

Applicant: Skywest Airlines
FCC File Number 0378-EX-CN-2017

FCC FORM 442 - EXHIBIT 1
GPS RE-RADIATION DESCRIPTION AND PROPOSED USAGE

SkyWest Airlines request the Federal Communications Commission's authorization to operate a GPS Re-radiation system in our aircraft hanger and training facilities at the Salt Lake City International Airport in Salt Lake City, Utah.

The hangar is constructed entirely of metal and attenuates the GPS signals to a level below the useable threshold of the aircraft navigation systems. The addition of a GPS Re-radiation system will provide service technicians to verify proper installation and operation of the aircraft navigation systems with needing to move the aircraft out the hangar. The time and expense required to shuffle aircraft around inside the hangar in order to move an aircraft in and out of the hangar with a tug can add up quickly.

The GPS Re-radiation system; Model Number GLI-METRO-G-RK-L1, is manufactured by GPS Source Inc. The system receives the GPS L1 Signal via an active antenna mounted on the rooftop of the hangar, passes the signal through coaxial cable to a power amplifier and re-radiated inside the hangar with a passive antenna.

GLI-METRO-G-RK-L1 Re-Radiation Kit Specifications			
Item	Model/Part No.	Variable ID	Variable
GNSS "Smart Amplifier"	GLI-METRO-G	GLI	33 dB (Nominal)
GNSS Passive Antenna (TX)	L1p	G _{L1P}	3 dBi
GNSS Active Antenna (RX)	L1A	G _{L1A}	35 dBi (Maximum)
Coaxial Cable (input)	LMR-240 (50 Ft.)	L _{Cab1}	-5.6 dB
Equipment Location Specifications			
Item	Latitude	Longitude	Height and Distance
GNSS Active Antenna	40-47-38.0 N	111-59-07.0 W	100 Ft./30.48 m Above base elevation
GNSS Amp and Passive Antenna	40-47-38.0 N	111-59-07.0 W	100 Ft./30.48 m Above base elevation
Base Elevation			4225 Ft./1288 m AMSL
TX Distance to Nearest outer wall (D ₀)			20 Ft./6.1 m
-140 dB Threshold distance from outer wall (D)			100 Ft./30.48 m

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FCC File Number 0202-EX-CN-2017

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As a leading air service provider offering global access to millions of people each month, SkyWest partners with the world's largest network carriers including United Airlines, Delta Air Lines, American Airlines and Alaska Airlines. With a fleet of 375 aircraft, SkyWest's more than 12,100 aviation professionals operate more than 1,900 flights each day to 213 destinations throughout North America. SkyWest is known for its industry-leading workforce, exceptional leadership team, and continued solid operational and economic performance. The airline is headquartered in St. George, Utah.

Use of this equipment is essential to offering affordable service.