The CMC Track File Manager

This track file system is designed to provide CMC members with the capability to store and share track files, i.e. GPX files, in one Cloud-based repository.

Many CMC trip leaders and non-trip leaders have been using electronic devices such as Garmin products and smartphone apps, with a GPS capability in them, to navigate in the wilderness, on or off trail. These devices allow users to record the trip they are on as "tracks", and to download the tracks as a GPX file to a personal computer or facsimile; GPX is the standard, interoperable format in which tracks are defined.

So, now we have many members each having their own private libraries of track files, and no easy way to share the files with other like-minded members. The new system, Track File Manager, has been created to make the sharing relatively easy, and open to any CMC member who is willing to play by the rules.

Overview of the Repository

The Track File Manager uses free, off-the-shelf Google technology consisting of (1) a central, master Google email account (cmctracks@gmail.com) with (2) its associated Google Contacts component and (3) its associated Google Drive component. The system uses the same Google Cloud technology that many workers use to share office documents.

On the Drive, there is a **Directory** file (implemented as a Google Sheet, a kind of spreadsheet) which lists, one row at a time, each GPX file that has been registered and uploaded to the Drive. Each GPX track file must be defined in this Directory using a descriptive name, the GPX file name (without file extension), the member who created the track, the date the track was recorded, and an optional note or comment. The descriptive name should be just that, descriptive, so that members who may want to get a copy of the file can easily find it, for example, by using the search function in the Drive.

For starters, the Track File Manager administrator will allow some members, those who have a tremendous number of GPX files they want to share, to enter their information directly into the Directory. Once a given member has completed the Directory work and emailed the GPX files to cmctracks@gmail.com as attachments, the administrator will download the attached files to the Drive.

At that point, every CMC member who has been granted access to the Drive will be able to read the Directory, find the tracks of interest to them and get a copy for their smartphone app or Garmin gadget by downloading the appropriate file.

Additionally, once the GPX-rich member has finished adding files to the Directory, the member will notify the administrator, who will then change the member's authority such that the member will, in the future, still have to send each GPX file as an attachment to the email, but will also have to provide the descriptive name, file name, creation date, user name, etc. in the body of the email. The Track File Manager administrator will then update the Directory and download the file to the Drive.