

APPLICATIONS

- Surveillance
- Reconnaissance
- Search & Rescue
- Drug Interdiction
- Environmental Monitoring

COMPACT LAW ENFORCEMENT STABILIZED THERMAL IMAGER

The new Ultra 8500 airborne law enforcement thermal imaging system meets the 24/7 multi-role requirements of today's busy airborne units. Whether a search, surveillance or pursuit, Ultra 8500's lightweight, dual-sensing gimbal can be the difference between mission success and failure.

MULTI-SENSING = MULTI TASKING

Ultra 8500's triple payload capability features a new high resolution, digital infrared video processor (HRVP) which delivers stunning infrared imagery, even in extreme climates.

The best-in-class autotracker keeps the system on target, minimizing fatigue and freeing the operator to attend to other tasks. An optional Class IIIb long-range laser illuminator pinpoints ground targets, enhancing ground force coordination when used with night-vision goggles (NVGs).

COMPACT, LIGHT AND STABLE

At 9 inches and 29 lbs, the fully sealed Ultra 8500 is the most compact, lightweight turret available. Its small size enables increased loads, improved fuel savings for longer flights, lower drag and excellent ground clearance. Advanced stabilization helps Ultra 8500 deliver clear, detailed imagery.

ENHANCED OPTICAL PERFORMANCE

Ultra 8500 offers continuous zoom, which permits fields of view (FOVs) to be set as the situation requires, or three preset FOVs for fast situational

awareness. Also included is "focus memory" which virtually eliminates the need for IR focus "touch ups" between zoom settings.

A low-light TV camera with 18x optical and digital zoom delivers outstanding daylight imagery and greatly enhances dusk/dawn operations with a 4x improvement over past models. Lock the zoom position of the infrared (IR) and TV sensors to automatically match the FOVs and seamlessly switch between the two cameras.

SIMPLE, ERGONOMIC HAND CONTROLLER

Ultra 8500 offers a simplified hand control unit (SCU). This comfortable, rugged controller is ideal for high-pressure pursuits, with large, easy-to-operate knobs and NVG-compatible backlighting.

Recognizable on-screen icons increase situational awareness and promote faster, safer in-flight decision making. Ultra 8500 supports moving maps, searchlights, and downlinks, and displays approved GPS data with an optional input kit.

BACKED BY THE FLIR NAME

FLIR is the world's leading supplier of advanced infrared imaging systems for military, government and law enforcement applications. FLIR's global network of service and support centers assures customers the experience, resources and commitment they demand.



TV Camera WFOV



TV Camera NFOV



Auto Tracker



Sharp IR Imagery



Laser Illuminator



Color On Screen Graphics



Light Weight Simplified Hand Control Unit

SYSTEM SPECIFICATIONS

Turret Size	9.0" dia. x 13.5" h (22.9 x 34.3 cm)
Turret Weight	29 lbs (13 kg)
Field of Regard	360° continuous in azimuth and elevation
Slew Rates	.02° to 65° both axes
Stabilization	Fiber-optic gyro-stabilization

THERMAL IMAGER

Sensor	320 x 240 InSb focal plane array 3-5 μ m
Fields of View	21.7° x 16.9° wide, 8° x 6° medium, 2.2° x 1.65° narrow Continuous zoom and 3 preset (wide, medium, narrow)
Calibration	Internal Nonuniformity Correction (NUC) Variable scene integration

DAYLIGHT IMAGER

Pixel Arrangement (HxV)	768 x 494 (NTSC) 752 x 582 (PAL)
Resolution	+470 television lines (NTSC) +460 television lines (PAL)
Telescope	18x Optical, plus digital zoom
Fields of View (HxV)	48° x 32° to 2.2° x 1.65° Continuous or matched to 3 FOV IR settings
CCD Sensitivity	0.2 lux @ f/1.4 w/out filter, 0.7 lux @ f/1.4 w/filter

ELECTRONIC CONTROL UNIT

Size	10.6" x 9.9" x 5.9" (27 x 25 x 15 cm)
Weight	15.8 lbs (7 kg)
Power Requirements	18 VDC to 32 VDC input
Max Current Requirements	15 amps
Communications Interface	RS-232/422
Video Output	RS-170, NTSC, PAL

SIMPLIFIED HAND CONTROLLER

Standard Simplified Hand Control Unit: (NVIS Compatible standard) 1.8 lbs. Includes mounting hook, and will adapt to searchlight sidecars. Includes laser fire switch for future upgrades.

Optional Laptop Control Unit: (NVIS Compatible standard) Includes reversible control inserts for left handed users: 9 lbs. Includes laser fire switch for future upgrades. System is upgradeable to 8500FW

OPTIONAL LASER ILLUMINATOR POINTER

Type	Class IIIb CW diode laser
Bandwidth	0.830 μ m
Beam Divergence	0.2 mrad, 2-1 aspect ratio
Output Power	30 mw

ADDITIONAL OPTIONS

Moving Maps, Video-Down Links

ARINC interface, RS-232 serial GPS interface, radar interface, SLASS interface, PIP monitor

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