



SOLETOP

The company Intro & Capability

Presented By Keith Bang

CSPP / IMAPP Users' Group Meeting 2017

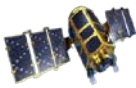
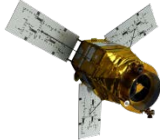



About SOLETOP

- **Established** 1995 – **22nd year**
- **Business in**
 - System Implementation & Integration
 - Remote Sensing & Telepresence
 - Satellite Control & Monitoring
 - Software Development for Satellite & UAV
- **Location** Daedeok special R&D Zone,
Daejeon, KOREA
- **Homepage** www.soletop.com



Space Heritage

| SATELLITES | KOMPSAT-1 | KOMPSAT-2 | COMS | KOMPSAT-3 | KOMPSAT-5 | KOMPSAT-3A | GK-2A/B | KOMPSAT-6 |
|--|---|---|--|---|---|---|---|---|
| DATE | 1999.12 | 2006.7 | 2010.6 | 2012.5 | 2013.8 | 2015.3 | 2018-19 | 2018-19 |
| PICTURE |  |  |  |  |  |  |  |  |
| PAYLOAD | EO | EO | Met. Imager Ocean Color Imager | EO | SAR | EO/IR | AMI GOCI-II | SAR |
| ELECTRICAL GROUND SUPPORT EQUIPMENT | | SATS (BUS EGSE) | | ACTM (Payload EGSE) | | CGS (BUS EGSE) PISA (Payload EGSE) | CGS (BUS EGSE) | OTEC (Payload EGSE) |
| GROUND CONTROL SYSTEM | SOS | SOS SIM | ROS MPS TT&C | SOS | SOS | CGS | | SOS, MPS FDS, SIM |
| GROUND SEGMENT | | K2PS | LHGS, GlobeShot, Globe mP | | | | GS C&M CMDPS-II | |

Korea GK-2A GEO Satellite Program

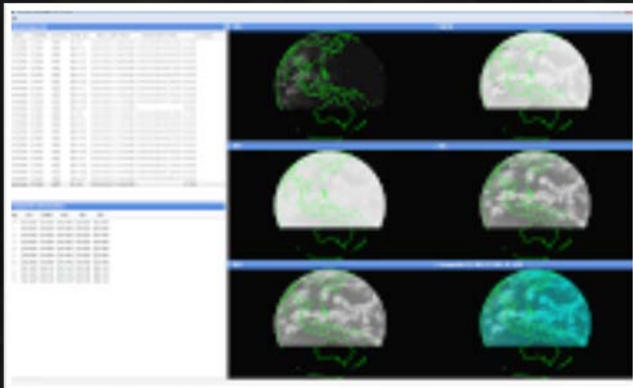
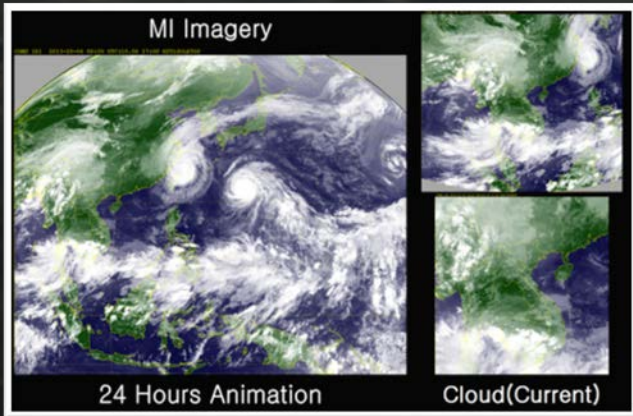
PURPOSE - Continuous generation of **meteorological** products, **Early detection of severe weather**, Monitoring of **climate change** and atmospheric environment.

- **COMS 1 (GK-1)** - Design Life: 7 years starting 2011
 - Payload – MI (Meteorological Imager)
 - Performance - equivalent to GOES-17, MTSAT-2
 - Products - Level1b, 16 Level2 images
 - Advantages
 - Frequent transmission** - Every 15 min
 - High resolution** - Visible:1km, IR:4km
- **GK-2A - to be launched in 2018. 16 channels, 52 Level2 products, every 10 min, visible – 0.5km, IR – 2km**
- ***GK-2A Receiving & Processing System for KMA is under development by Soletop***
- **Free! No subscription! KOICA, Official Development Assistance**

