

Description of Research Project

- a. A description of the nature of the research project being conducted.
 - This project is intending to leverage Digital Television Signals in order to do Radio Detection and Ranging (Radar)
- b. A showing that the communications facilities requested are necessary for the research project involved.
 - In areas where there is not sufficient background RF energy, I will need to inject RF energy to accomplish Radar. For example: Yuma Proving Grounds.
- c. A showing that existing communications facilities are inadequate.
 - There are no existing transmitters in my band of interest for at least 39 miles as per the FCC.gov DTV mapping too. This will not be sufficient background RF for me to be able to perform measurements. Additionally, the available RF is not in my band of interest. Location of interest NL 32-50-41; WL 114-24-35. source: <https://www.fcc.gov/media/engineering/dtvmaps>