UltiChart™
Tactical Mission Management System
Capabilities Overview
Agenda

- Introduction to introduction to AeroComputers
- Tactical mapping industry update
- *UltiChart™* capabilities overview
- AeroComputers in action
- Latest developments
AeroComputers is the industry leader in providing airborne tactical mission management systems that integrate GPS-based moving maps, image collection and transmission, illumination, and data storage.
Markets Served

- Law Enforcement
- Public Safety
- Fire and Rescue
- Emergency Medical Services
- Homeland Security
- National Guard
- NATO
- US Army Special Operations
- OEMs
- Utility/Industrial
- Electronic News Gathering
Leading the Industry

- Originators of the Airborne Tactical Mapping System - 1993
- Over 350 systems put in operation
  - United States
  - Canada
  - Caribbean
  - Europe
  - Australia
- Strategic alliances with:
  - Major electro-optical imaging manufacturers
  - Systems integrators
  - Helicopter OEMs
- Commitment to research and development
- In-house flight test bed
Airborne Mission Responsibilities

**Flight Operations (pilot):**
- Navigation
- Communications with air traffic control
- Obstacle/collision avoidance
- Instrument monitoring
- Fuel management

**Tactical Operations (tactical flight officer):**
- Visual observation
- Target identification
- Dispatch messaging (CAD/MDT/MDC)
- Operation of GPS-based moving map system
- Operation of video camera/FLIR
- Operation of night-sun

**UltiChart™**
Integrates these tactical functions
Tactical Mapping
Industry Update

- Increased reliability
- Faster performance
- Integration with aircraft systems
- Highly accurate geo-pointing
- Higher quality display monitors
UltiChart™
Capabilities Overview
UltiChart™ Benefits

- Requires minimal training
- Shortens response times
- Increases accuracy in locating targets
- Ensures public safety during pursuits
- Enhances surveillance operations
- Reduces cockpit workload
- Delivers real-time information to remote command posts

A Force Multiplier
UltiChart™ Features

- Intuitive User Interface
- Customizable On-Screen Views
- Best in Class Maps
- Complete Camera/IR and Illumination Systems Integration
- Custom-Designed Rugged Computer Enclosure

Increased situational awareness
Intuitive User Interface

**[H]ot Key Commands** for frequently used functions & databases

**Intelligent Searches** -- complete address not required

**Easy to Read** on-screen displays with Configurable Tactical Bar

**Goto Target**

- **[Numeric Address] and Street Name**
- **[E]very address range for a street**
- **[I]ntersection**
- **[F]reeway intersection**
- **[A]irport**
- **[H]elipad**
- **[L]at/Lon**
- **[O]ffset from moving target**
- **[P]laces**
- **[U]ser Waypoint**
- **[W]aypoint: Sensor**
- **[C]ounty: Change from LOS ANGELES**
- **[R]egion: Change from California**

**San Diego Intersection: Search for 1st street**

UNI

- Valid Entries: CCD TV

Complete Mission Data
SmartBar™ & Configurable Tactical Bar

- Tactical Bar (displays nearest streets, obstacles, parcel data and more)
- Current aircraft track, speed, and altitude
- Target information
- Navigational information
- Map control indicator
- Map type and scale
Best in Class Maps

- Built for mission-critical operations
- Fast and smooth scrolling display with split screen flexibility
- Easy integration of customer maps & shapefiles (FalconView, parcels)
- Customized local, domestic and international maps
Complete Systems Integration

- Maps, camera/IR, illumination, data storage and transmission all controlled by the UltiChart™
- Complete gimbal integration through ViewSync™
- Stay locked onto a target with ViewLoc™
- *Sagem* MFD integration
On-Screen Views

- Toggle on-screen views with a single keystroke
- Split screen and full screen views with zero latency
- Aircraft is always centered and maps match your viewpoint
Software Enhancements

- Support for PAL video format
- Four user selectable video inputs
- Enhanced gimbal compatibility
- Improved DVR integration
- Configurable on-screen interface
- New coordinate calculator (MGRS, UTM, Lat/Long, page grids)
- Capability to display overlays of customer supplied data
- Import/export of GIS shapefiles

Drainage and sewer pipe network
Software Enhancements

Customizable console arrangements optimized for specific tasks:

- Surveillance
- Patrol
- En route
- On scene
- Fire/Tactical mapping
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Software Enhancements

- Major touch-screen functionality improvements
  - Set targets and control camera by touching the screen*
  - Map orientation matches view from the cockpit

* Requires AeroComputers IMU and compatible touch-screen monitor
Software Enhancements

- Major upgrades to camera/IR video quality
- No need to cycle through inputs on the monitor
- Switch from moving map to camera input with a single keystroke and zero latency
UltiChart™ is...

