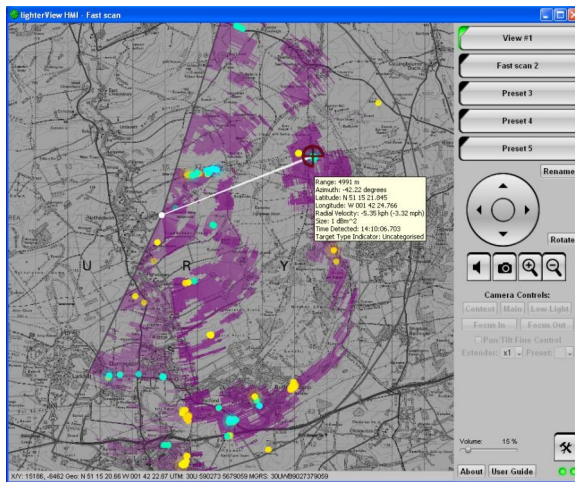


# lighter<sup>®</sup>

# LighterView HMI



Example lighterView HMI Screen-Shot

- Simple, intuitive display and control of one or more Lighter radars
- Microsoft Windows based
- Automatic selection of background maps
- User definable alert and exclusion zones
- Automatic slew-to-cue of Pan/Tilt camera systems

The LighterView HMI is a complete PC-based software application for displaying and controlling multiple Lighter radar units and associated peripherals. The LighterView HMI provides users with an intuitive and simple display allowing all users to obtain the best performance from their integrated Lighter surveillance system.

**The LighterView HMI provides users with a simple interface to control and view one or more Lighter radars. Additional controls are available for advanced users to optimise the radar settings and the HMI display characteristics for specific applications.**

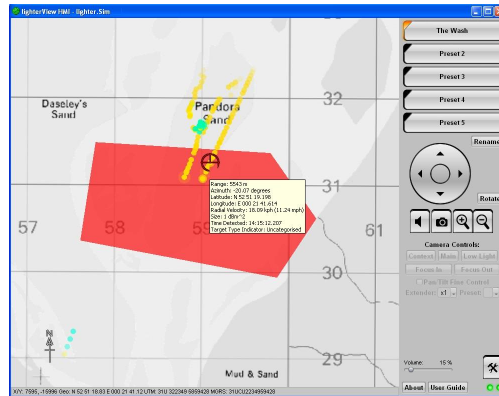
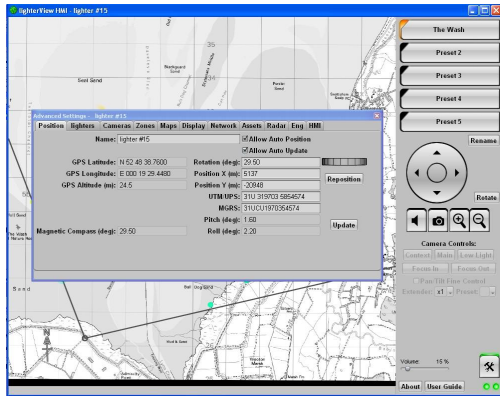
Radar targets are clearly identified as coloured markers overlaid onto a background map with key target characteristics available on a mouse click; including target location, speed and size. The colour of each target marker can be configured to represent target speed and direction or target size, allowing the operator to prioritise the targets to be observed. The user can select the duration of 'snail-trail' tracks that are displayed, allowing the path of the target to be plotted and predicted. The LighterView HMI can control a variety of high-performance camera and thermal imaging systems allowing the user to automatically cue the cameras to the target location.

To enable un-manned operation, the LighterView HMI includes user-definable alert and exclusion zones. An intruder entering an alert zone will generate a visible and audible alarm thereby alerting the operator to the event. Exclusion zones allow targets to be ignored within defined areas so that they do not distract the operator. Zones may be overlaid and prioritised to select or ignore specific target characteristics such as size and speed.

