



Raised the Bar,
Now Jump Over It

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Once Upon a Time

The image shows two overlapping windows. The foreground window is the ArcView GIS Version 3.0 interface, titled "ArcView GIS Version 3.0". It has a menu bar with "File", "Project", "Window", and "Help". Below the menu bar is a button bar with "New", "Open", and "Print". A tool bar is located below the button bar, with the "Views" button selected. To the left of the main workspace is a project window with a list of items: "Views", "Tables", "Charts", "Layouts", and "Scripts". The main workspace is a large empty area. Labels with arrows point to the "Menu bar", "Button bar", "Tool bar", and "Project window". A dashed arrow points from the "New" button to the "Views" item in the project window, with the text "with Views selected, click New to open a new View".

The background window is a command prompt titled "Arc". It shows the following text:

```
Arc: workspace
Current location: d:\workspace
Arc: lc
Workspace D:\WORKSPACE does not exist
Arc: &workspace
Usage: &WORKSPACE <workspace>
```

Below the command prompt, there is a block of text:

```
) 1982-2000 Environmental Systems Research Instit
eserved
on 8.0.2 (Tue Feb 22 08:01:14 PST 2000)

CTORY <COVER | TIN | GRID | INFO | STACK | IMAGE>
CTORY FEATURECLASS <template>
CTORY DBMSTABLE <template> <database>
```



And then,
they came

The screenshot shows the Google Maps website interface. At the top left is the Google Maps logo with "BETA" next to it. To the right are links for "Maps", "Local Search", and "Directions". Below these is a search bar with the text "the map area below" and a "Search" button. To the right of the search bar are links for "Help" and "Send Feedback". Below the search bar is a yellow banner with the word "Maps".

The main content area is divided into two columns. The left column contains a map of the United States with state abbreviations labeled. The map includes labels for "Hudson Bay", "Atlantic Ocean", "Gulf of Mexico", "Pacific Ocean", and "PR". A vertical zoom control is on the left side of the map. At the bottom of the map area are the copyright notices "©2005 Google" and "Map data ©2005 NAVTEQ™, TeleAtlas".

The right column contains several sections:

- A row of links: "Print", "Email", and "Link to this page".
- A section titled "Example searches" with the heading "Go to a location:". It contains two search boxes: "kansas city" and "10 market st, san francisco", each with a "Search" button.
- A section titled "Find a business:" with two search boxes: "hotels near lax" and "pizza", each with a "Search" button.
- A section titled "Get directions:" with two search boxes: "jfk to 350 5th, new york, ny" and "seattle to 98109", each with a "Search" button.
- A note at the bottom: "Drag the map with your mouse, or double-click to center. [Take a tour >](#)"



Today

114 Genesee St, Utica, NY 13502

Hilton Albany, 40 Lodge Street, Albany, NY 12207, United States/@42.8725731

Leave now

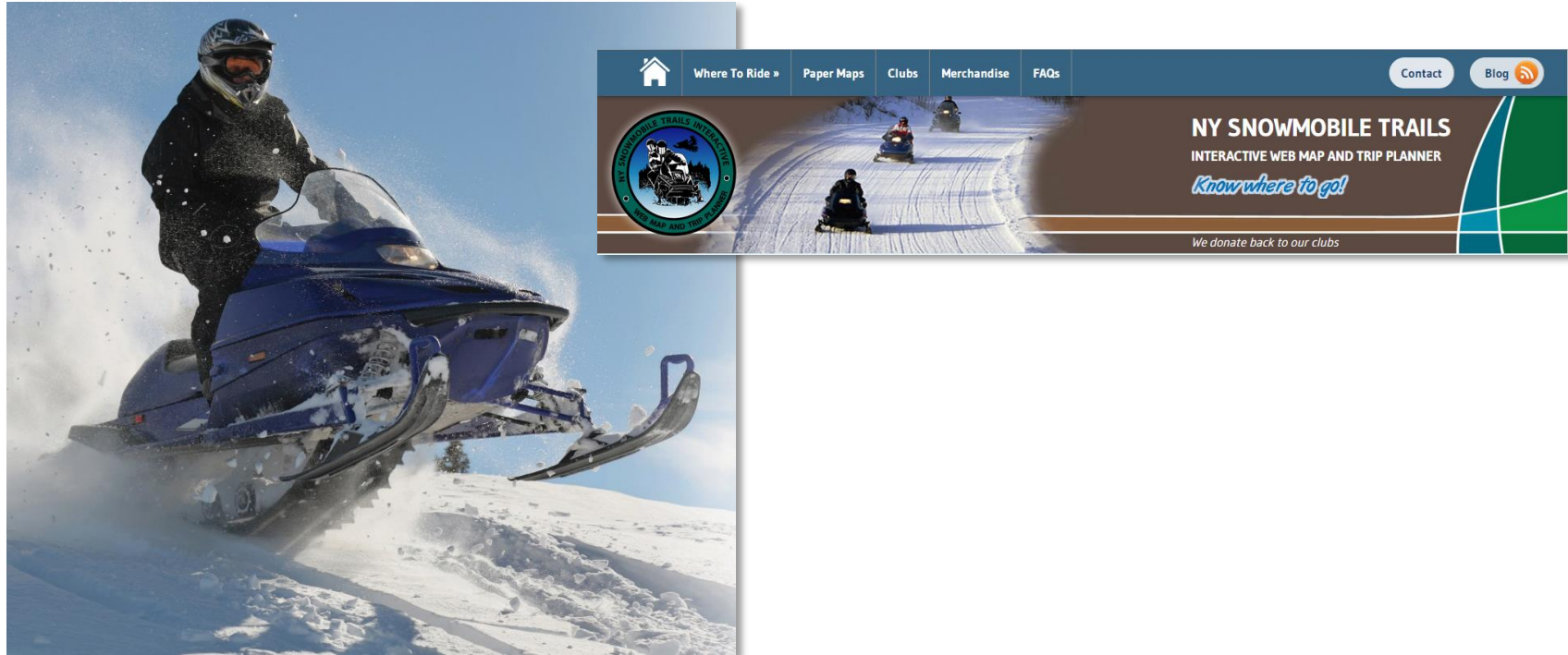
via I-90 E **1 h 31 min**
1 h 27 min without traffic
95.5 miles
This route has tolls.
[DETAILS](#)

