## WITH COMMAND AND CONTROL

State-of-the art command and control software provides the backbone for integrated, providing ease of control for multiple cameras, alarms, event management and video recording. This high-level situational awareness provides security officials critical information on the threat they are dealing with. Knowing where the threat is coming from and where it is headed enables officials to proactively coordinate the appropriate intervention and threat assessment.

Our software platform is scalable and compatible with legacy and new equipment while simultaneously controlling analog and IP inputs. The system supports the seamless integration of new and existing assets to support a larger common operating picture (COP). System architecture enables multiple Cerberus platforms, complex privilege hierarchies and hundreds of sensors and output devices, creating the ideal virtual fence solution.

COMMAND AND CONTROL
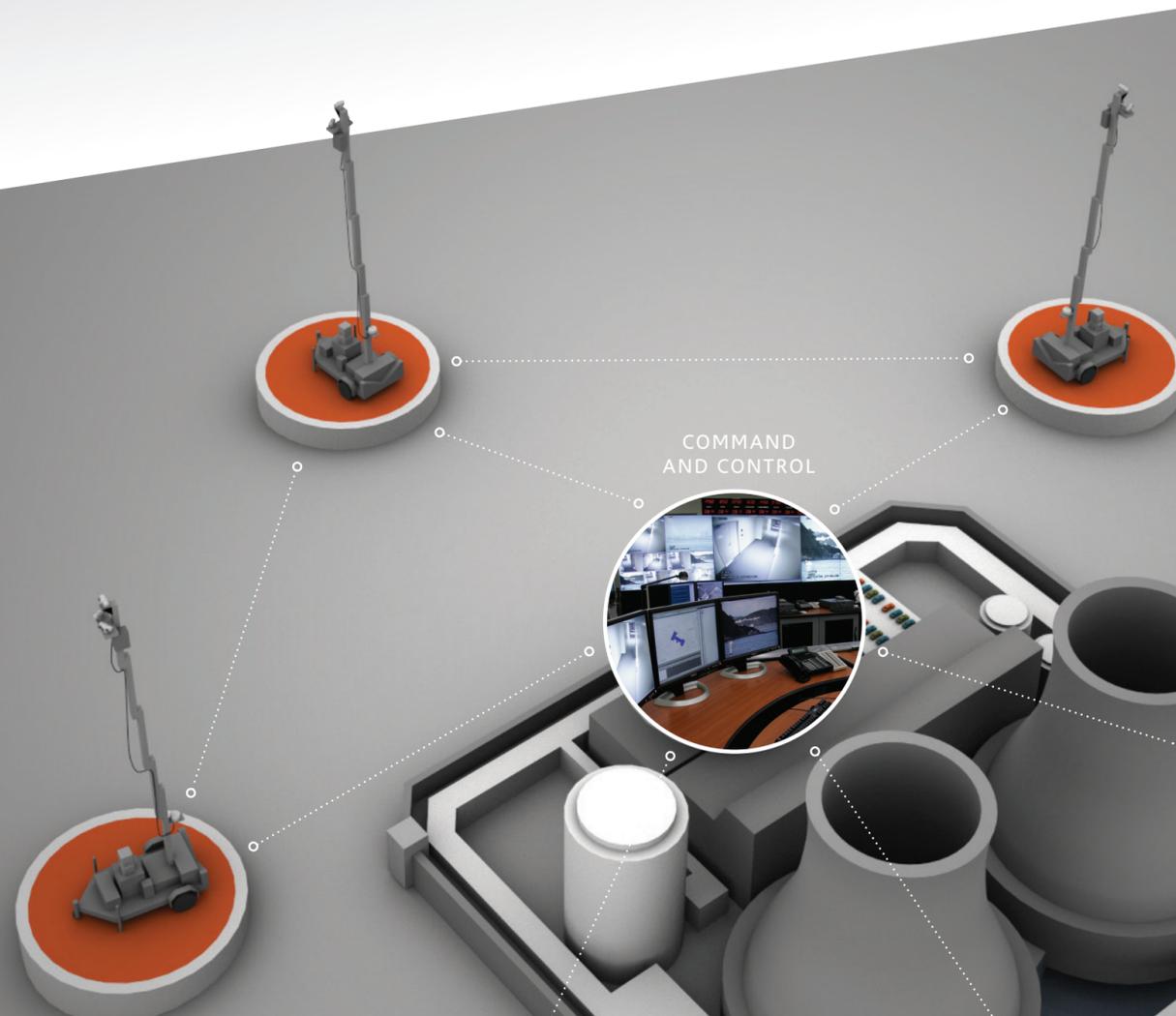
SIMULATION CENTERS

FLIR uses proprietary site design software which takes into account a range of factors (including terrain and line of sight) to establish optimal placement of Cerberus systems. The site survey tool utilizes proprietary GIS tools for "virtual" site analysis and evaluation. The initial design is then used in conjunction with onsite survey capabilities to ensure an optimized solution. The final assessment defines and quantifies the necessary surveillance and sensor solutions, which are most advantageous to the specified terrain.

SUPPORT AND TRAINING

We pride ourselves in providing not only exceptional 'best in class' technologies and products, but also in delivering the complete customer package, including application knowledge, training and maintenance support. Our design and simulation capabilities ensure that we optimize the solution to meet both the performance requirements while maximizing budgets. Our products are designed for reliability, endurance and quality in certified manufacturing facilities around the world.

Having made an investment in a FLIR solution, we understand the value and importance of training and education to realize the full potential and functionality of our systems and software. We can design and implement preventative maintenance schedules in order to reduce down time and logistical support programs that deliver the insurance of continuous operation in the most demanding of environments, ensuring 24/7 operability. Our customer support group is there to ensure that your critical assets remain secure. Our team will provide the 'back up' you need, where ever and when ever, it is needed.

The Americas
2100 Crystal Drive
Suite 650
Arlington, VA 22202
T +1.866.458.4298(Toll Free)

Europe
Piepersberg 12
42653 Solingen
Germany
T +49 212 222090
F +49 212 201045

Middle East
Suite 1-11
Building 6E-A
Dubai Airport Freezone
PO Box 371363
Dubai, United Arab Emirates
T +971 4 701 7195
F +971 4 701 7194

Asia
Level 28 Gateway East
152 Beach Road
Singapore
T +65.6827.9789
F +65.6295.2567

CSCERBERUS_012511

FLIR
Extraordinary Protection

www.flir.com/is

FLIR
Extraordinary Protection

COMMANDSPACE® *CERBERUS*™

CommandSpace® Cerberus™ fully-integrated mobile perimeter security systems provide focused surveillance capabilities suitable for rapid deployment. Cerberus platforms provide the flexibility necessary for variable terrain environments with seamless networking capability to support the common operation picture. Multiple Cerberus platforms communicate autonomously with each other to act as the ideal virtual fence solution. Cerberus is available in short-, mid- and tactical-range configurations to optimize the needs of any terrain or security environment.

INTEGRATED TACTICAL
SURVEILLANCE PLATFORMS
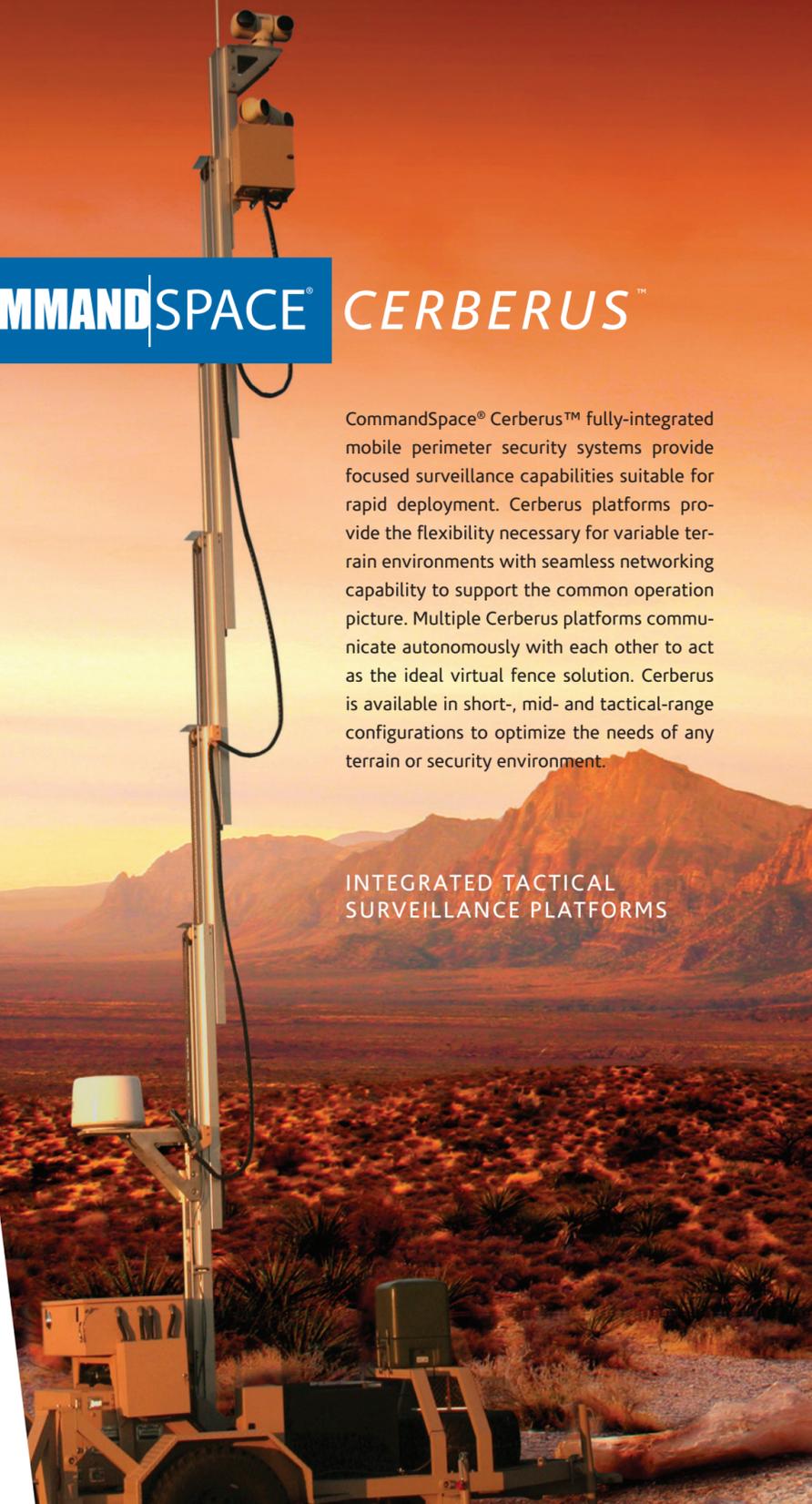
FULLY INTEGRATED SOLUTIONS

FEATURES

CAMERAS

FLIR thermal imaging cameras can see in total darkness and almost any weather condition, including fog and rain. With the VisionSense™ capability to overlay CCD and thermal images in real time, the system has the ability to see through glass and glare. Numerous FLIR imagers have 360 degree pan-tilt-zoom (PTZ) and slew-to-cue operability.

SOFTWARE

The radar and camera subsystems are managed by the FLIR software platform, a scalable command and control platform that includes video management, storage and analytics software. The system also enables interoperability between Cerberus and larger legacy command and control architectures, to help form the backbone of a total wide area perimeter security solution.

RADARS

FLIR and third-party radar systems are available for integration on the Cerberus platform. The line of FLIR radars is capable of detecting personnel, vehicles and crawlers, as well as tracking their progress across the terrain in question. Once a target moves within a designated distance from the perimeter, it is detected by perimeter surveillance radars and the linked imager immediately slews-to-cue in order to identify and assess the target.

The military grade mobile platform is battery powered with generator back-up and optional solar panels, providing two weeks of continuous stand alone power. This highly efficient generator has voltage sensing capability and only starts when the battery reaches preset voltage parameters. While powering the sensor suite, the generator also recharges the battery, minimizing total fuel consumption.

The lightweight ladder mast design extends to a maximum height of 30 feet. It features a hydraulic system that allows the operator to easily plumb the mast to ensure the sensors can be correctly calibrated. Quick release mounts for the radars and cameras enable rapid deployment when on site.

OPTIONS & SPECIFICATIONS

STANDARD CONFIGURATION

MOBILE TOWER

Trailer	
Deployed Dimensions	W 16´6" x L 18´6"
Transport Dimensions	W 7´10" x L 12'
Weight	3,000 lbs to 4,000 lbs
Mast	
Height	30' (deployed)
	8' (transport mode)
Deployment Mechanism	Hydraulic
Power	110v or 220v
Generator	5.5k Diesel
Fuel Tank Capacity	15-65 gallons
Rechargeable Battery System	Yes
Solar Panels	Optional
Wireless Communication	Optional
Network Configurable	Optional – multiple towers
C2 Node	Yes

C2 NODE FEATURES

COMMAND AND CONTROL (C2 NODE)
- Multi camera and radar interface
- Video motion detection
- Environmentally hardened/controlled
- Power management
- Ethernet interface
- VGA/SVideo output
- -10 to +55 operating temperature
- 10 to 90% relative humidity (non-condensing)

RESOLUTION SOFTWARE
- Multi-camera and radar control
- IP and analog camera interface
- Slew to cue camera capability
- GPS tracking interface
- Multi-sensor interface
- Alarm management
- Multi-map capable
- Windows capable

SX MODEL — NOMINAL RANGE 0.35KM

THERMAL CAMERA (ED)	
Thermal Detector	Uncooled VOx Microbolometer
Spectral Response	8-12 microns (LWIR)
Lens Focal Length	25mm (other options available)
Field of View	28° x 21° (other options available)
Detection Range	1,760m
NETD	<50mk
Automatic Control	Focus, Gain/Level
Pan and Tilt	360° continuous in pan, ± 80° Tilt
RADAR	
Detection Range	Person crawling 10m ~ 125m
	Person 10m ~ 350m
False Alarm Rate	<3 per 24 hours
Beam Width	Azimuth 3.0°, Elevation 3.0°
Scan Rate	1 revolution per second
Frequency	Ka - band

TX MODEL — NOMINAL RANGE 5.0KM

Thermal Detector	Uncooled VOx Microbolometer
Spectral Response	8-12 microns (LWIR)
Lens Focal Length	45/135mm
Dual Field of View	WFOV 10° x 8°, NFOV 3° x 3°
Detection Range	8,900m (NFOV)
NETD	<50mk
Automatic Control	Focus, Gain/Level
Pan and Tilt	360° continuous in pan, ± 80° Tilt
Detection Range	Person 10m ~ 3,500m
	Vehicle 10m ~ 4,400m
False Alarm Rate	<2 per 24 hours
Beam Width	Azimuth 1.4°, Elevation 2.4°
Elevation Control	Yes
Scan Rate	1 revolution per second
Frequency	Ku - band

MX MODEL — NOMINAL RANGE 1.5KM

THERMAL CAMERA (HD)	
Thermal Detector	Uncooled VOx Microbolometer
Spectral Response	8-12 microns (LWIR)
Lens Focal Length	30/90mm
Dual Field of View	WFOV 15° x 12°, NFOV 5° x 4°
Detection Range	7,200m (NFOV)
NETD	<50mk
Automatic Control	Focus, Gain/Level
Pan and Tilt	360° continuous in pan, ± 80° Tilt
RADAR	
Detection Range	Person Crawling 2m ~ 200m
	Person 2m ~ 1,000m
	Vehicle 2m ~ 1,400m
False Alarm Rate	<2 per 24 hours
Beam width	Azimuth 1.5° , Elevation 8.0°
Elevation control	Yes
Scan Rate	1 revolution per second
Frequency	Ka - band

BUILD YOUR OWN

TRAILER/PLATFORM
The trailer and mast of a Cerberus tower can be modified to accommodate height, power and other application requirements.

RADAR
Incorporate short-, mid-, or tactical-range radar from the FLIR line of radars or the third-party radar of your choice.

IMAGERS
Incorporate any of the FLIR family of thermal or CCD imaging systems or the third-party camera of your choice.

OTHER SENSORS
Third-party sensors and devices can easily be integrated onto the Cerberus platform to meet mission specifications.