

ATNS

USING

Google EARTH

Version 1

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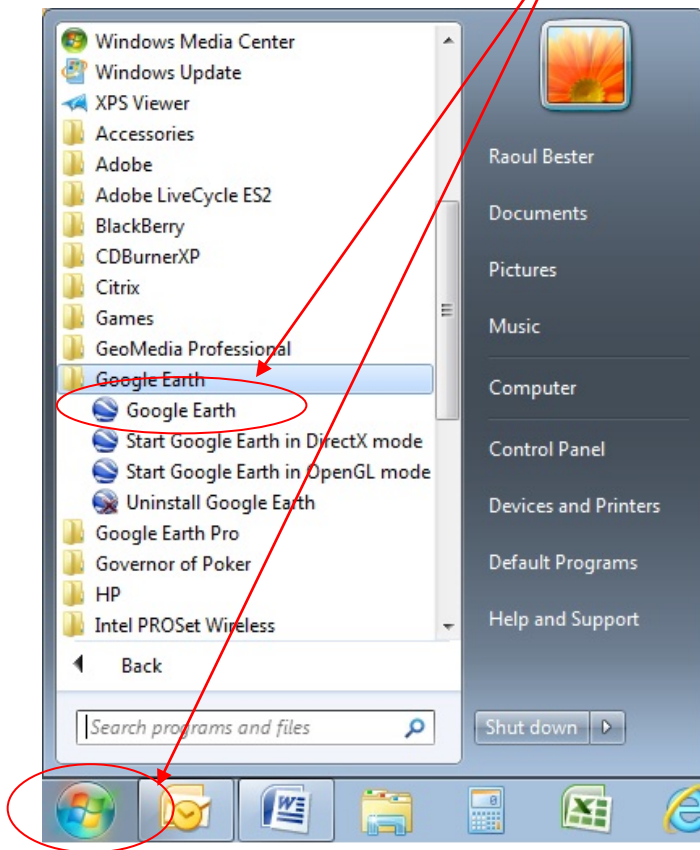
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1. **BASIC SETUP:**

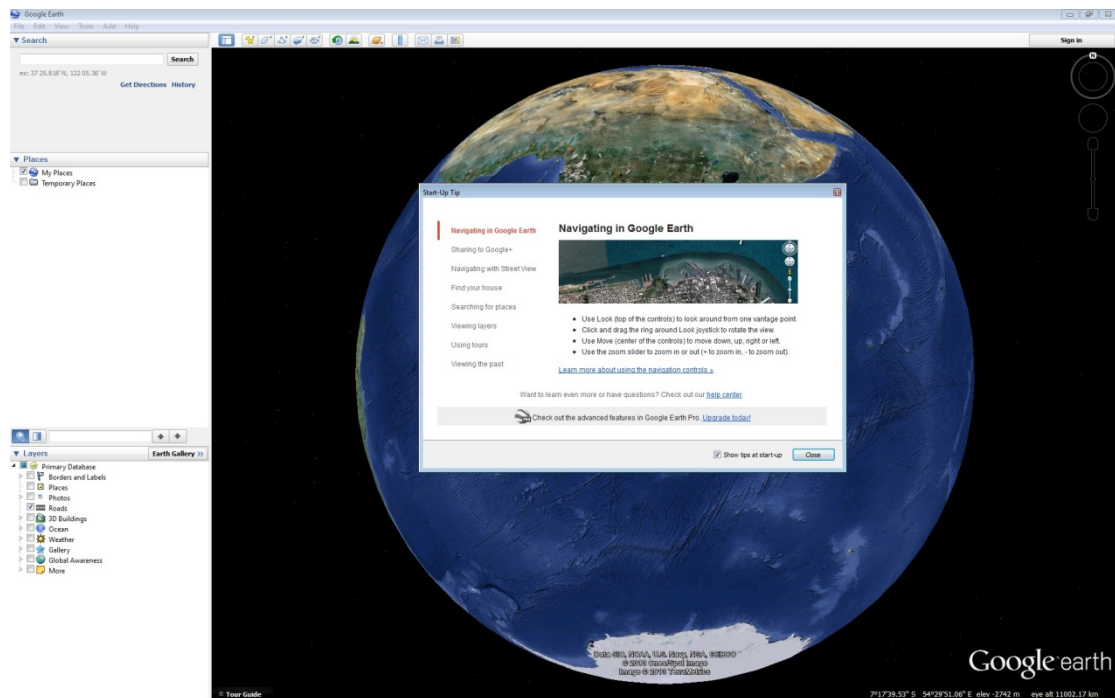
- 1.1 Ensure that the Google Earth application is installed on your workstation. Double Click on the icon below which will be situated on your desktop.



- 1.2 Alternatively Google Earth can also be accessed by selecting the application from your windows task bar as per the image below.

