

Amateur Radio Journeys To The Edge Of Space

Or

DXpeditions To The Stratosphere

Still Cameras Have Documented The Flights

I would like to show you a collection of
some of the pictures from 7 of the
flights of the Lanark Space Agency

LASA

The Vehicle



First Picture On Our Journey



Into The clouds

Out Of The Clouds



At The Edge Of Space



122,886 Feet



The Balloon Bursts

The Camera is Looking Down



The Flight Package Tumbles

A photograph of Earth from space, showing the curvature of the planet and the thin blue atmosphere against the blackness of space. The image is taken from a high angle, looking down at the surface of the Earth. The horizon line is visible, separating the dark blue of the atmosphere from the white and light blue of the clouds and landmasses. The overall color palette is dominated by blues and whites, with a stark black background on the right side.

Fragments of The Balloon In View



Descending On The Parachute



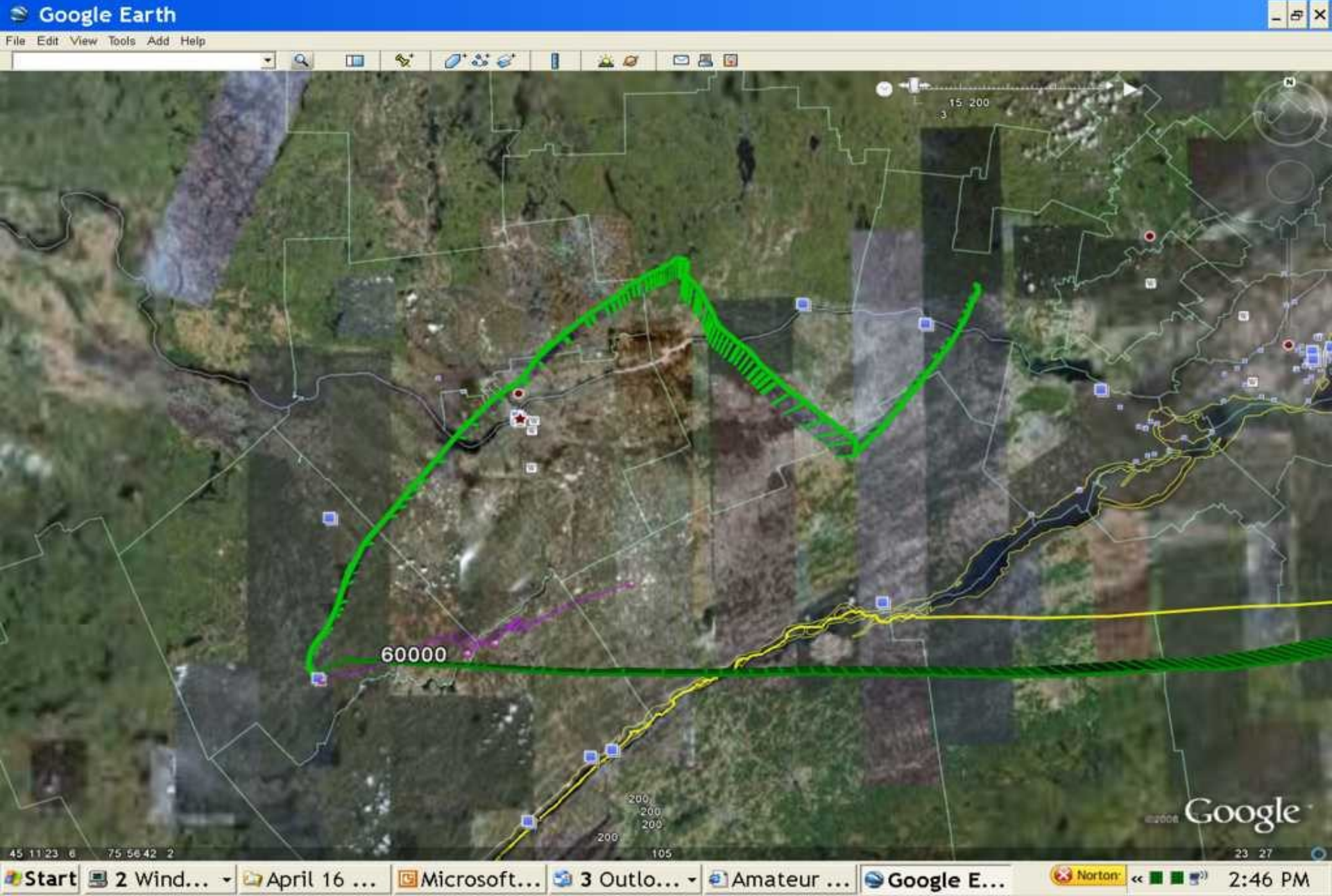
Back On The Ground



