



Update: GPS Trackers

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GPS Trackers

□ Safety

- **An additional informational tool in emergencies**
- **Does not require operator activation**

□ Logistics

- **Tracking of assets (e.g., vehicles, boats)**
- **Informative of deviation from research itinerary**

SRI's "Bread Crumb" Tracker

- **Commercial components for a quick response**
 - **NAL Research GPS Tracker and antennas**
- **Weatherproof housing for installation on snowmachines**
- **12 VDC vehicle power**



Ski-Doo Installation

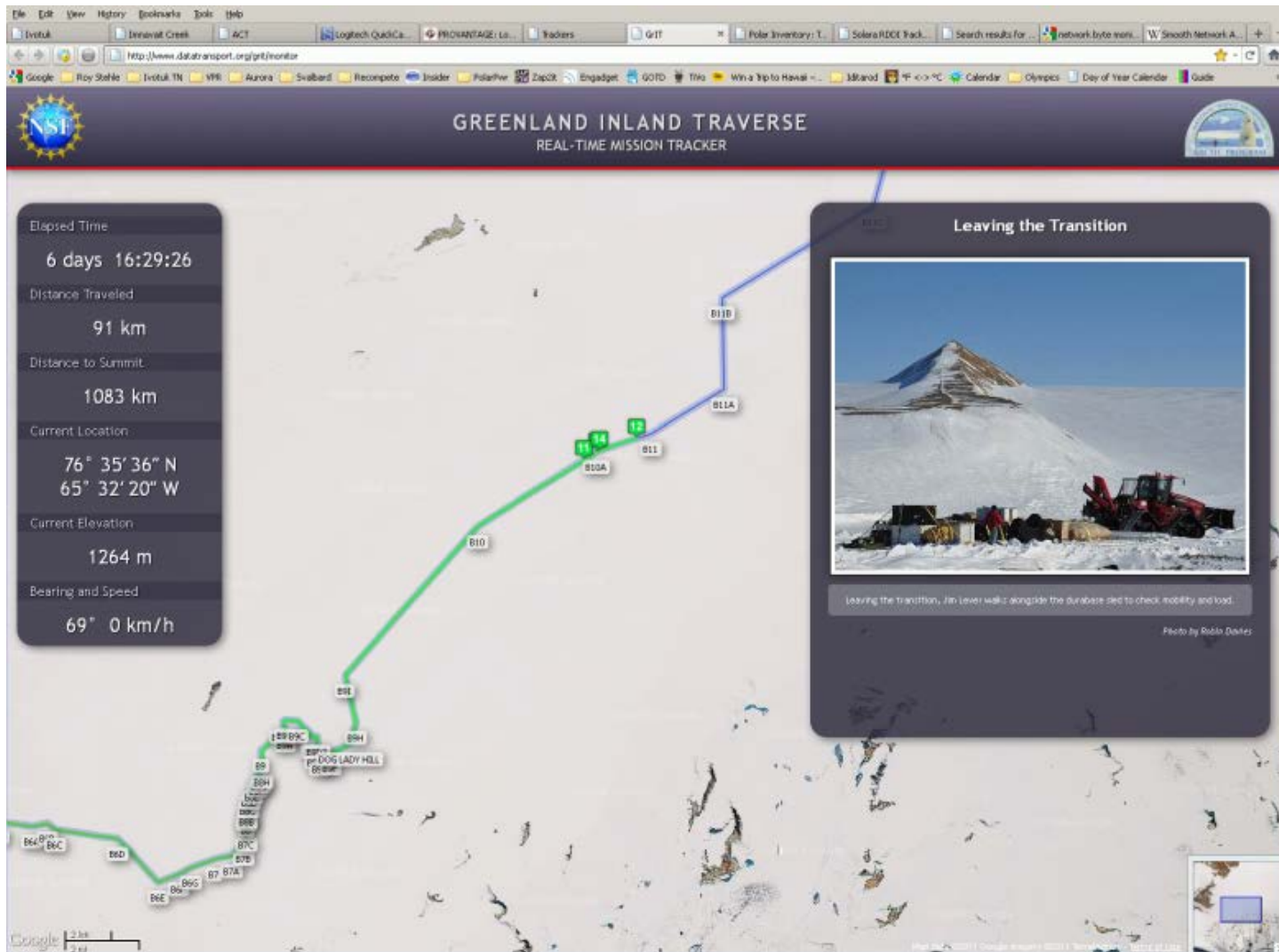


Summit Station, Greenland

Greenland Inland Traverse



Greenland Inland Traverse



Logistical Tracking Function

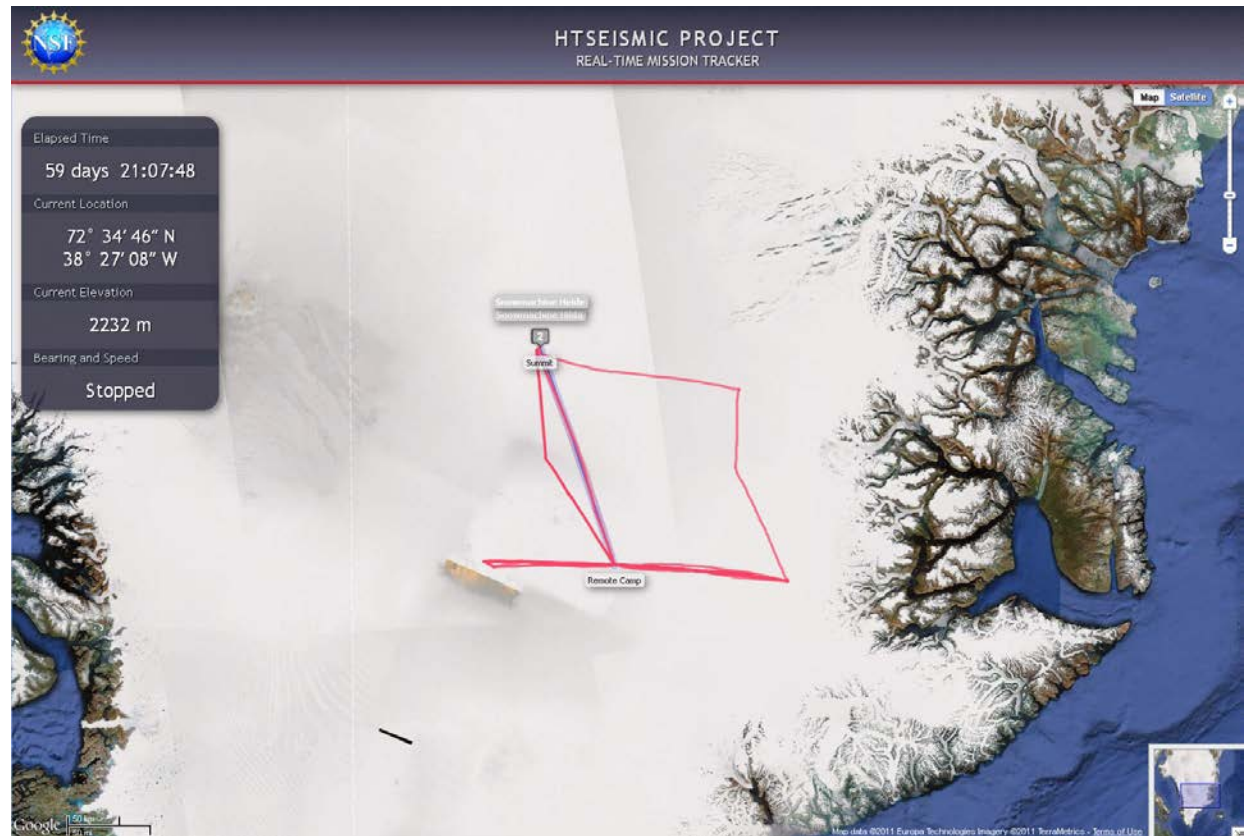
□ Summit Station Operations Tracking

- ICESat track observation
- Clean snow historical traffic



Thybo HTSEISMIC Project

- Individual project operations
- Tractors and snowmobiles
- Good outreach tool