via I-88 E **1 h 59 min**
1 h 52 min without traffic
106 miles

4:22 PM - 7:20 PM **2 h 58 min**
Maple Leaf > 114 >



Over 100,000 voices



Capitalize on variety of tools



Google for Inspiration

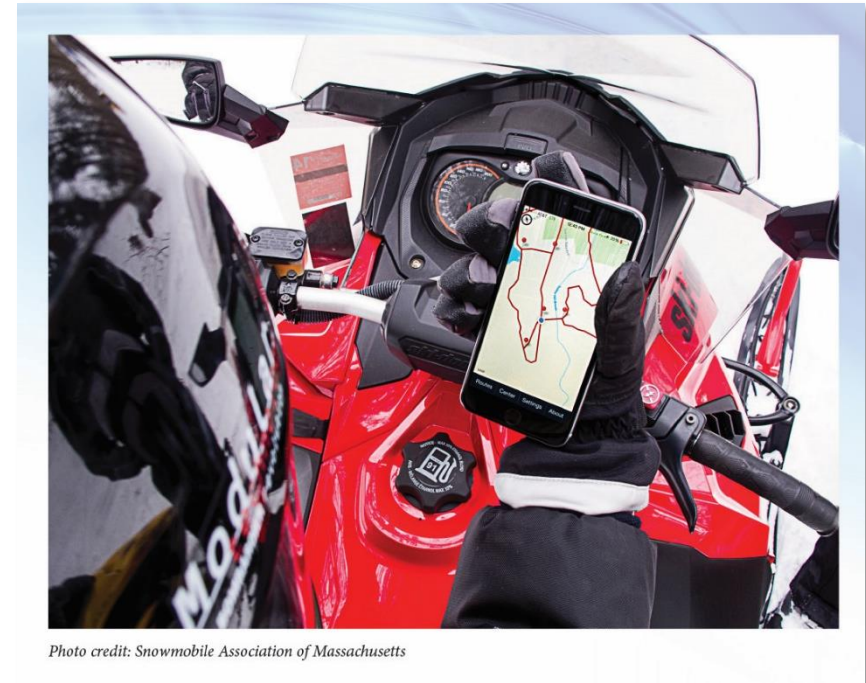
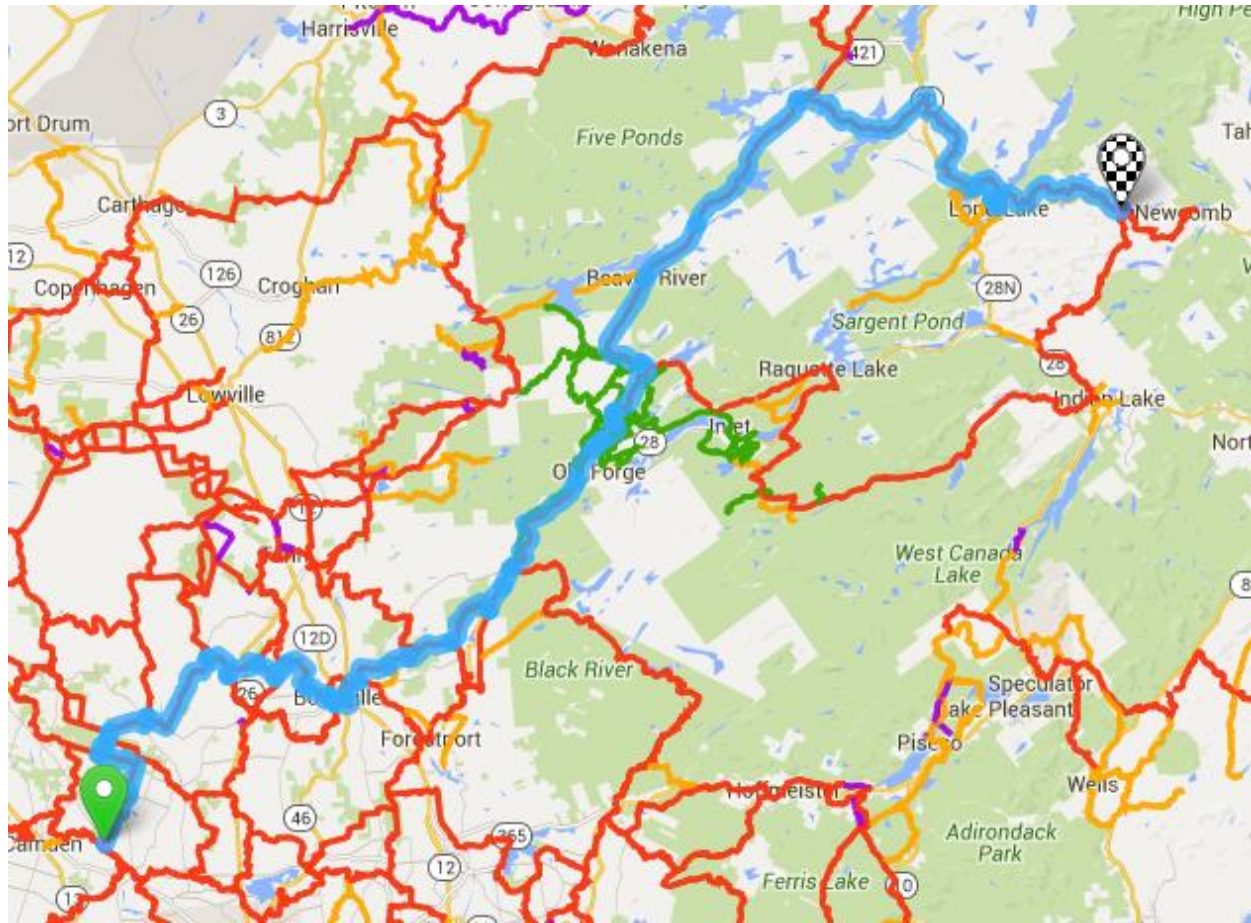


