

APRS AND TRACKING

How to follow the balloon after it can't be seen

*Byonics MicroTrak

-need ham radio license (call sign programmed into device on ordering)

*Spot tracker

(Care is needed to prevent the GPS antenna from being blocked by other items in the payload from "seeing" the GPS satellites in orbit.)



MT-1000 HAB Combo

“This package includes the 1.7 Watt tracking transmitter with a high altitude GPS (Most GPS receivers are capped at 60,000 feet to keep us from building our own cruise missiles, ours is good into space) and a half-wave dipole antenna with cable. It operates from 3 AA batteries. I recommend only Energizer "Ultimate Lithium" batteries for HAB operations.” Allen Lord, Byonics.



Quantity	Item	Price	Total
	MT-1000 HAB Combo	\$220.00	\$220.00
	AIO USB Cable	\$20.00	\$20.00
Sub Total			\$240.00
Shipping To:United StatesCanadaInternational			
Shipping:USPS Priority MailUSPS Express Mail			\$8.00
Total			\$248.00

The operating manual is available online, easy to read with technical support very promptly received.

Typical configuration of the Microtrak for North American Launch

The screenshot displays the TinyTrak3Config v1.4 software interface, which is used for configuring a Microtrak device. The interface is organized into several sections:

- Primary/Secondary:** Includes fields for Callsign (NOCALL), Path (WIDE2-1), Symbol (>), and Table (O).
- Frequency:** Set to 144.390 MHz.
- Timing:** A group of settings including Auto TXD (253 ms), Auto TX Rate (120 sec), Manual TXD (67 ms), Manual TX Rate (30 sec), Quiet Time (1578 msec), and Calibration (128).
- Status:** Includes a Text field (MT-1000), Send Every (0), and checkboxes for Send Separate and Don't Send '>'. An Edit Telemetry button is located below this section.
- Transmit Options:** A list of checkboxes including Transmit Altitude (checked), Allow TTL Serial, No TX Out on PTT In, Serial Out High, Alternate Digi Paths, Invert CD In, Send NMEA, Only Send Valid (checked), Send 300 Baud, Serial 9600 Baud, TX Twist (checked), Send DAO (checked), and No Startup Packet. A Timestamp dropdown is set to None.
- Mic-E:** Includes an Enable checkbox (checked), Message dropdown (In Service), Force Printable checkbox, and Path dropdown (Conventional).
- Time Slotting:** Includes an Enable checkbox and an Offset field (15 sec).
- SmartBeaconing:** Includes an Enable checkbox, Min Turn Angle (27 deg), Turn Slope (255), Min Turn Time (5 sec), Slow Speed (5 MPH), Slow Rate (1800 sec), Fast Speed (65 MPH), and Fast Rate (90 sec).
- Power Switch:** Includes an Enable checkbox and a field (3 sec).
- Configure:** Includes a COM3 dropdown, Read Config, Write Config, Read Version, and Save buttons.
- Test Tones:** Includes Send 1200Hz, Send Both, Send 2200Hz, Stop Test, Load, and Quit buttons.

Receiving the Signal

- Handheld Radio
- APRS.fi

VE4JPI - center - zoom - info

2017-04-18 16:19:17
alt 231 m
Telemetry 2017-04-18 16:19:17: show telemetry
Ch 1: 395, Ch 2: 597, Ch 3: 0, Ch 4: 0, Ch 5: 0
Frc High Alt Balloon
MicroTrak FA v1.42
Mic-E: In service
[T9TW5P via VE4GIL-3*,WIDE1,WIDE2-1,qAR,VE4RRB]
being tracked · stop tracking · track in Street View

Track call sign: [Clear](#) ?

Address, city or Locator: [Clear](#) ?

Show last:

Track tail length:

VE4JPI

Updated: 2017-04-18 16:19:17 (2960)
Position: 49°47.51' N 97°9.20' W

Other SSIDs: [VE4JPI-2](#) [VE4JPI-8](#)

Wx: -19.8°C 82% 1033 mbar 1.1 m/s NW

Other views:

- [Station info](#)
- [Raw packets](#)
- [Status packets - Beacon packets](#)
- [APRS/CWOP weather - Telemetry](#)
- [Messages - Bulletin board](#)
- [Prefix browsing](#)
- [Google Earth KML ?](#)
- [Data export tool](#)
- [Preferences - My account](#)

Information:

[Stations currently moving](#) · [FAQ](#) · [Blog](#)
[Discussion group](#) · [Linking to aprs.fi](#) · [sites](#) · [Service status](#) · [Database statistics](#)
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[API](#) · [Change log](#) · [Planned changes](#) · [Credits and thanks](#) · [Terms Of Service](#)
[iPhone/iPad APRS](#)

Spot Tracker

Purchase or Rental?

Purchase: \$169.99

Rental: \$10 per day (Wilderness Supply)

