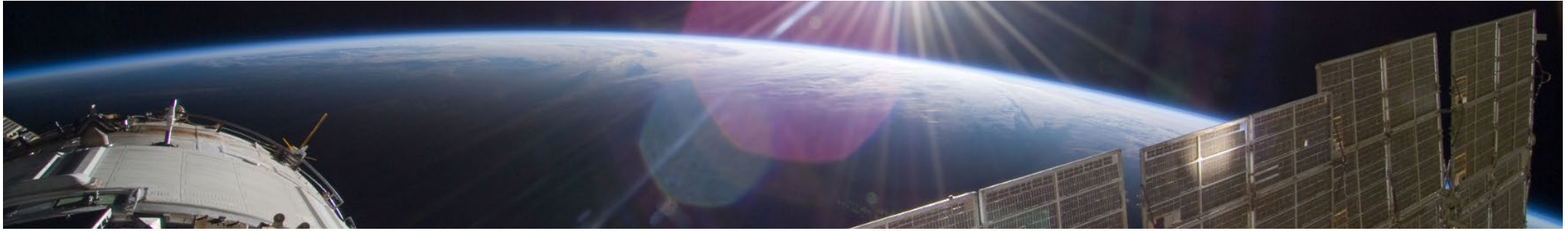# SPACE IMAGING

™/SM

MIDDLE EAST

**YOUR TOTAL GEOSPATIAL SOLUTIONS PROVIDER**

SPACE IMAGING MIDDLE EAST Your Total Geospatial Solutions Provider

As a first commercial satellite imaging company in the Middle East, **we changed the way you look at the region** with daily imaging at various resolutions, making Imagery quickly available.

Our Satellite and Aerial Imagery is supported by our GIS Department which offers tailored specialized software solutions.

We are a total solutions provider offering enterprise level services in partnership with leading technology enterprises around the world.
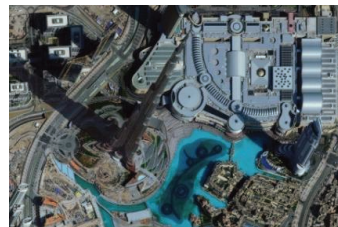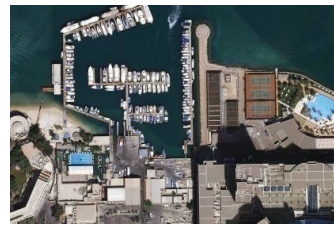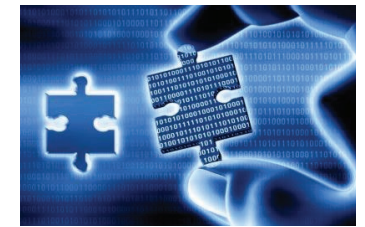
SATELLITE IMAGERY   **AERIAL IMAGERY**   **GIS SOLUTIONS**   **GIS PRODUCTS**

Revolutionizing Satellite Imagery Products & GIS Solutions in the region since 1997

1997: SIME Established	**1998:** Receiving Station	**2000:** 1M Resolution Imagery	**2002:** Europe Receiving Station	**2003:** GIS Solutions
2004: Aerial Imaging & Mapping	**2009:** WorldView Global Alliance	**2011:** Commercial UAV Project	**2011:** Google Partnership	**2015:** M-Government Initiative

DATA PROVISIONING: SATELLITE IMAGERY

- Access to most agile and sophisticated constellation of high-resolution commercial earth imaging satellites.

- Capable of collecting over 1 billion km2 of quality imagery per year

- Offering intraday revisits around the globe.

- Tasking Capabilities and Subscription Programs along with Global Base Map

- Literally Billions of SqKms of Archive Imagery

WORLDVIEW3 SATTELLITE IMAGE

SPACE IMAGING MIDDLE EAST

AERIAL IMAGERY

We pride ourselves with a team of professional and experienced pilots and ground station crew. Our pilots have successfully completed countrywide aerial missions across the region.

