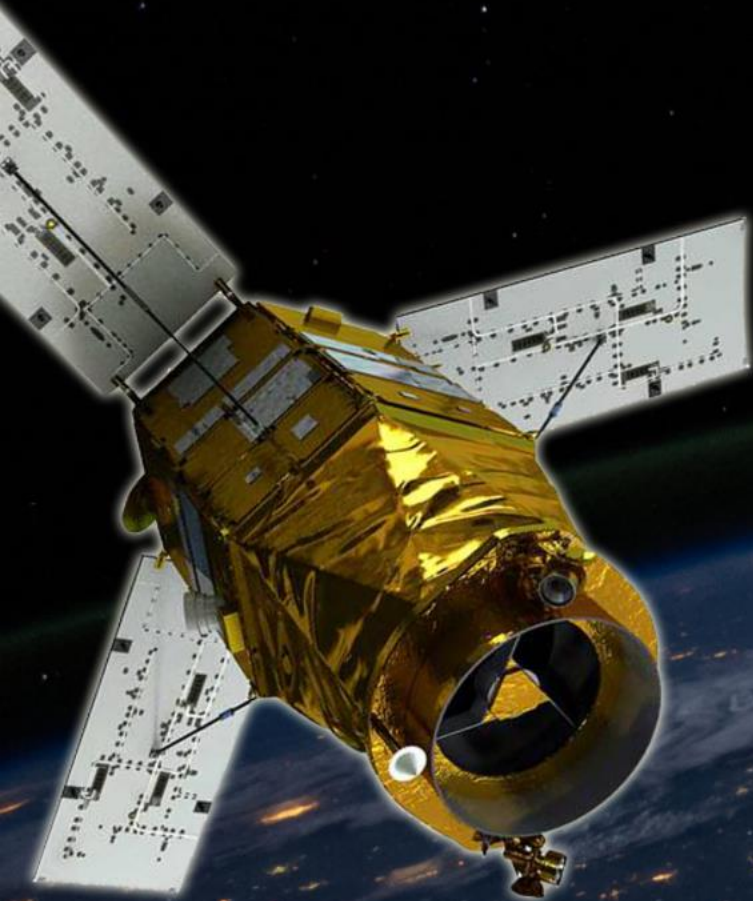
2-1. KOMPSAT Constellation
2-2. Imageries

03 / APPLICATIONS

3-1. Applications

04 / DRS

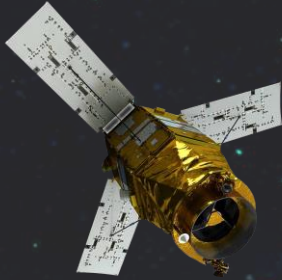
4-1. Direct Receiving Station



KOMPSAT Constellation

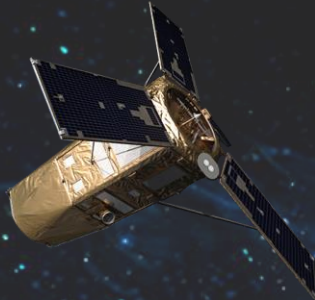
National Space Program
Developed and operated by KARI
Worldwide imagery distribution by SI Imaging Services

EO



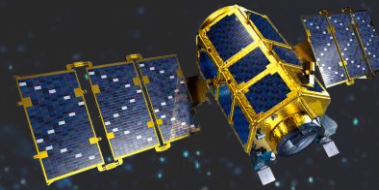
KOMPSAT-3

- LAUNCHED IN MAY 2012
- LT : 13:30
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN : 0.7M (16KM)
- MS : 2.8M (16KM)



KOMPSAT-3A

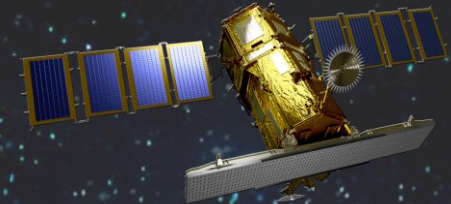
- LAUNCHED IN MARCH 2015
- LT : 13:30
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN : 0.55M (13KM)
- MS : 2.2M (13KM)



KOMPSAT-2

- LAUNCHED IN JULY 2006
- LT : 10:50
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN : 1M (15KM)
- MS : 4M (15KM)

X-BAND SAR



KOMPSAT-5

- LAUNCHED IN AUGUST 2013
- LT : 06:00 / 18:00
- SPOTLIGHT : 0.85M ~ 1M (5KM)
- STRIP : 2.5 ~ 3M (30KM)
- SCAN SAR : 20M (100KM)

Advantages of KOMPSAT

WHY KOMPSAT?



