

JHU/APL Drone Detection Research with Rada RPS-42 Radar

Rada
RPS-42



- Background
 - This Form 442 License Application covers research initiated under STA 0023-EX-ST-2020
- Purpose
 - Drone defense is an active area of IRAD at JHU/APL. Radar represents one potential way to detect and locate drones but there are still many challenges to making this practical in the real world. The project using the Rada radar system is aimed at maximizing detection and tracking of drones while avoiding false detections from birds, trees, and other moving objects in the field of view.
- Method
 - Operate the Rada radar in horizon/sector scan mode while presenting various targets to the radar within a nominally 1.5-km square operational area
 - Routinely collect radar data to gather statistics on false alarms and environmental clutter (birds, weather, etc.)
- Location
 - JHU/APL Building 21 Rooftop, near Columbia, MD (39° 9'56"N, 76° 53'56"W)
- Rada RPS-42
 - 47W Tx Power, 7.5kW ERP
 - Frequency : 3.3 – 3.4 GHz
 - Emission: 20M0Q2N and 20M0M2N
- FCC License Request
 - 3 years

