

Always on the right track

Performance that's
one step ahead



 **ScoutPak**™

GPS AT ITS BEST ScoutPak™'s sleek design holds a powerful GPS engine, one meant for tracking in dense canopy and into the forest's deepest areas.

SubX™
L1-GPS receiver/SBAS

Bluetooth

 **Juniper
Systems**
INCORPORATED
a Campbell Scientific Company

OnPOZ®
Precision Positioning



Key features

01. Unmatched tracking capability allows you to boost productivity without compromising data quality
02. Unparalleled signal tracking for non-stop GPS mapping even under dense canopy
03. Accurately tracks non-stop, no matter the canopy (meets USDA Forest Service standards)
04. Small and rugged design operates in the harshest environment
05. No need for expensive and sophisticated antenna; it works with a patch antenna
06. Long battery life guarantees operation for a full field day: summer or winter
07. Combines a GPS/GIS professional field software with a powerful GIS viewer
08. Efficient GIS Plan View that displays multiple raster and vector maps all at once
09. **Get more out of your investment:** Windows Mobile® device, easy to pack and great for other applications
10. Automatic and highly efficient post-processing capability at the touch of a key to produce remarkable GPS data quality

SubX™
L1-GPS receiver/SBAS




ScoutPak™

MUST-HAVE SOLUTION for mission-critical field applications where reliable and accurate geo-located data acquisition is vital to *your success*.

Increase production with reliable results.

ScoutPak™ provides continuous GPS mapping under the forest's deepest areas.

Archer Field PC™, from Juniper Systems, Inc.

The ultra rugged Windows Mobile® field computer for GPS mapping, and so much more...

- **Made to endure** --> Heavy-duty, ergonomic and lightweight
- **Perfect for outdoors** --> Bright and easy to read touchscreen
- **Industry standard** --> Windows Mobile® runs multiple field applications
- **Works in the field longer** --> Provides battery charge for up to 20 hours
- **Built to withstand extremes** --> Operates in temperatures as cold as -22F (-30C) or as hot as 122F (50C)
- **Keeps your data safe** --> Outstanding reliability and durability help prevent costly data loss
- **Cable free** --> Integrated Bluetooth® wireless technology
- **Extended capacity** --> Extended data storage with SD or CF card

SubX™, from OnPOZ Precision Positioning

The professional grade GPS/WAAS receiver that delivers high quality performance

- **High-performance** --> Maximum productivity under extreme GPS conditions while guaranteeing unparalleled accuracy
- **Professional** --> Fast re-acquisition time, tracking sensitivity, multipath rejection technology and accuracy make it the most powerful GPS receiver for the forest industry
- **Ergonomic** --> Small external antenna that delivers maximum tracking and accuracy even under dense canopy
- **Stay in the field longer** --> Ultra low power consumption provides battery charge for up to 20 hours
- **Survey grade GPS receiver** --> Provides sub-meter accuracy in kinematic mode of operation
- **Real-time SBAS (WAAS/EGNOS)** --> Increases field position accuracy and eliminates the need to post-process in many mapping applications

SUCCESS STORIES

"Fellow foresters had told me that **ScoutPak™** worked very well in our mountainous and difficult coastal forest conditions. I was totally amazed when we field tested the system head to head with three competitive products. It worked non-stop while the other units struggled to collect any points at all."

— **Chris Laing**
Results Based Forest Management,
Powell River (BC, Canada)

"Our GPS operator reported that there was hardly a break in satellite coverage for the entire day, which enabled him to achieve a high rate of production and complete the day's objectives two hours earlier than anticipated. Data quality achieved exceeded all our expectations."

— **Dean Iverson**
President, Iverson Forest Management Inc.,
Vancouver Island (BC, Canada)

EZTag CE™, from OnPOZ Precision Positioning The easy to use GPS/GIS field software, for quick and efficient data collection

- **Efficient GIS Plan View** --> Enables users to load multiple background maps (vector and raster)
- **Easy to read Plan View** --> Organizes your maps in different layers as separate items
- **Adaptive navigation tools** --> Background maps' Plan View automatically pans and rotates according to your direction of travel; simple compass mode also available
- **Professional GPS field software** --> Includes all necessary tools to perform quality controlled surveys as well as post-processing
- **Nested points** --> Forget about pause/resume, implements a better way of nesting points into lines/polygons
- **Match your GIS database** --> Robust data dictionary supports a relational database; works with the most complex database structure
- **Plenty of extra features** --> Auto-centered Plan View, offset, mission planning, configurable alarms, many projections/datums, data maintenance, etc.

