<u>Question:</u> The complete program of research and experimentation proposed including description of equipment and theory of operation.

Rockwell Collins is developing the next generation of ATM (Air Traffic Management) hardware and software. This portion of the ATM system is a standard Mode S transponder transmitting on the 1090 MHz band with ADS-B (Automatic Dependent Surveillance – Broadcast) functionality added. During development ground testing must be performed to validate the system.

Question: The specific objectives sought to be accomplished.

The purpose of this testing is to verify the ability to process and transmit the ADS-B information while maintaining the required performance of the Mode S transponder.

<u>Question:</u> How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion, or utilization of the radio art, or is along a line not already investigated.

The need for continued experimentation with ADS-B enabled Mode S transponders will continue until the ADS-B and ATM environment are fully defined by regulatory and industry committees and implemented into certified aircraft equipment.