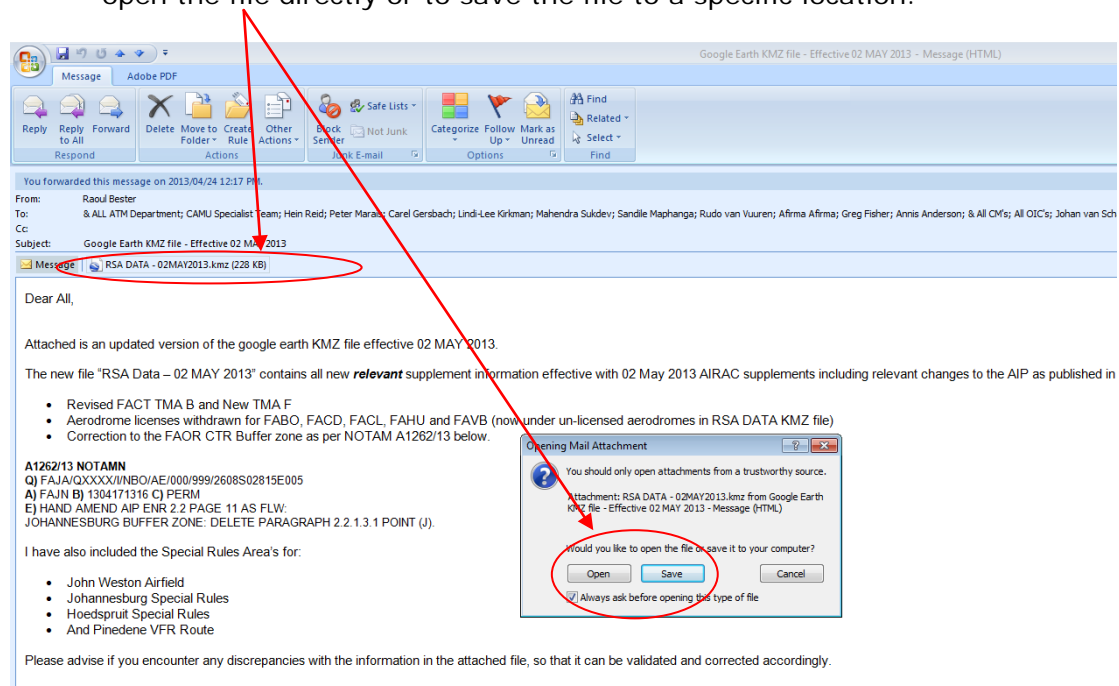


1.3 The Google Earth application will now open.

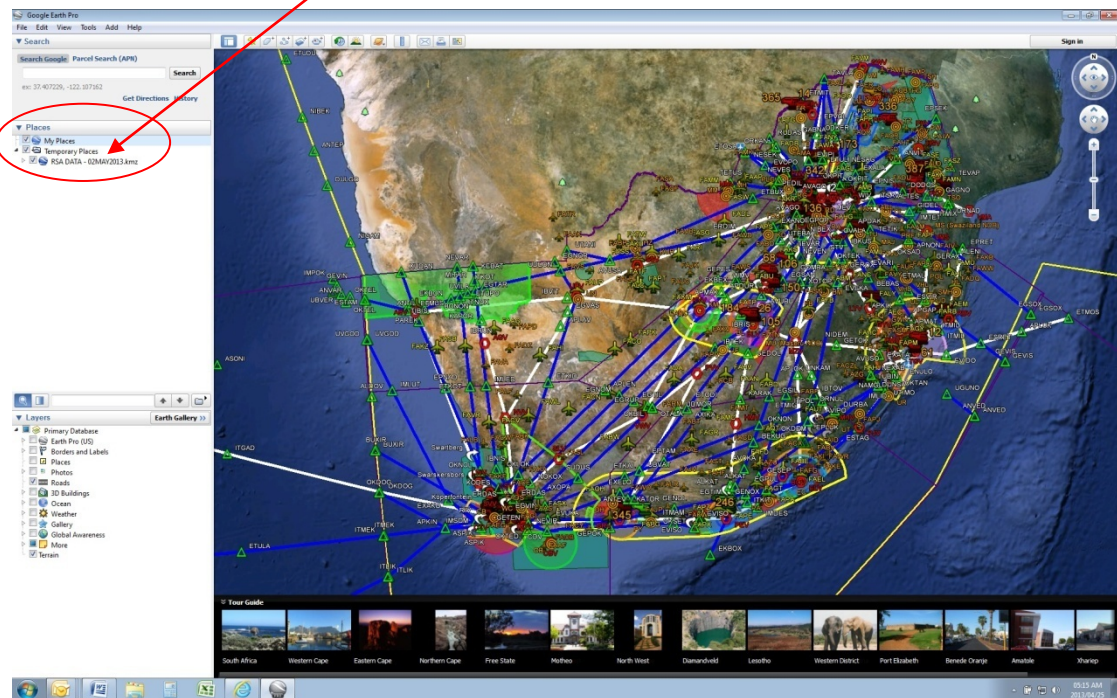


1.4 To import the "KMZ" files into Google Earth, one of the following options can be followed:

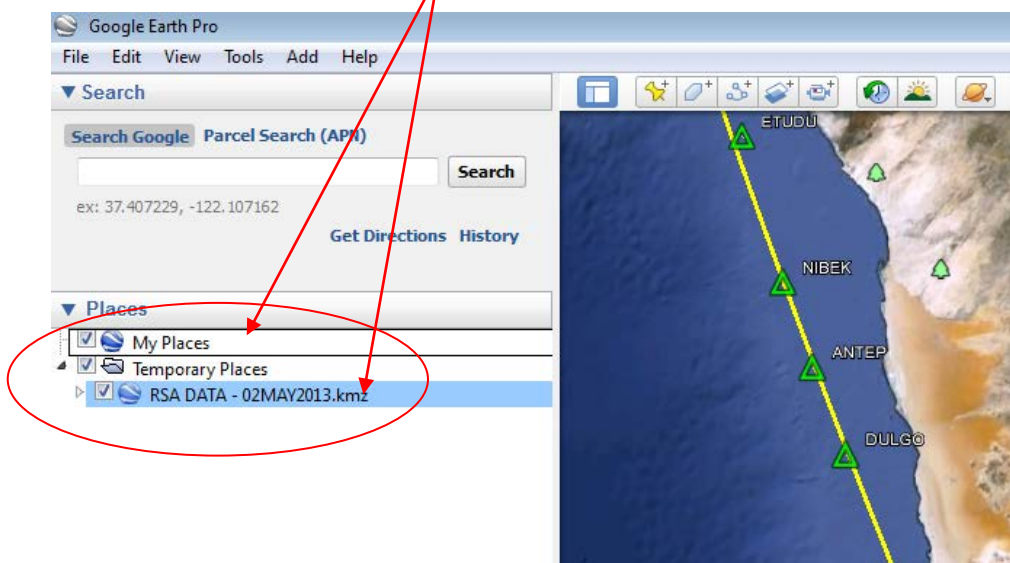
1.4.1 Double click on the "KMZ/KML" file which will give the option to either open the file directly or to save the file to a specific location.



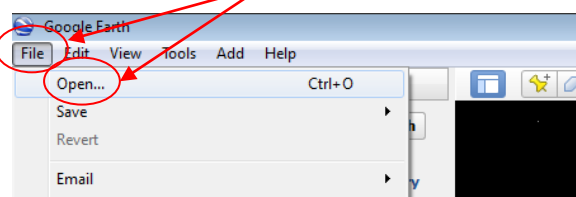
1.4.2 This will open the "KMZ/KML" file under temporary places in Google Earth.



1.4.2 To move the file from "Temporary Places" to "My Places", click and drag the file to "My Places"



1.4.3 Alternatively, open Google Earth, select "File" and "Open" on taskbar and select the location of the "KMZ/KML" file.



