

A KHC Zoommeet Session

GPS Tracks



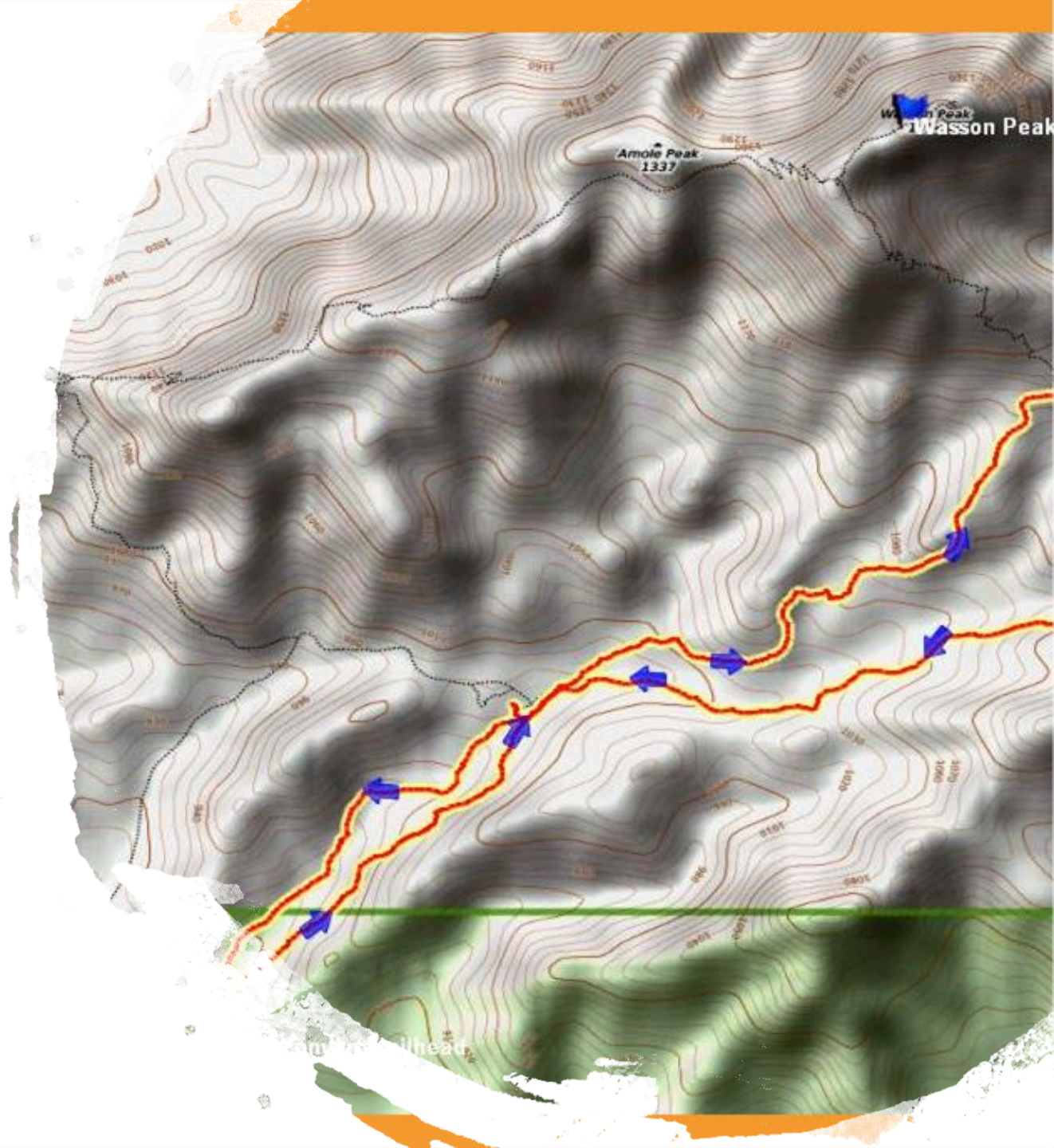
What is a Track?

- Data collected from motion with the GPS function on.
- Just basics – geographic coordinates, altitude, distance, and time, current location.
- Saved in a format (usually .gpx or .kml) designed to be read by apps.
- Handheld GPS, smartphone, or watch have the apps.
- Apps enable the track to be displayed as an overlay on a topographic map.
- Not all maps have free topo maps and each app may use a different map set.