SIME operates a full-fledged and specialized Aerial division that provides a complete suite of aerial imagery products and services. With its own fleet of aircraft, specialized crew, access to the latest technology in digital photography equipment, and an experienced team of aerial imagery experts, SIME custom collects aerial imagery at resolutions ranging from 5cm-50cm.

SENSORS

VEXCEL ULTRACAM EAGLE
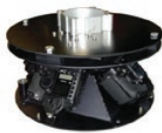
OBLIQUE IMAGE SYSTEM

IGI THERMAL CAMERA

LEICA ALS60 AND SPL100

SPACE IMAGING MIDDLE EAST

UAV CAPABILITY

770 KM
Resolution: 30 cm to 10 m
Area > 100 km^2

0.3 KM
Resolution: 2 cm to 40 m
1 km^2 < Area > 1,000 km^2

3 KM
Resolution: 10 cm to 40 cm
Area > 1,000 km^2

GROUND
Resolution: No Imagery
Area < 1 km^2

APPLICATIONS

- Mapping and cartography
- Oil and Gas
- Natural resources management
- Land use classification
- Landscaping
- Urban and rural planning
- Disaster monitoring
- Project monitoring
- Forestry
- Mining
- Agriculture
- Power lines and roads
- Topographic mapping
- Inspection
- Project Advertising

SENSORS

RGB - 20 MP

RGB - 42 MP

MULTI-SPECTRAL

THERMAL CAMERA

FIXED WING FLEET

EBEE PLUS

WINGTRA ONE

TRINITY 90+

ROTARY WING FLEET

HARRIS H6 HL

MATRICE 600

SPACE IMAGING MIDDLE EAST

GROUND CONTROL POINTS

Prior to the aerial photo acquisition and mapping, AISA/SIME will establish Pre-signalized ground control points based on the provided geodetic network using cutting edge technology and equipment for the survey including the last generations of GPS devices and software to insure perfect and reliable results.
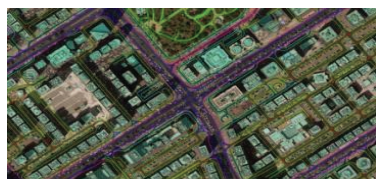
LIDAR - LASER TECHNOLOGY
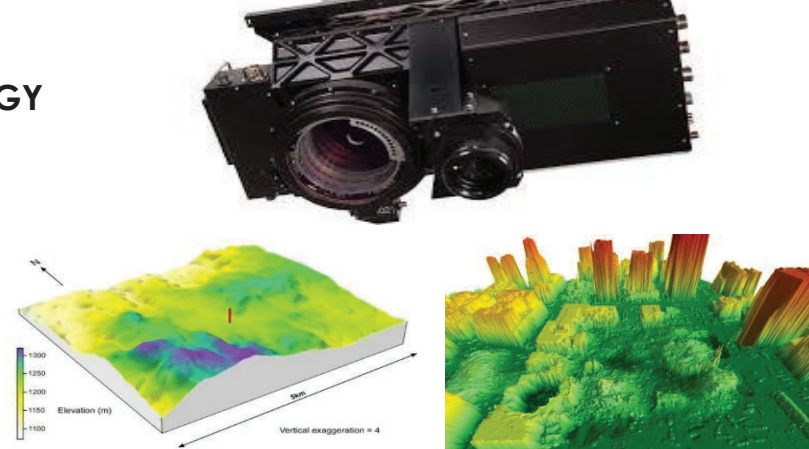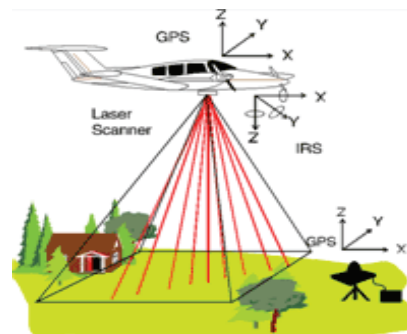
3D FEATURE EXTRACTION

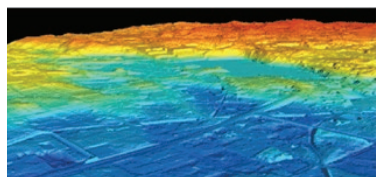All features will be captured in 3D from the stereo models. All vertexes will include their Z value.