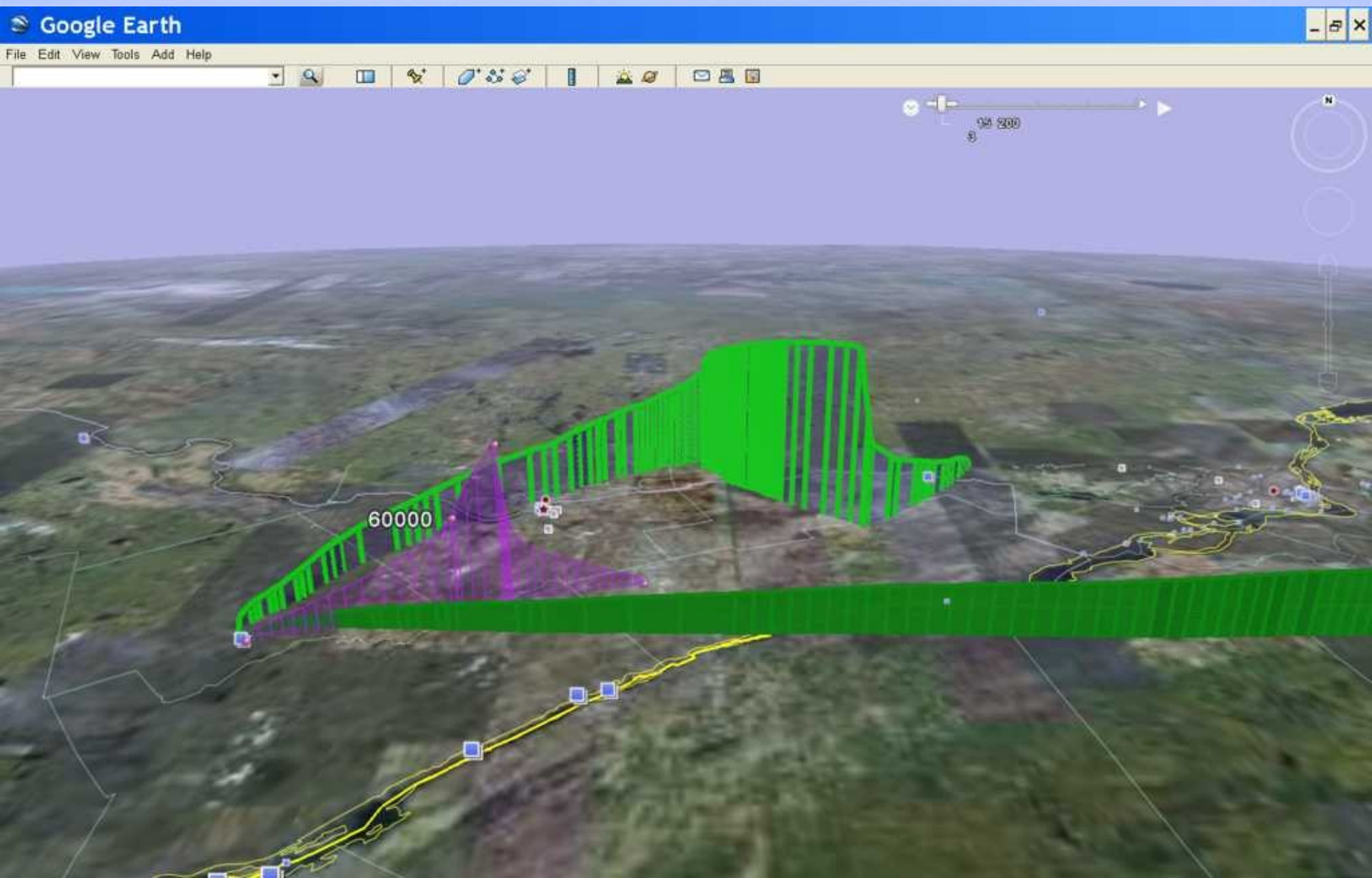
The Recovery Team



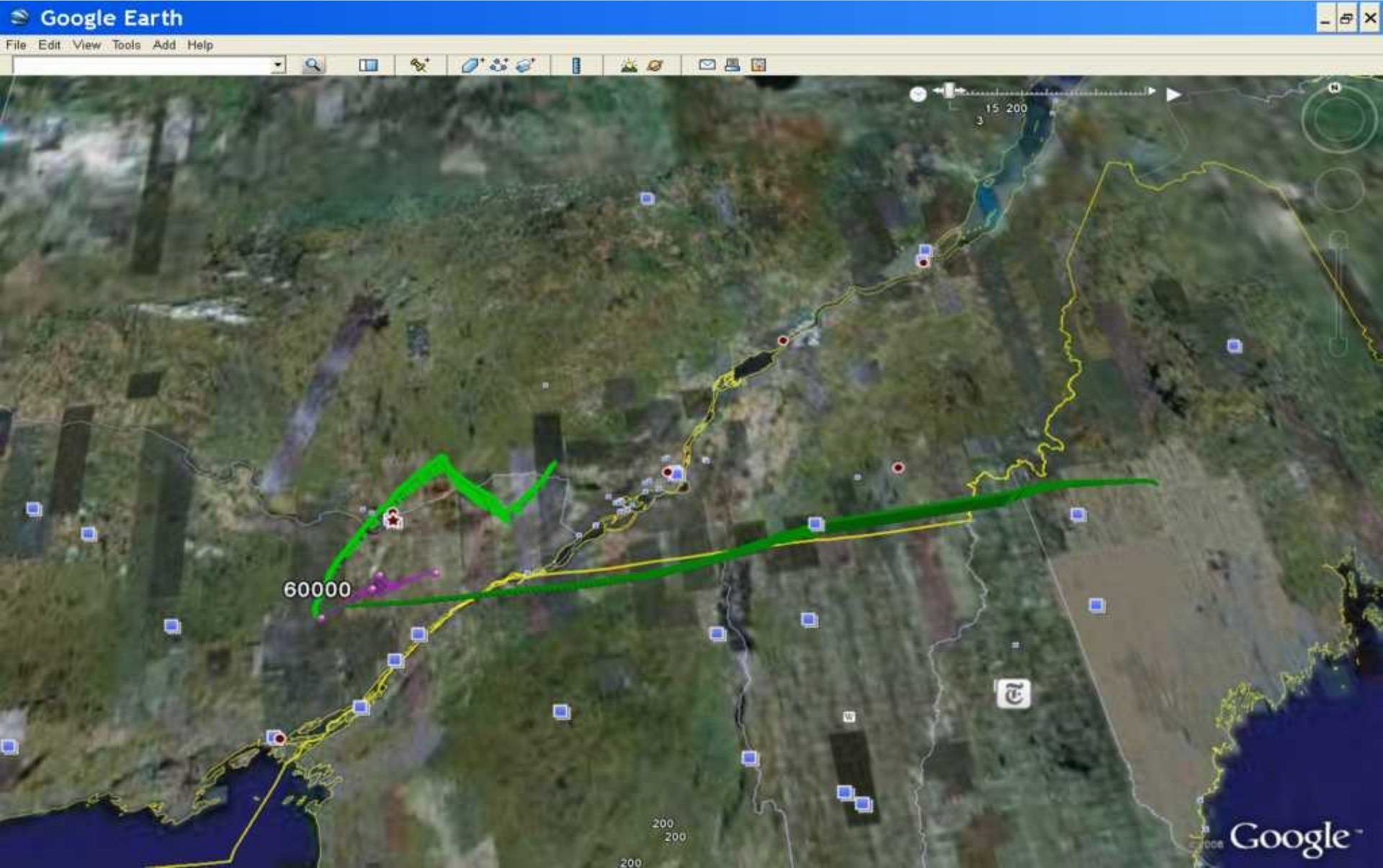
Path Of The Journey



The Vertical Flight Path



LASA 1 Maine LASA 3 Quebec



How It Was Accomplished



Helium Fuels The Balloon Inside In Inclement Weather



Outside When Conditions Permit



Hydrogen For Altitude



Free Lift Measurements



Free Lift Measurements



The Original Flight Package



Flight Package

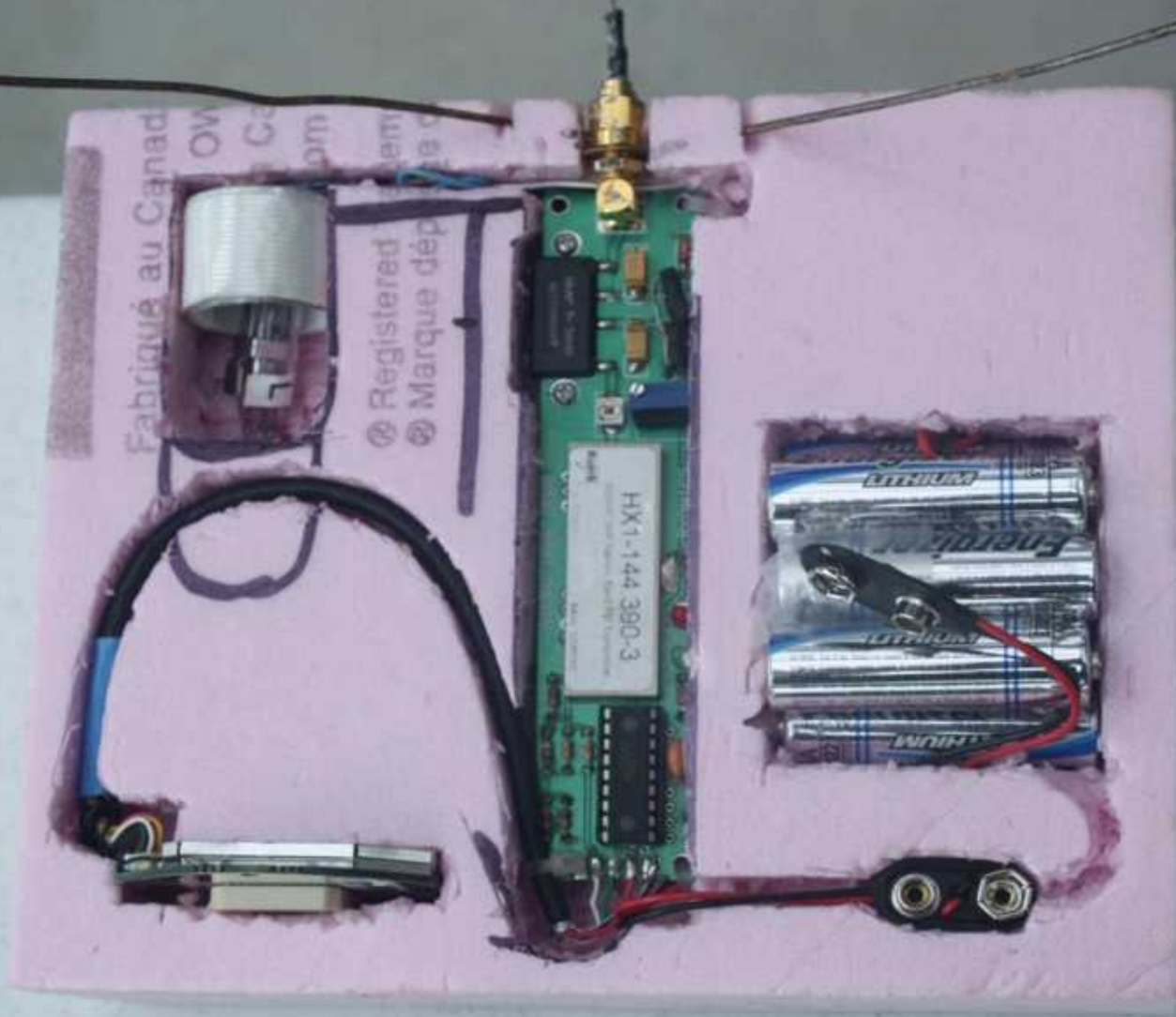
Tracking Transmitter, GPS, Camera, Batteries, Antenna



