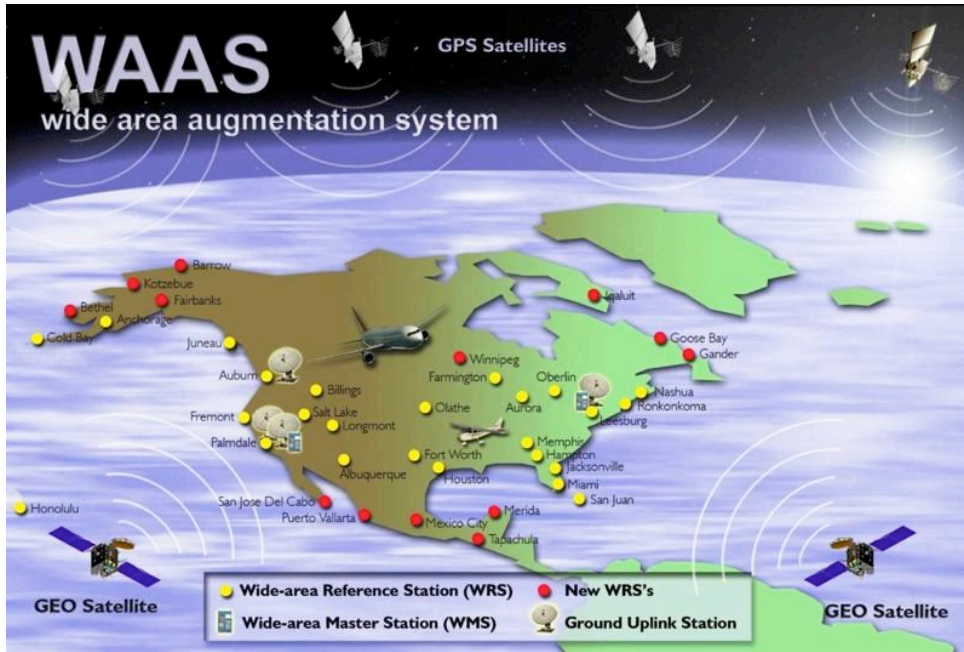




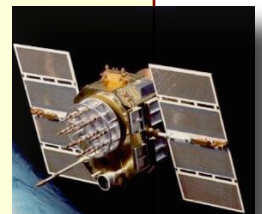
GPS WAAS

What's all the Hype?



How does it Work?

1. The normal GPS satellites in orbit transmit their data to land based receivers - Wide-Area-Reference Stations (WRS) which know their position on the earth to unprecedented accuracy.
2. The WRS stations calculate any errors and transmit these errors to a Wide-Area-Master Station (WMS)
3. The WMS then transmits the corrections necessary to a Ground-Uplink-Station for transmission to the WAAS satellites in orbit
4. The WAAS satellites then tell your WAAS enabled GPS what corrections it needs to make if any.



WAAS - Wide Area Augmentation System - is a new technology that has been in the works for quite some time. It allows aircraft, using approved WAAS GPS enabled receivers, to fly more accurately than ever before with these new user friendly navigation devices. WAAS enabled GPS receivers will allow an IFR pilot to fly lower to the ground on instrument approaches, and will

also allow the VFR pilot to fly more accurately during local and cross country flights. WAAS is the future.

New Terminal Approach procedures exist allowing for lower minimums during an IFR approach. The new approaches can be quite difficult to understand and easily misunderstood if you do not know the difference of each and the equipment necessary.

APPROACHES AVAILABLE

LPV - Localizer Performance with Vertical Guidance: *WAAS enabled GPS required.* LPV approach minimums on the approach charts allow for minimums as low as 200 feet AGL

LNAV/VNAV - Lateral Navigation/Vertical Navigation: *WAAS enabled GPS or non-WAAS GPS with a barometric altimeter required.* Minimums as low as 350 feet AGL.

LNAV - Lateral Navigation: *non-WAAS enabled GPS (legacy GPS equipment).* The 'normal' GPS Approach along with its minimums.

LNAV + V - Lateral Navigation plus Vertical: *non-WAAS enabled GPS (legacy GPS equipment).* The 'normal' GPS approaches - invented by Jeppesen and not approved by the FAA.

LP - Localizer Performance: *WAAS enabled GPS + Barometric Altimeter.* Available in the Future.