**Integrated**
- GPS-based moving maps
- Image collection & transmission
- Illumination
- Data storage
- Less weight

**Multi-functional**
- Intersection searches
- Target identification
- Point of interest tracking
- Multiple display views
- Customized on-screen data

**Proven performance**
- Large installed customer base
- Rugged custom designed enclosure
- In-house flight test bed

**Service/Support**
- On-site training
- One-year warranty
- Technical support
- Maintenance contracts
- Reduced downtime (loaner units available)

**Scaleable**
- Forward compatible
- In-field map updating
- Modular design

The Cost Effective Solution
Complete Product Line

- Solid State Video Recording
- Touch-screen Monitors
- UltiChart™ Tactical Mapping System
- IMU for ViewSync™
In the Air
AeroComputers in Action

California Highway Patrol

- Search & Rescue
- MedEvac
AeroComputers in Action

Los Angeles Police Department & Los Angeles County Sheriff’s Department

- Patrots
- Chase Support
- Perimeter Setup
- Surveillance
AeroComputers in Action

New York Police Department, NYNJ Port Authority, New Jersey State Police & Puerto Rican Police

- Surveillance
- Patrol
- Search and Rescue
AeroComputers in Action

U.S. Army Special Forces

- Surveillance
- Patrol
- Search and Rescue
- FalconView Integration
AeroComputers in Action

Los Angeles City Fire Department

- Fire Suppression
- Fire Mapping
- Search and Rescue
- MedEvac
- Cineflex HD
AeroComputers in Action

United States Customs and Border Protection, Drug Enforcement Agency, Federal Bureau of Investigation

- Surveillance
- Air Interdiction
- Special teams transportation
AeroComputers in Action

Civic Helicopters – San Diego Channel 10

Electronic News Gathering
Partial Client List

- California Highway Patrol
- Drug Enforcement Agency
- Federal Bureau of Investigation
- Los Angeles Police Dept
- Los Angeles City Fire Dept
- Los Angeles County Sheriff
- Texas Department of Public Safety
- U.S. Army Special Forces
- U.S. Customs & Border Protection
- U.S. Park Police
- Washington DC Metro Police
- Australian Government
New Products

**High Definition Dual Screen Displays**

- Ultimate in situational awareness through dedicated displays for maps & video
- Independent brightness and contrast control for each display
- Extra-bright backlights and anti-reflective filters night vision compatible
- Landscape or portrait options

Dual Screen Displays available in 8.4”, 10.4” and 12.1” configurations
New Products

**AX-12 Display Monitor**

- Next generation of brightness and clarity
- Dedicated manual brightness control knob
- Industry leading NVG/NVIS filtering
- High accuracy touch screen
- Drop-in replacement for older monitors

AX-12 display with split screen maps and video
New Products

AeroComputers GNSS
Global Navigation Satellite System

- Unparalleled accuracy
- Reduces Tactical Flight Officers workload
- Enables hands-free camera operation
- Allows pilots to fly aggressive patrol maneuvers while maintaining scene lock
- Enhances control by creating a ‘smart gimbal’
- Compatible with a wide variety of sensors
New Products

**X3 Digital Video Recorder**

- Recordings viewable with any media player
- Simple one-key operation
- Reduced weight, small form factor
- Rugged design
- Infinitely expandable storage space through flash memory
- Quick data transfers via compact flash card
Contact Information

Jon Marshall
Corporate Marketing
AeroComputers, Inc.
2889 West Fifth Street, #111
Oxnard, California 93030
(805) 985-3390
info@aerocomputers.com
www.aerocomputers.com