

EXPLANATION OF PURPOSE:

- a. The complete program of research and experimentation proposed including description of equipment and theory of operation.
 - a. This is a Radar Wind Profiler system used to gather wind speed/direction measurements up to 5km in the atmosphere. The antenna us a 64 element ESA comprised of Yagi antennas. Basic theory of operation is the antenna uses electrical beam steering to sample multiple points in the atmosphere, aggregating the returned data into a comprehensive wind measurement.
- b. The specific objectives sought to be accomplished.
 - a. Generate historical wind models of the Boca Chica Range and contribute to the SpaceX Distance Focused Overpressure tool.
- c. 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 line not already investigated.
 - a. The Radar Wind Profiler will contribute to the development of the Starship program, with the ultimate goal of making mankind a multi-planetary species, in the areas of flight safety and reliability by providing accurate, reliable wind speed/direction data.