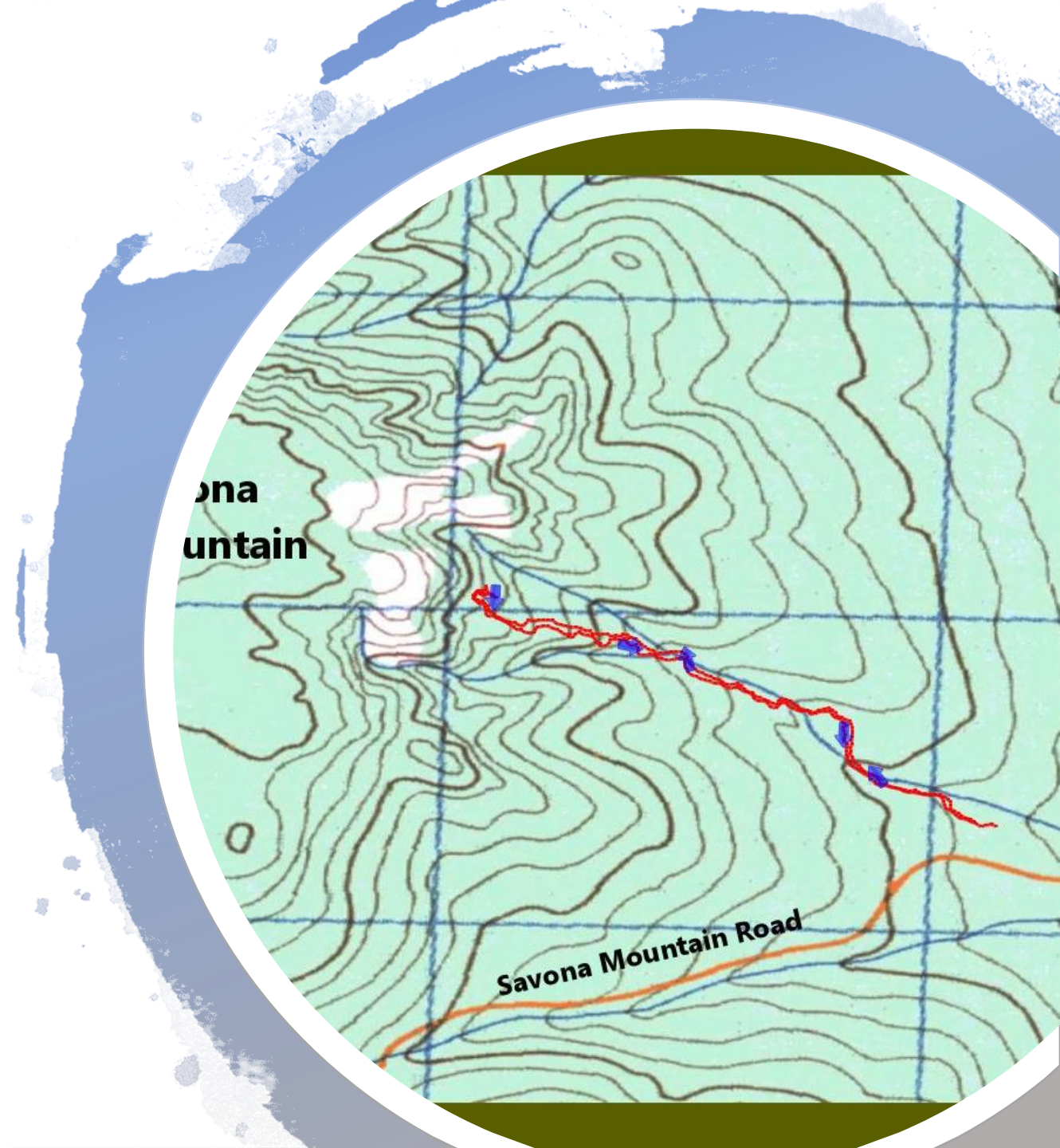
Handheld GPS

- Garmin devices lead the industry.
- Usually some topo map service is provided except for the lower-end devices.
- Some topo maps require additional fees and are available on a data card.
- Garmin has its own data transfer process (Garmin Connect).
- Garmin has its own online map sources to display tracks, share tracks, export, etc.
- Further software provides more services (ie BaseCamp).
- Each device may use its own terminology and set of steps to record a track, save a track, export a track, or recall a track.
- Tracback is a way to follow a track back to the start.
- You can save tracks on your device and open them to see where you are in relationship to the saved track.
- Without a good map set, it can be frustrating.
- Handheld GPS has more functions and better antennae.