VHR EO & SAR

Up to 1.1 Bil. Km2
Imaging / year
(Strip)



Highest Quantization

KOMPSAT 3 & 3A :
14bits/pixel

Advantage on
Spectral Analysis



Unique Imaging Time

Change Detection
within a Day

EO : 10:50 & 13:30
SAR : 06:00 & 18:00



Everyday Revisit

Urgent Tasking



Data Continuity

Korea government
Space program

Guaranteed data
continuity

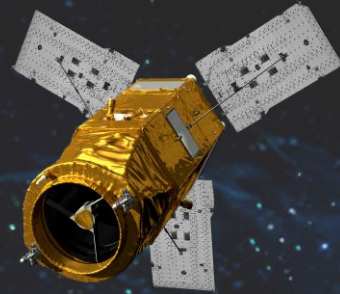
New satellite programs

KOMPSAT



KOMPSAT-6

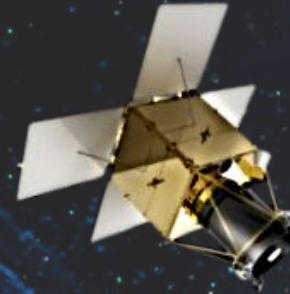
- EXPECTED LAUNCH IN 2024
- X-BAND SAR
- SPOTLIGHT : 0.5M (5KM)
- STRIP : 2.5~3M (30KM)
- TOPSAR : 20M (100KM)



KOMPSAT-7&7A

- EXPECTED LAUNCH IN 2024
- LT : TBD
- 1 PAN + 4 MS (R/G/B/NIR) + IR
- PAN : 0.3M
- MS : 1.2M

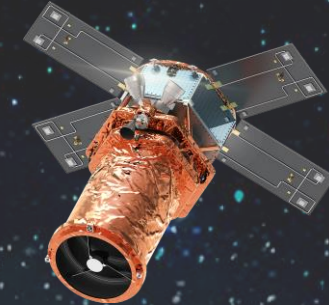
CAS



CAS500

- LAUNCHED IN 2021
- LT :-
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN : 0.5M (12KM)
- MS : 2M (12KM)