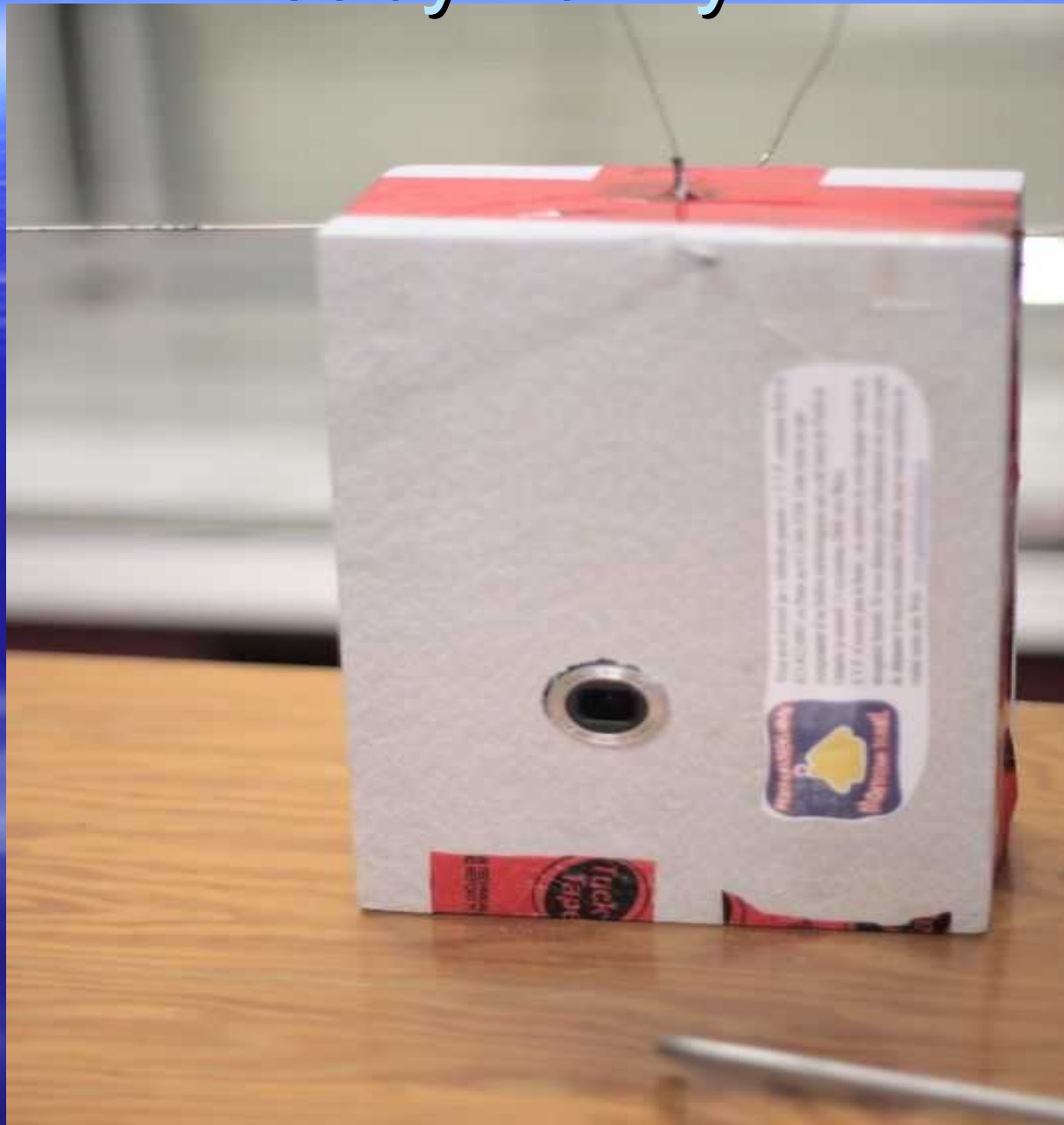
To Accommodate The Students To Fly and Recover A Project Object



Going For The Altitude Record



Ready To Fly



Launch Sites

- All Flights have been launched from Perth
- Two from The Perth Fair Grounds where inside fueling and mission control facilities were available
- One from The Perth Fire Hall
- Two From Downtown Heritage Perth
- Latest two flights were not open to the public due to the use of hydrogen
- All Flights had media coverage, local press, radio as well as CTV National.

Heritage Perth



VE3REX-11 November 7/09



VE3LCA-11 November 7/09



Mission Control Tracking



Communications



Chase Car Tracking



Radio Tracking Program

UI-View32 V2.03 [Balloon Launch] Tracking VE3REX-11

File Terminal Stations Messages Map Logs Lists Action Options Setup Help

Log file: ue3rex-11
Replay date/time: 2008-Nov-15 11:36:59
Replay speed: x1 x5 x25 Fast
Play-back Controls: [Play] [Pause] [Stop] [Reset]

Balloon VE3REX-11

Lat: 45.2170N Long: 74.4865W [Lightbulb icon] [More]

Time	Course	Height
11:35	44 degrees	48054 feet
Speed		
62.0 knots	71.3 mph	114.8 kmh

FN25EB K1HJC>APU25N.WIDE2-2 <UI C>
+4303.57N/07122.32W-[Myrtle, Candia NH PHG2590]