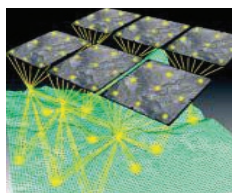## MAPPING PRODUCTION

TRUE ORTHO MOSAIC

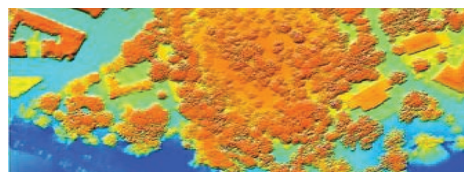3D CITY MODELING

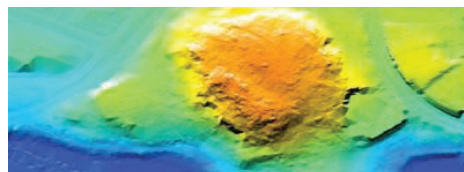FEATURES EXTRACTION

AERIAL TRIANGULATION

DTM PRODUCTION

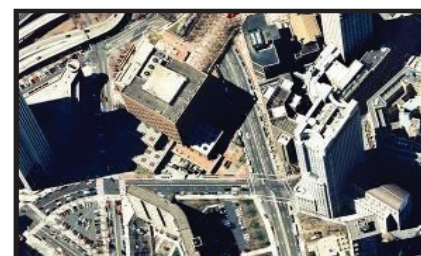## DIGITAL ELEVATION MODELS
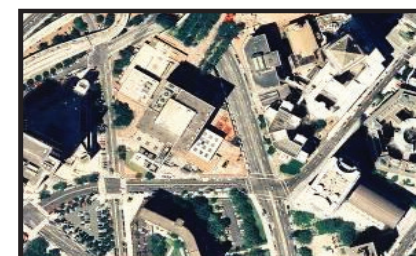
ORTHOPHOTO

DIGITAL SURFACE MODEL

DIGITAL TERRAIN MODEL
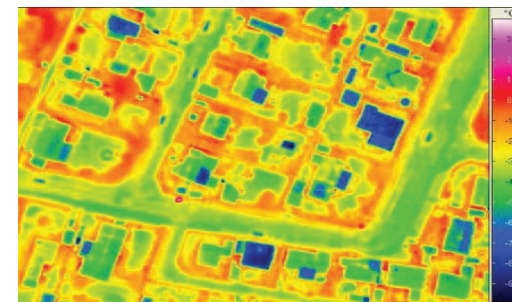
ORTHOPHOTO RECTIFICATION

STANDARD ORTHOPHOTO

TRUE ORTHOPHOTO

THERMAL MAPPING

Mapping the temperature of the surface.

Thermal aerial survey of heat loss from buildings, pipe networks and industrial plants.

LASER SCANNER

RANGER LR

| 35mm	1350m	530m	750k	5.3kg
RMSE @ 250m Range	@ 20% Reflectivity	Rec. Max AGL	Points/Return	Weight

- Laser Properties: Class 1 (eye safe), 1550 nm
- Absolute Accuracy: 25-35mm RMSE @ 250m Range
- Range Min: 5 m
- Scan Rate: 750,000 points
- Field of View: 360° Horizontal
- Multiple Echoes: 7
- Range Accuracy: 15mm one Signma @ 150m
- Angular Resolution (Horizontal/Azimuth): $\Delta\vartheta$: 0.06° $\leq \Delta\vartheta \leq$ 1.5°
- Mirror Speed: 10-100 Hz
- Scanning Mechanism: Rotating Mirror
- Angle Measurement Resolution: 0.001°
- Internal Sync Timer for real-time synchronized time stamping of data

