Field Trip Guidance Book

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GENERAL INSTRUCTIONS

During the field trip each participant should:

1. Wear and bring along anything comfortable due to outdoor activities (e.g. wearing sport shoes, comfortable outfits, sunscreens, hats, umbrella/raincoat, drinking water, personal medicine, etc.)
2. Bring along materials:
    a. Field Trip Guidance Book
    b. GPS
    c. Camera
    d. Stationery
    e. Plastic bag (to protect you electronic stuff in case of raining)
    f. Casual bag/backpack to put all your stuff
3. Bring ONLY necessary stuff and leave other things in class/car (e.g. laptop, etc.)

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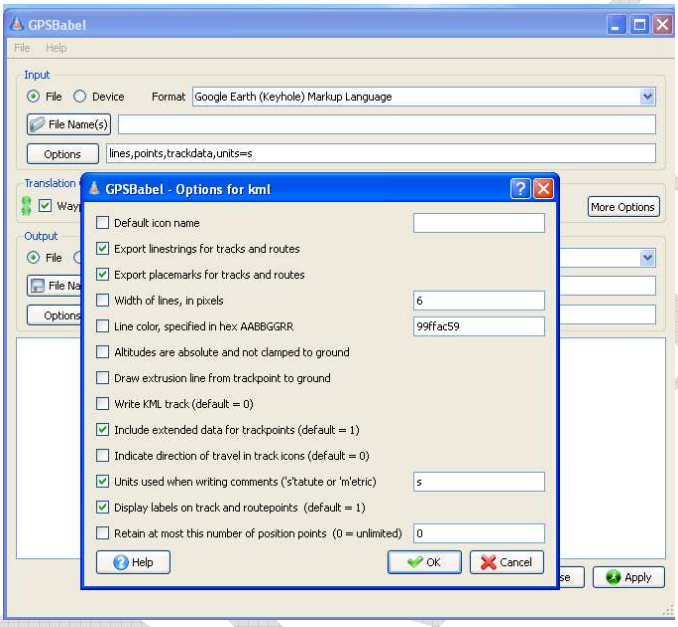
GPS DATA CONVERSION MANUAL

1. How To Send Data From Google Earth (.Kml) To Gps

a. Save the polygon in Google earth into .kmz type file
   - Do a right click to the polygon name that you has created
   - Choose **Save Place As**
   - Choose folder where do you want to save the file
   - Write name for that file
   - Choose file type **kml (*.kml)**
   - click **Save**

b. Change .kml type file into .gpx type file by using GPS Babel software
   - Open the GPSBabel software



   - Select data source that will input, choose File type (not device)
   - Select Format type that being input, that is Google Earth (Keyhole) Markup Language
   - Open File Name (s) that you have prepared
   - Set the input file Option by selecting these items:
     a) **Export linestrings for tracks and routes**
     b) **Export placemarks for tracks and routes**
     c) **Include extended data for trackpoints (default = 1)**
     d) **Units used when writing comments ('s'tatute or 'm'etric)**
     e) Click **OK**
     f) Choose Translation option that need to be converted (waypoints, routes, and/or Tracks)
     g) Select the output file that need to be created (File)
     h) Select Format type that will be created, that is GPX XML
     i) Choose folder where do you want to save the file
     j) Write File Name for the output
     k) Set the output file Option by selecting
     l) Base URL for link tag in output
     m) Target GPX version for output
     n) Click OK

o) Click Apply and you get your .gpx type file that can be opened in EasyGPS

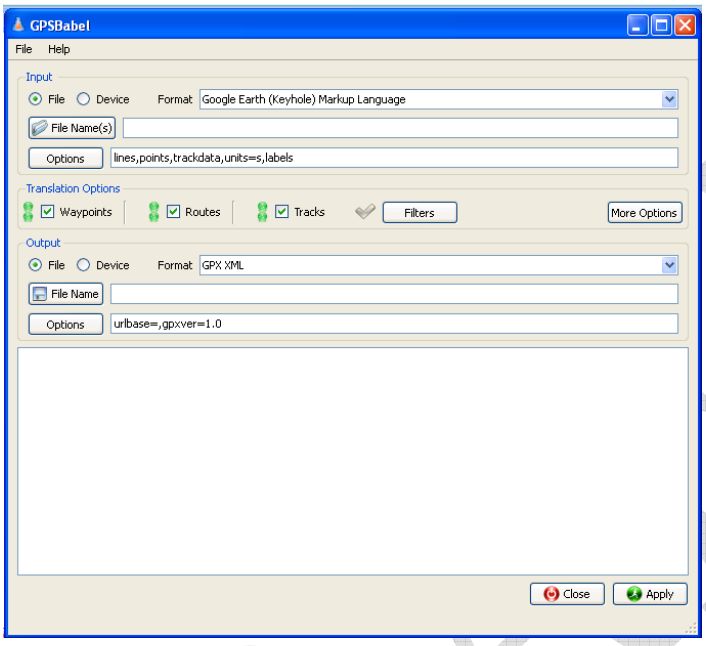
c. Send .gpx file to GPS by using EasyGPS