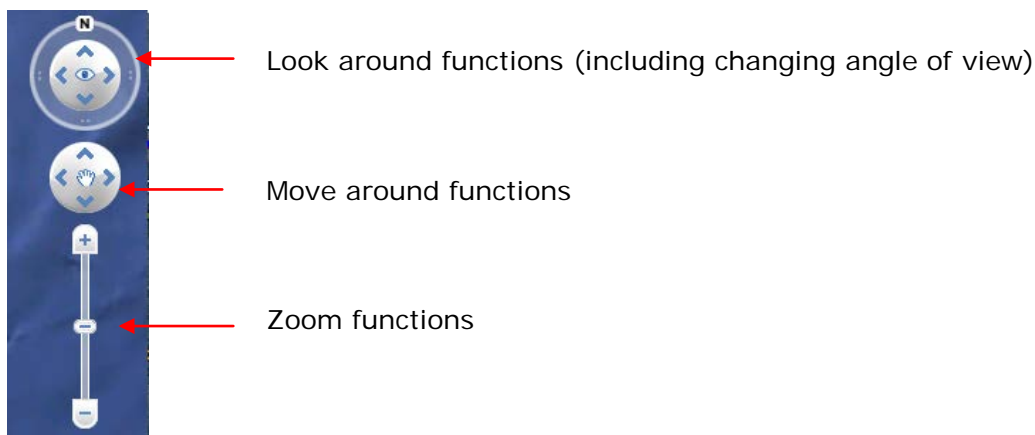
2. NAVIGATING IN GOOGLE EARTH:

2.1 To navigate on the Google Earth map, use either the *mouse functions* or the *navigation functions* on the left side of the Google map.

2.2 Mouse functions:

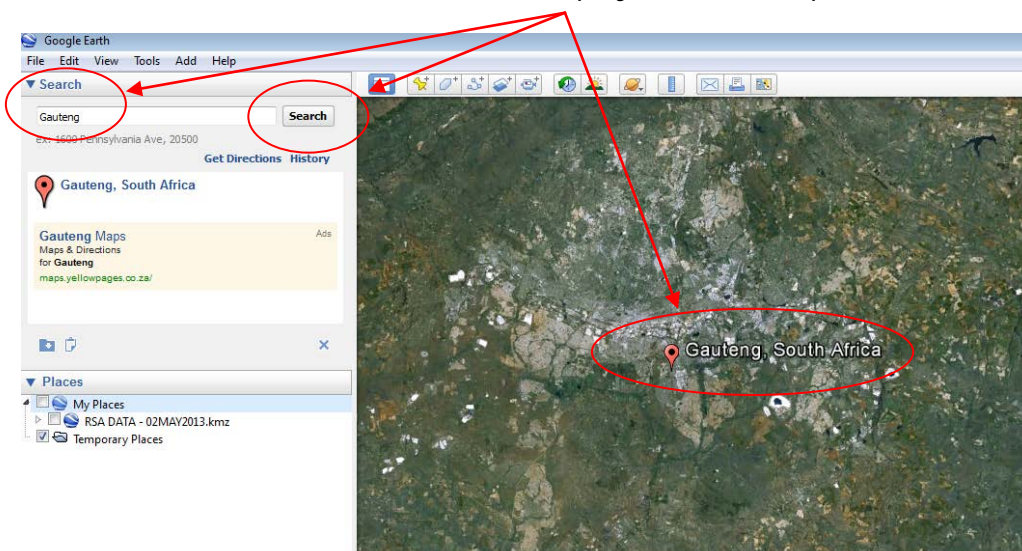
- *Left mouse key* function - click and drag allows you to move the map around.
- *Centre mouse key* function – allows the user to zoom in and out on a location. Holding in the Centre mouse key and dragging it around allows the user to angle the view from directly overhead the earth to a side (3D) view of the earth. The user is then able to see the contours of the earth from the side including elevation of mountainous areas.
- *Right mouse key* function – Holding in the right mouse key allows the user to zoom in and out.

2.3 Map Navigation Pane below has the same functions as the mouse:

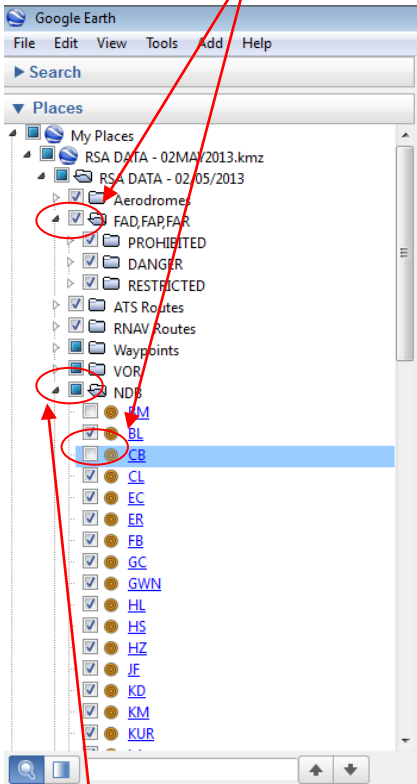


Note: "N" indicates the direction of true North. Magnetic variation needs to be applied to any heading info to establish Magnetic North.

2.4 Search function allows the user to look-up a location. The location, if defined in the database is then displayed on the map

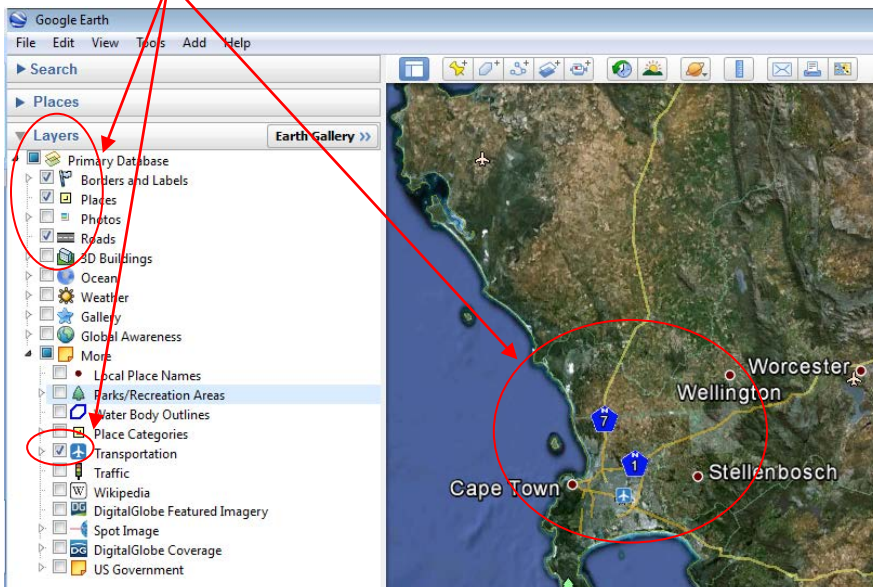


2.5 **Places** display all files loaded or created by the user. The information is displayed on the map by selecting or de-selecting the appropriate information's "tick-box".



Note: When the folder displays a "square", it indicates that only certain elements in the folder was selected to be displayed, therefore the user must always insure that the correct information required is selected.

