ADS-B Session III March 21, 2019

I wanted to focus Session III on how ADS-B may allow the airport to implement flight procedures and what benefit and drawback may be associated with these. Because the airport and the surrounding terrain is not visible to air traffic controllers, use of Certified Visual Flight Procedures is not authorized. Instrument procedures are very restrictive and we currently only have an approach to runway 20 from the north, and a departure to the north off runway 02 and 29. This effectively concentrates traffic for complex turbo prop and turbine aircraft onto runway 29, 20 is too small.

Concentrating this traffic does a few things:

- 1. It exposes Prosser to all departures.
- 2. It limits capacity and creates both ground delays and airborne delays.
- 3. When winds favor other runways it operationally limits the usable runways creating safety concerns when winds favor east or north runways.

Enabling flight procedures on other runways may:

- 1. Enables more balanced exposure to aircraft overflight.
- 2. Allows use of areas east of the airport where low or no residential development exists.
- 3. Allows more creative paths that avoid overflight of residential areas.

ADS-B, in concert with the tower will enable the airport to pursue various approaches and departures. There is no guarantee the FAA will authorize new procedures. However it is staffs opinion, and the opinion of our airspace consultant team that developing and certifying new procedures is likely. We currently have one procedure in the cue for certification that services runway 11. This was fairly easy. The other notional (good idea), procedures are shown below. We have done a tremendous amount of outreach on these alignments.

How does ADS-B help?

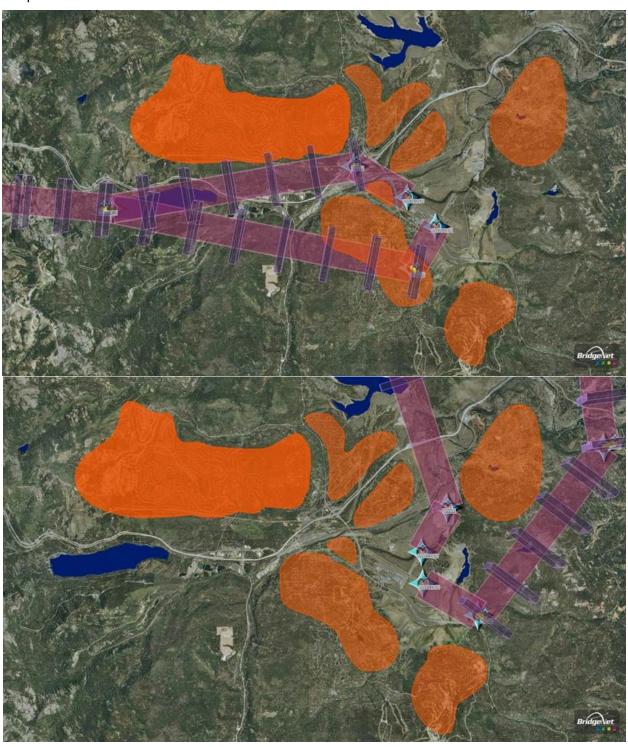
- 1. It allows the use of Certified Visual Flight Procedures (CVFP) that use visual waypoints to define a complex path. This will offer alternative ways to get into the airport, possibly over the lake or areas to the east.
 - *We are currently testing procedure alignment with Mt. Lion Aviation for a CVFP to runway 29. Initial results are very promising. If we can use ADS-B and get the procedure charted it will get into the hands of all the pilots.*
- 2. It allows controller to see the aircraft during the approach phase of flight until the tower can visually identify them. This enhances safety, situational awareness and capacity.
- 3. ADS-B allows multiple arrival/departure operations. This means that if we have procedures on multiple runways based on ADS-B coverage we can use these simultaneously, avoiding the current one-in one-out limitation which forces aircraft to hold.

How does ADS-B not help? What are the drawbacks and unintended consequences?

- 1. It allows more airplanes to land and depart instead of hold. Operations may be more condensed in time particularity during peak holiday periods. Opinion whether this is a benefit or consequence.
- 2. It allows better visibility between pilots while using flight procedures. Unknown whether this will encourage a pilot to fly here.

- 3. It allows procedure development in new areas around the airport. Changing flight paths, even if there is a net reduction in residential overflight can be very difficult for both the airport and the community.
- 4. No future guarantee of procedure acceptance, utilization, or authorization.

See pictures below.



Please call or email me with questions or concerns related to ADS-B or topics discussed here. If you are looking for certain information I may be able to help, reach out and let me know.

Thanks,

Hardy Bullock, Director of Aviation & Community Services

(530) 587-4119 x106

Email: hardy.bullock@truckeetahoeairport.com