

## Some GPS Positioning Modes





\* Typically, double differencing



# SPS Horizontal Position Error at WAAS Sites



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### SPS Vertical Position Error at WAAS Sites

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- Position accuracy obtainable from WAAS depends on the timeliness and accuracy of the corrections as well as measurement noise and multipath.
- Best case scenario is provided by results from the 38station WAAS monitoring network. Sites use special monitor receivers, choke-ring antennas, and generally have a low multipath environment.
- The following histograms are from the FAA's Wide-Area Augmentation System Performance Analysis Report, #41, for the period 1 April to 30 June, 2012.
- The magenta traces show the distributions of the actual vertical and horizontal errors normalized by one-sigma value of the protection level; vertical (VPL/5.33) and horizontal (HPL/6.0).



#### WAAS Horizontal Accuracy







### WAAS Vertical Accuracy