2.6 **Layers** display all elements which are contained in the Google Earth servers' database. These elements can be selected as per user requirement.



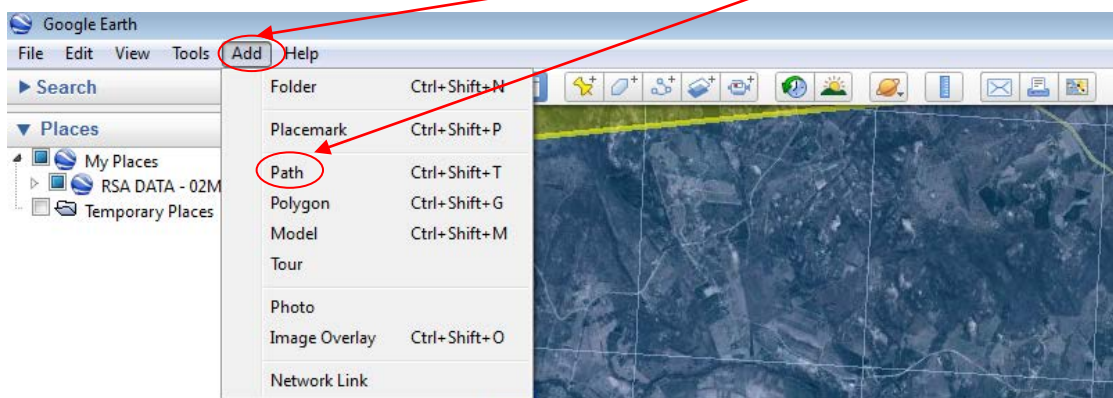
3. **ADDING OBJECTS TO GOOGLE EARTH:**

3.1 Different objects that can be created and displayed on Google Earth include *Place marks, Polygons, Paths and Ruler*.

3.2 These objects can be selected either from the task bar shortcut keys:

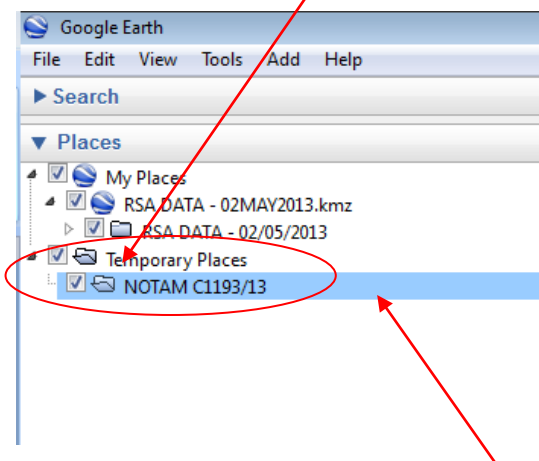


Or by selecting the objects from the main taskbar by selecting "ADD" and then the applicable object.



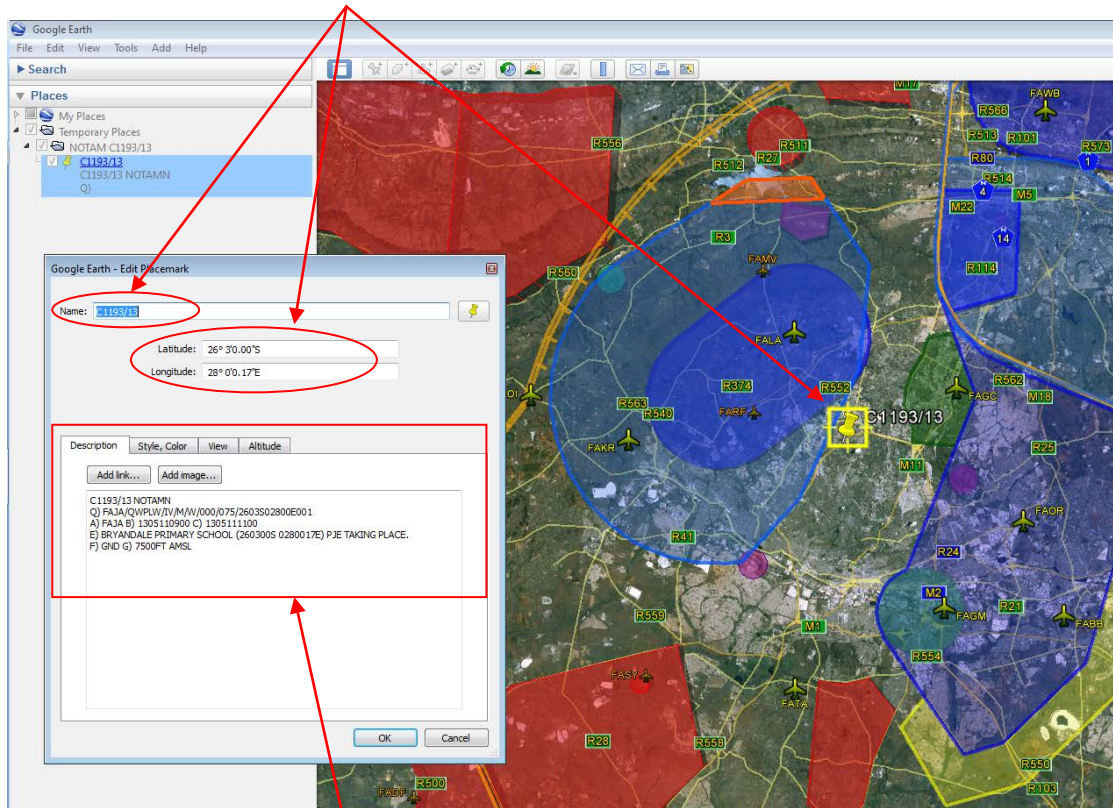
Note: It is always advisable to create folders under "My Places" to ensure that objects created by a user on Google Earth are grouped correctly and able to be moved around and saved easier.

3.3.1 *Place mark*: To add a "Place mark" to check coordinate info of a NOTAM, first ensure that a folder is created for the objects under "Temporary Places".