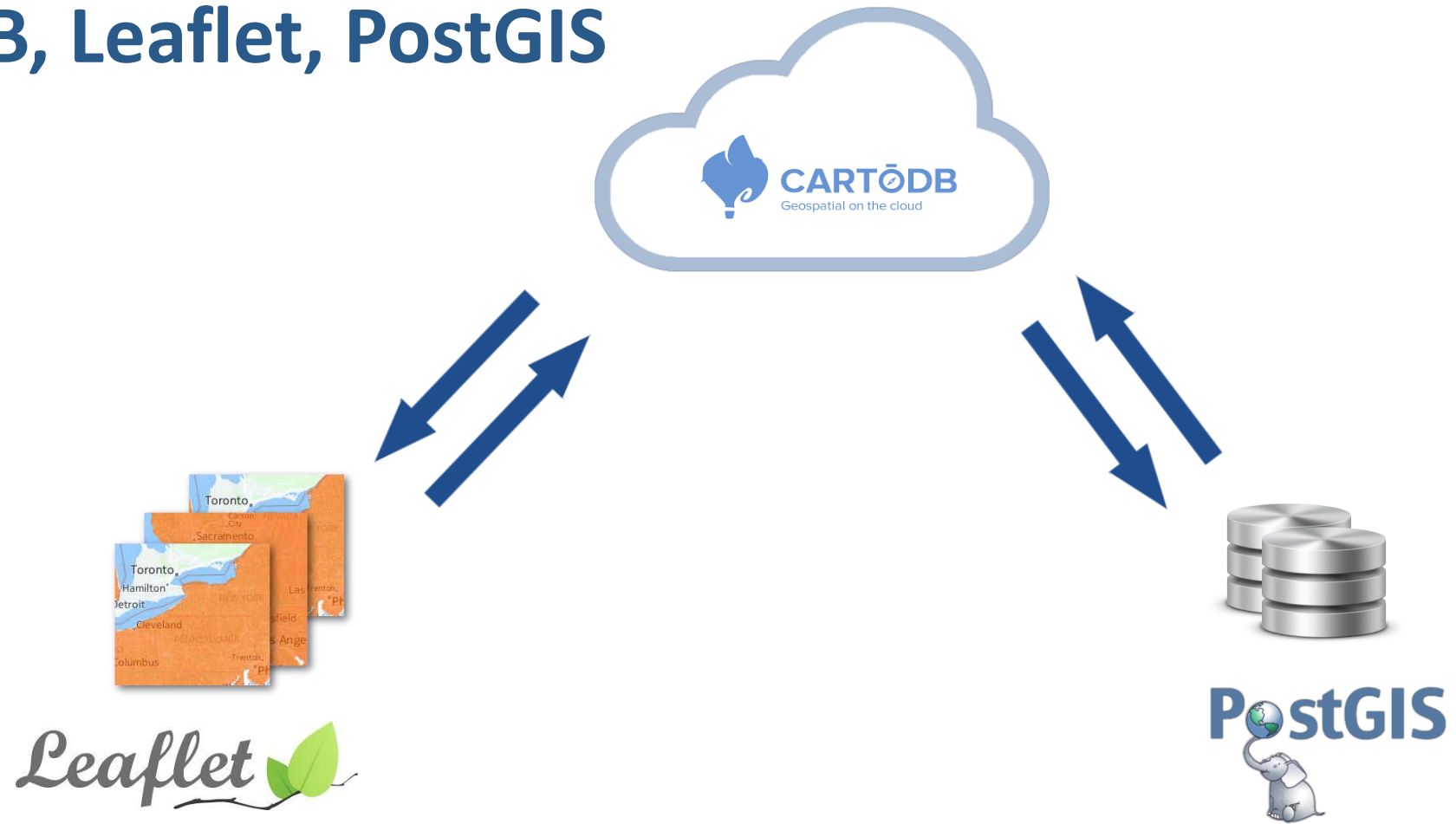
Photo credit: Snowmobile Association of Massachusetts