New Generation with 9602LP tracker



Engine
9601-DGS-LP

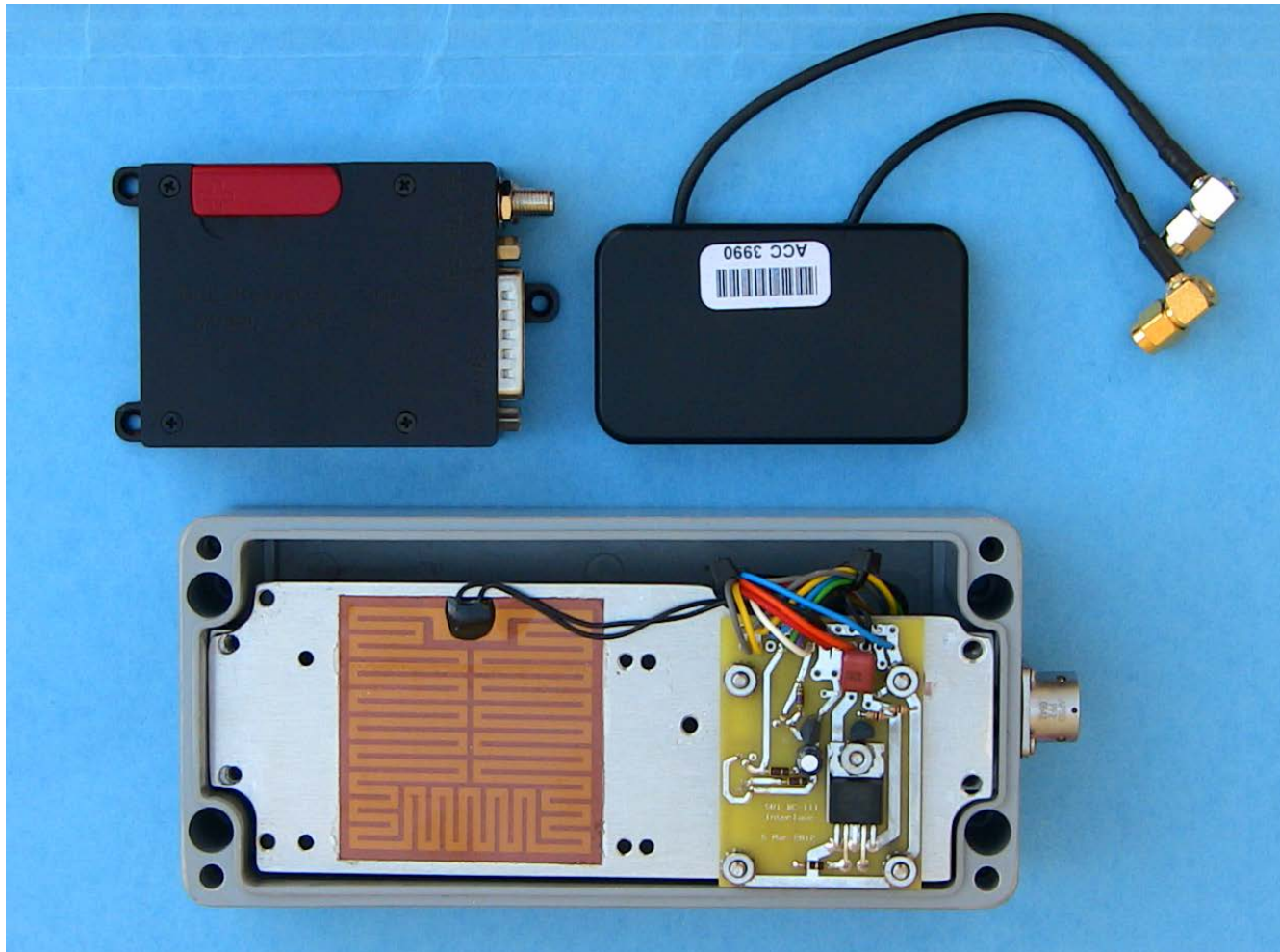
9602LP

- **Smaller**
- **Lower Power**
- **No DC-DC Converter**

3rd Generation Bread Crumb Tracker

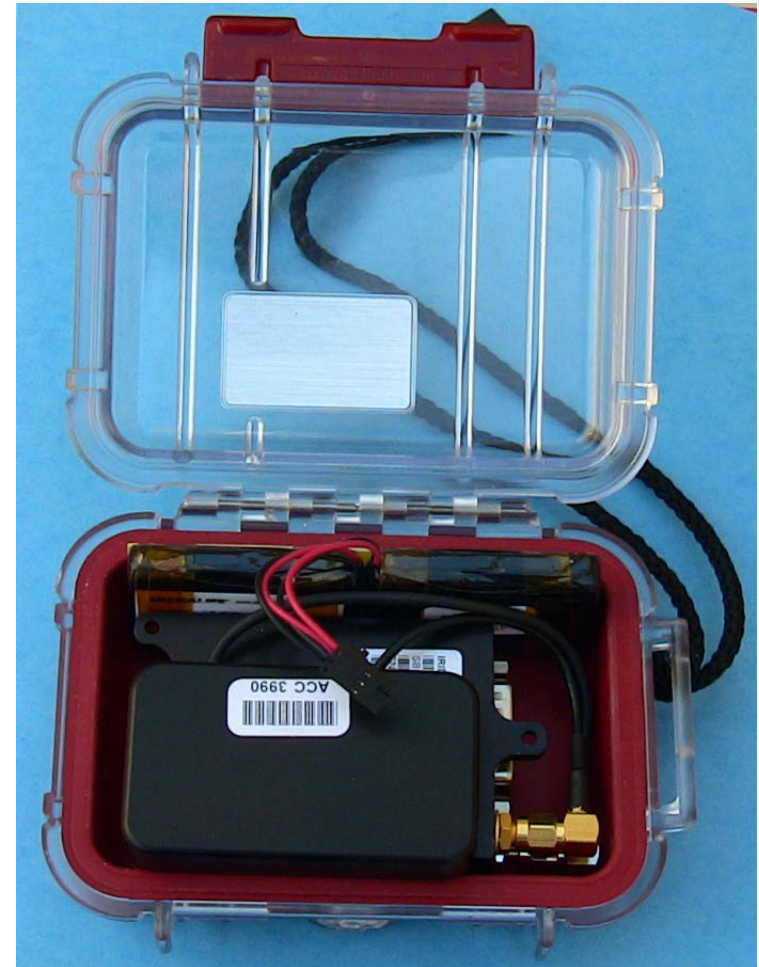


Bread Crumb Elements



Backpack Version Mock-up

- ❑ Lithium-Ion battery pack
- ❑ Simple Low Voltage Dropout circuit
- ❑ LEDs visible to user
- ❑ 3 day operation expected



Longer Operation Time



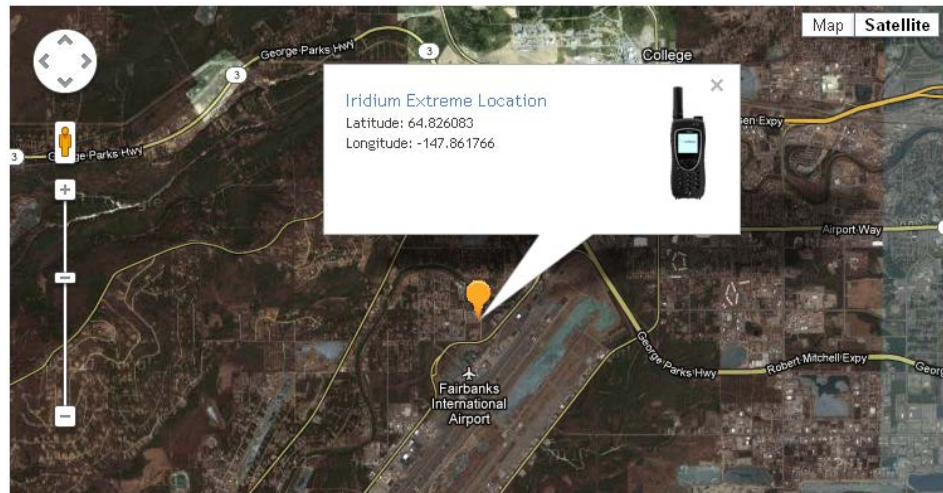
3 Days

7 Days

Iridium 9575 Satphone



- ❑ Ruggedized
- ❑ IP67 water spray protection
- ❑ SMS & SBD position reports
 - Competes with Spot, Trimble, Garmin
 - Adjunct to ever-present satphone



from 881631459731@msg.iridium.com
subject SMS from 881631459731@msg.iridium.com
to roy.stehle@sri.com

2/10/2012 4:56 PM

I am here Lat+64.826083 Lon-147.861766 Alt +452 ft GPS Sats seen: 04
<http://map.iridium.com/m?lat=64.826083&lon=-147.861766> Sent from my Iridium handset