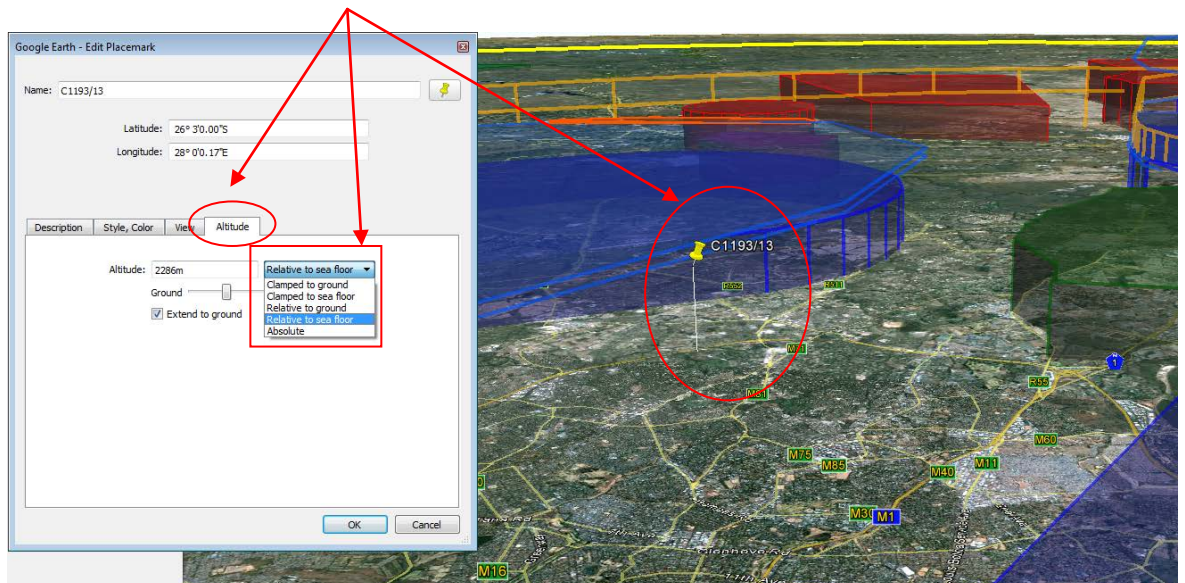
Note: When creating an object, ensure that the correct folder is selected. The folder selection will be highlighted in "BLUE".

- 3.3.2 Add a "Place mark" by selecting "Place mark" from either the shortcut keys or the task bar.
- 3.3.3 Insert the "Name", "Latitude" and "Longitude" as displayed on the NOTAM. The place mark is displayed on the map

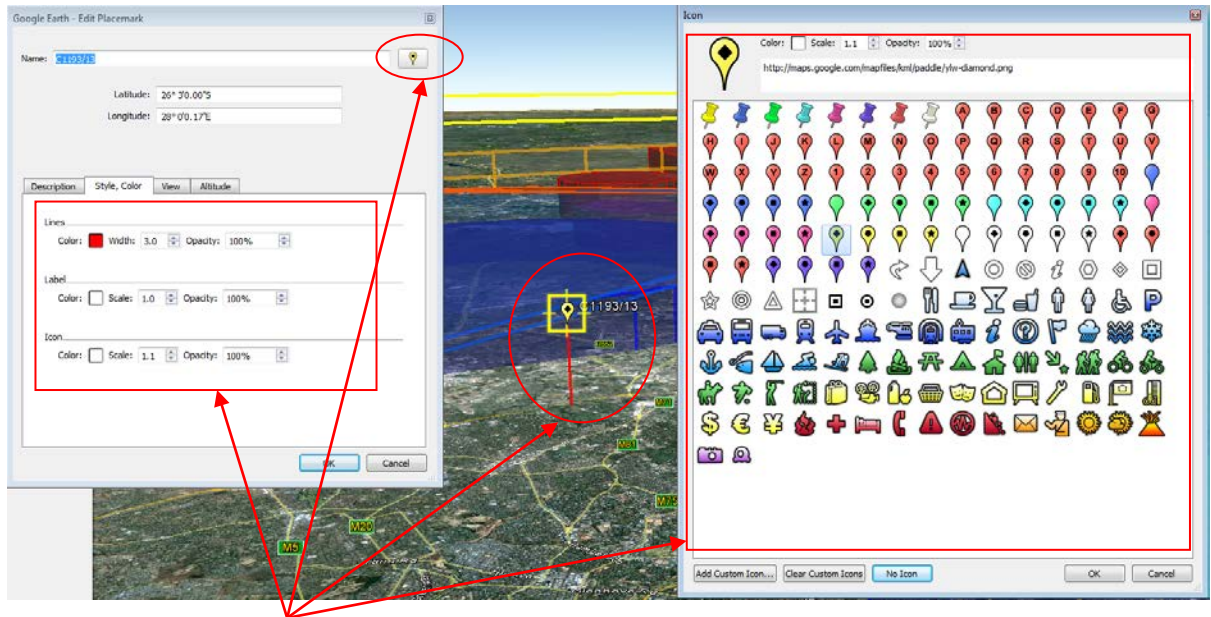


Note: It is very useful to copy the NOTAM into the "Description" field of the place mark to ensure the correct coordinate are typed into the "Lat" and "Long" fields.

- 3.3.4 To check the height of the operation as displayed in field "G" of the NOTAM, right click on the place mark on the map or under "Places" and select "properties". This allows the user to edit the place mark.



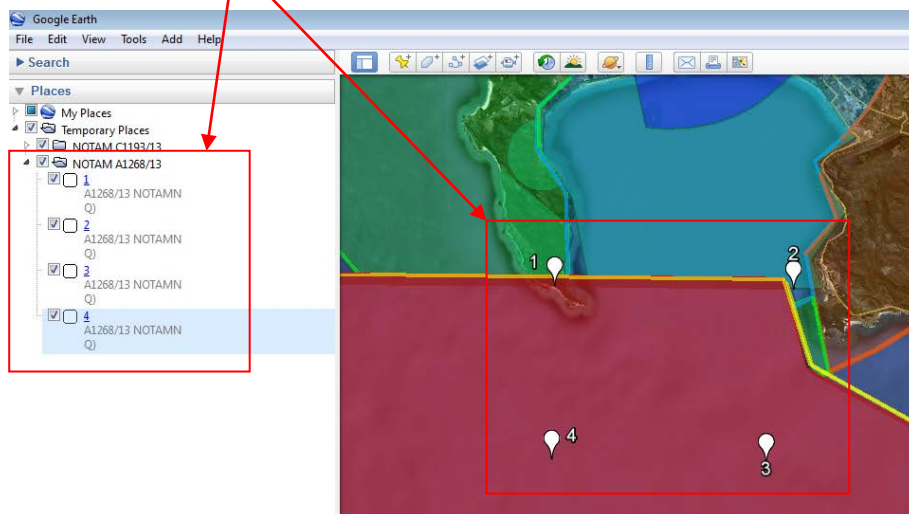
- 3.3.4 Insert the required height in the altitude field. (Remember to use the conversion of **FT** to **M** as the information is only displayed in meters.
- 3.3.5 On the drop down, select "**Relative to sea floor**" when **AMSL**, **ALT** or **FL** is used and select "**Relative to ground**" when **AGL** is used in the NOTAM.
- 3.3.6 Select the tick box "**Extend to ground**" to display a line from the ground to the altitude as defined in altitude field. This allows the user to see if the operation extends through any of the airspace defined.