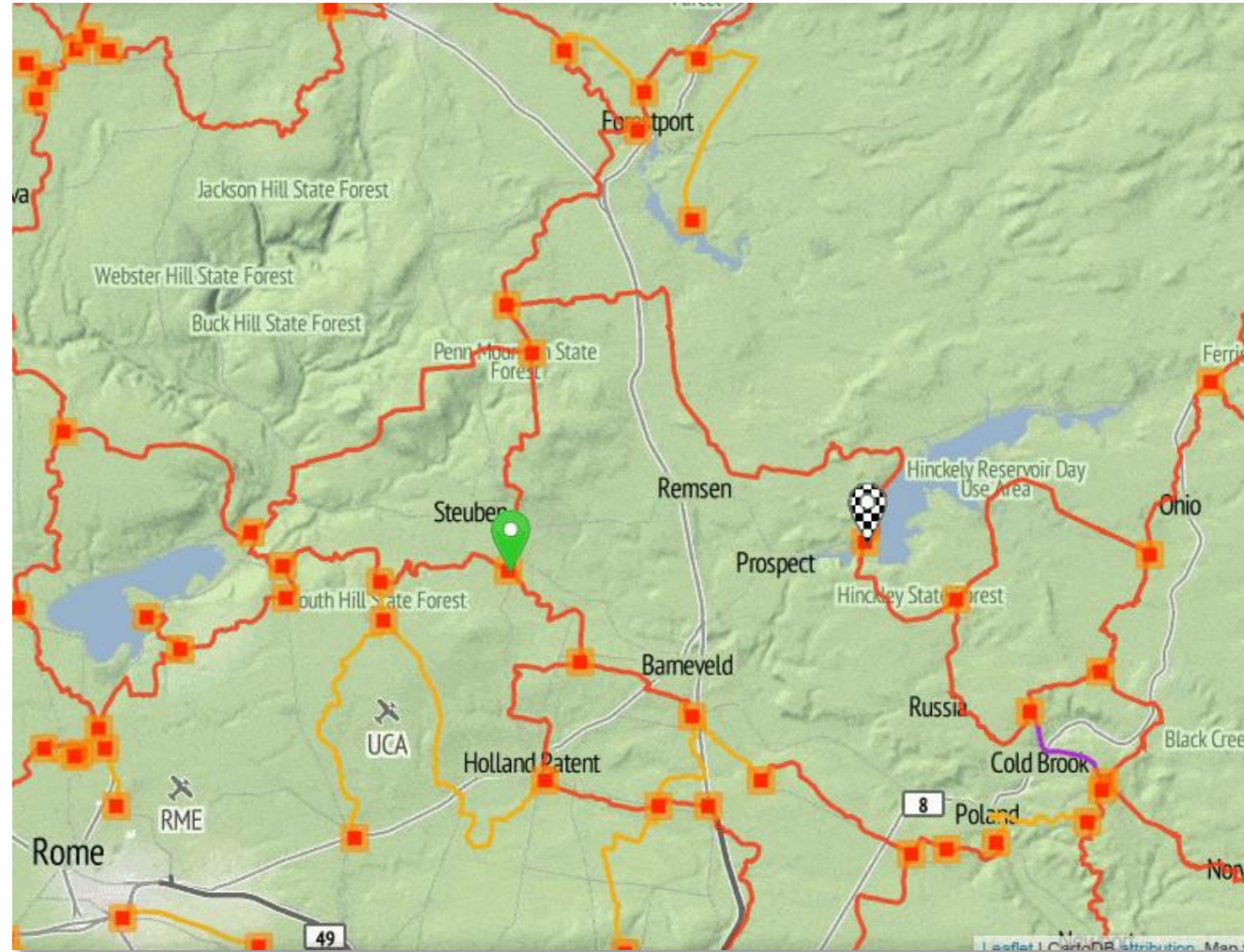
User selects points,
route is mapped



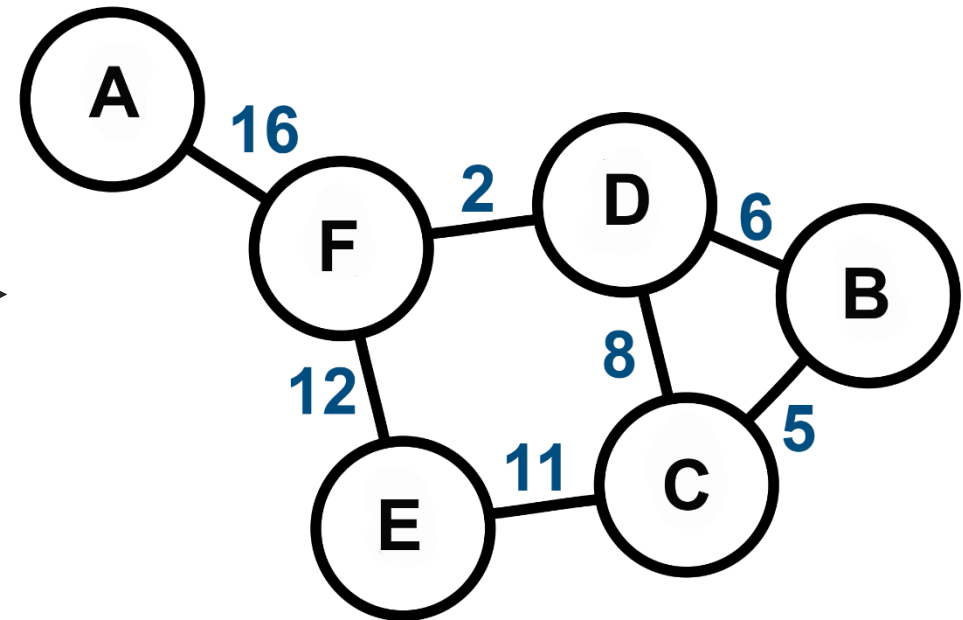
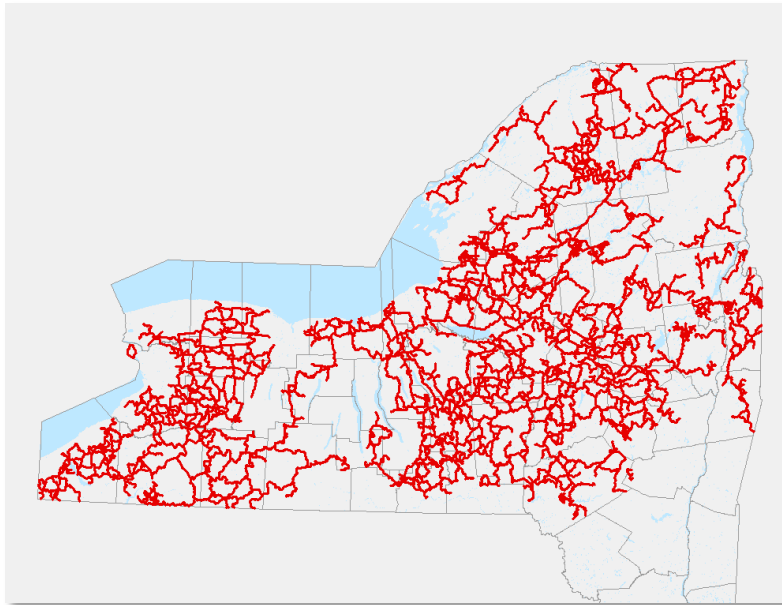
CartoDB, Leaflet, PostGIS



