

TacVue Non-interference Description

The radar antenna will be mounted underneath an aircraft on a gimbal, which permits the antenna to point towards the desired location on the ground. The beamwidth of the antenna will be 7 degrees in both azimuth and elevation. The size of the desired location on the ground will range from 0.5 to 3.0 square miles. The antenna will move continuously so that it can radiate only in the direction of the desired location. Prior to each test, a predefined flight plan will be established for the aircraft so that the antenna transmissions will be confined to a controlled area. This will prevent the tests from transmitting into no fly zones or no radar zones. In addition, the side lobes of the transmission will be at least 30 dB down to eliminate possible transmission outside of the desired location on the ground.

During the test a 60 watt chirp signal (with a 35% duty cycle) will be stepping a 2.0 GHz wide signal through up to 2.8 GHz of the spectrum in the range of 15.4 to 18.3 GHz. As a result, the entire 2.8 GHz spectrum will never be used at one time. The area of the frequency band used at any one time will depend on the orientation angle of the antenna compared to the aircraft trajectory.