SPACE EYE-T



SPACE EYE-T PATHFINDER

- EXPECTED LAUNCH IN 2024
- LT : 10:30 (AM)
- 1 PAN + 4 MS (R/G/B/NIR)
- PAN : 0.3M
- MS : 1.2M



Jeju Island, South Korea
KOMPSAT-3A
Apr 08, 2020



Poland
KOMPSAT-3
Jul 01, 2020



Hanoi, Vietnam
KOMPSAT-3
Oct 19, 2019



Bryce Canyon, United States
KOMPSAT-3A
Apr 25, 2021

CONTENTS

01 / INTRODUCTION

1-1. SI GROUP
SI / SIA / SIIS

02 / KOMPSAT IMAGERIES

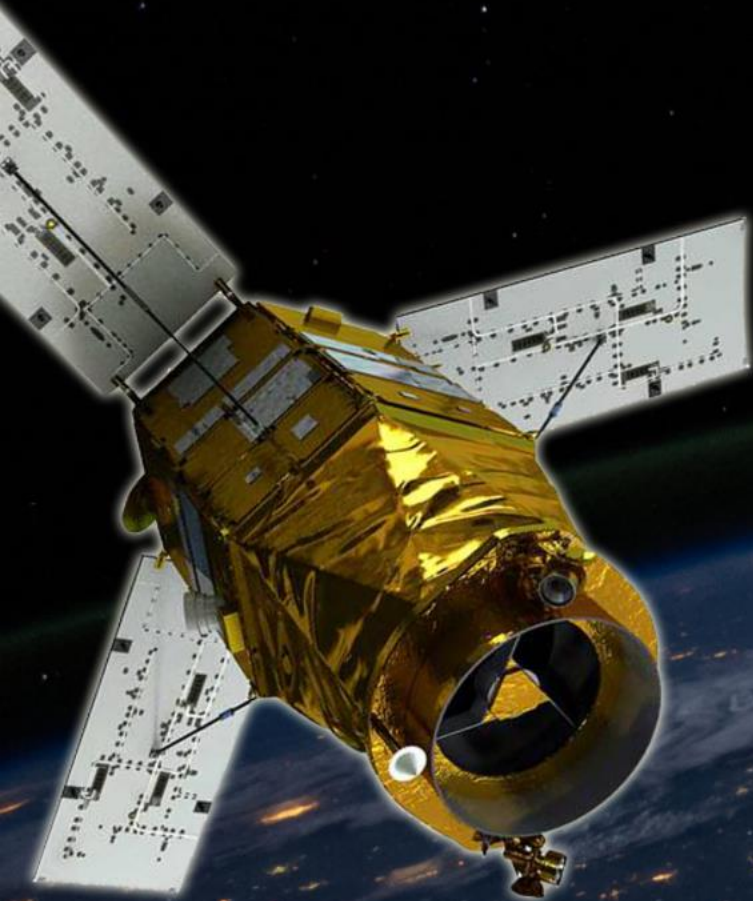
2-1. KOMPSAT Constellation
2-2. Imageries

03 / APPLICATIONS

3-1. Applications

04 / DRS

4-1. Direct Receiving Station



Applications



Applications



Defense & Military

Critical Infrastructure Monitoring



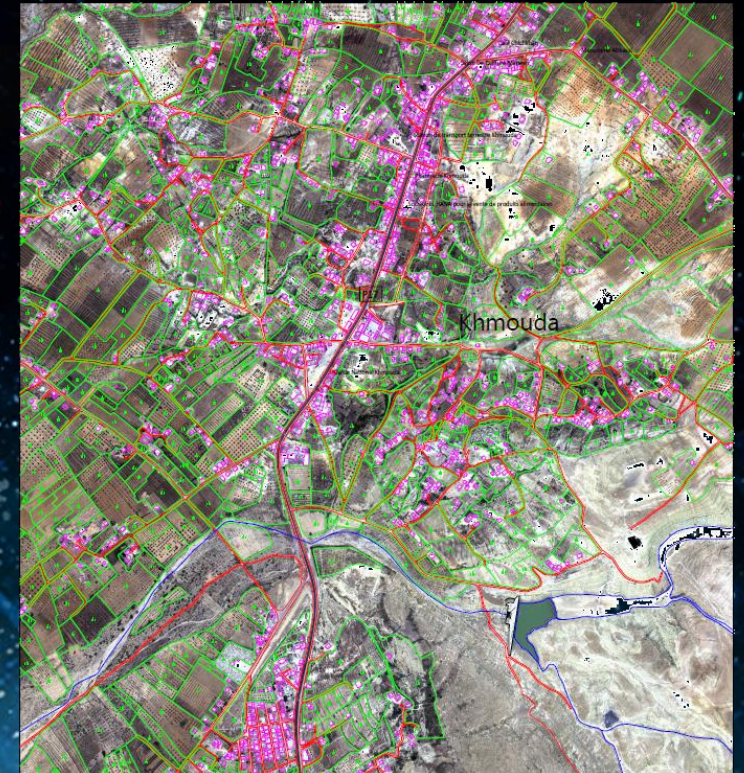
Applications



Digital Mapping



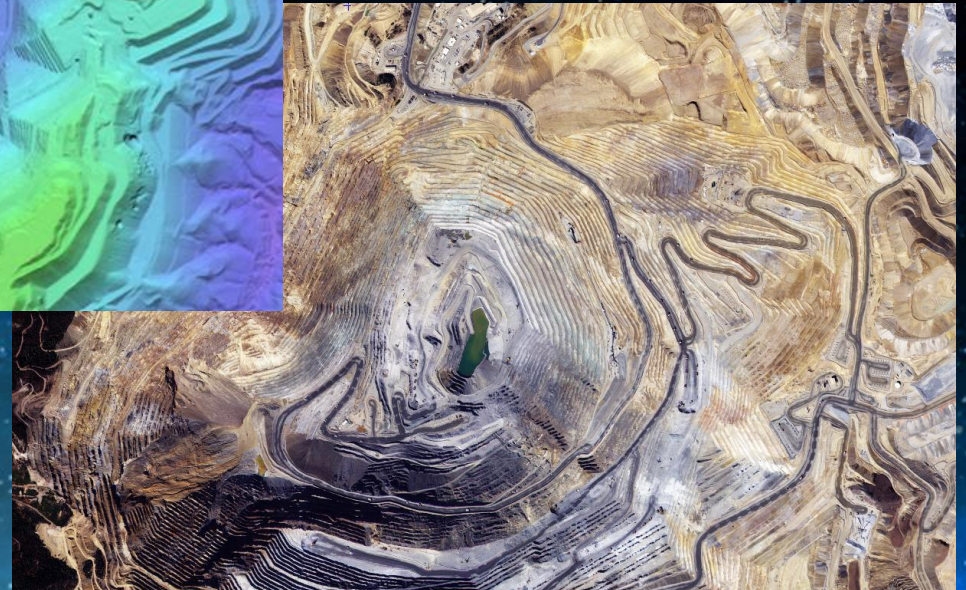
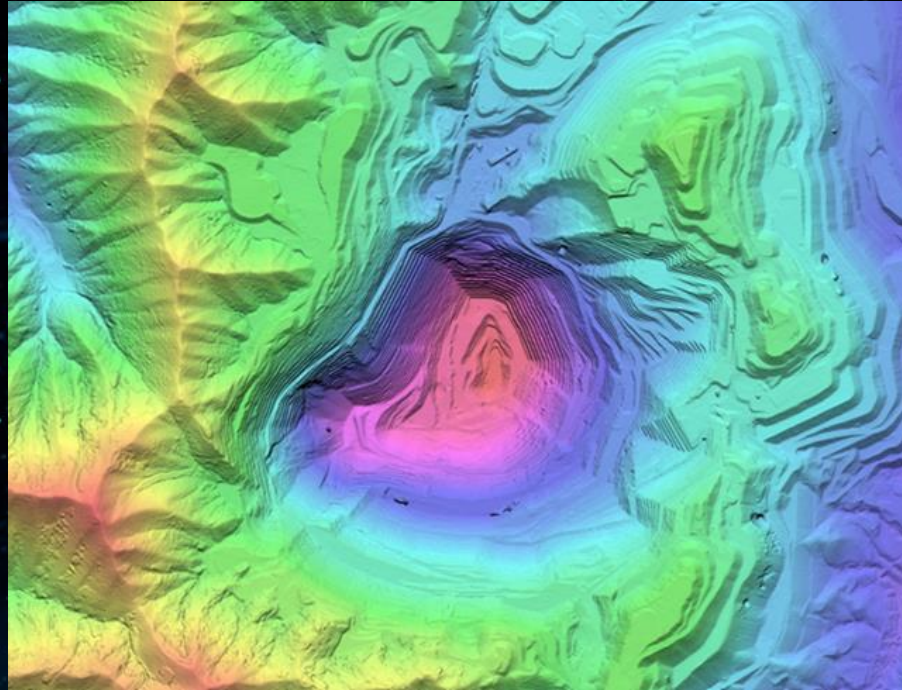
Topographic Map



