

# Crystal Ball GPS Rocket Tracking System



Crystal Ball Airborne Package



Ground Station



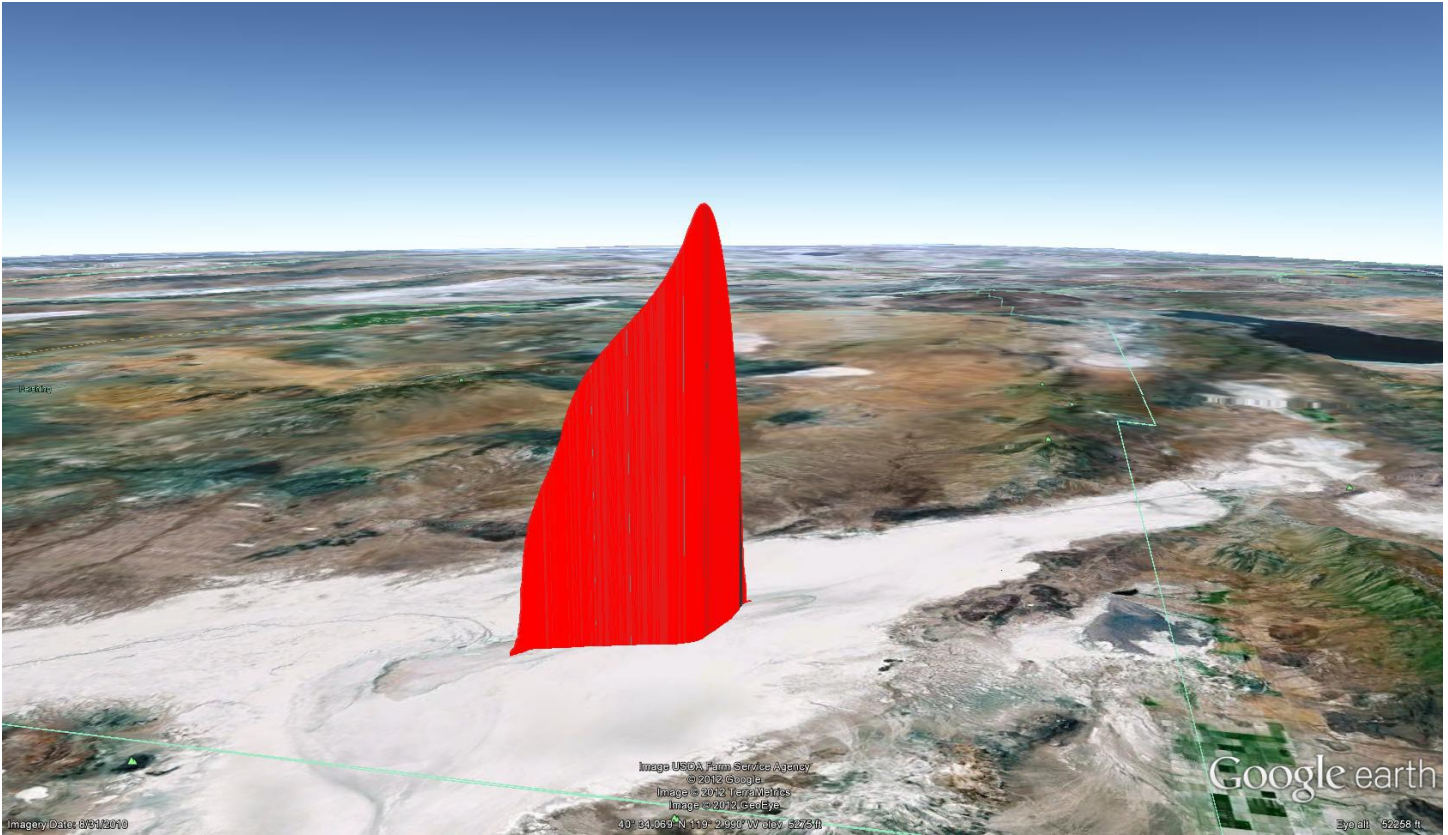
Complete Tracking System

## System Overview:

A complete system is pictured above on the right. The Android smart phone is not included. You will need to provide a Bluetooth enabled Android tablet or smartphone or Bluetooth enabled Windows laptop, netbook, or other computer.

## Key Features:

- Turnkey system, simply connect batteries and start tracking
- Designed for real time tracking of high altitude rockets
- Compatible with numerous free GPS mapping software packages on Windows or Android operating systems
- TRA certified for records
- Best in class for high dynamics GPS environments
- Configured for maximum power allowable in license free 900 MHz ISM band for FHSS data
- Precise real time tracking of time, position, altitude, ground speed, and heading
- No cell phone reception needed
- No internet connectivity needed
- Totally wireless, no cables used. Bluetooth connectivity is used between the Ground Station and your computer or mobile device
- No amateur (ham) radio license or expensive ham equipment required (i.e. no ham transceivers, handy talkies, TNCs or external GPS receivers)
- Ideal for use in remote areas, no APRS repeaters needed
- Configurable 56 bit DES data encryption
- GPS functionality up to 50 km altitude
- Wide operational temperature range: -30° C to +50° C
- Wide Airborne Package DC power supply range of 8 to 28 Vdc with dual redundancy a standard feature
  - Single or dual battery power – wide choice of type, size, and cell count
  - Reverse polarity power protected
- Robust and efficient switching DC power supply in both Ground Station and Airborne Package
- Airborne Package is configurable for transmit power of 10 mW to 1 W. This allows for effective tradeoff of battery life vs communication range (up to 40 miles LOS).
- Optional on board capture and logging of GPS NMEA data



Google Earth KML curtain plot of Tripoli single N motor class record flight on 7 AUG 2011 at the Black Rock Playa Nevada. Viewed towards the south west. The GPS data for this flight was acquired using previous generation of Crystal Ball hardware.

Crystal Ball GPS rocket tracking systems can be purchased from:

MEW, LLC  
3040 Reuben Drive  
Reno, NV 89502  
775 790 1850  
Ask for John

Current price and availability can be found on line at:

[http://www.mewpcb.com/crystal\\_ball.html](http://www.mewpcb.com/crystal_ball.html)