

**INTERSOFT**  
SERVICES

## Integrated PSR-SSR/IFF and G-A-G Communication measurements

SkyRF® measures horizontal and vertical polar diagrams (HPD and VPD) of PSR, SSR/IFF or combined systems in a single 15-minute flight. Performing these drone-based measurements at altitude overcomes the limitations of ground measurements and eliminates the need for test flights. SkyRF® extends the RASS® portfolio of measurement equipment and tools for exhaustive radar analysis and support.

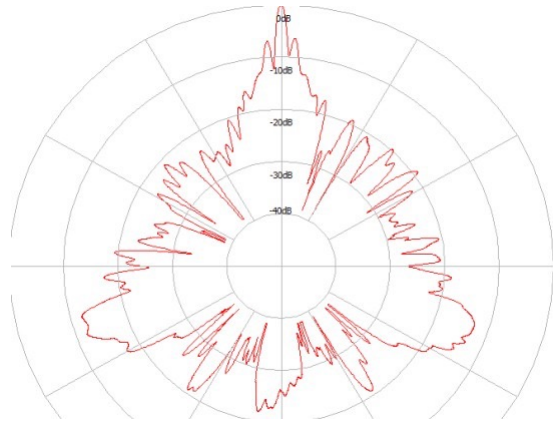


- ✓ HPD measurements at multiple ranges, azimuths and elevation angles in the same flight
- ✓ VPD from cone of silence to negative elevation angles with Slant range correction and full transmitter health check
- ✓ No downtime for uplink measurements
- ✓ Live feed for real time data monitoring
- ✓ Possibility to measure downlink receive VPD beams and beam combining
- ✓ Compliant to ICAO 8071, STANAG 3374, FAA 8200.1

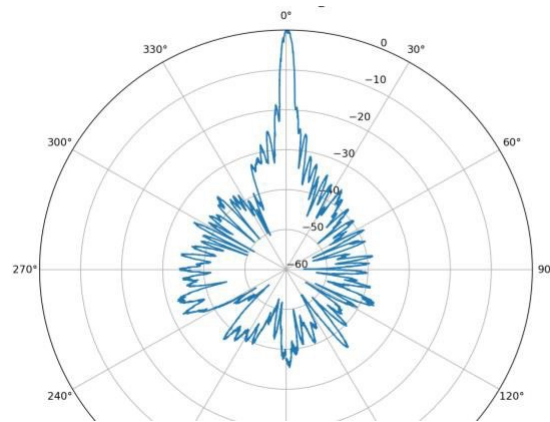


**HPD and VPD measurements**

Buildings, terrain obstructions, and negative measurement angles can cause distorted HPD graphs. Therefore, it is crucial that measurements are taken in the Far Field, at (multiple) positive elevation angles and different ranges and azimuths. SkyRF achieves this in a minimal amount of time with great flexibility for PSR and SSR/IFF radar systems.



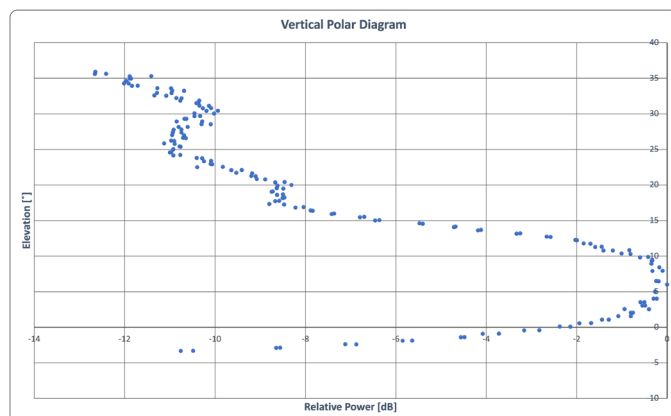
HPD ground measurement (negative elevation angle) with urban interference



HPD of the same radar with SkyRF (positive elevation) away from obstructions

VPD information can be measured while flying vertically relative to the radar. SkyRF compensates for slant range and terrain deviations to calculate the maximum power for every elevation angle in relation to the radar system. The results are displayed in a live feed from the flying platform.

In addition to the transmit VPD pattern, the receive VPD beams (and beam combining) can also be measured using CW signals that are geographically referenced by SkyRF's differential GPS, inertial and pressure computed altitude.



VPD | Vertical Polar Diagram

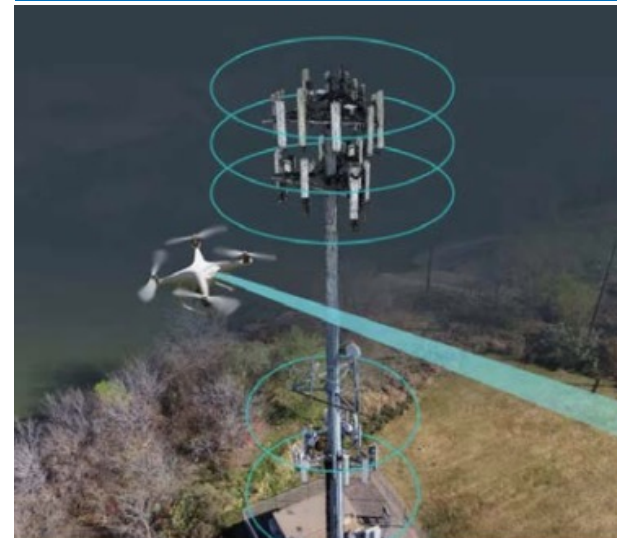
**SkyRF® and RASS® complementary tools**

SkyRF® complements the RASS® portfolio of measurement equipment and tools as the ultimate way to verify the complete transmission system health quickly and accurately. RASS® offers the dedicated tools to analyze subsystems in deeper detail. Integrating SkyRF® and RASS® measurements for example enables an easy combination of the VPD data with frequency, radar positioning, and maximum output power data to calculate a radar's maximum operational range.

**G-A-G Communication**

Similar to the HPD/VPD measurements for radar, SkyRF® can measure those diagrams also for radio systems. That entails all VHF, UHF, L, S and C band ground-air-ground communications systems.

- Relative and absolute power density measurements
- HPD, VPD and coverage analysis
- Spectrum analysis and direction finding



Taking CNS measurements to the next level