

From: Josh Snook

To: Web Filer
Date: June 06, 2017

Subject: 0702-EX-ST-2017 pre-coordination data request

Message:

Please see FAA pre-coordination below:

Josh,

Serial Number NG T170298 has been added for the IMSAR LLC testing as per your request with the limitations we've discussed.

If you have further questions please feel free to use my contact information at any time.

Robert A. Hill
FMO, SLC District/Airspace
Office: (801) 320-2331
Cell: (801) 386-6714

-----Original Message-----

From: Josh Snook [mailto:josh.snook@imsar.com]
Sent: Monday, June 05, 2017 10:18 AM
To: Hill, Robert A (FAA)
Cc: Motley, James (FAA); Pham, Vu (FAA); Nguyen, Dan (FAA)
Subject: Re: FAA Coordination 1240-1390 MHz

Robert,

IMSAR uses flight tracking software and a up/down datalink to control/monitor when and where the radar system scans, so we can easily comply with the below request.

Please let me know what additional information is needed in order to receive per-coordination documentation that can be submitted to the FCC.

v/r,

Josh Snook
IMSAR LLC
Work: 801-798-8440
Cell: 801-598-2843

On 6/5/2017 8:29 AM, Robert.A.Hill@faa.gov wrote:

Josh,

If the notching requirement is removed, we need to make sure the aircraft does not fly 350 degree ± 25 degree from the test site, and should not aim toward SLC CARSR.

Robert A. Hill
FMO, SLC District/Airspace
Office: (801) 320-2331

Cell: (801) 386-6714

-----Original Message-----

From: Josh Snook [mailto:josh.snook@imsar.com]
Sent: Friday, June 02, 2017 8:51 AM
To: Hill, Robert A (FAA)
Cc: Motley, James (FAA); Pham, Vu (FAA); Nguyen, Dan (FAA)
Subject: Re: FAA Coordination 1240-1390 MHz

Good Morning Robert,

First, nice to e-meet you, I'm looking forward to working with you on this project.

Test Description: IMSAR will be performing 2 outdoor data collects in the Springville/Spanish Fork area, each data collect being 4 hours in duration, the first data collect being 17 July and second collect the following day 18 July (19-21 July backup/weather days). IMSAR operates it's sensors mounted to a manned aircraft (Cesna 172) at an altitude no higher than 6000ft AGL and a 45° grazing angle.

Stop Buzzer POC: Josh Snook, josh.snook@imsar.com, Work: 801-798-8440
Cell: 801-598-2843

Regarding the notching "(Notch out: M1240 - M1265 and M1292 - M1317), any specified frequency bands can be notched by the radar system and the radar will still function. However, there is a trade-off between bandwidth and system performance. A reduction in bandwidth will cause a degradation in performance (e.g., image quality, resolution), which may or may not be acceptable depending on the objective.

With that being said, is there a chance of mitigating/removing the notching requirements?

I've attached a analysis showing how much power will be present at the CARSR system from the IMSAR UWB radar. I looked around online for more information about the FAA system, but details are not readily available.

Please do not hesitate to ask for more information regarding IMSAR's radar system.

v/r,

Josh Snook
IMSAR LLC
Work: 801-798-8440
Cell: 801-598-2843

On 5/31/2017 9:57 AM, Robert.A.Hill@faa.gov wrote:
Josh,

I'm responsible for the Salt Lake District airspace.

I need more information for your request:

- _ Description of the test, indoor or outdoor, how often and duration.
- _ Stop buzzer POC (If we experience interference)

(We have radars that use frequencies in the band you've requested)

The SLC CARSR is 54 nm away, so it requires 10 MHz separation.
(Notch out: M1240 - M1265 and M1292 - M1317) GJT and RKS CARSR are 138 nm away, you need 5 MHz separation. But for this test, if the SAR points to ground at 45 degrees, we won't need restrictions for

GJT and RKS.

Robert A. Hill
FMO, SLC District/Airspace
Office: (801) 320-2331
Cell: (801) 386-6714