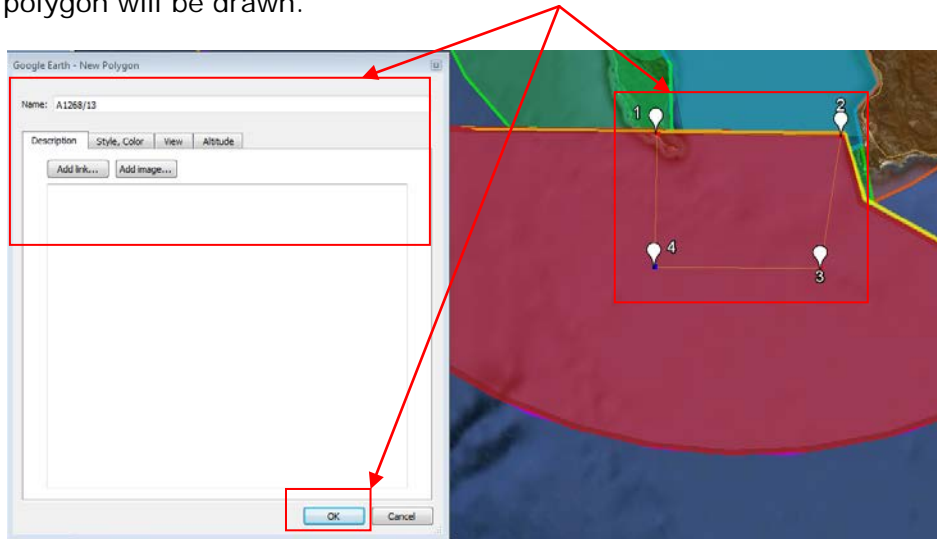
3.3.7 The "**Style, Color**" tab allows the user to define the style and color of the "**Lines**", "**Labels**" and "**Icon**" of the place mark. The Icon style can be changed by selecting the "**Icon**" display.

3.4.1 **Polygon:** To add a "**Polygon**" to check coordinate info of a NOTAM, ensure that a folder is created for the objects under "**Temporary Places**".

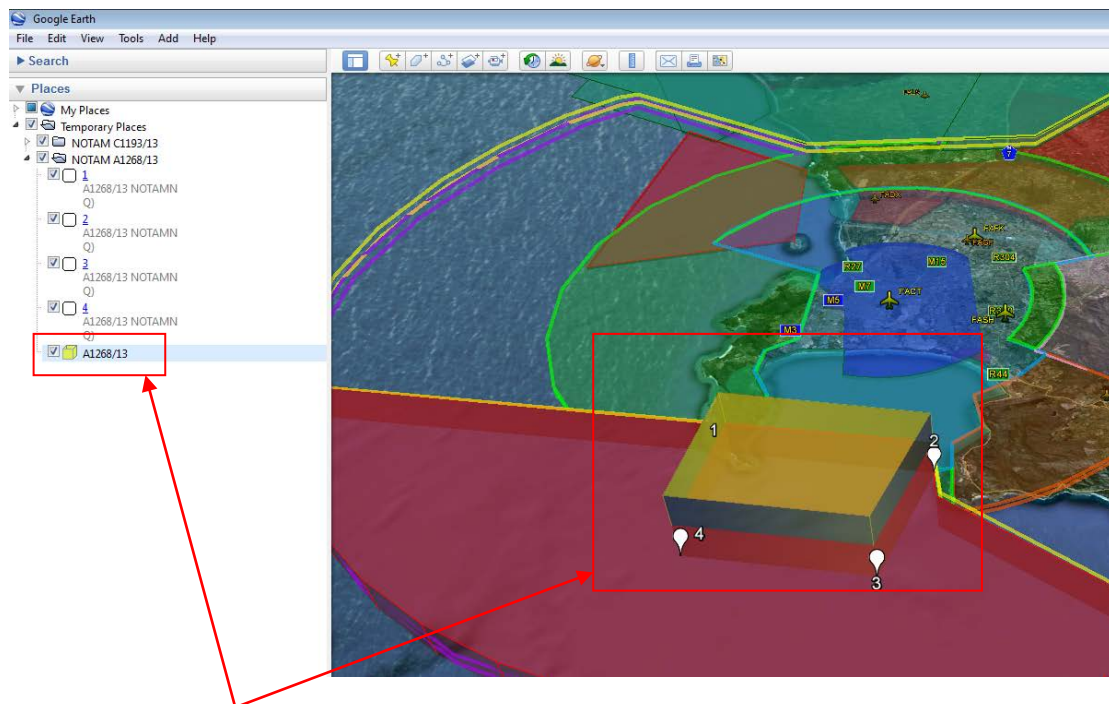
3.4.2 Use "**Place marks**" to plot the outer coordinates of the area defined in NOTAM.



- 3.4.3 Add a "Polygon" by selecting "Polygon" from either the shortcut keys or the task bar. Left click on each of the "Place mark" points to draw the "Polygon". When the last point has been selected click on "OK" and the polygon will be drawn.

