Exercise 3 – When is the Best Time to Collect GPS Data?

Session Objectives - At the conclusion of this session you will be able to:

- ❑ Use Trimble's online GNSS planning tool to determine the best time period(s) to collect GPS data

Materials created by*:* Eric Kelchlin, December 2011

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Software: Trimble's online GNSS web application

http://www.trimble.com/gpsdataresources.shtml

Video: Mission Planning: When is the best time to collect GPS data

http://link.brightcove.com/services/player/bcpid1594664379001?bckey=AQ~~,AAAAv1RRo7E~,NyPVtykdKxWQxKBPhUcqCZ7y3oeLqfrM&bctid=1718424877001

Trimble's online GNSS Planning Tool allows you to determine the best times to collect GPS data at any location and time span you choose. This information is applicable to all GPS devices, not just Trimble units.

SECTION 1 – Setting Your Station Parameters

Watch the GNSS Planning Tool video tutorial (7:47 minutes in length). This video shows you how to access the online planning tool, how to configure the settings and interpret the results. Using what you learned in this video, go to the online tool, configure the settings and answer the questions in Section 2.

Video Link:

http://link.brightcove.com/services/player/bcpid1594664379001?bckey=AQ~~,AAAAv1RRo7E~,NyPVtykdKxWQxKBPhUcqCZ7y3oeLqfrM&bctid=1718424877001

SECTION 2 – Determining When to Go Outside and Collect GPS Data

Use the following settings when answering the questions:

Satellite Library:	GPS only
Location:	Vero Beach, Florida
Cutoff :	0
Date:	Tomorrow, starting at 8 am, 12 hour setting

1. How many satellites make up the GPS constellation_____?

2. How many are unhealthy_____?

3. Based on visible satellites, what time interval(s) would be the best to collect accurate GPS data_____?

    - What is the greatest number of visible satellites_____?

4. Based on DOP, what time interval(s) would be the best to collect accurate GPS data_____?

    - What is the lowest DOP value_____?

5. Should we be expecting poor radio transmissions tomorrow that will affect our GPS accuracy on the ground_____?

    - Why or why not_____?