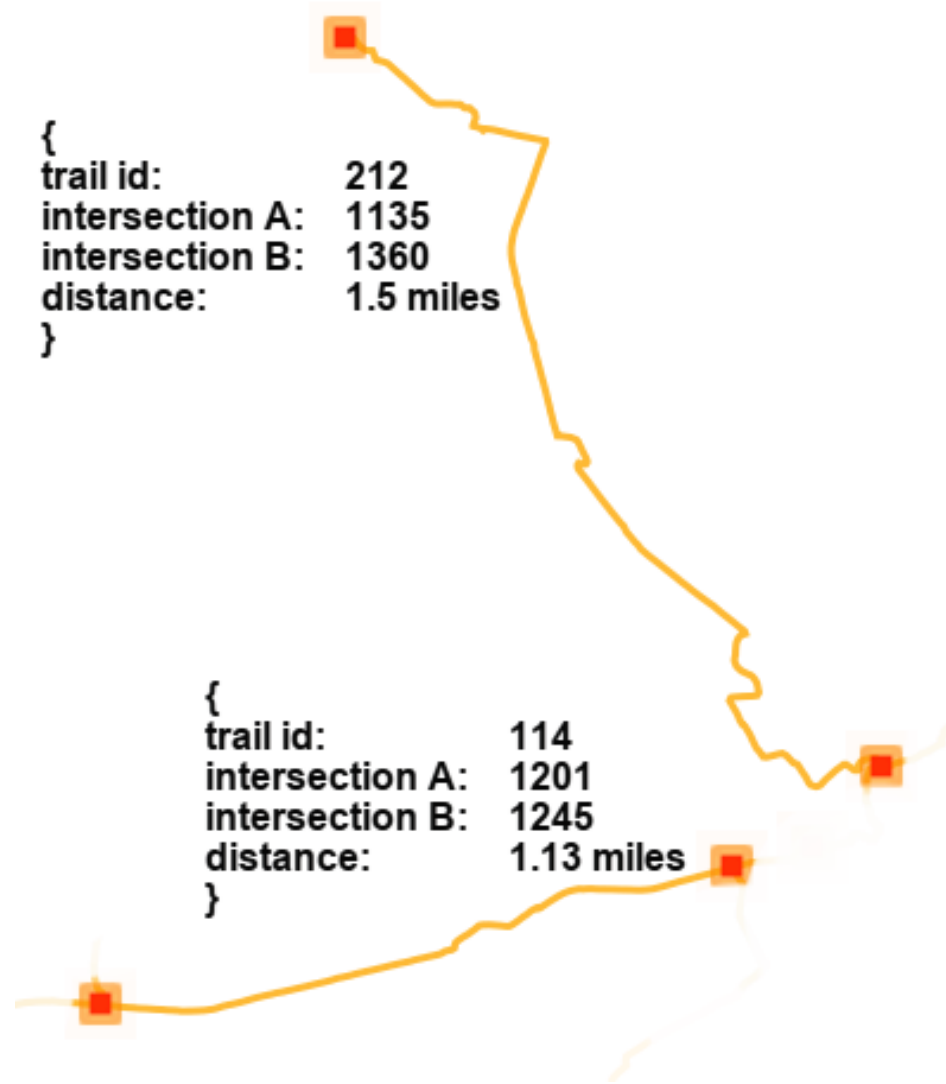
Route Planning Algorithm



