



Land Systems

IMAGING AND RADAR SOLUTIONS FOR EVERY LAND MISSION



Extraordinary protection is the ability to detect what others can’t – whether visually through advanced imaging technology; by detecting and tracking intruders through state-of-the-art ground surveillance radar; or detecting the presence of a chemical, biological, nuclear, or explosive threat. It’s the ability to see first, to understand first, to act first – the ability afforded by the unparalleled technical expertise FLIR brings to address the emerging challenges of our time. Over the past 40 years, FLIR has produced and delivered over 100,000 FLIR sensors, and thousands more radars and CBRNE sensors, for customers in more than 75 nations. We understand extraordinary protection, how critical it is to you and to your mission success.

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Bradley Fighting Vehicle – BRITE Star II

Stabilized long range sensor systems for force protection, convoy overwatch, target identification and fire control missions; the BRITE Star II, Star SAFIRE, TALON, TacFLIR and COBALT families of systems are always on duty.



BRITE Star® II
The BRITE Star II system is the latest generation of the combat-proven BRITE Star laser designation system. With a 100% duty cycle, diode-pumped laser rangefinder/designator and on-demand boresighting, BRITE Star II is always ready for action. Its range performance, sensor combination, and program record make it the low-risk choice for reliable, long range target designation.



Star SAFIRE® III
The combat-proven Star SAFIRE III is the most widely used long range multi-sensor system in the force protection role. Militaries in the US, NATO, and around the world depend on the Star SAFIRE III's performance and reliability to answer the call to duty day and night. Qualified beyond MIL-spec, the Star SAFIRE III provides up to seven laser and sensor payloads.



Star SAFIRE® LV
The Star SAFIRE LV multi-sensor thermal imaging system is a variant of the combat-proven Star SAFIRE III, modified for vehicle-mounted RSTA & force protection applications. No other system currently in production for the armored vehicle market provides the combination of sensors, range performance and combat-proven hardening as the Star SAFIRE LV.



TALON®
The TALON is a program-proven, lightweight, gyro-stabilized nine inch turret that contains up to six payloads simultaneously, an industry first for compact gimbals. Because of its heritage of fielded systems, the TALON is ready for real-world operations around the globe, uniquely combining leading edge performance with both maritime and desert-proven hardening.



TacFLIR® 230
Tailored through extensive operational experience with vehicle operations for RSTA, Force Protection, Drivers Vision and Situational Awareness. Gyro-stabilized and tuned specifically for vehicle installation, TacFLIR provides maximum sensor range performance in a small, lightweight package, even while on the move.



COBALT™ 90
Developed specifically for vehicle and unmanned applications, the single LRU Cobalt 90 provides three payloads in a 3.5 inch diameter, stabilized micro turret with an infrared sensor, color TV and laser pointer. The COBALT 90 is ideal for providing situational awareness and close range RSTA capabilities, and with its extremely light weight and low profile is well suited to vehicles with a limited payload capacity..

Multi-sensor systems for surveillance, security and force protection are available in each range and performance class. All of these systems may be operated independently or in a fully integrated radar/sensor network.



Ranger® MS Series
The Ranger MS Series is a family of ultra long-range, midwave and long-wave multi-sensor imaging systems with a wide choice of telescopes, TV cameras, lasers and payload sizes. Operators can field Ranger MS as a standalone, environmentally hardened sensor package, or integrate it into a sensor network via FLIR's Command-Space® suite of integration tools.



Ranger® T3000
The Ranger T3000 is available in both cooled and uncooled models. These imagers provide a large-format thermal camera and powerful daylight sensor, along with an optional laser rangefinder for target geolocation. The Ranger T3000 systems start quickly, operate quietly, and are nearly maintenance free.



Ranger® MS-UC DefendIR™
The DefendIR is an industry leading mid-range imaging system that offers user-controlled, customized real time blending of the two visual sources – a visible light (CCD) camera and a longwave, uncooled infrared camera. The VisionSense™ blending technology generates the ability to penetrate glare, and to see what is not readily apparent with either sensor alone.



Ranger® MS-LRTI
The LRTI builds on the impressive capabilities of the DefendIR. Utilizing a day/low-light CCD camera and thermal imager, the EnforcIR adds a high power spotlight to detect, deter, and temporarily disorient intruders within a one-mile radius.