Optimal EZSurv™, from OnPOZ Precision Positioning Automatically post-process GPS data, with optional Office software

- **Effortless** --> GPS post-processing at the touch of a key. All you need is your GPS field data files and an Internet connection. **EZSurv™** automatically performs all processing tasks required to deliver the best results from your field data.
- **Reliable** --> Rigorous algorithms secure the best results for your surveys, from easy to extreme conditions
- **Standard** --> Compatible with the US CORS base station network



ScoutPak™ is the best GPS solution on the market in terms of signal tracking under canopy and accuracy. **ScoutPak™** is the result of mobile design innovations, data acquisition technologies, and the relentless drive to build high quality and high-performance products around our clients' needs.

ScoutPak™ is powered by **OnPOZ Precision Positioning & Juniper Systems**

For more information:

Juniper Systems: 435-753-1881 or www.junipersys.com

OnPOZ Precision Positioning: 1 888 495-6577 or www.OnPOZ.com

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The USDA Forest Service maintains GPS test sites across the USA with accurately known positions (surveyed within 10 cm). The performance of the **ScoutPak™** was tested on these sites:

- MTDC, Montana: open sky, no canopy
- Lubrecht, Montana: light to medium canopy
- Powell, Idaho: heavy canopy
- Clackamas, Oregon: heavy coastal canopy

“When we test the GPS receivers on our test courses, we test for accuracy under different canopy conditions. Another important item that should be considered and added to our test protocol is productivity or tracking ability. Ideally, a receiver would have both accuracy and high productivity.”

— **Dick Karsky** / USDA Forest Service

EZSurv™ Post-Processed Results

// Typical Static Accuracy

SITE	1 second		5 seconds		60 seconds	
	-NSSDA	CEP	NSSDA	CEP	NSSDA	CEP
MTDC / open sky	0.5	0.2	0.3	0.2	0.4	0.2
Lubrecht	2.9	1.7	4.6	2.1	3.1	1.7
Powell	5.4	2.7	6.2	3.0	3.8	1.7
Clackamas	6.4	2.8	6.9	3.0	6.7	3.3

National Standard for Spatial Data Accuracy (NSSDA) represents 95% of confidence level. All results are in meters

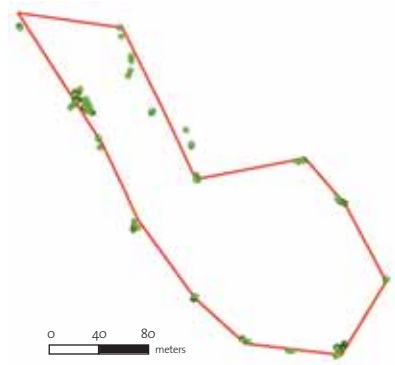
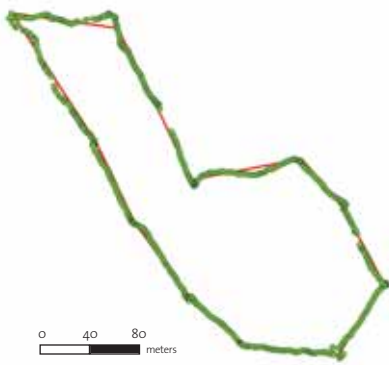
// Typical Dynamic Accuracy

SITE	+/- 3m	+/- 5m	+/- 10m
Lubrecht	99%	100%	100%
Powell	76%	92%	99%
Clackamas	65%	85%	97%

(% of positions falling within a buffer size)