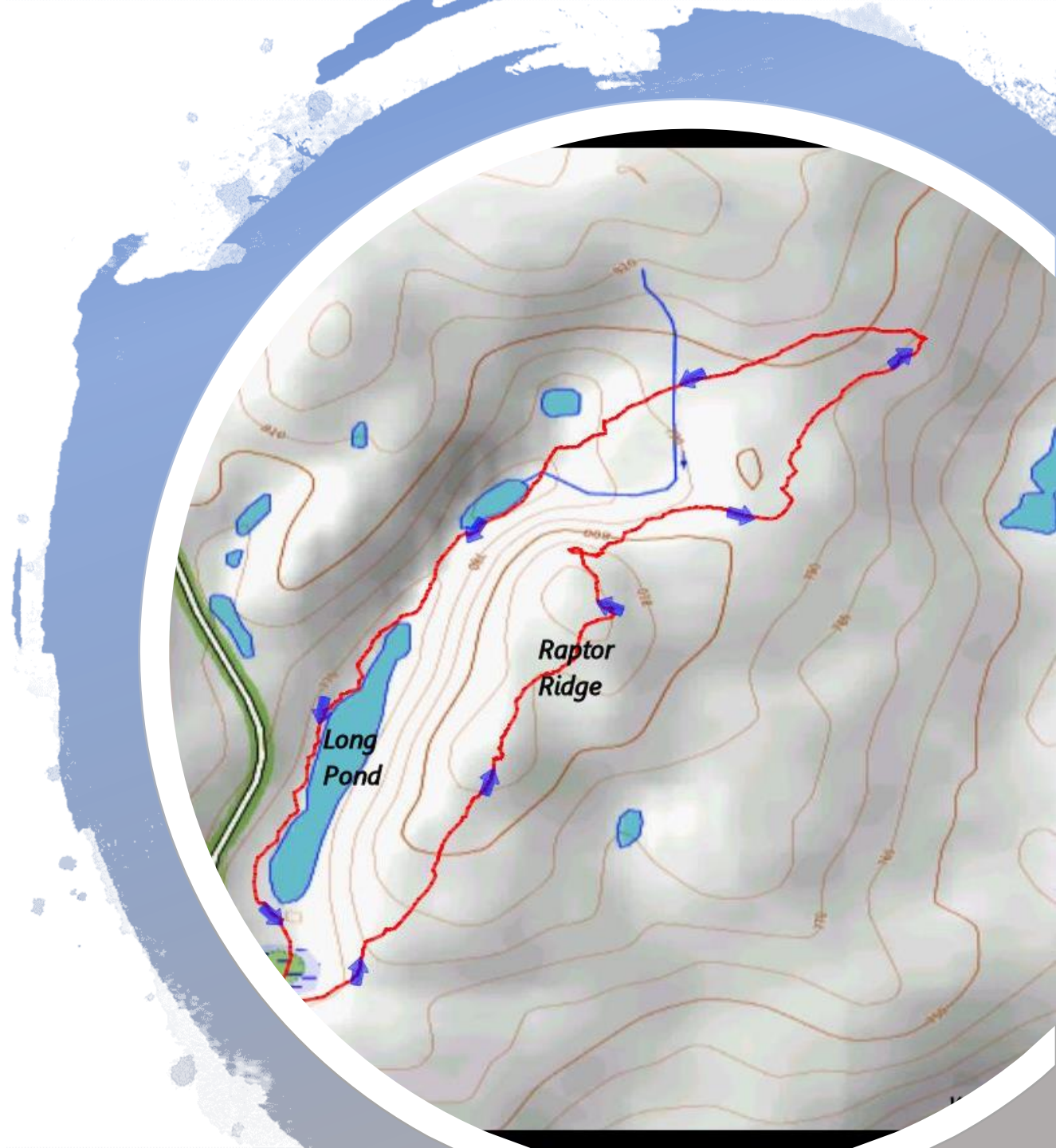
Smartphones have a number of Apps which can be downloaded and used.

- Iphone – All Trails, Map my Hike, Gaia, and more
- Android – All Trails, Gaia GPS, GeoTracker, Trailforks, and more.
- May require to pay a fee for all features.
- Functions – record a track, display a track on a map, show your location, save a track, export a track,
- share a track, import a track, snip a track, etc.
- Some other free apps do not record a track but can show a location and nearby trails and map features
- Maps.me or Google Maps works well for this function, but is also good for roads.