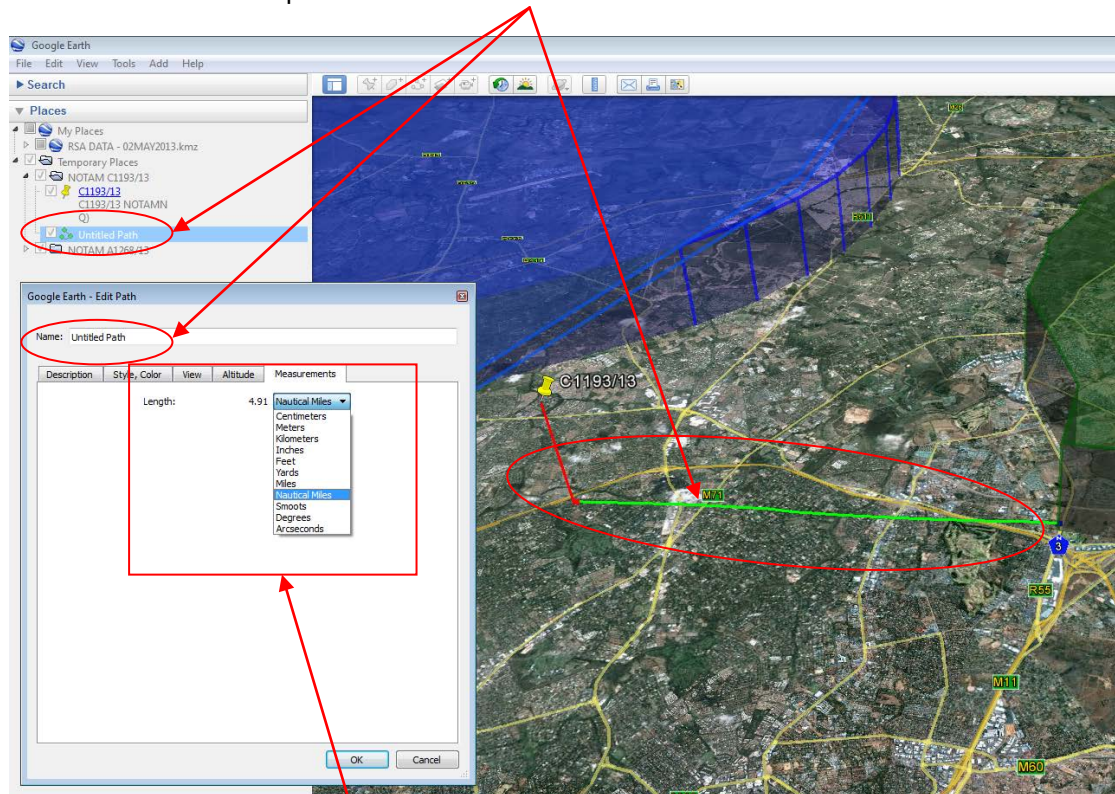


- 3.4.4 To modify the "Polygon", right click on the polygon on either the map or under "Places" and select "properties". The user can then edit the "Description", "Style & Color" and "Altitude" if necessary to the users' requirements.

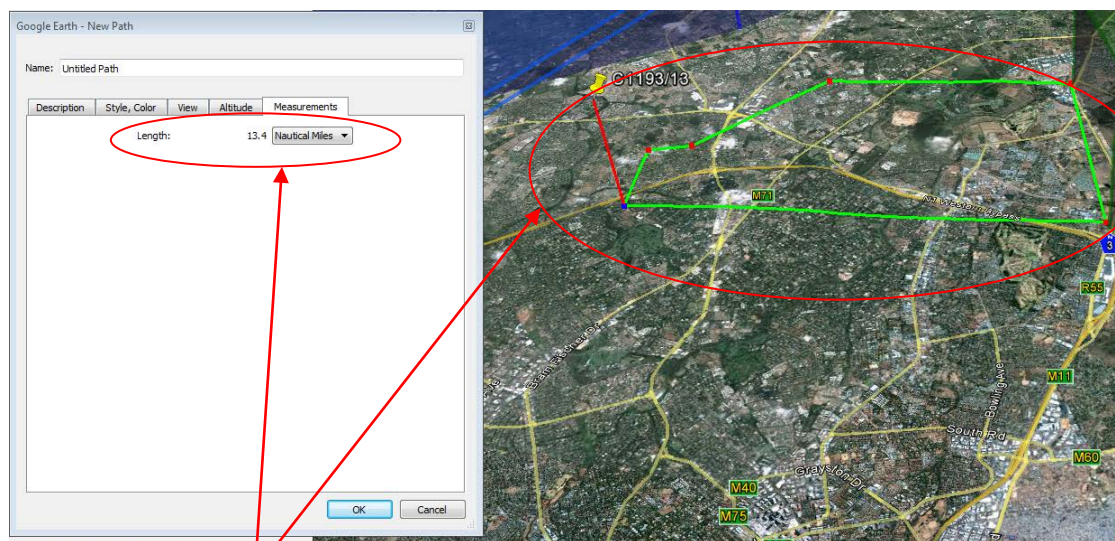


- 3.4.5 The "Polygon" is displayed on the map and the affected airspace can then be established.

- 3.5.1 **Path:** To add a "Path" to check distances info of a NOTAM, ensure that a folder is created for the objects under "Temporary Places".
- 3.5.2 "Paths" are used to measure the distance between points and also to define the arc's of circles.
- 3.5.3 Add a "Path" by selecting "Path" from either the shortcut keys or the task bar. Left click on the "Place mark" point and left click again on the point to which should be measured. When the last point has been selected click on "OK" and the path will be drawn.



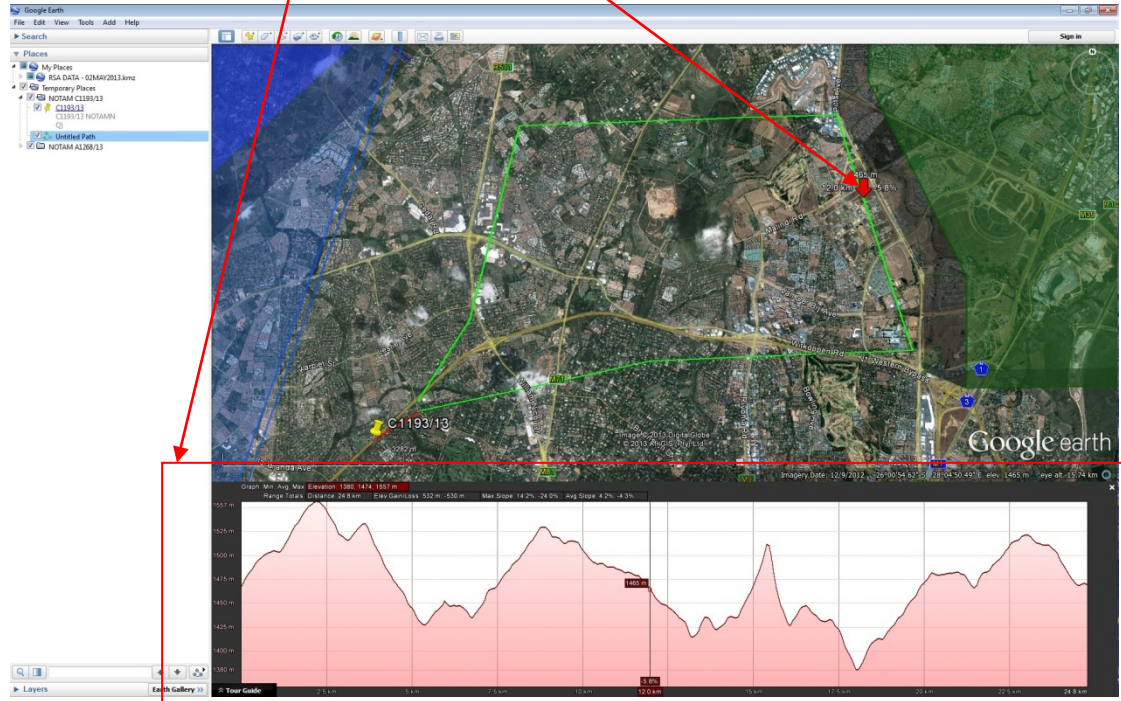
- 3.5.3 The "Measurements" tab allows the user to view the distance of the path and the ability to select the units of measurement.



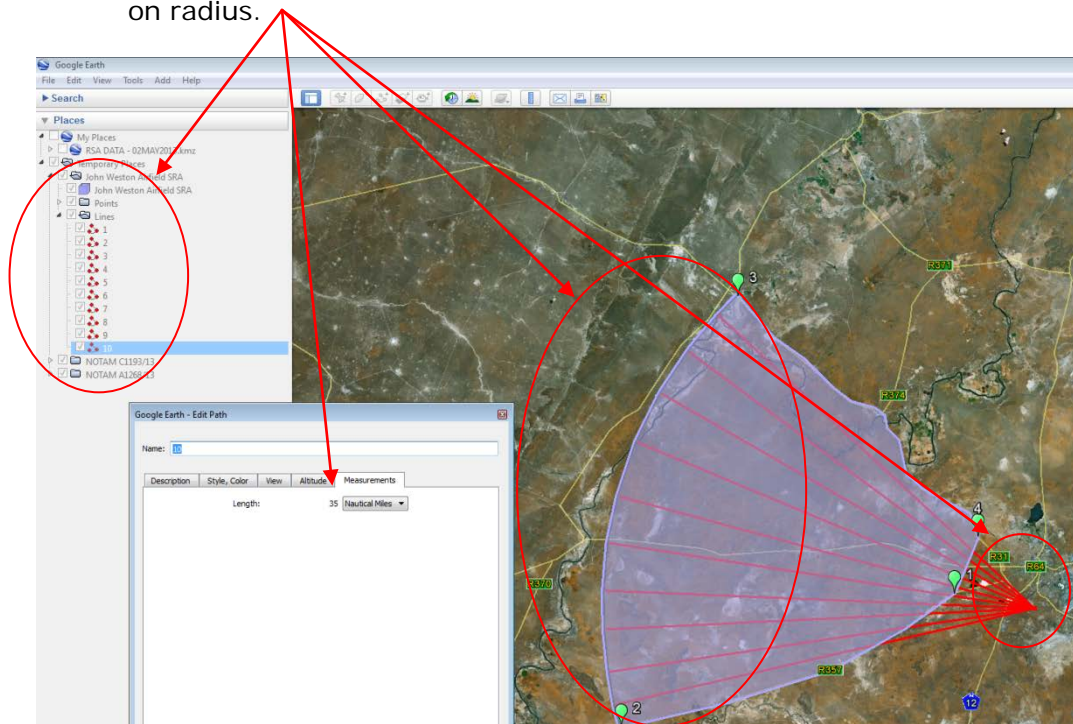
- 3.5.4 "Paths" can be used to measure the outer distance an entire area.

3.5.5 "Paths" can also be used to determine the elevation profile of the area along the path. To view the elevation profile, right click on the path on either the map or under "Places" and select "Show elevation profile."

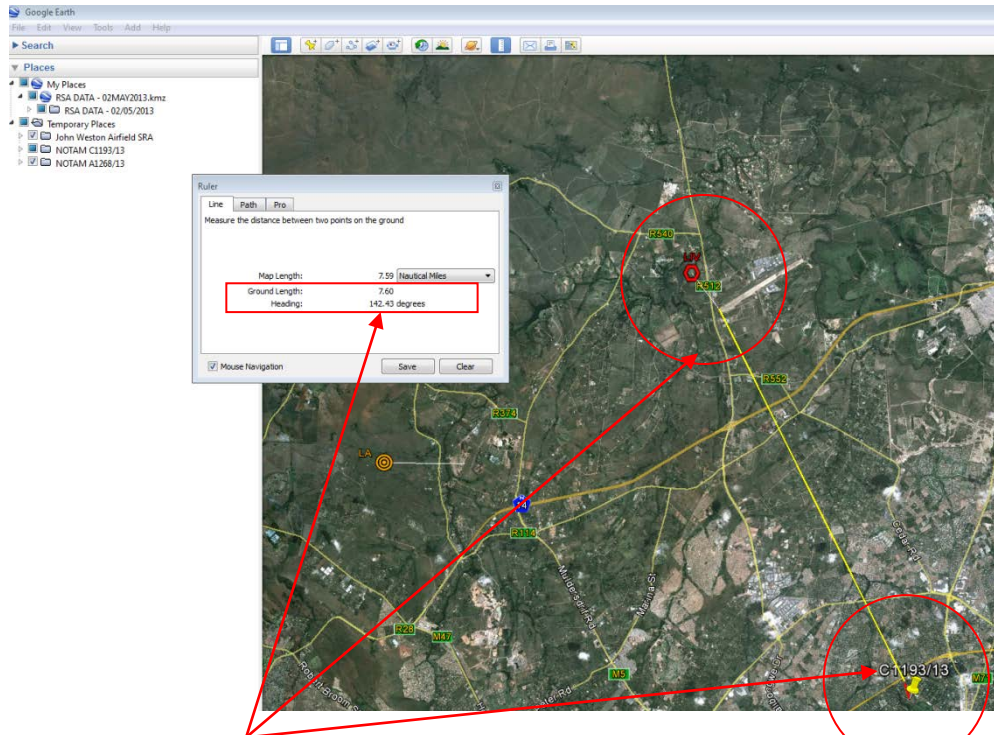
The Elevation Profile of the terrain along path is displayed in a graph view below the map. Move the slider along the path.



3.5.6 To use "Paths" to draw a circle, Left click on the "Place mark" point which is defined as the centre point of the circle, then click at the require distance again. Repeat this process drawing a path each time to the required distance. Once complete, draw a polygon around the outer points of these paths. This will allow the user to create the require circle based on radius.



3.6.1 **Ruler:** The “Ruler” function works the same as “Path” function, however also allows the user to view “Heading” information.



3.6.2 Add a “Ruler” by selecting “Ruler” from either the shortcut keys or the task bar. Left click on the first point from which the heading will be determined and then left click on the last point. The heading in relation to “True North” will then be displayed.

3.6.3 To determine Magnetic, apply the magnetic variation for the area.

4. **USER HELP REFERENCES:**

4.1 Additional user help references and tutorials are available from the “Help” file on the task bar.