The LighterView HMI operates on a standard PC or laptop running Microsoft Windows. Typically, up to six Lighter radars may be displayed simultaneously on a single HMI. Each radar can be controlled independently to optimise it for its environment. For fixed installations each radar may be manually located on the background map, however portable radars may use their internal GPS receivers and compass to locate themselves automatically on the map. A variety of map formats may be loaded into the LighterView HMI. Formats such as GeoTIFF provide their own calibration data, whereas standard Bitmap images can be calibrated within the LighterView HMI mapping facility.

Doppler ground surveillance radars such as Lighter provide two key advantages that are provided for by the LighterView HMI. The ground clutter map produced by the radar shows where it receives radar reflections from static objects within its scan sector. This ground clutter map may be overlaid onto the background map to identify radar shadow areas and help to predict ground cover. The other facility is the ability of a Doppler radar to listen to the Doppler movement signature of targets. The LighterView HMI allows the user to control the Lighter radar so as to listen to the Doppler movement signature of either a fixed area of land or a swathe of land during a radar scan.

# Screen-shots



## Specification

### Sensor Interfaces

- Lighter radar QZ format over TCP/IP socket connection
- SISS2 interface for high-performance camera and thermal imager systems
- Industry standard camera interfaces available - contact sales office

### Host System for 6 radars

- Processor
  - Minimum: Pentium 4 (3GHz), or AMD Athlon XP 2600+ (2.1GHz)
  - Ideal: Intel Core i5-750 (2.66GHz), or AMD Phenom II X4 965 (3.4GHz)
- Memory
  - Minimum: 2GB
  - Ideal: 6GB
- Hard drive
  - Normal use minimum: 100GB
  - Data recording minimum: 750GB
- Graphics
  - Minimum: nVidia GeForce FX5200 or ATI Radeon 9200
  - Ideal: nVidia GTX260/216 896MB or ATI HD4870 1GB
- Audio
  - Minimum: on-board (AC97)
- Networking
  - Minimum: 100Mbit
  - Ideal: 1000Mbit
- Operating System
  - Minimum (and ideal): Windows XP
- Display
  - Minimum: 19" (1280x1024)
  - Ideal: 22" (1680x1050)

- Loudspeakers (optional)
  - Minimum: powered 3 speaker system (with sub-woofer)

### Human-Machine-Interface (HMI)

- Mouse/keyboard and/or touch-screen control interface
- Soft-key licensed including demo mode
- Selection of coordinate formats: Lat/Long, UTM/UPS, MGRS
- General controls
  - Preset view selection
  - Pan, zoom, rotate, default-view
  - Enable Doppler audio mode
  - Enable camera
  - Display/hide advanced settings control box
  - Main map display area with radar scan sector and camera FOV indicator
  - Pop up target information box
  - Soft-joystick when camera enabled
- Advanced settings options
  - Install and name each Lighter radar (IP address and port No.)
  - Read or set position and rotation of each Lighter radar
- Camera set-up options (SISS2 format)
- HMI display settings including:
  - Map, target marker and clutter map brightness
  - Target marker and clutter map persistence (snail-trail fade time)
  - Colour mapping of target markers - speed, size or fixed

- Visibility of other overlays
- Radar control interface
  - Radar mode selection
  - Clutter cut-off control (wind compensation)
  - Sensitivity level
  - Rain filter selection
  - Doppler audio mode selection
  - Radar power saving options
  - Advanced radar settings
- Maps
  - BMP, TIFF and GeoTIFF file formats
  - Ability to calibrate maps or read existing calibration data
  - Manual adjustment of uncalibrated maps
- Zones
  - Creation of up to 30 zone polygons
  - Up to 30 vertices per zone polygon
  - Select either alert or exclusion type zone
  - Priority ordering
  - Associate sound with each zone
  - Define min and max velocity for each zone
  - Define min and max target size for each zone

Errors and omissions excepted. UV9 reserves the right to modify specifications without notice.



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