45.04.24N
75.39.96W

Start 4 Wind... A Journe... Congrats ... UI-View3... Norton 4:18 PM

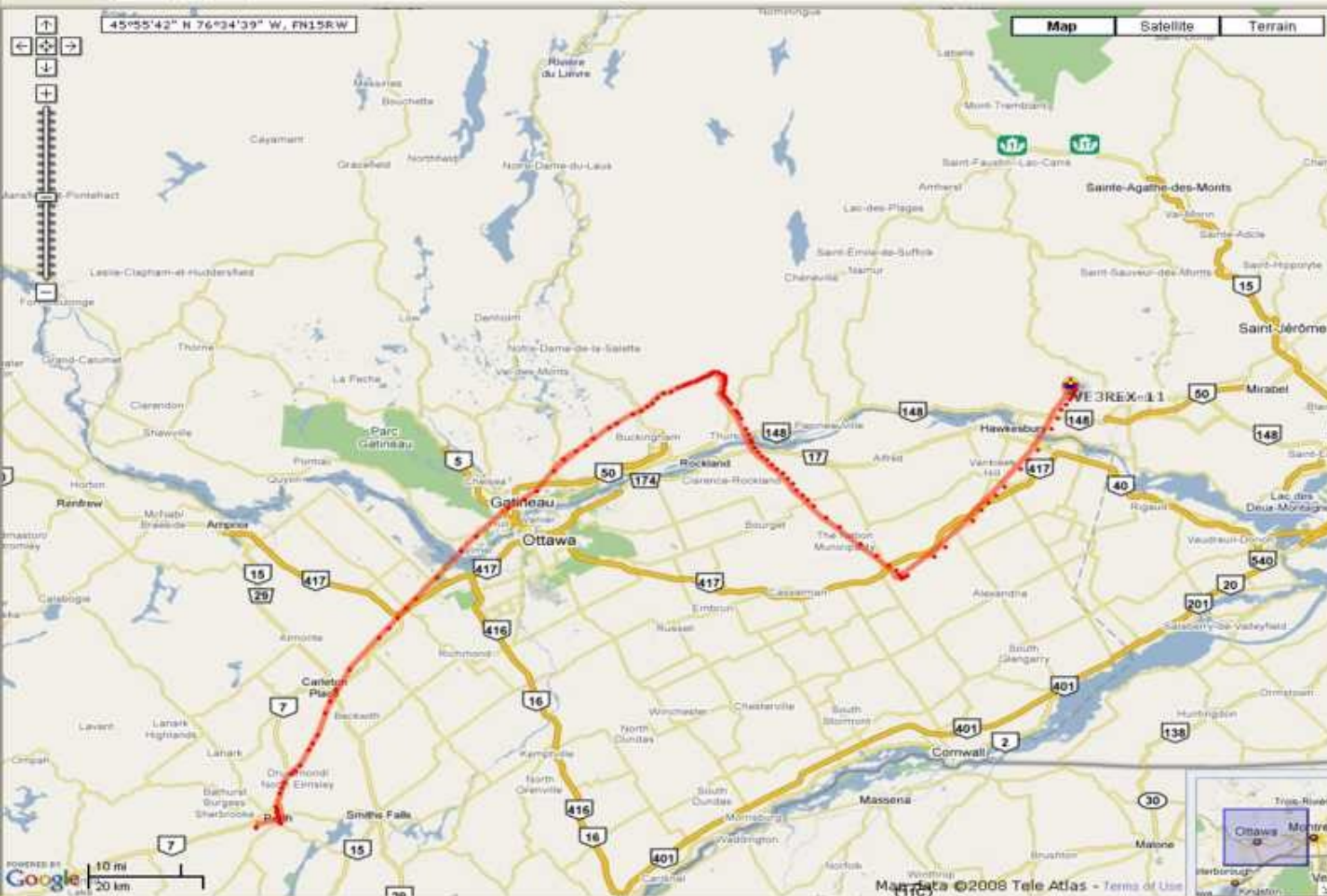
Flight Path

Location of VE3REX-11 - Google Maps APRS - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address <http://aprs.fi/?call=VE3REX-11&mt=m&z=11&timerange=86400> Go Links



aprs.fi - VE3REX-11 - Log out

Show last: 24 hours

Track callsign: [Clear / Show all] VE3REX-11 Search

Address, city or Locator: [Clear] Search

VE3REX-11:
Updated: 2008-11-15 16:57:25z
Position: 45°41'17" N 74°28'56" W

Select a day (6 months history):
2008: 738 points

Other SSIDs: VE3REX-9
W: 0.7°C 70% 1007 mbar 1.1 m/s S

Other views:

- Station info
- Raw packets
- Status packets - Beacon packets
- Messages - Bulletin board
- Prefix browsing
- Google Earth KML
- Preferences

Information:

Blog - APRS stations currently moving - Database statistics - Linking to aprs.fi - AIS sites - Change log - Planned changes - Credits and thanks

idle

Make A Donation

Subscribe - 5 EUR/year

Subscribe - 10 EUR/year

Subscribe - 20 EUR/year

Done Start 4 Wind... A Journe... Congrats ... Location...

Internet Norton 4:09 PM

Tracking Last Few Meters



Log file	Replay date/time	Replay speed	Play-back Controls
20090509 ▾	2009-May-09 12:06:23	<input type="radio"/> x1 <input type="radio"/> x5 <input checked="" type="radio"/> x25 <input type="radio"/> Fast!	

Vertical toolbar with icons: MRP, left arrow, right arrow, double arrows, square, printer, document, red flag, and a red pin.

Map area showing several icons and labels:

- VE30IJ-7 (with a person icon)
- VE3LCA-11 (with a lightbulb icon)
- VE3JGL-14 (with a truck icon)
- VE3BSB-7 (with a person icon)

Tele Atlas, Rel. 01/2005

FN25NA

12:06:22R VE3LCA-11>APOT21,WIDE1-1,WIDE2-1 <UI Len=102>
 !4502.19N/07450.64W/D081/000/A=00026407.4V 14C St.John's School Grade 6 Perth ON greatballoonchase.ca

45.02.33N
 74.50.80W

Recovery Maine



Recovery Team St. Jerome



Recovery Team Cornwall



Van Gough Starry Nights



7 November 2009

- VE3REX-11 achieved an altitude of 127,933 feet and landed near Tupper Lake New York the flight package remains in a tree
- VE3LCA-11 was a smaller balloon and contained the camera
- VE3LCA -11 achieved an altitude of 110,311 feet, landing in a tree in Vermont
- K1XV mounted a recovery team and will meet in Tupper Lake tomorrow to handoff the flight package