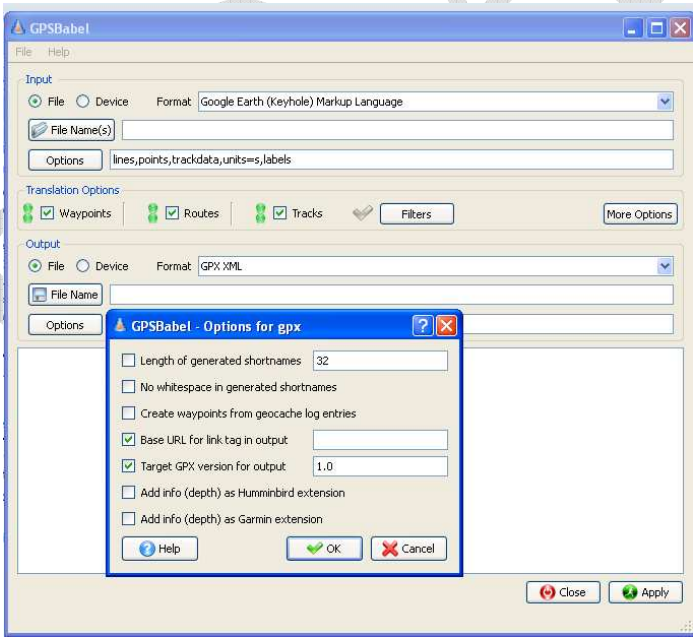
a) Open EasyGPS software

b) Click Open

c) Choose your .gpx file (after that you will see polygon or track in right side of your EasyGPS program)

d) Plug in the GPS





GPS INSTRUCTION MANUAL

2.1 Physical Observation Preparation

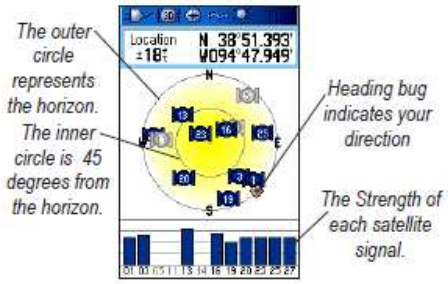
Step 1 : Check satellite:

a. Objective : to make sure that GPS receive satellite signals (to collect satellite data and establish it's current location)

b. How to:

Turn On the GPS, make sure that the GPS has detected at least 4 satellites (represented by filled bar), by following this step:

- GPS Map 76CSx → Push **PAGE** key to find satellite indicator
- GPS eTrex Vista HCx→ Open **Main Menu** (push **Menu** key twice)**,** choose **Satellite** and you will find the satellite indicator.



Step 2 : Compass calibration

a. Objective: to ensure continued accuracy.

b. How to :

- Open **Main Menu (**Push the **Menu** Key twice)
- Choose **Setup** icon →Push **ENTER**
- Choose **Calibration** icon → Push **ENTER**
- Choose **Compass**
- Push **ENTER**, and follow on screen directions for holding and turning the unit.

2.2 Physical Observation

Step 1 : Waypoint Marking

a. Objective: To record and store current location into the GPS

b. How to:

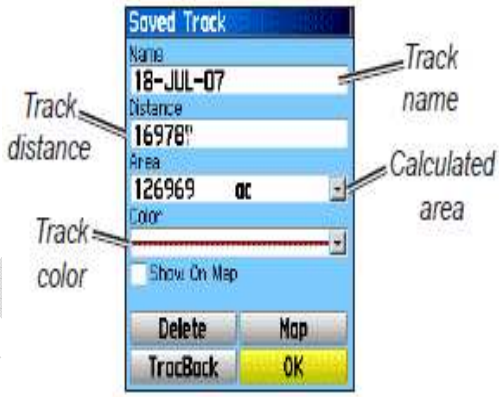
- GPS Map 76CSx → Push **ENTER/MARK** key for few second, and you will see **Point page1**
- GPS eTrex Vista HCx → Push **ENTER** key above your GPS monitor for few second, and you will see **Marking Waypoint page**
- Rename the point (the point name is depend on you)
- Choose and Click **OK**

Now your point has been save in the GPS ☺

Step 2 : Tracking area

a. Objective : to reach the targeted polygon
b. How to :

- Open **Main Menu (**Push the **Menu** Key twice)
- Choose **Tracks**
- Push **ENTER** key, and find the polygon that will be observed
- Push **ENTER**, and you you will see **Track Page**



Saved Track Page

- Choose **TracBack**,
- Push **ENTER**
- Continue by select the point that you want to TracBack to (inside the polygon) by using the cursor and push **ENTER** key.