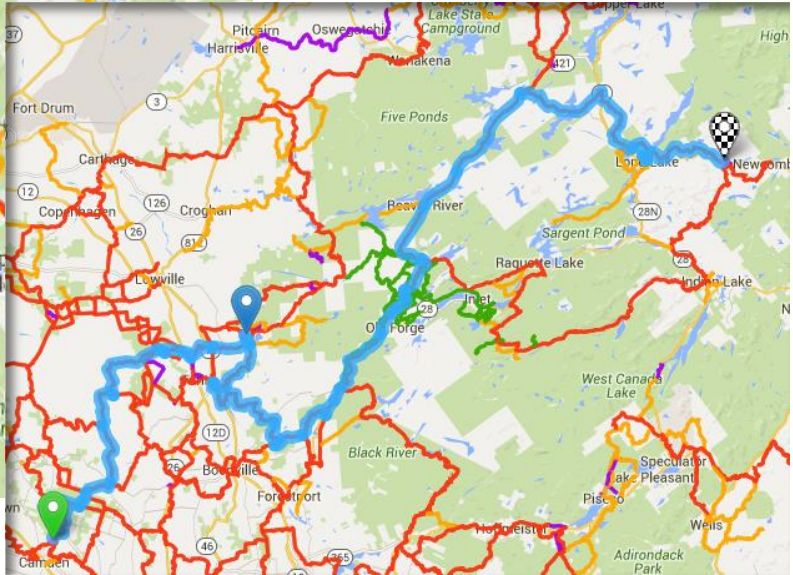
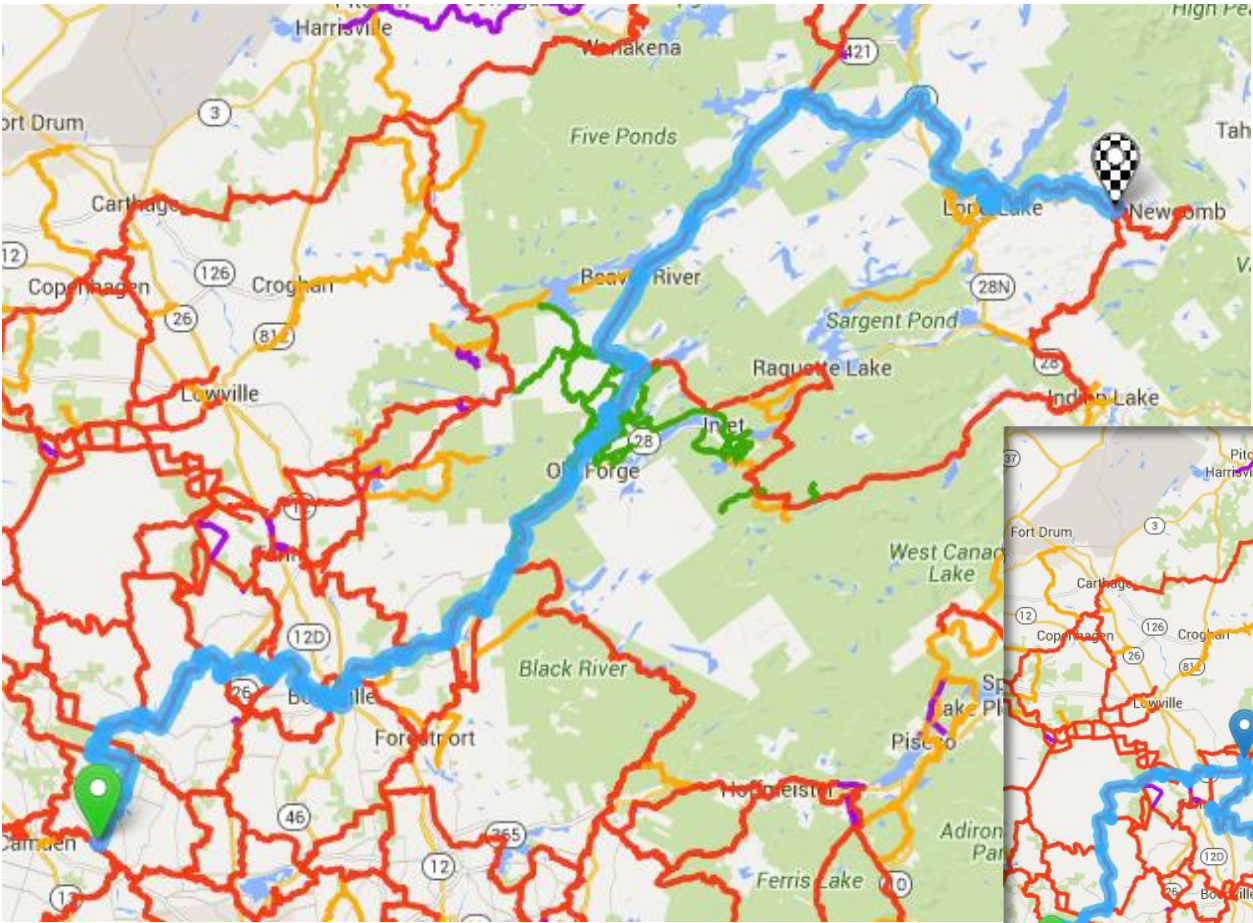
Convert Trails to Graph