Applications



Mining – DSM Difference of Bingham Copper Mine



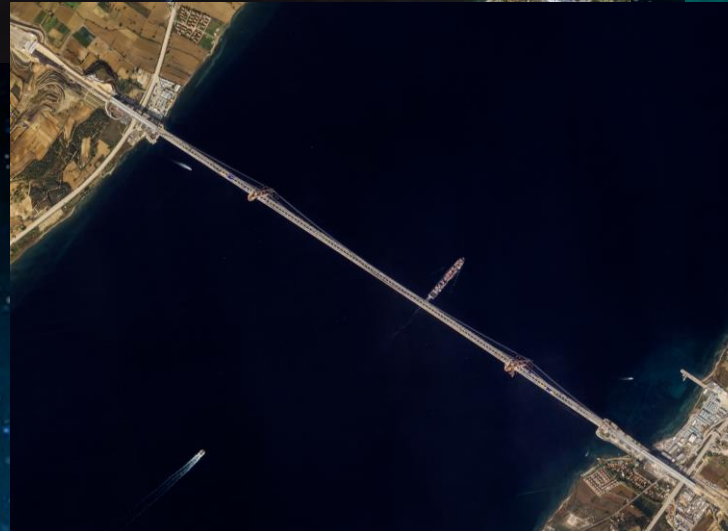
Applications



Turkey – Canakkale Suspension Bridge



Iraq – Al Faw Breakwater



Applications



Yield Estimation



CONTENTS

01 / INTRODUCTION

1-1. SI GROUP
SI / SIA / SIIS

02 / KOMPSAT IMAGERIES

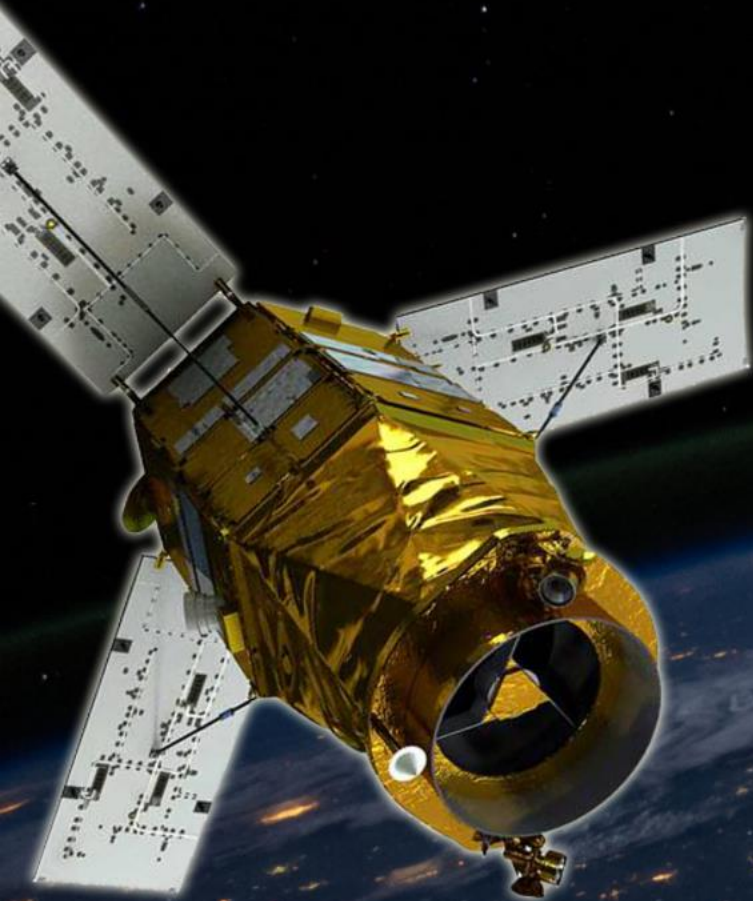
2-1. KOMPSAT Constellation
2-2. Imageries

03 / APPLICATIONS

3-1. Applications

04 / DRS

4-1. Direct Receiving Station



KOMPSAT DRS



KOMPSAT DRS

DIRECT RECEIVING STATION



KOMPSAT Satellites

Data Acquisition by Satellite



KOMPSAT Satellites

Data Reception at Local Site



Ground Station
Terminal

Data Processed to Product



Satellite Image

REAL-TIME

DRS SCHEME

DRS



Antenna
& RF



- Direct Reception on site with RF
- Full Functionality

Virtual DRS (VDRS)



- When RF system is not available
- Data reception in KARI, delivery of raw data via FTP to customer
- Processing and product generation at customer's site

Direct Product Service



- When only Image products are desired
- Without RF system, no processing in ground station
- Data reception and product generation in KARI, delivery of image product via FTP in Near Real Time

DRS ADVANTAGES



Direct access to multi-mission data
(KOMPSAT-3, KOMPSAT-3A, KOMPSAT-5)



Your own image collection planning



Real-time data download from satellites



NRT product generation at your site

Contact Information

01. Website

www.si-imaging.com



02. Catalog

<http://spaceeye.si-imaging.com/>



03. SNS



SI Imaging Services



CONTACT

For more details, you can always

Connect with us.

Check our updated news on

Websites and SNS channels.



THANK YOU

FAIR ACCESS TO SPACE

SI Imaging Services

September 2022