

8-Mar-17

Question 7: Purpose of Experiment

Overview:

Textron Aviation designs, builds and tests aircraft and major aircraft components. This requires test data from the aircraft to be transmitted to a receiving system which processes the data so engineers can monitor and evaluate the operation of the aircraft in real time, and direct the testing. Real time monitoring ensures the aircraft meets test point criteria and provides engineers on the ground with the ability to alert the air crew of developing issues before they become critical.

At the 2007 World Radio Conference, C-band spectrum including the band 5091-5150 MHz was allocated for AMT (Aeronautical Mobile Telemetry). The additional spectrum was needed to alleviate congestion in the existing AMT bands, and provide spectrum to accommodate increased data rates and additional users. Within the U.S., rules for use of the band are currently being drafted. Equipment such as transmitters and receiving system are available, and more equipment is in development.

- a) Textron Aviation has a need to conduct testing and evaluation of the suitability of this band for AMT. Evaluation of the characteristics of the band and the performance of the equipment under flight test conditions is necessary to ensure a smooth and safe expansion into the new band.
- b) The specific objective we wish to accomplish is to ensure reliable real time reception of aircraft test data on the ground using equipment designed for the band 5091-5150 MHz. Data integrity is essential to the safe and efficient testing of aircraft.
- c) This program will reduce congestion in the existing AMT bands, while paving the way to long term operations in the band once final rules are in place.

Very Respectfully,

Dan Hankins
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