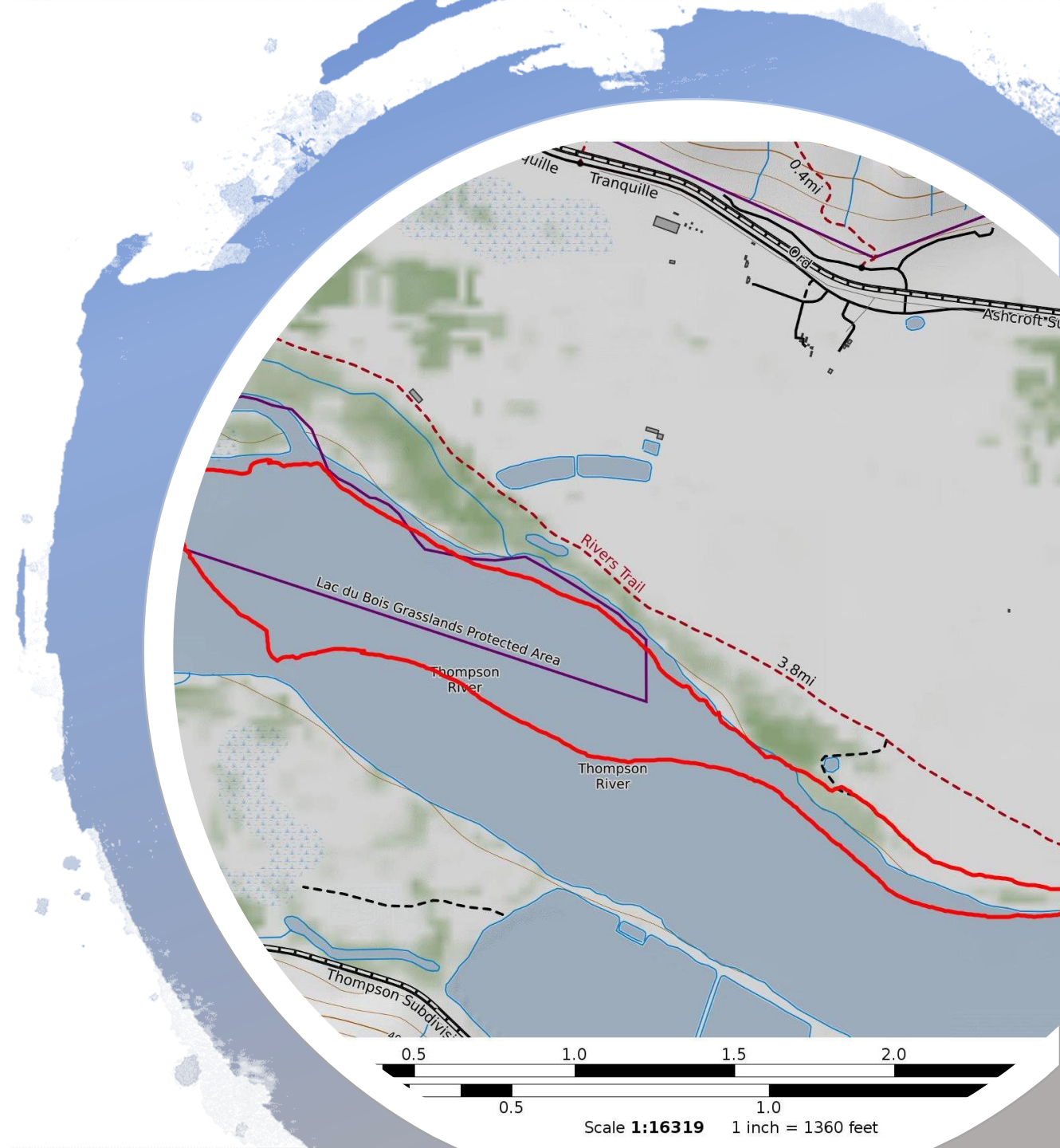
Recording a Track

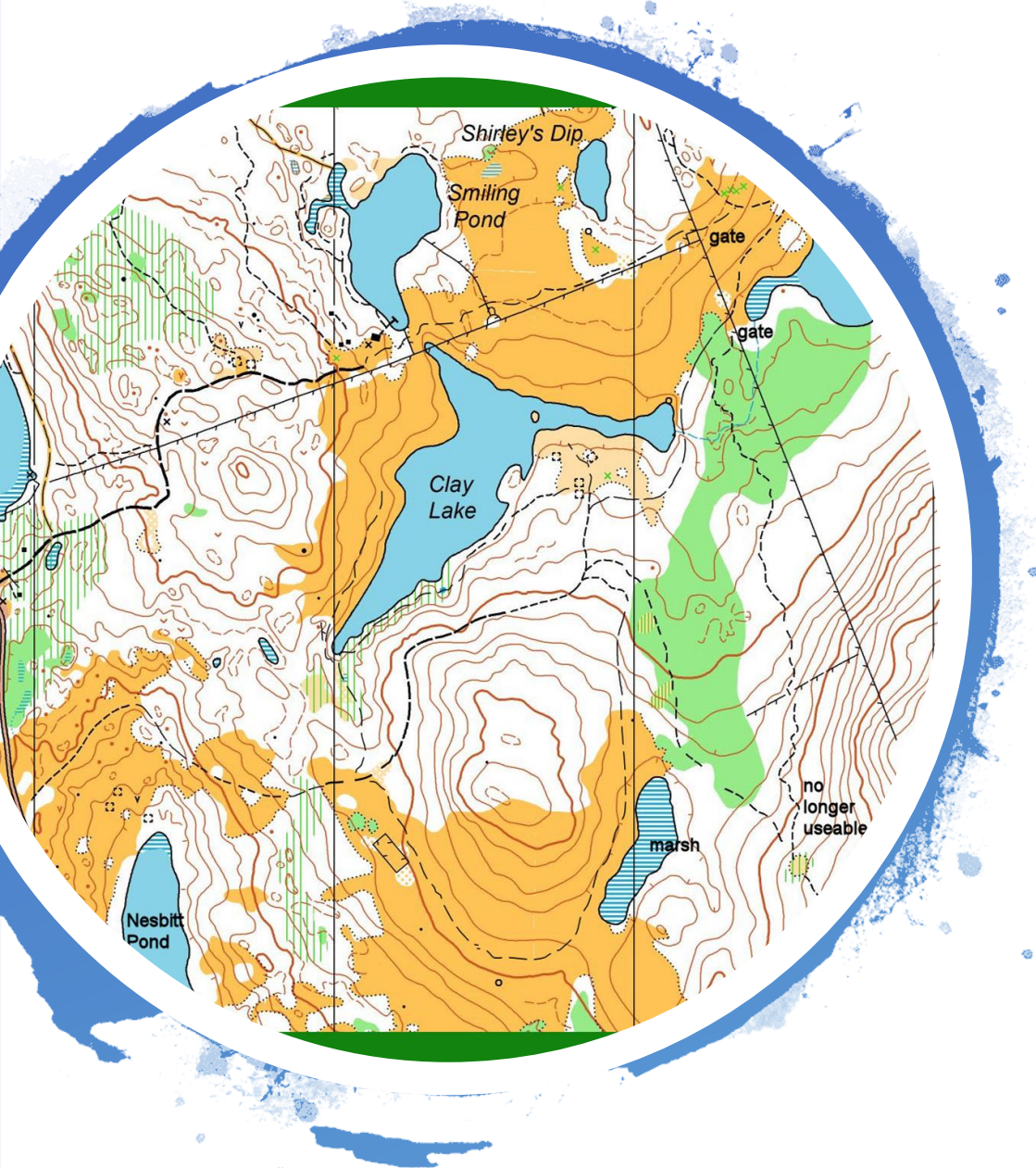
- Usually a top level function; may be one touch
- Start button and stop button.
- Display on a map while in progress.
- Will provide distance covered, time, etc. by a menu or button.
- At the end of the hike, click the stop button. Saving is an additional step.
- Saved by date and time name.
- Saved on the device with a name and .gpx file tag.
- Can be renamed.
- Some have built-in sharing connections to the App service or to 3rd parties.
- Often a share function is provided to send the track to pre-setup connections:
- Email, social media, backups, etc.
- Can be exported to a computer through Sharing functions, through a USB connection, or wireless.
- Some users keep track files on their devices for future use.
- Can be uploaded to shared sites for other users.
- KHC website has some track files and sharing can be provided.



Saving a Track

- Saves automatically in a temp folder on the device with date and time as the name.
- Actual folder locations vary, but within the app, files are listed in order, by date.
- It is recommended to use the app to save the file and rename for later access.
- You can send to your PC or to the app-related site, or through Sharing or a USB connection.
- To save data charges, send/share, connect in a wireless environment.
- If later using on a PC, establish a folder for track files.
- PC apps can import .gpx files. Google Earth can import .gpx or .kml.
- Google Earth can save as .gpx which is just a compressed .kml file.
- Garmin GPS devices or watches have their own file structure if manually importing a file:
- Device >Garmin > GPX > files
- Apps have import and export functions too which can be done through the app or manually.



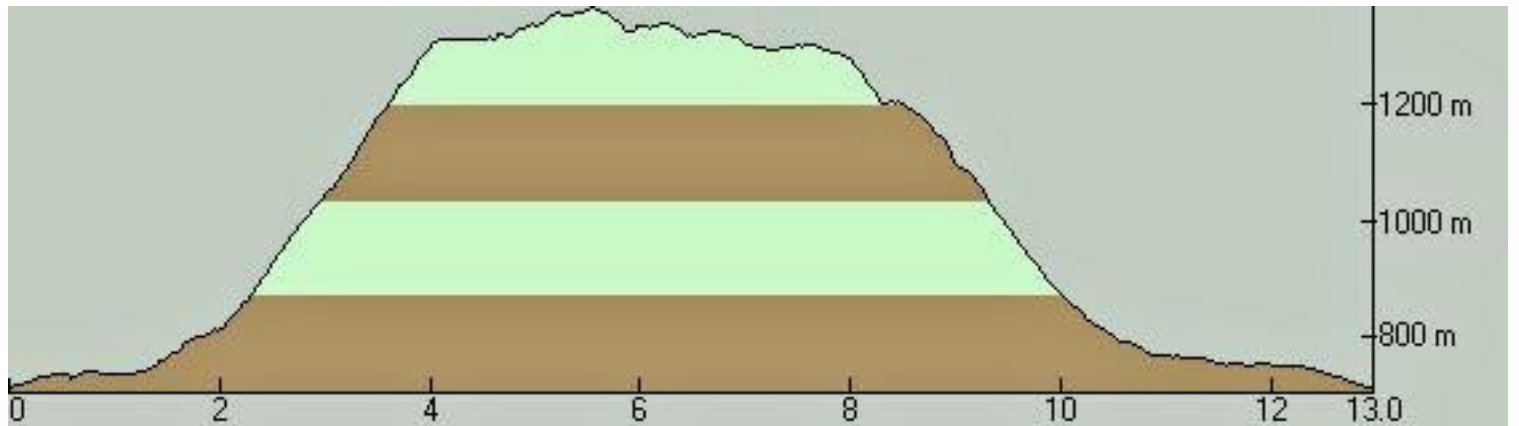


Importing a Track

- Import from another source to the device.
- Websites like AllTrails and Trailforks share tracks.
- Most apps require a fee to download tracks.
- Friends can share tracks for free.
- KHC has tracks on the website, but it is limited at this time.
- All tracks represent only the route taken that day
- May include errors, optional routes, late end times, etc.
- Tracks can be edited, but that is very limited through mobile apps or GPS devices.
- We can draw tracks by hand too on Google Earth and other apps, but the tracks lack time data.
- Import or Open tracks to see the track (overlay) on a digital map and the current location.
- Use the track as a guide while hiking (recommended).
- Tracks consume battery life so spare power is a good option (or map and compass).

A Tracks Library

- Keep saved tracks in a folder.
- Share tracks
- Use tracks to create maps.
- Use tracks in creative apps.
- Relive makes an animated track.
- Apps can also share links to animated tracks, images, and stats.
- Tracks can be imported to online map apps (some free; some paid).
- Tracks and the background map tile can be saved as an image.
- Images can be edited with image-editing software, some free.





Map Images

- Online digital map apps can import a track, then export as an image file.
- What is on the map tiles is included.
- Different digital maps are available, some free, some as a paid service.
- Google Earth is free, but does not provide a topo map.
- Open Cycle, OpenTopo, Caltopo, and more can be used for free.
- Some apps may not provide free map exports, but you can do a print screen.
- Pay-for digital mapping is another option.
- Gaia, Trailforks, All Trails provide map images with tracks overlaid.
- Map images can be edited – crop, add text, frame, sharpen, overlay, etc.
- Some free software can be used for this, or use the standard image editing programs.
- Save as .jpg .png and other formats.