LASA 6 VE3LCA-11

Google Earth
File Edit View Tools Add Help

Search
Fly To Find Businesses Directions
Fly to e.g., San Francisco

Places Add Content
My Places
Sightseeing Tour
Make sure 3D Buildings layer is checked
Temporary Places
REXandLCA-Nov7-2009.kmz

Layers
Primary Database
Geographic Web
Roads
3D Buildings
Street View
Borders and Labels
Traffic
Weather
Gallery
Ocean
Global Awareness
Places of Interest
More
Terrain

Nov 7, 2009 9:54 am

Kingston Wolfe Island

© 2009 Google
© 2009 Tele Atlas
© 2009 Europa Technologies
Image © 2009 TerraMetrics

44°50'08.44" N 74°55'47.65" W elev 129 m

Google
© 2009

Eye alt 58.53 km

start Keyboard Controls - ... Balloon Google Earth 2:21 PM

LASA 7 VE3LCA-11

The screenshot displays the Google Earth application window. At the top, the title bar reads "Google Earth" and the menu bar includes "File", "Edit", "View", "Tools", "Add", and "Help". The search bar is active with "Fly To" and "Find Businesses" tabs. The "Places" panel on the left shows a "My Places" folder containing "Sightseeing Tour" and "Temporary Places" with a file named "VE3REX and VE3LCA Nov 7, 2009". The "Layers" panel is expanded to show "Borders and Labels". The main 3D view shows a satellite-style map of the New York/Vermont border area, with a yellow path and a series of orange vertical bars representing a boundary. A timestamp "Nov 7, 2009 4:24 pm" is visible in the sky. The Windows taskbar at the bottom shows the Start button and several open applications: "Keyboard Controls - ...", "Balloon", "Google Earth", and "Microsoft PowerPoint ...". The system tray on the right shows the time as "2:27 PM".

LASA 6 and 7

The screenshot displays the Google Earth interface with the following components:

- Search Panel:** Includes a search bar with the text "Fly To" and "Find anything or get directions. Click to expand/collapse." Below it, a dropdown menu shows "Fly to e.g., Tokyo, Japan" and a search icon.
- Places Panel:** Lists "My Places" with a sub-entry "Sightseeing Tour" (note: "Make sure 3D Buildings layer is checked") and "Temporary Places" with a file named "REXandLCA-Nov7-2009.kmz".
- Layers Panel:** A list of map layers including "Primary Database", "Geographic Web", "Roads", "3D Buildings", "Street View", "Borders and Labels", "Traffic", "Weather", "Gallery", "Ocean", "Global Awareness", "Places of Interest", "More", and "Terrain" (checked).
- Main View:** A 3D terrain map showing a mountainous region. A yellow line traces a path across the terrain. Two vertical, semi-transparent colored bars are overlaid on the terrain: a purple bar on the left and an orange bar on the right, both appearing to be composed of vertical rectangular segments. The map is labeled "New York" and "Vermont".
- Navigation:** On the right side, there are navigation controls including a compass, a zoom-in (+) and zoom-out (-) button, and a vertical slider for altitude.
- Status Bar:** At the bottom, it shows "Imagery Date: Jun 5, 2006", coordinates "47°20'37.16" N 75°33'00.57" W", and "elev 351 m".
- Copyright:** Text at the bottom center reads "©2009 Europa Technologies Image ©2009 TerraMetrics ©2009 Tele Atlas ©2009 Google". The "Google" logo is in the bottom right corner.
- System Tray:** The bottom of the screen shows the Windows taskbar with the "start" button, icons for "HAM - Outlook Express" and "Google Earth", and the system clock showing "7:08 PM".

