GPS Occultations Worksheet

Fill in the blanks:

1. Originally created for the ____________, GPS satellites can now be used by anyone to help with navigation, surveying, farming and other purposes.

2. Studying our planet with satellites is advantageous because satellites ______________ around our planet. Without satellites, you would need to have people and __________ at every location.

3. When studying the atmosphere, engineers and scientists use a technique called radio ______________ with GPS satellites to analyze the effects the atmosphere had on signals that passed through the atmosphere.

4. Making measurements or receiving information about an object, phenomenon or location, without making physical contact with the target is called ______________ sensing.

5. The abbreviation for the six satellite constellation orbiting 800 km above Earth is ______________.

6. GPS satellites orbit 20,000 km above the Earth, more than 1.5 times the ______________ of our planet!

7. When a GPS signal passes through the atmosphere, it bends due to gravity and atmospheric effects. This bending ______________ the signal, making it take longer to reach the receiver.

8. Engineers use satellite geometry and timing to find out the longitude, latitude and ______________ of where disturbances are taking place.

9. A GPS occultation can last from a few seconds to a few ______________.
Word Search: Use the answers from the fill-in-the-blanks section to complete the search
(words can be spelled in any direction, up/down/left/right/diagonally)

C D E D T K C Z Q I Z T T L Q
A X D I I T L C R T I N M S C
S F A J E A J K I B E I Q Y S
E T O M E R M B L M N C P A U
H H Y N D J R E P U S B U L
G I P O J O V I T V P O E E B
A J M I Z M U E V E F Y C D L
L T F T W Q S F W R R D P K J
T R Q A E S I G R K D G O L H
I G F T O V I L B E D U S H U
T A Y L F K K J L I R K C N Y
U V Z U M I L L T A R Y A B I
D P W C O A K K N T Q N V E P
E I S C Y G R C N J Z L Y Y C
Q Y R O U B M W B G H J Y O T

Write the words that you find here:

1. __________________________
2. __________________________
3. __________________________
4. __________________________
5. __________________________
6. __________________________
7. __________________________
8. __________________________
9. __________________________
10. __________________________