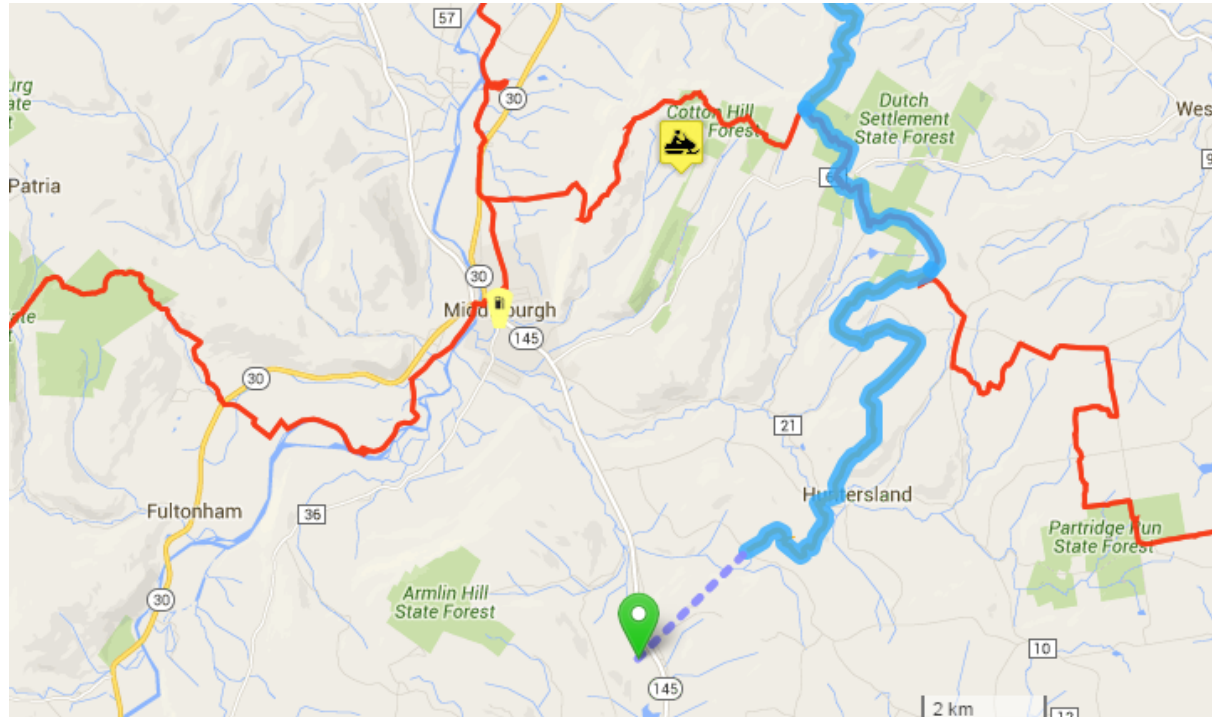
Graph representation



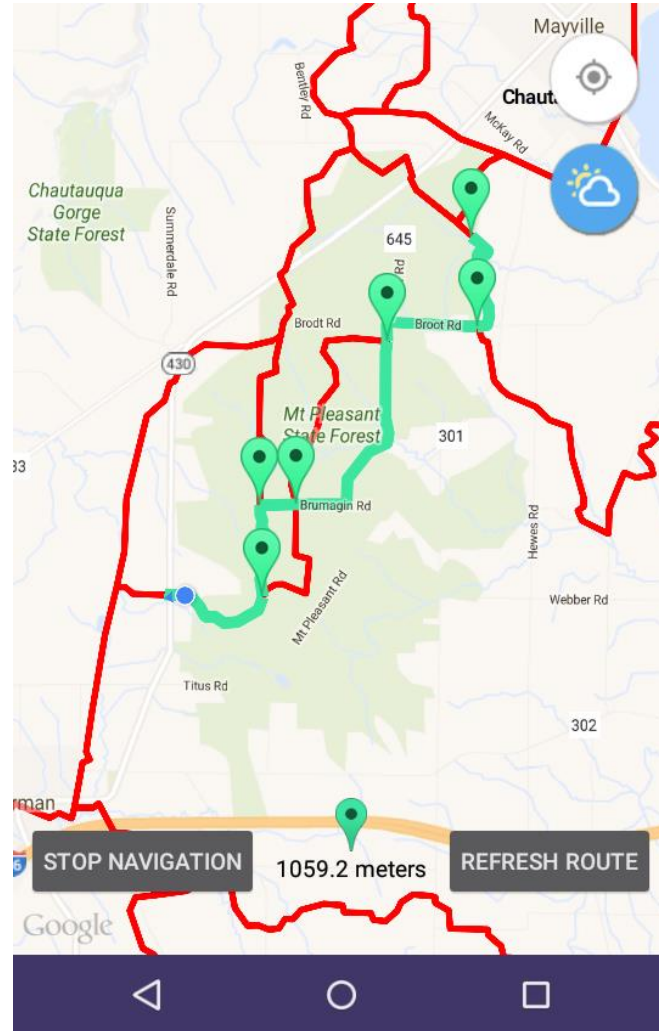
User selects points,
route is mapped



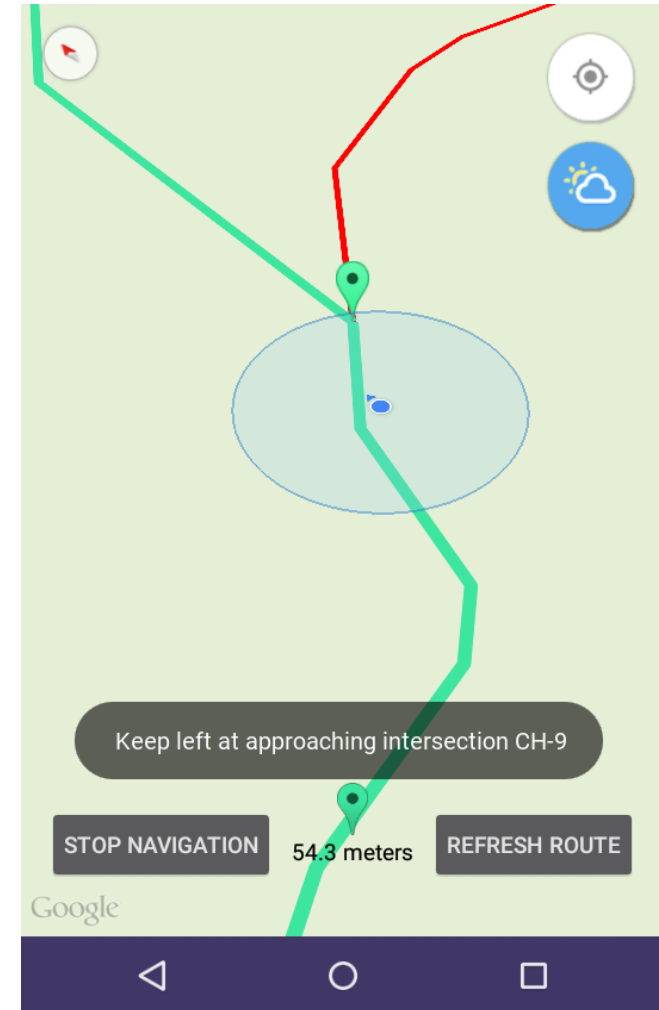