Tracking performance

Head-to-head comparison at Clackamas test site



versus

ScoutPak™
Accurate and non-stop
GPS mapping

High-end
Competitive Products

ScoutPak™ Technical Specifications

Archer Field PC™

Operating System	Microsoft® Windows Mobile® 5.0
Processor	Intel® X Scale® – PXA270, 520MHz
Memory	64 MB Low power RAM – Internal solid-state 256 MB FlashDisk
Extended Memory	Secure Digital (SD or SDIO) – Compact Flash type I or II
Display	Active viewing area: 3.5" diagonal (89mm) – High visibility TFT active matrix transfective LCD – Transfective technology gives brilliant contrast, even in direct sunlight - Touchscreen
Keyboard	Quad arrow (up, down left, right) – Standard key functions- Keys can be user-defined – LED backlight keys
Power Supply	<ul style="list-style-type: none"> Intelligent rechargeable lightweight Li-Ion battery pack, 14.04 W-h (nom.) Operates for more than 20 hours on one charge Charge in 3-4 hours Intelligent battery notifies user when battery needs charging and protects battery from overcharging
Dimension	Size: 6.5" length x 3.5" wide x 1.7" thin (165mm x 89mm x 43mm)
Weight	<ul style="list-style-type: none"> 17 ounces (482 grams) Magnesium case with elastomer overmold
Environmental	Operating: -22°F to 122°F (-30°C to 50°C); Storage: -22°F to 140°F (-30°C to 60°C);
Environmental Resistance	<ul style="list-style-type: none"> Waterproof and dustproof, IP67 Shockproof: multiple drops from 5ft (1.5m) onto concrete through temperatures ranging from -22°F to 122°F (-30°C to 50°C) MIL-STD-810F: water, humidity, sand and dust, vibration, altitude, shock
Communication	<ul style="list-style-type: none"> COM 1: 9-pin sub D connector with 5 V power on DTR USB host (Mini A) can control other devices USB device (Mini B) synchronizes information to the desktop Internal Bluetooth® wireless technology, Class 2

SubX™ receiver

Receiver Type	<ul style="list-style-type: none"> 16 channel, L1 frequency, C/A code, carrier phase and Doppler measurement; Multipath detection and removal
Real-time Accuracy	<ul style="list-style-type: none"> Real-time (SBAS and external RTCM source) 2.0m CEP Static carrier post-processed: centimeter Dynamic post-processed: sub-meter (code & carrier phase)
Start-up Times	Hot start: < 3.5 sec; Warm start: 33 sec; Cold start: 34 sec
Signal Reacquisition	< 1 sec
Update Rate	1Hz
Antenna	size: 48mm X 40mm X 13mm, QMA connector, Gain 27dB
Power supply	<ul style="list-style-type: none"> User replaceable lithium-ion, chargeable in unit, 7.4V, 2450 mAh Operates for more than 15 hours on one charge Charge in 3-4 hours
Dimension	4.7" length x 2.6" wide x 1.6" thin (120mm x 65mm x 40mm)
Communication	USB, Serial, Bluetooth, QMA
Weight	0.67 lb; 0.3 kg (including battery)
Environmental	<ul style="list-style-type: none"> Operating – 20°C to 50°C (-4°F to 122°F) / Storage -30°C to 85°C (-22°F to 185°F) Waterproof casing IP54
Interface	Power button with 2 status Led

EZTag CE™ Field Software

Display	Vectors and raster files; measurements (lengths and areas)
Plan View	Dynamic (rotative) Plan View
GIS Data Acquisition	Supports simple and relational databases through a data dictionary
Mapping Systems	12 map projection; 62 pre-defined datum
Option	Touchscreen lock, alarms, navigation tools, data maintenance, GPS quality controls, etc.

Optional EZSurv™ Post-processing Software

Post-Processing Accuracy	Pseudorange: 1m to 3m; Float: 20cm to 30cm; Fix ambiguities (baseline, OTF L1 and L1/L2, StopGo): 1cm to 3cm
Automated Processing	Scan Internet for base station network, automatic batch processing
Supported Formats	RINEX, Hemisphere binary, Novatel binary and more
Others	Loop closure, common vector analysis, configurable processing parameters, residual analysis, satellite/time span rejection, network adjustment, mission planning, etc.
Supported Base Networks	CORS, CDDIS, BCACS, MRNQ and Local (open architecture to add other networks)
Versions	L1/L2 (dual frequency full version); L1 version (L1 cm capability), Lite version (L1 sub-meter capability)



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