

TERA COPTER 3D

Digital Map, Mission Management & Data Center

“All in one”, affordable mini-avionics for surveillance, search & rescue, scout and special operations helicopters. A single “Smart” display that supports all your mission requirements: Navigation, location find (geographic or city street address), fly to a point guidance, terrain avoidance guidance, on-board sensor signature over a map and other mission management functions more.

The TerraCopter-3D target applications:

- Airborne Law Enforcement
- Fire Fighting
- Airborne Search & Rescue
- Scout & surveillance

TerraCopter-3D hardware provides a powerful on-board computer, display of sensor video and/or digital map in a full high quality, sunlight readable LCD display, accurate location using embedded GPS and modern operational soft switches functions activation, using the same approach taken in advanced military avionics, proven to be the most effective Man machine Interface.

Astronautics & Skyline provides a complete solution, including possible integration to existing on-board sensors (such as FLIR, CCD etc.) and complete installation.

Optional 3D enhancement of the map provides synthetic video (S-VID) for operation in poor visibility, as well as additional ground proximity warnings and Highway In The Sky (HITS) flight corridors guidance. The 3D enhancement is the best solution for all weather conditions, allowing mission accomplished in bad weather conditions and poor visibility. The synthetic video feature of the 3D map mode supports pilots orientation in the air under such limitations, enhancing the safety and the probability to accomplish the mission.

Features:

- Digital map & live video support
- 2D & 3D map modes supported
- Advanced, airborne, in flight mission planning capability
- Mass storage (maps, images, charts, geographic data, aerial-photos etc.)
- True Data Center, providing full linkage between data elements, and geo-referenced data items
- Sensors pointing and area coverage signature presented over the map for better orientation and more efficient mission operation



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Main Features

- Digital moving map
 - Centered/De-centered
 - Scale, move & rotate
 - Continuous zoom in/out
 - Distance measurement to a point
- Live Video Display (FLIR, CCD) –full screen or windowed
- Navigation to a point
 - Coordinates
 - Street address
- Sensor (FLIR, CCD) coverage area over the map, real-time updated
- In flight airborne mission planning capabilities (flight path plan & edit, landing site visualization, line of sight check etc.
- Flight safety (optional):
 - Terrain elevation data and ground proximity warnings
 - Obstacles alerts
- Data Storage
- Raster map (various scales)
- Vector maps & symbology, arranged in de-clutterable layers
- Terrain elevation database
- Satellite/Aerial images (option)
- Street maps for cities
- Street address database

3D Options

- **3D map and attitude IMU sensor**
- **Flight Corridors: Highway In The Sky (HITS)**
- **3D overlays (flight path, destination point, avoidance zones, flight corridors etc.**

Hardware Characteristics

- **CPU: Pentium III, with 3D graphics accelerator**
- **Interfaces: RS422/RS-232, Ethernet**
- **Mass Storage: Up to 20GByte internal, plus 20GByte external**
- **Embedded GPS**
- **Remote mouse-pad & keyboard option Power, Typical 28VDC, 60Watt MTBF 10,000 Hours Operating temperature -20°C to +55 °C (Continuous)**