Ranger® R Series Radars

Understanding the nature of a threat is critical to intercepting and defeating it. Knowing where the threat is coming from, its current location and where it is going is a key requirement of any effective security system. Ranger ground surveillance radars (detection), paired with slew-to-cue Ranger EO/IR sensors (assessment), enable security personnel to monitor and control the security zone by intercepting threats before they can complete their mission.



FMCW Radars
FLIR's line of FMCW radars provides automated perimeter security for encampments, bases, facilities, and other high value permanent and temporary sites. These radars have all weather, all light-level capability and detect either moving or stationary targets, providing slew-to-cue functionality for the Ranger high resolution imaging systems.



Dual Mode Radars
FLIR's line of dual mode, high resolution radars accurately detect and track vehicles, people, and crawlers in virtually any climate, weather, or lighting condition to provide slew-to-cue functionality with the entire line of Ranger imaging systems. These radars possess a dual mode configuration to leverage the advantages of both advanced FMCW and traditional Doppler radar technology.



Solid State Radars
FLIR's Ranger family of long range solid state, electronic scanning radars provide advanced "track while scan" capabilities in a ruggedized, mil-spec design. These ground surveillance radars have an exceptionally fast, 2Hz refresh rate with class leading target detection and acquisition performance. As solid state radars, these systems have highly reliable system performance and 24/7 persistent surveillance.



Motion Detection
Ranger® GRIDS provides a low cost system designed to fill coverage gaps resulting from dense foliage and rough terrain. Ranger GRIDS system sensors can be buried, leaving only a small camouflaged antenna above ground - a virtually undetectable electronic sensor system. Intruders are detected when they pass between adjacent sensors and multiple systems can be implemented to form a sensor barrier of any length.



FLIR's expertise in the design and mass production of handheld systems results in the lightest, feature rich, long range imagers available. FLIR's man portable systems feature long-life battery operation, remote control capability, and can be configured for fixed surveillance.



Recon® B2-FO

Fully integrated multi-sensor thermal biocular with long-range cooled thermal camera, dual day/night channels and geo-location. Weighs 8.0 lbs (3.6 kg) or less.



Recon® B9-FO

Medium range, uncooled, lightweight thermal biocular with internal digital magnetic compass and GPS. Weighs 4.5 lbs (2.0 kg) or less.



Recon® B9

Delivers unmatched range performance and image quality in a highly portable package which includes a longwave IR sensor and laser pointer. Weighs only 3.5 lbs (1.6kg).



Recon® BN10

Introducing the world's first and only true thermal binoculars. With one thermal imaging camera for each eye, the Recon binoculars provide a true depth-of-field capability. The Recon BN10 offers a 10 degree field of view, which correspond to a 5.5X magnification level for the 100mm lens.



Recon® M18 & Recon® M18-S

The Recon M18 is a full-featured, high performance pocket tactical scope with a standard 320 x 240 image with optional 640 x 480 capability, remote video output and available laser pointer.



Recon® M24

The Recon M24 is a basic, low cost, helmet-mountable, thermal pocket scope for tactical observation and general purpose night vision. Rugged and submersible, the M24 provides a standard 320 x 240 image with optional 640 x 480 capability.



Adjustable eyepieces with bellows eyecups for covert operation



High resolution thermal imagery



Split screen mode viewing capability



Straight-forward ambidextrous controls allow first-time users to operate proficiently.



Long-distance laser pointer for missions or short distance for training



Adaptable for handheld or tripod mount



BORC clip-on thermal sight for RBS-70 SHORAD system

FLIR produces a wide range of specialized IR and EO sights which are tailored for integration into specific weapon systems and vehicles, in many cases providing a modern EO/IR upgrade to existing vehicles and systems.



ThermoSight™ BIRC

Thermal sight for BILL 2 wire-guided anti-armor missile.



ThermoSight™ BORC

Thermal sight for RBS 70 laser beamriding anti-aircraft missile.



ThermoSight™ FTI

Forward Observer Thermal Imager for the FOI2000 Artillery Forward Observer System.



ThermoSight™ RWS

ThermoSight RWS series cooled and uncooled multi-sensor, remote weapon sights provide a unique combination of boresight stability, multiple range performance options, and low cost,.



ThermoSight™ M36

The ThermoSight M36 provides advanced thermal vision that is completely interchangeable with the entire M36 weapons site suite for drop-in field replacement.



ThermoSight™ SeeSPOT® III +

For applications that require imaging of laser designators, SeeSPOT III+ offers a portable solution with SOFLAM/GLTD compatibility.

FLIR has decades of experience in the development and production of military sighting sensors for applications ranging from individual weapon sights to remote weapon stations.



**ThermoSight™ T50
ThermoSight™ T65**

Uncooled, periscope thermal weapon sights that double as portable reconnaissance scopes, T50 (320x240) and T65 (640x480) are designed to interface with tactical scopes (1 - 4x) such as the Trijicon® ACOG® for the M-4/M-16 and similar weapons.



**ThermoSight™ T70
SU-271/PAS
ThermoSight™ T75**

Uncooled, inline weapon sights that double as a portable reconnaissance scopes, the T70 and T75 are designed to interface with scopes such as the Trijicon® ACOG® for the M-4/M-16 and similar weapons.



**ThermoSight™ S100 HISS
ThermoSight™ S150 HISS**

Available in two range configurations, the ThermoSight HISS sights are long range in-line sniper scopes that clip in front of the day scope (up to 15x). They operate for over seven hours on CR-123A batteries and have been tested on weapons up to .50 caliber.



**MilSight™ T90 TaNS®
MilSight™ T95 TaNS®
SU-270/PVS**

The TaNS® Tactical Night Sight is a high-resolution Clip-on Night Vision Device (CNVD) that mounts on any MIL-STD-1913 rail forward of an existing scope. TaNS is optimized for close combat assault rifles including the M4, M16, HK416 and the AK47.



**MilSight™ T105 UNS™
AN/PVS-22**

The AN/PVS-22 Universal Night Sight utilizes a fast catadioptric lens for brighter and sharper images. Optimized for medium range sniper weapons, effective on all weapons from carbines to .50 caliber semi-automatic sniper rifles.



**MilSight™ S135 MUNS™
AN/PVS-27**

The AN/PVS-27 Magnum Universal Night Sight utilizes an extremely fast f/1.0 catadioptric lens to gather more light for longer range performance. Optimized for medium and long range sniper weapons. Effective on all weapons from carbines to .50 caliber semi-automatic and bolt action sniper rifles.



MilSight™ T130-D

The T130-D is a high-performance, weapon-mountable system that is optically fused to maintain full I² resolution. The sight clips on to weapon rails in front of a day optical sight or use as stand-alone thermal sight for night time close combat missions.



**MilSight™ S140-D ADUNS™
MilSight™ S150-D DUNS™**

The ADUNS (Advanced Dualband Universal Night Sight) and DUNS (Dualband Universal Night Sight) use adjustable blending of thermal image and intensified night vision to produce a high-quality image in an ideal vision enhancement system for night time medium and long range missions.

FLIR provides over 40 years of experience in producing targeting sights for a wide array of vehicles and weapon systems. Featuring maintenance-free boresight retention and high sightline stability over the full range of operational environments, FLIR offers a complete range of high performance, cost effective solutions for vehicle manufacturers, weapon system OEMs and end users.



PATRIA NEMO – Direct Fire Sight System (DFSS)



Ranger® HRC Series

The Ranger HRC series of cooled infrared cameras are environmentally enclosed and ready for integration or operational use. They feature a range of lens options for ultra long range performance to provide crisp image quality over the full zoom range.



Ranger® UC Series

The Ranger UC series of close- and medium-range uncooled infrared cameras are environmentally enclosed and ready for integration. They provide the ultimate in user customization to easily program unique features.



Ranger® III

The large-format Ranger III is a medium- to long-range portable imaging system, built around a highly sensitive midwave infrared sensor.



Ranger® HDC

The Ranger HDC enables users to see more details at long range without losing situational awareness with twice the wide area coverage at any distance compared to legacy 640x480 systems. The Ranger HDC provides a 16:9, wide screen video to show more of the scene at a glance.



ThermoVision® C & UC Series

The ThermoVision C series cooled, and UC series uncooled camera modules feature large-format detectors, in both midwave and longwave infrared bands. These modules are ready for integration into OEM imaging systems.



ThermoSight™ LIRC

LIRC is a compact, rugged thermal imager designed for high sightline stability and excellent imaging performance in tracked or wheeled armored vehicle applications.

Driver Vision Enhancement Sensors

FLIR's family of vehicle vision sensors offers driver and observer IR cameras for convoy lead vehicles, image stabilization and digital detail enhancement, 4x digital zoom, variable speed pan/tilt, ergonomic and easy to operate hand controller, quick release for both driver and observer cameras, and the capability to add a low light-level CCD and/or laser pointer within the existing physical package.



ThermoVision® DV-FADS
Independent steerable driver's and observer's sensors



ThermoVision® DVS40
Steerable driver's sensor



ThermoVision® DV40
Fixed driver's sensor



ThermoVision® DV55
ThermoVision® DV55-DS
Fixed driver's sensor in Thermal or Dual Sensor (color TV) configurations. Available movable shutter.

Vehicle Situational Awareness Sensors



ThermoVision® SA40, SA55, SA63, SA90

The SA40, SA55, SA63 and SA90 sensors can be mounted virtually anywhere on any vehicle, providing visual confirmation of the area immediately surrounding the vehicle. Multiple units can be cluster mounted to provide wider angles of coverage from a single mounting point. The SA55 is available with Dual Sensor (color TV) and movable shutter configurations.



ThermoVision® SA180

The SA180 offers a 180-degree field of view for unmatched situational awareness. Two SA180 units can be coupled together to continuously monitor a 360-degree scene.



FLIR's family of steerable sensors for vehicle vision provide the critical advantage to both drivers and observers. Because they are stabilized, they support night operations at tactically useful speeds.

APPLICATION: FORCE PROTECTION

Our Customers Are Our Credentials

FLIR Systems is an established global leader in the design, manufacture and support of electro-optic, infrared sensor, and radar technology, and the principal supplier of these systems for force protection and military base/border security around the world.

For over 40 years, FLIR has provided infrared systems of all types, including airborne, maritime, land and vehicle combat sensors and sights. We've produced and delivered over 100,000 FLIR sensors, and thousands of radars and CBRNE sensors, for customers in more than 75 nations. FLIR is the worldwide volume leader in production of infrared detectors and sensors and has pioneered next generation ground surveillance radar.

In the past 15 years, we have delivered thousands of uncooled and cooled cameras and radar systems to help secure and protect air and naval facilities, combat and peace-keeping forces, borders and critical infrastructure. In all parts of the globe, day and night, the Soldiers, Marines, Sailors, and Airmen of the U.S., NATO, and allied nations live and work under the security umbrella provided by FLIR Systems. Around the world, integrated base defense operations and other security staff are familiar with the quality, reliability, and performance of our sensors and systems.



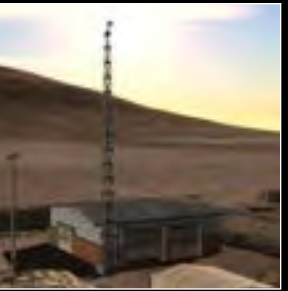
Star SAFIRE III
Airborne long range target location and identification



Ranger R2
Mid-range with both FMCW and Doppler capabilities



Recon B2-FO
Handheld target location and identification



Star SAFIRE III
Fixed long range target location and identification



Star SAFIRE LV
Mobile long range target location and identification



TALON and TacFLIR
Mobile long range target location and identification



Ranger MS
Fixed long range target location and identification



DV-FADS
Vehicle situation awareness and short range target ID



Engineered for the Harshest Climates

With the experience that results from many years of tactical deployment in harsh desert, arctic and maritime environments, our force protection systems are engineered to operate reliably in climates that often exceed MIL SPEC. The observed MTBF of our systems fielded in the Force Protection role is measured in excess of two thousand hours.

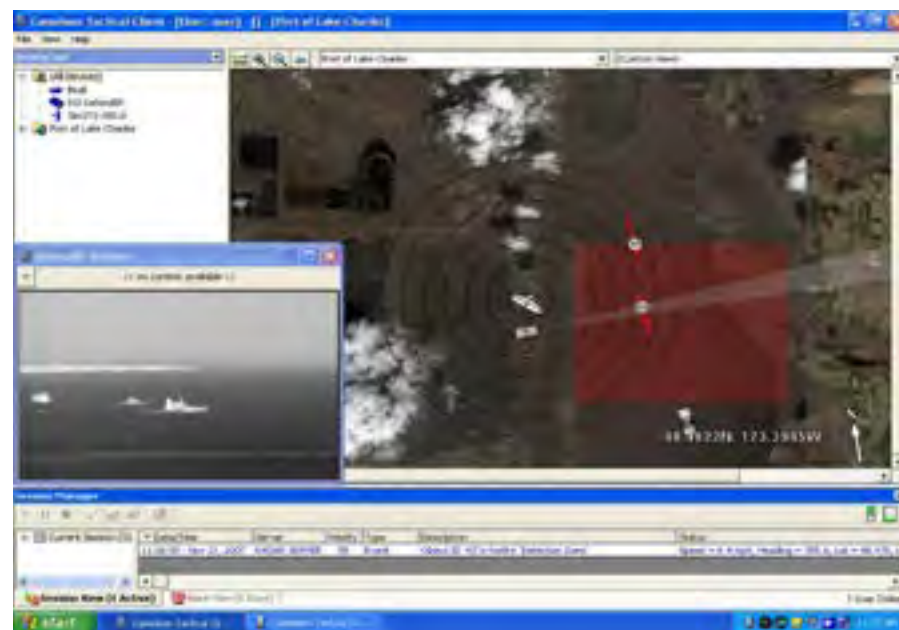
Worldwide Support

FLIR maintains service facilities around the world, in the U.K., Germany, Sweden, the U.S., Australia, Japan, Colombia, Brazil, Saudi Arabia, and the United Arab Emirates. We have expanded our service facility in the UAE, in order to accommodate the large quantities of systems that have been and are being deployed to that region. This facility, FLIR Systems Middle East, is located in the Free Zone at the Dubai International Airport, and is capable of sustaining and repairing over 80% of all field failures, returning these systems to the field in an average of less than 20 days.

COMMANDSPACE®

CommandSpace integrated solutions from FLIR enable security to extend beyond the fence to sense, detect, and identify threats. The CommandSpace system framework, with integration tools such as CommandSpace Adaptive C2, CohesionIF, and Cameleon, provides seamless integration and control of advanced security sensors. These tools provide a scalable and modular command and control environment to natively control world-class FLIR and third-party sensors. This capability provides actionable intelligence through advanced warning, tracking, identification, and classification of threats in scalable security solutions adapted to address existing and future threats.

With CommandSpace, FLIR is the only company in the world that designs, manufactures, supports and integrates its own security and force protection solutions. No other company can claim to provide integrated systems designed to work together. Because the system and its core components are developed by the same company, customers are provided reduced risk along with a scalable system, designed to grow with your evolving requirements.



FLIR CommandSpace Adaptive C2 enables a total networking and integration solution. With image window and map situational awareness, FOV coverage cones for sensor coordination, and slew-to-cue assessment features, CommandSpace also integrates video feeds from tactical UAVs and other sources.

STACE™

Digital Image Enhancement

FLIR's proprietary STACE™ image processing technology delivers unmatched image quality and range performance. STACE provides a significant improvement over older local area processing algorithms. STACE technology digitally sharpens images, tunes them region by region, and enhances contrast for exceptional image detail.

FULL HD™

FLIR's Full HD technology, found in the Star SAFIRE® HD, meets industry and DoD standards for High Definition and digital video. Full HD ensures that this multi-sensor thermal imaging system provides fully digital, High Definition (HD) video from all EO and IR sensors in the SMPTE-292M digital format. Full HD also ensures that the system provides true digital image fidelity – from the detector to the monitor – with output video that meets US DoD and NATO specifications for HD acquisition.

GEOLOCK™

GEOLOCK™ is FLIR's proprietary, battle-proven technology for combining sensor-based Inertial Measurement (IMU) technology with advanced, tightly-coupled GPS/INS navigation solutions. GEOLOCK provides the ability to precisely locate targets and to precisely pre-point to known target locations, for a full tactical system solution to the requirements for long range, accurate target acquisition.

SHOCK MITIGATION SYSTEM™

FLIR's Shock Mitigation System™ (SMS™) attenuates transmitted weapon shock to the shock sensitive components of the product. These approaches reduce the peak weapon shock to which critical components are exposed by a factor of 5 to 10 times. This protects FLIR product from damage or loss of accuracy. SMS™ is an integral part of FLIR Pittsburgh's clip-on weapon sights, and helps to ensure their demonstrated long-term boresight accuracy retention and durability.





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