Our Capabilities

1. Satellite **Monitoring & Control** – Testing, TT&C
2. Satellite **Earth Ground Stations** – MODIS, LANDSAT, GEO, LEO
3. **ICT** Infrastructure
4. **Global Installation & Support**

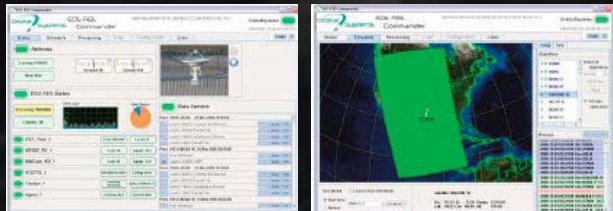
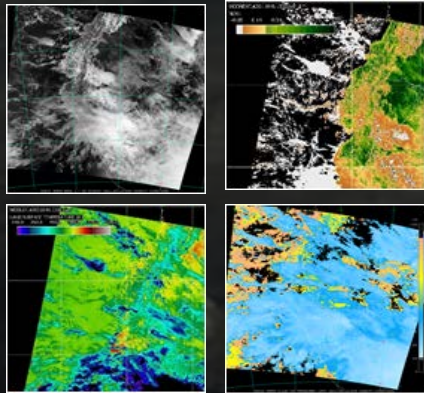
GlobeShotTM GEO Ground Station product features



- Operational use
- Patented Rapid s/w Frame Synchronizer
- Patented Rapid s/w Pseudo Randomizer
 - No need for high-performance hardware
 - Low cost ownership
- Multi-mission platform
 - COMS, MTSAT, FY-2, Himawari-8,
GOES-R, GK-2A



GlobeTrackTM – LEO Ground Station product features



- Turnkey LEO platform – **SSEC Technology!**
- Premium hardware – Designed for **Operational Use**
- Complete **Software Suite** – antenna control, scheduling, ingest L0, L2 post-processing, file management & many more
- Support NOAA, MetOp, Terra, Aqua, NPP, JPSS, FY1, FY3
- Future mission ready

SOLETOP

Unique Partnership



SPACE SCIENCE AND ENGINEERING CENTER
University of Wisconsin-Madison

Memorandum of Understanding (MoU) between
the Space Science and Engineering Centre of the University of Wisconsin, USA
and
the Soletop Co. Ltd. South Korea

the Soletop Co. Ltd. South Korea
and

Global Installation Services



Project for 'GISTDA, Thailand' GEO/LEO MODIS Ground Station, 2015

- ✓ Fully integrated **DBPAS** for both GEO & LEO
- ✓ **IAPP / IMAPP / CSPP** implementation
- ✓ COMS, Aqua, Terra, JPSS, NPP, NOAA
- ✓ Web based Catalog & archive
- ✓ Expert installation, training and 7/24/365 support



MODIS 2.4-m Antenna



Landsat8
5.0-m Antenna



Project for 'NDMI, Korea'

LANDSAT, MODIS, NPP & GEO 2016

- ✓ LANDSAT International Cooperators station
- ✓ 5.0m and 2.4m tracking Antennas plus two 3.7m GEO Antennas
- ✓ Full integration including storage, archive and catalog system
- ✓ Fully integrated Control Room



Project for 'NDMI, Korea' LANDSAT, MODIS, NPP & GEO 2016

Picture (1/3)



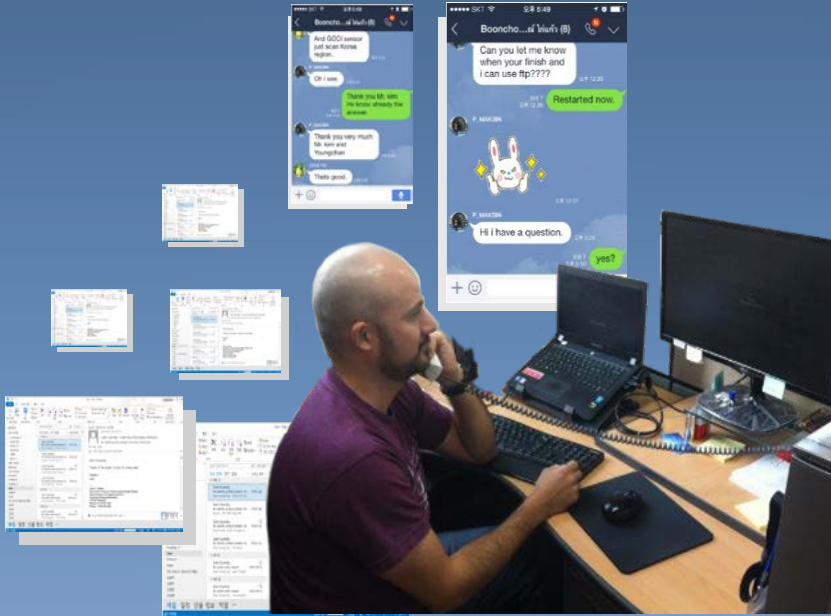
Project for 'NDMI, Korea' LANDSAT, MODIS, NPP & GEO 2016
Picture (2/3)



Project for 'NDMI, Korea' LANDSAT, MODIS, NPP & GEO 2016
Picture (3/3)



Support



- ✓ Global Presence – local agencies
- ✓ End to End Project Management
- ✓ Software Customization
- ✓ Hot Line Support 24/7
- ✓ Multilevel communication method

Key Customers

- ✓ Indonesia, Philippines, Saudi, Sri Lanka, Thailand
- ✓ 200+ successful domestic projects and still counting.....



“Over 20 years of technological excellence!” Thank you!


ENG / KOR

SOLETOP
Remote sensing & Telepresence


Core TechnologyProductsSatellite MissionsSupportAbout Us

Innovative and Field-Proven Remote sensing and Telepresence products

Soletop is known for innovative software technology and field-proven engineering capabilities for applications in satellites, unmanned crafts. From factory test to operation, the Defense and Aerospace Industries rely on Soletop to solve its application problem.



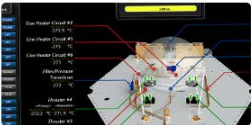
Providing critical environmental information ...



Geospatial

GlobeShot™ 3.0 is a turnkey satellite reception system that receive transmitted


COMS Satellite Reception System



Satellite

Soletop has more than 10 years of proven experience in this mission critical field

Small Satellite



Surveillance

Kestrel Land MTI is a software solution that automatically detects movement

SoiVision - L

Upcoming Events

World Ocean Forum 2014

Careers

Mr. Yongsioo Jung

Contact Us

Headquarter

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SOLETOP
Remote sensing & Telepresence





Core TechnologyProductsSatellite MissionsSupportAbout Us

Products > Unmanned Crafts > Universal UAV Ground Control Station

Geospatial >
Satellite >
Unmanned Crafts
Surveillance >
Subsea Product >
Environmental monitoring >

Universal UAV Ground Control Station

Soletop's time tested experience in satellite programs and core knowledge is successfully applied to this new field. We are leading the industry in unmanned aerial systems. Please contact us for more information or to discuss your requirement.



Quick Links

WWW.SOLETOP.COM



**“Over 20 years of technological excellence!”
Thank you!**



Project for 'DoM, Sri Lanka' COMS Ground Station, 2012



- ✓ Fully integrated COMS HRIT Ground Station under KOICA ODA
- ✓ Level 1,2 Products
- ✓ Meteorological Data Analysis s/w (Typhoon, Meteorological symbol, etc.)
- ✓ Web based Catalog & Archive
- ✓ Expert installation, training performed





Project for 'PAGASA, Philippines' GEO COMS system, 2016

- ✓ GEO COMS System under KOICA ODA
- ✓ Two Ground Stations with 3.7m GEO Antennas (Quezon City and Cebu)
- ✓ Full integration including storage, archive and catalog system
- ✓ 4 regional remote sites

SOLETOP VALUE

- ✓ Proven Space heritage
- ✓ **Satellite C&M** and **Ground Station** Professional
- ✓ Master Software Architects
- ✓ ICT Computing Expert
- ✓ Quality ISO9001 Certified
- ✓ Legendary Customer Support

ICT Infrastructure Capability

- ✓ Network Security
- ✓ High performance computing
- ✓ Optimized data storage design
- ✓ Disaster recovery
- ✓ Large scale system design
- ✓ Virtualization expert





Satellite “Monitoring & Control”

- **EGSE** – Verification & testing
- **MPS (Mission Planning System)** & Satellite **SIM**ulator
- **TT&C** – Telemetry Tracking & Control
- **Cube Satellite** H/W and S/W



Project for 'LAPAN, Indonesia' LEO MODIS, NPP Ground Station, 2015

- ✓ 3.0-m L/X-band antenna
- ✓ plus R/F equipment
- ✓ Fully installed and integrated
- ✓ to existing MODIS, NPP and ICT system