Groton's Interactive Trail Map

Paul Funch and Dean Marsh
Groton Trails Committee
Massachusetts Trails Conference
November 8, 2014

Summary

- Kick-started by Boy Scout Eagle Project completed in January 2012
  - Identified appropriate mapping application
  - Populated interactive map with a few trails and linked to Trails Committee website
- Within a couple of months, over 100 miles of trails were GPS'ed and added
- Has given the public a new and profound understanding of the Groton Trails Network
- Has given the Trails Committee an invaluable tool for maintaining trails and developing new ones

Goals

- Display all of the public trails in Groton
- Make the trails "interactive" in that information could be obtained by the user with just a click of a button
- Make trails configurable in that colors or styles could be changed easily by the people maintaining the maps to make them easily identifiable by the end user
- Find a means of being able to update the trails on the map easily without having to be a GIS expert or web expert
- Do this all on a budget of almost nothing

Solution: www.mappingsupport.com
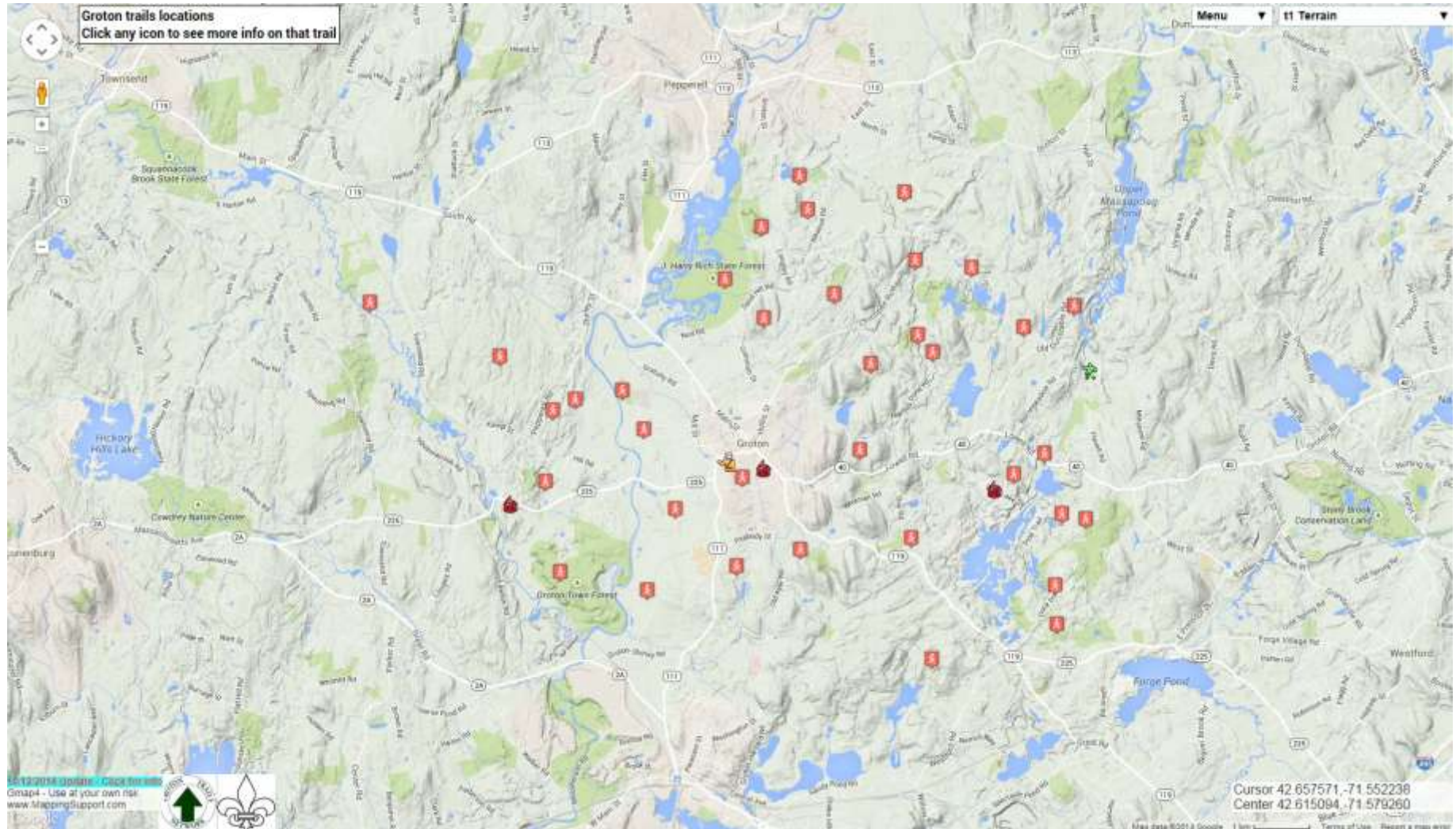
What is MappingSupport.com?

MappingSupport.com is a website started by Joseph Elfelt in Washington. He was looking for a better way to display maps online – specifically hiking trails – and he couldn't find one. So, he decided to build his own site.

MappingSupport takes a file (.gpx, .kml, .kmz, .csv, .txt) as an input parameter on a URL and renders the resulting map using Google Map's APIs. The result is a very well rendered map in an interface that nearly everybody recognizes. It has a very clean interface for the user while allowing quite a bit of customization, such as changing the base map, turning on/off UTM lines, displaying the current declination based on the location, etc.

Additional features of MappingSupport that makes it very useful:
- A "find me" locator usable on portable devices that shows on the map where the device (and the person) is currently located
- A new overlay of US radar weather
- The ability for a user to "draw" on the map so they can make their own annotations

How to make it work:

1. You need a map file. Format can be .gpx, .kml, .kml, .csv, or .tpo
   We chose to use .kml due to the flexibility that this format provides
2. "Clean up" the file
3. "Publish" the file. The file has to be in a publicly accessible location on the web
4. Create a URL to that file
5. Admire your map online along with thousands of others ☺

Oops. Noticed a mistake!! Now what?

1. Edit your local copy of the map file
2. "Publish" the file
3. Since the URL is already created, no need to create a new one
4. Hope that none of the thousands noticed the mistake

An example map from Groton – Flavell Crossing, Google Satellite Basemap
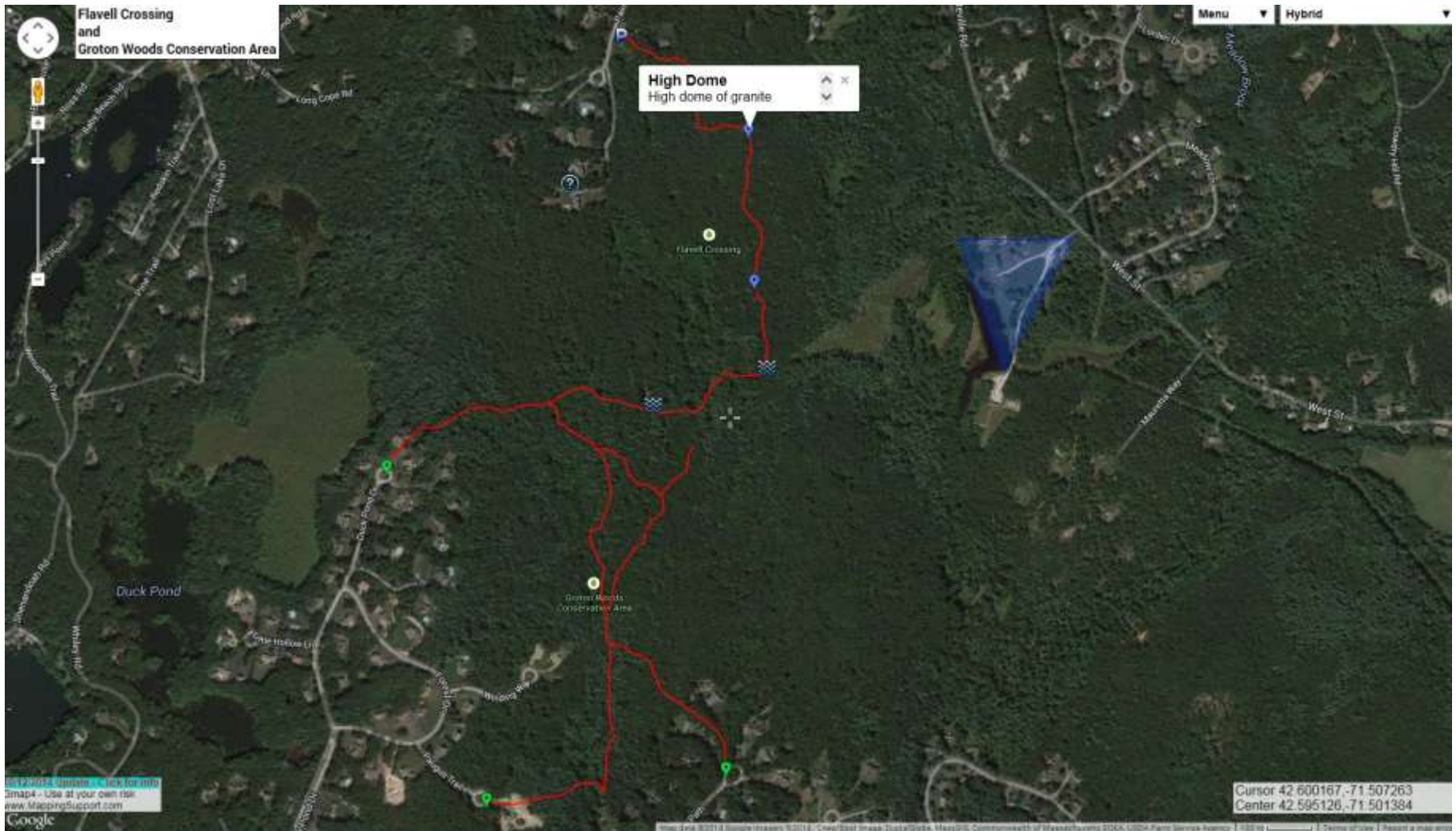
An example map from Groton – Flavell Crossing, MyTopo Basemap

What's Next?

- GPS data is being loaded into a new GIS database system, CartoDB
  - Brings technology to current state of the practice
  - Provides much richer integration of information, such as terrain type, best recreational uses, points of interest (scenic, historical, geologic), distances, and parking
- Attractive topo map layer integrated from Mapbox
- Map supports location/GPS services on smartphones
  - QR codes placed on trailhead posts provide easy navigation to website
  - Will eventually make trail marking less important
- Open Trail Data will be supported ("Strava plus")