VE3LCA-11 Vermont



Tree Climber Recovery



W1AKV and Tree Climber



Formal USA Canada Handover



K1XV Ray Makul Vermont Recovery Team Leader



Certificates Of Appreciation

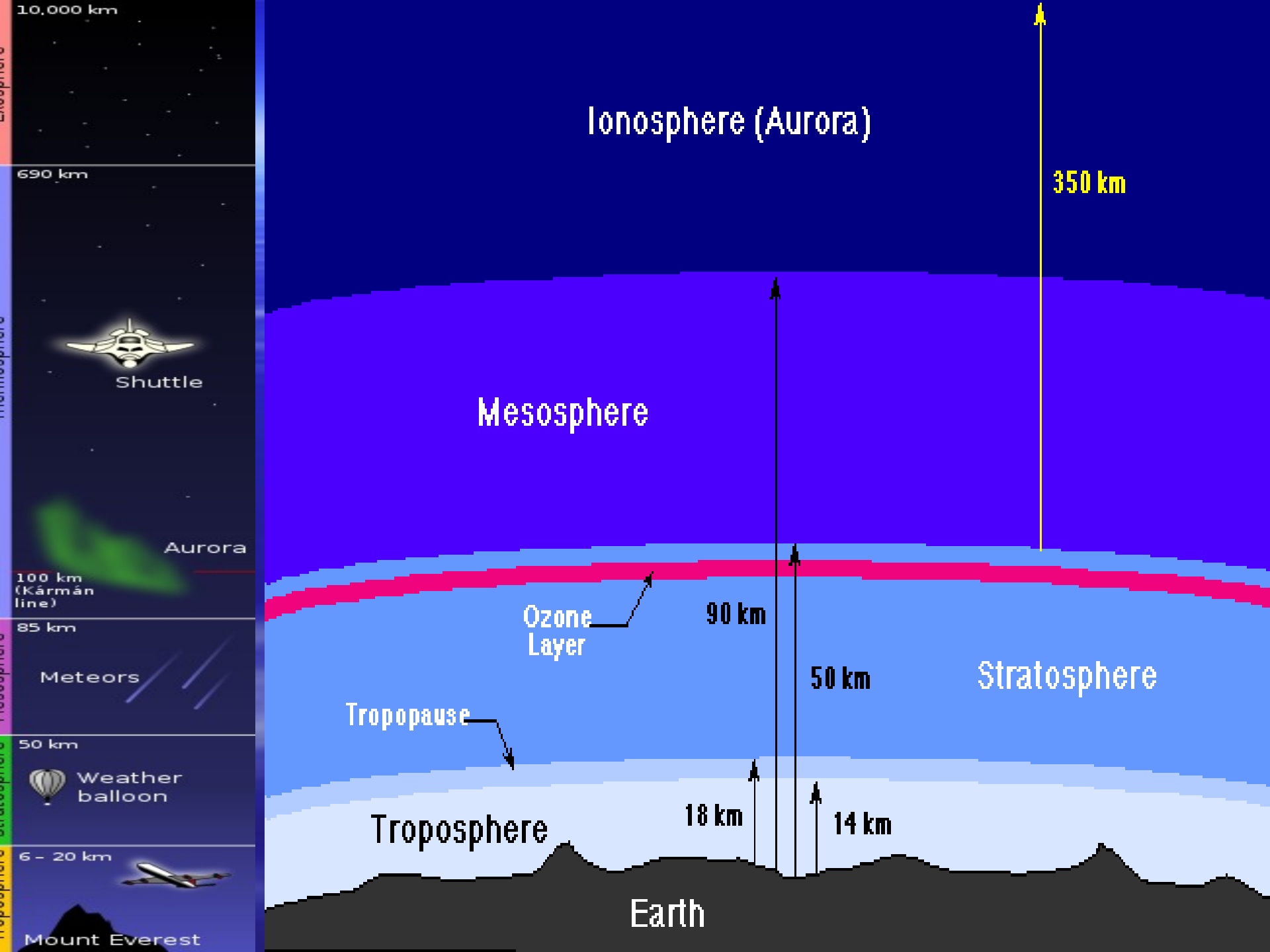


Perth at Liftoff

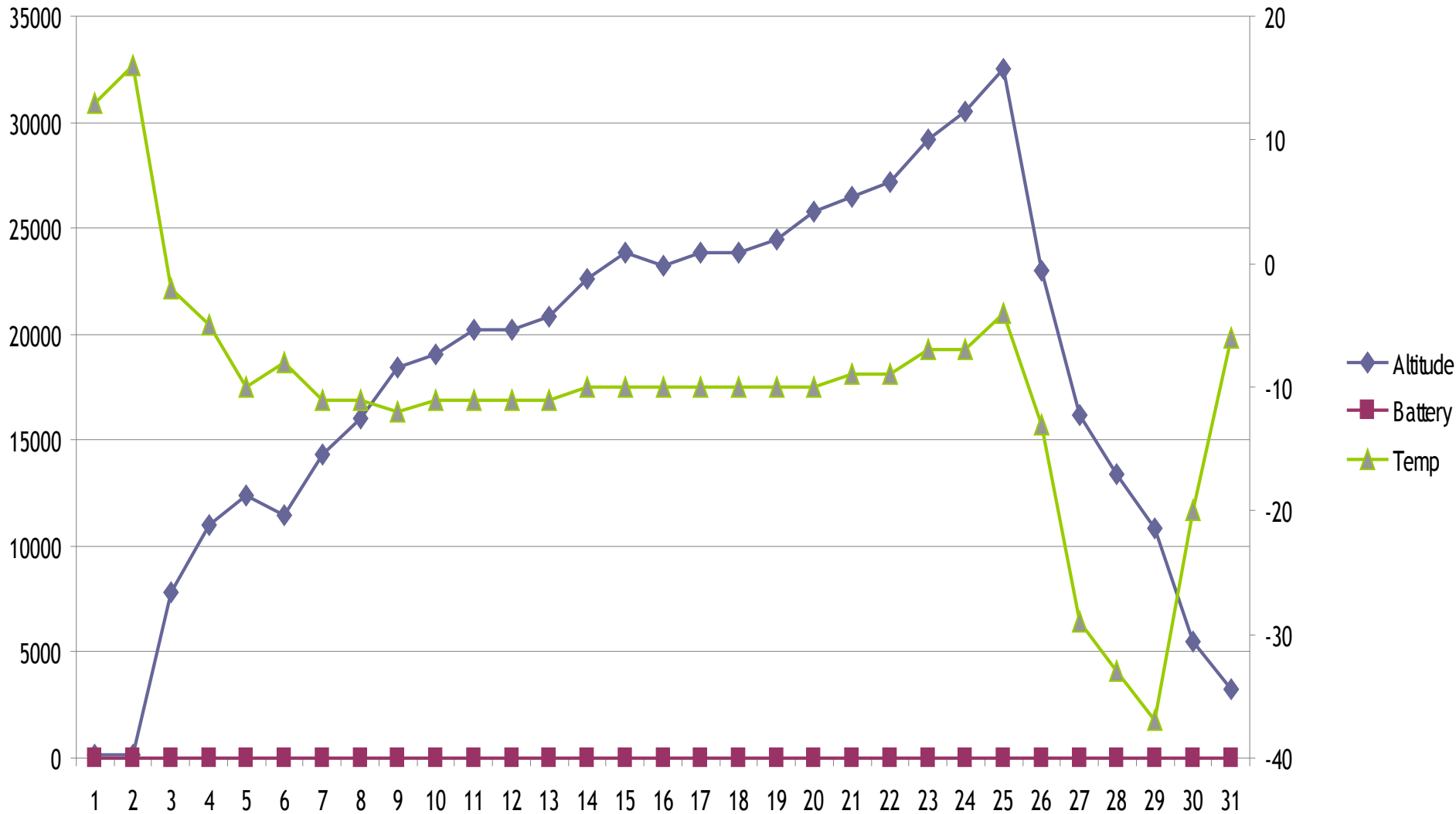


70,000 Feet



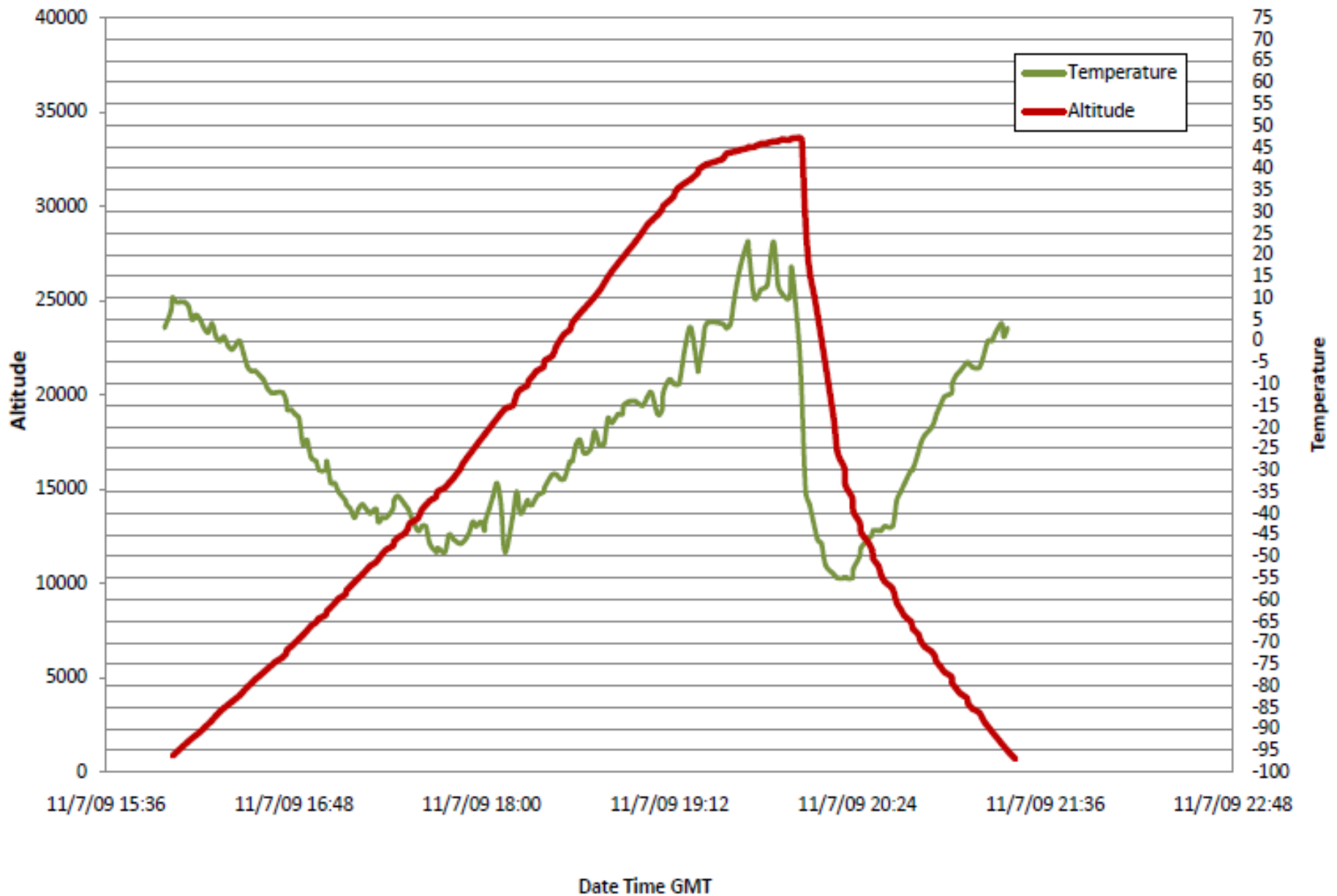


Telemetry From LASA 4



VE3LCA-11 November 7 2009

Altitude vs Temperature



Official Records

RANK	ALTITUDE	DATE	MISSION/PROGRAM
1	128,379	10-Jul-09	NS-22x (MdSGC/UMD)
Unofficial	127,933	7 November 09	LASA-6
2	125,449	20-May-08	PBH-7 (LM/Comell U)
3	122,899	09-May-09	LASA-3
4	122,463	01-Aug-09	SOB-IX (AR1)
5	122,283	09-May-09	LASA-4
6	121,793	55Sep09	L-100-D
7	120,522	20-Mar-99	Norm Kjome (KB7ZJT)
8	118,946	27-Dec-04	TVNSP-TV04G
9	118,647	26-Dec-04	HiBall-3 (WB8ELK)
10	118,352	14-Jul-05	ISU/HABET L-93
11	118,011	22-Apr-06	WV-4
	117,597	11-Aug-07	SABLE-III

Tracking Equipment

- APRS transmissions and reception on 144.390
- Byonics microtracker 1 watt in flight 6 watts on landing
- Argent Data Systems Open Tracker 250 Milliwatts
- Uiview software at mission control and in chase cars
- Aprs.fi for internet available to non amateurs

Flight Call Signs

- Call signs registered to the Lanark North Leeds ARES Group
- VE3REX-11 for 4 Flights
- Written up by VA3ROM as the Flight Of The King
- VE3LCA-11 for the St. Johns Elementary School Flight and The flight to Vermont

Involving The Schools



How Could We Get A Camera
To The Edge Of Space

Take Some Pictures
Bring Them Back
And
Set A World Record

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Thank You For Your Interest