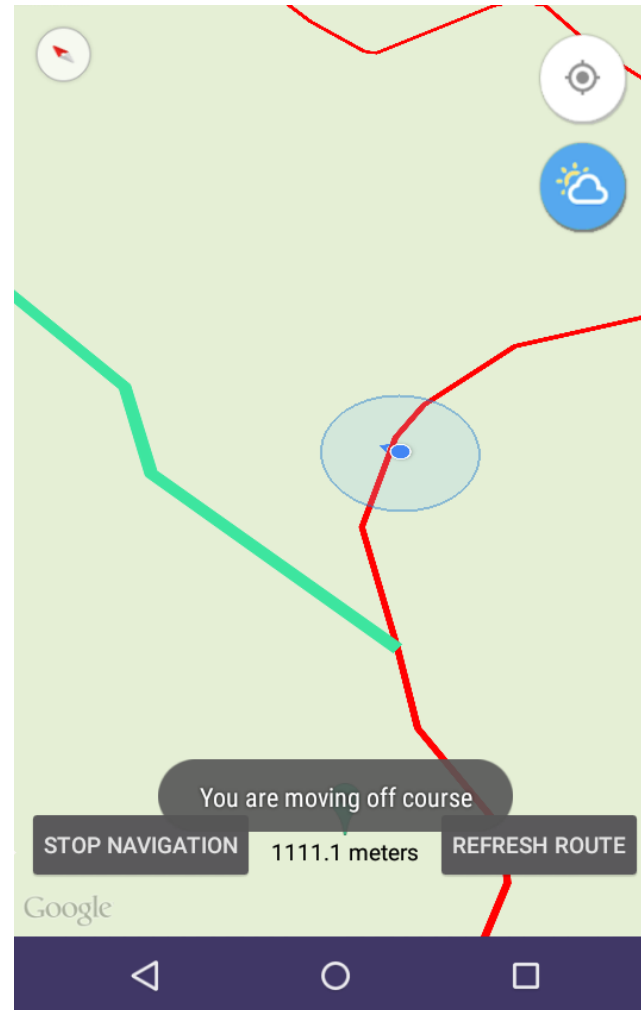
Points do not need to be on the trail



Turn-by-Turn Navigation



Turn-by-Turn Navigation Challenges



Disruption



Jump! Higher!

