

## Introduction

The purpose of this license is to enable the airlink testing of four satellites under three different programs:  
Optus, which has two satellites  
PanAmSat-11  
Horizons-2

Each satellite has at least one bank of transponders, that have both an uplink and a downlink set of channels. These channels are fed via reflector style, High gain antennas. As detailed in the submission for question, an antenna range with absorber all around them in an attempt to minimize the emission of the downlink frequencies.

For the uplink channels, the test antennas will be horn antennas with approximately 60 degree beamwidth in order to keep the emissions down.

For the downlink channels, the test antennas will be horn antennas with approximately 60 degree beamwidth in order to keep the emissions down.

For the Telemetry channels, including the uplink power control beacons on the satellite, some of the test antennas will have absorber placed around them in order to minimize the external emissions.

In short, we will be testing in an indoor range using enough absorber placed to minimize, as much as possible, the emissions from the tests where the tests will take place.

This is a list of all the frequencies that we are planning to test on, including as much information about the tests as you might need to process this application. If you need more information, please don't hesitate to contact me.

Ross Coffelt (703) 406-5782

items that this company (Orbital Sciences) is working on:

channels. With the exception of the telemetry downlink, Section 7 of form 442, these antennas will be tested in a range of frequencies.

width. These will also have absorber placed strategically

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the antennas are omnidirectional. These will also have

possible, the radiation that will leave the highbay building

at power levels, antennas and modulations that I can think of. Please call me and ask. My name and Phone number are: