

## GPS Questions for FFA Contest

### White Track

- 1) WAAS is the acronym for \_\_\_\_\_ ?
  - a) Wide Area American Satellites
  - b) Wide Area Augmentation System
  - c) Western Area Augmentation System
  - d) Western Accurate Augmentation System
  
- 2) Which of the following navigational systems is maintained by Russia?
  - a) GLONASS
  - b) WAAS
  - c) BDS
  - d) USSR
  
- 3) Which of the following needs spurred on development of the current Global Positioning System?
  - a) Faster and more accurate logistical analysis and planning systems for maritime shipping companies
  - b) Precision farming
  - c) Accurate defense systems for targeting cold-war ICBM silos
  - d) Hyper-accurate guidance systems for orbiting NASA space vehicles
  
- 4) Which of the following coordinates are in the UTM coordinate system?
  - a)  $32^{\circ} 00' 00.0''$   $098^{\circ} 00' 00.0''$
  - b)  $32' 00'' 00.00^{\circ}$   $098' 00'' 00.0^{\circ}$
  - c) 0571825 3558325
  - d) 057:18.25 35:58.325
  
- 5) The current global positional satellite orbital configuration allows for at least \_\_\_\_\_ satellites to be visible at any given moment across the globe in a 24-hour period.
  - a) 5
  - b) 6
  - c) 12
  - d) 24

- 6) True or False: GPS accuracy is enhanced by low orbiting satellites.
- a) True
  - b) False
- 7) Which of the following makes up the Earth's lower atmosphere and creates relatively minor signal error?
- a) Ionosphere
  - b) Troposphere
  - c) Biosphere
  - d) Endosphere
- 8) Small variations in each satellite's orbit are monitored using very precise \_\_\_\_\_ to calculate orbital errors?
- a) Radar
  - b) Sonar
  - c) Atomic spectrometry
  - d) Electron microscopes located at the NORAD military facility in Colorado
- 9) Which of the following applications to a large degree rely on GPS technology?
- a) Sub terrain mining
  - b) Navy Seal deep water ROV rescue unit
  - c) Investment banking network transactions
  - d) Spelunking mapping efforts
- 10) Global positioning systems employ a fundamental formula for computing satellite triangulation and is described below as \_\_\_\_\_?
- a)  $R^2 + D^2 = C^3PO$
  - b)  $d=rt$
  - c)  $A=P(1+rt)$
  - d)  $E=MC^2$