

http://schools.spsd.sk.ca/brightwater/

**Brightwater Site** 

### Using the Magellan 315 Global Positioning Satellite Receiver (G.P.S.)

A workshop for teachers at the Brightwater Science and Environmental Centre

September 11, 2001

Presented by Ron M. Joorisity Saskatoon Board of Education

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#### G.P.S. – Introductory Activity for Students

Using the Magellan GPS 315 Global Positioning Satellite Receiver

#### Instructions:

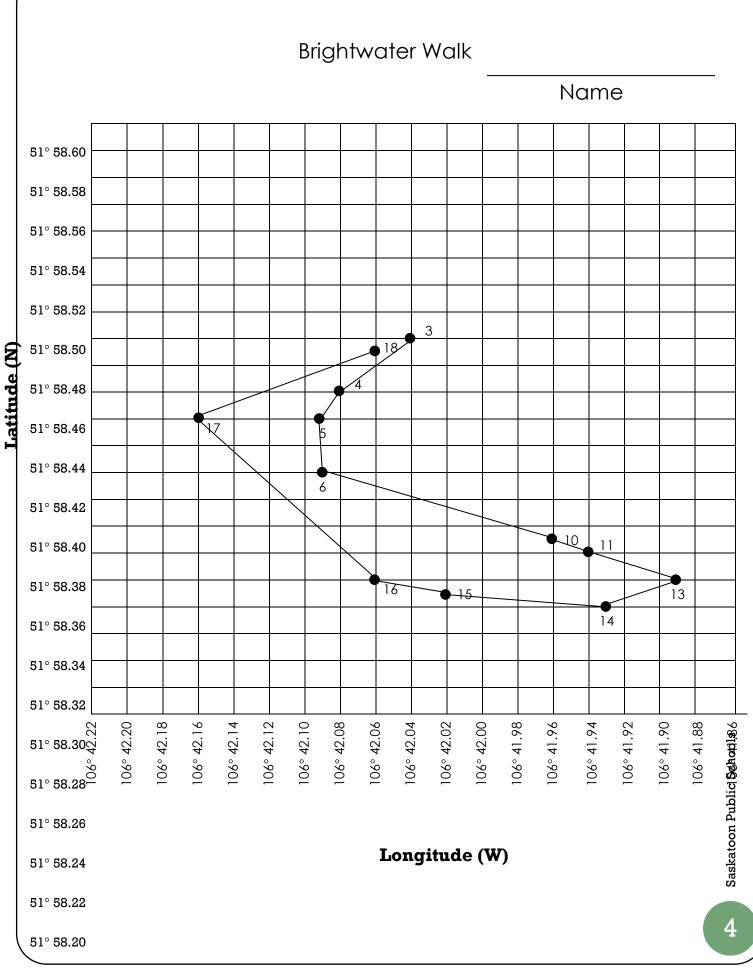
- 1. Press **PWR** (power on) button.
- 2. When the **Magellan** screen comes on, press **ENTER** within 10 seconds or the unit will shut off.
- 3. The **STATUS** screen will come on showing the location of the satellites in the sky above you. If the battery indicator shows 50% or less, you may have trouble completing the exercise. Replace batteries with two fresh "Alkaline" batteries. (Rechargeable do not last long in this GPS receiver.)
- 4. Review the page "Using the Status Screen" if necessary.
- 5. Wait until the **POSITION** screen is displayed automatically. If you are outdoors with an unobstructed view of the sky this will happen quickest.
- 6. Review the page "Using the Position Screen" if necessary.
- 7. Go to the starting point of your walk. Identify this as Indent. #1 on your Brightwater G.P.S. Data page. Describe and record the location (ex. "Somer's Hall") on your page, along with the Latitude (N) (top line), Longitude (W) (second line) and the Elevation (feet) (third line). Record the time (fourth line) along with any other significant information, in the "Notes" section of your data sheet.
- 8. Place"#1" clearly on your "Brightwater G.P.S. Locations drawing.
- Leaving the G.P.S on, go for your walk, recording locations as above until you have **about 12 locations**. (Ideally, if your walk can take you in a circuit that ends where it started, your data will be most useful.)
- 10. Establish a range of latitude values for the vertical axis of your "grid map". (ex. 51 58.18 to 51.58.60 increasing by .02 as you travel up the axis.) All of your latitude data should be within this range.
- Establish a range of longitude values for the horizontal axis of your "grid map". (ex. 106 41.86 to 106 42.22 increasing by .02 as you travel left on the axis.) All of your longitude data should be within this range.
- 12. Plot each of your locations on the grid map. If a location's coordinates are suspected as being incorrect, identify them as "Suspect" in the "Notes" section of the data page and do not plot that location.
- 13. Your total package will be submitted for evaluation after camp.
- 14. Have fun! Be accurate!

## Brightwater Walk – Data

Ident.#	Description	Latitude	Longitude	Elevation	Notes
3	Somer's Hall	51 58.46	106 42.04	1612	
4	Creek near campfire	51 58.42	106 42.08	1619	
5	Fresh beaver cutting	51 58.40	106 42.09	1698	
6	Sanddune @ stair top	51 58.36	106 42.09	1615	
7	Beaver dam	51 42.05	106 42.05	1601	.3 mile distance
8	Soil horizons	51 58.02	106 42.02	1619	
9	Spring	51 58.31	106 92.00	1625	
10	Eroding step site	51 58.31	106 41.96	1602	
11	Stone chimney	51 58.30	106 41.94	1619	
12	Plants & beaver graze	51 50.88	106 41.88	1626	
13	Obstacle course	51 58.28	106 41.89	1618	
14	Trail fork	51 58.26	106 41.93	1634	
15	Trail plants	51 58.27	106 42.02	1645	
16	Dune site	51 58.28	106 42.06	1641	
17	Swimming pool	51 48.40	106 42.16	1628	
18	Somer's Hall	51 58.45	106 42.06	1608	.8 mile distance

## Other Brightwater Data:\_\_\_\_\_

Ident.#	Description	Latitude	Longitude	Elevation	Notes					
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Data collected by: Date of collection:										



# Brightwater G.P.S. – Data:\_\_\_\_\_

Ident	t.# Description	Latitude	Longitude	Elevation	Notes						
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	51° 58.24																			Saska
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Brightwater Walk