Now you start tracking your destination (see the GPS instruction on the GPS monitor)

Notes :

1. Take some marking when you have reach your polygon (It aims to show the current condition of the forest rehabilitation.)
   - Marking 1 : at polygon border (the nearest border polygon)
   - Marking 2 : inside the polygon
   - Marking 3 : at polygon border
   - Marking 4 : at polygon border
   - Marking 5 : at polygon border

   Marking can also be done at other positions if necessary (depends on auditor needs)
2. Confirm /ask officer whenever it's necessary
3. Documentation
   - Capture the condition of the location using camera (4 compass directions)
   - Describe the condition of each point

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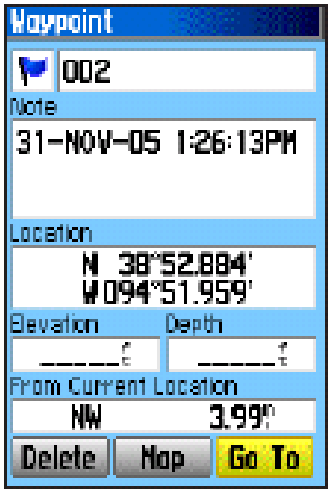
Step 3 : Track Waypoint

a. Objective : to reach the targeted point (in this case, if you have alreadi havw a waypoint as your target)

b. How to :

- Push **Find** key
  - ➔ For Garmin e-trex Vista HCx, push **FIND** key for few second
  - ➔ For GPSMap 76CSDx, push **FIND** key once
- Choose **Waypoint** icon
- Push **ENTER** key, and find your waypoint destination (by Name)
- Push **ENTER**, and you will find **Point Page2**
- Choose **Go to**
- Push **ENTER** key
- Choose **Off Road** (if Off road instruction not come out, just continue)
- Push **ENTER** key

Now you start tracking your point destination (see the GPS instruction on the GPS monitor and the compass arrow)



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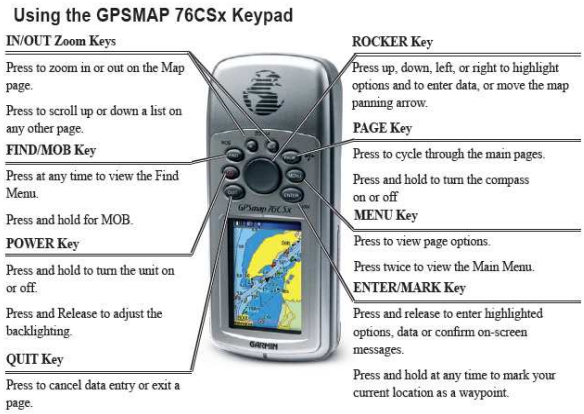
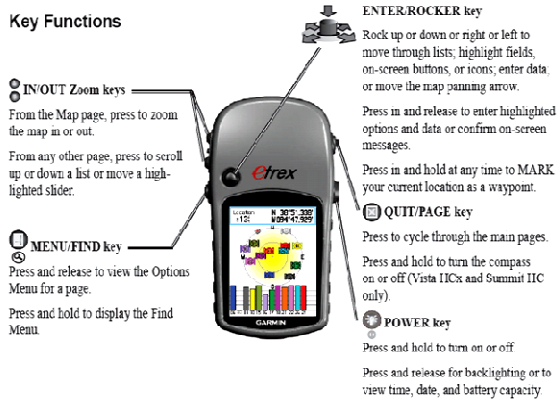
2. How to analyse the results derived from field trip

Step 4 : Data Analyzing and Result

a. Objective: to draw conclusion between the indications and the physical observation results.
b. Information / output :Picture, coordinates, physical observation lay out (map), description of current situation (based on self observation and interviews of related parties)
c. Tools : Laptop, GPS, cable data, GIS Software.
d. How to :
   a) Import Data from GPS to Google Earth (helped by instructor)
      - Open **Google Earth**
      - Click **Tools**
      - Choose **GPS**
      - Select **Import** (not Realtime) and choose GARMIN device.
      - Click **Import** key

      Now you can see your point and your physical observation track
   b) Analyze all positions of marks and the track compares with time series satellite image from 1999 and 2006 image)
   c) Make sure that the coordinates taken in the field is at the location that not rehabilitated.





PHYSICAL OBSERVATION REPORT

SAI OF.....
PHYSICAL OBSERVATION REPORT

Today ,October 17th, 2010, in accordance with Assignation Letter Number 34/ST/VI-XVII/09/2010 date of letter September 5th,2010, concerned to Audit on Haversting in Province of....., the observation has been held for:

Activity:……

Location:……

Regency:……

We have observe the locations as stated:

No	***Latitude Coordinates****	***Longitude Coordinates****	***Photo Number***	***Observation***
1	N 38^{0}51.396'	W 094^{0}47.948'	003	Describe the condition around the coordinate I.e : *In this position is a bare land are. Company X use this location as the log yard.*
2	N 38^{0}51.398'	W 094^{0}47.941'	006	Location of border mark of Company X concession with protected forest. On the notheast side of the border mark a new road being build by the company with the width of 20 m

*' taken from GPS

Field Manager of Concession X

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Government Forestry Officer,

Auditor Team of SAI ……
Auditor 1

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Auditor 2

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