FLEXIBLE PLATFORM

POINT CLOUD
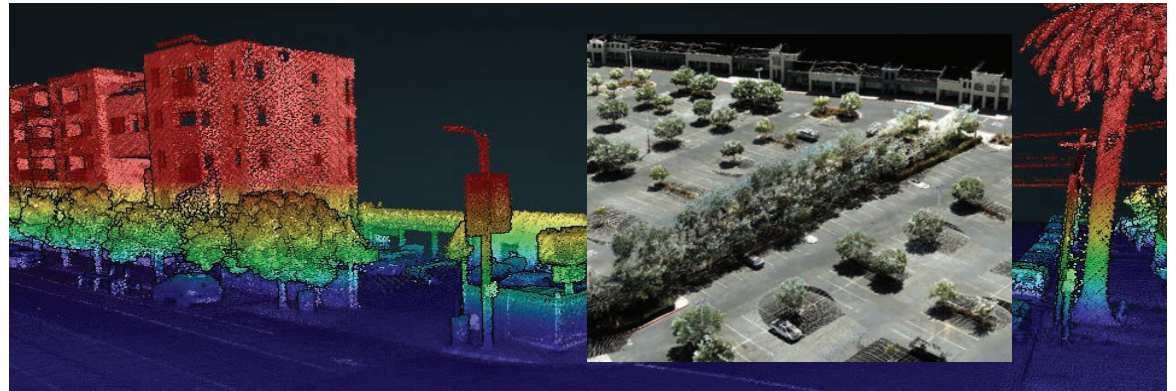
360 CAMERA

LADYBUG 5 USB 3

- 30MP camera
- 12 bit raw uncompressed
- Post processing workflow
- USB3 interface
- Google Maps
- Geometric Vision

SPACE IMAGING MIDDLE EAST

3D MODELING

3D MODELING
WITH REAL TEXTURE

SPEED

Not only is a drone a safer option, but it can also do the job much quicker than a person. You don't have to think too hard to compare the speed of a drone in flight to that of a person climbing.

COST

Liability insurance is expensive, and so are the personnel costs associated with training someone to do a manual tower inspection, as well as the hours required to actually do the inspections. Since drones are faster and much less risky in terms of liability.


SAFETY

If a drone crashes, the resulting loss can be measured in dollars, not in life or livelihood. The less time a person is on a tower, the better.

THOROUGHNESS

Collect enough data in a few short flights to create a thorough 3D map of the tower being inspected. In addition we can identify changes from a prior 3D model immediately revealing places where degradation may have happened since the previous inspection.
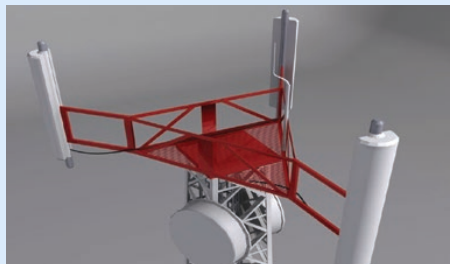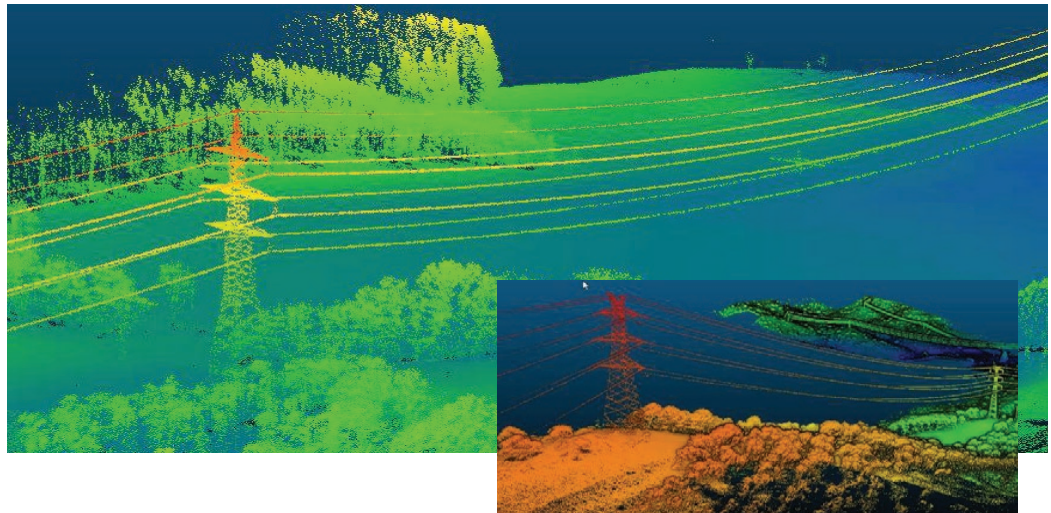

IDENTIFYING HAZARDS

Tower load bearing members, conduits, ladders, stairways, fasteners, and all load bearing primary and secondary members will be checked, documented and severity of corrosion will be reported.
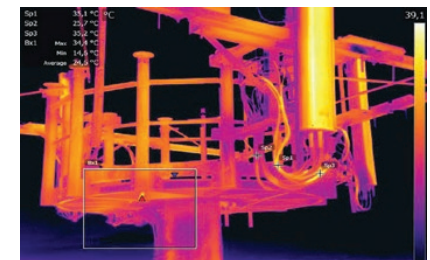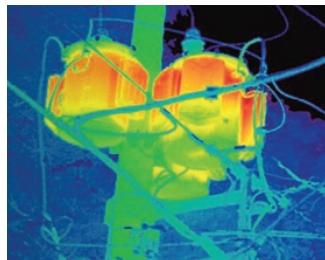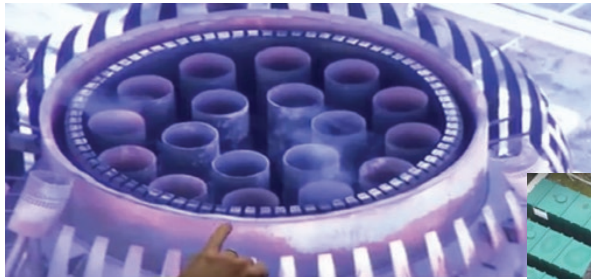

LIDAR SURVEY

THERMAL SENSOR / CAMERA

We use thermal imaging to detect breakage, faulty structures and energy loss. Using drone thermal imaging can detect an area that may be prone to malfunction in the future.
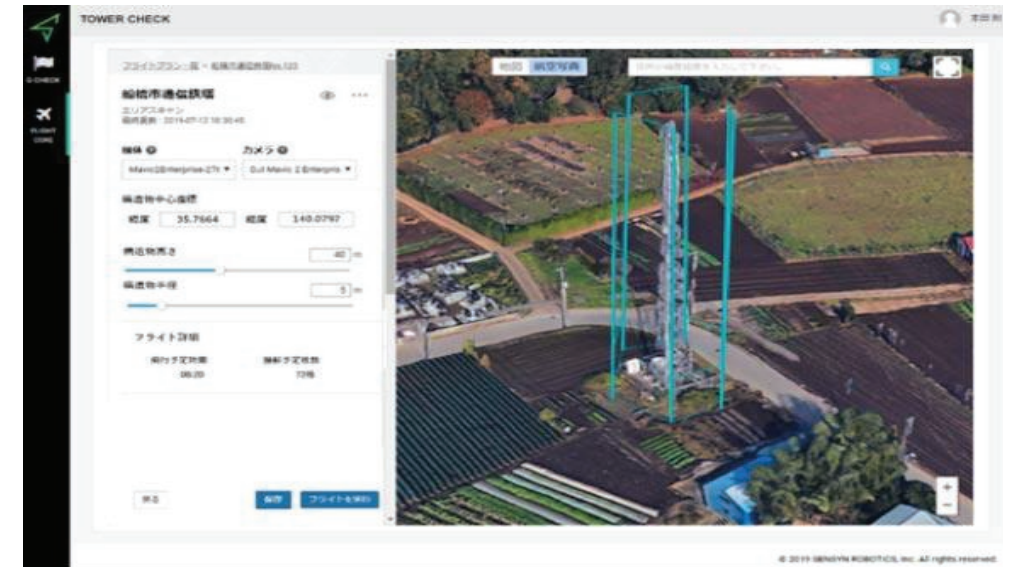
FLARE INSPECTION

IR SURVEY

SECURED DATA STORAGE

We store a visual record of your asset, together with condition information; meaning it can be quickly and easily accessed and used as a reference point to compare with future inspection data.

SPACE IMAGING MIDDLE EAST

SURVEILLANCE DRONES

VECTOR – The 2-in-1 vertical take-off reconnaissance UAV

Flexible and enduring, the Vector provides flight and surveillance characteristics that are exceeding performance of current UAV platforms in service all over the world. The ability to operate in the most difficult terrain (VTOL) combined with extremely low noise emission (motor off silent mode) makes the Vector the perfect UAV for a wide range of non invasive aerial operations. An encrypted mesh IP link sends video streams up to a range of 15+ km. A flight time of up to 120 minutes speaks for itself. All combined in a compact and robust electric VTOL UAV.
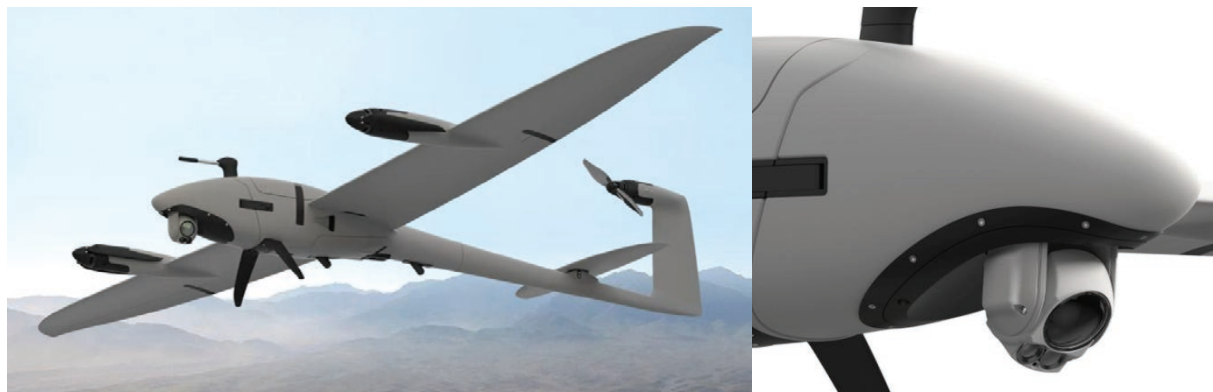
DRONE BOX
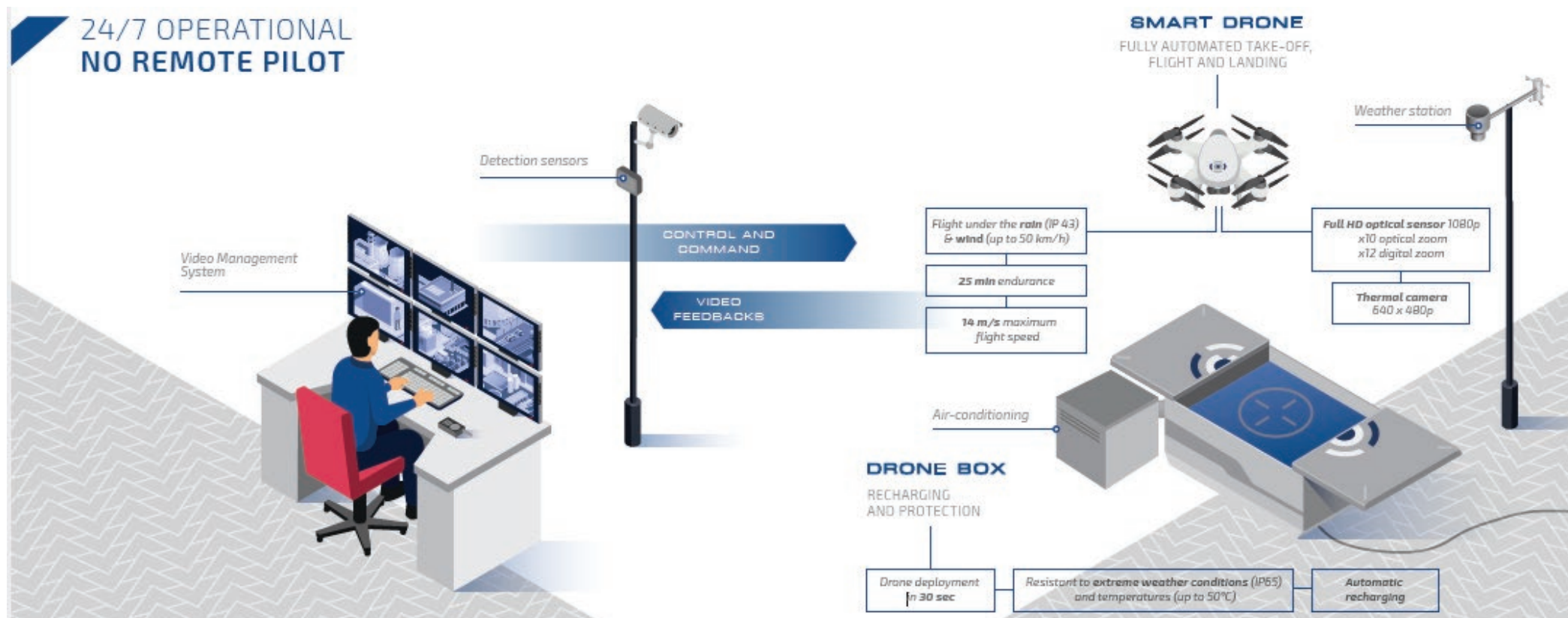
Geospatial Products
In-house development of custom GIS Software applications

GIS Portals
GIS enabled web portals With thematic maps & analytics

Database Management
Spatial Database Design, Integration, Management & Implementation

Enterprise Solutions
Turnkey Enterprise solutions to meet growing Demands of GIS enabled businesses

App Development
Developing native apps for Android, iOS and Blackberry devices

GIS Training
Custom GIS & Remote Sensing training programs to meet all your requirements

SOFTWARE DEVELOPMENT

SOFTWARE PRODUCTS

GEOAXEL

Next-generation web-based map application designed and developed to tailor the needs of organizations that want to publish their GIS data over the Intranet or Internet with permissions based access to different map services, layers, attributes, search results and identify features.

- Responsive UI –HTML5
- Improved Map Management with support for multiple maps
- Comprehensive Data Access Control
- User permissions on layers and attributes
- Support for Tiled Map Services for better map performance
- Support for ESRI ArcGIS
- Support for Google Maps
- Search based on suggestions using advanced caching

ANALYSTPLUS

This geospatially powered system, transforms vast amounts of complex data into actionable intelligence.

Analyst Plus is a versatile geospatial-intelligence tool for disaster management, mission planning, command & control centers, home land security, as well as defense and military organizations.
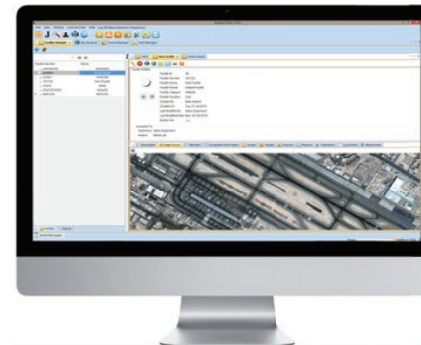
GEOSERV

A 3D globe visualization environment, which allows you to interactively display and analyze geographic data; both raster and vector.

TECHNOLOGY
- Built on Skyline Terra Explorer API
- Completely developed in-house - Local Support

BENEFITS
Web Based: In addition to the desktop version

3D Terrain Model: Compressed and Optimized

3D City Model: Optimized for Performance

Simulations: Create, Save, Share Plans

Multi-Lingual: Available in Arabic

Analysis: Proximity, Measurements, Visibility

Integration: ESRI, OGC, Oracle Spatial

Portable: Clip and Ship Data as Portable Package

Access Control: Manage who can see what