



ADVANCED RADAR TECHNOLOGY

The Surveillance Technology Branch of the Naval Research Laboratory (NRL) performs research and development into advanced architectures, technologies, and algorithms that increase the capabilities of Navy, Marine Corps, and DoD radar systems. The branch is active in programs to improve ship self defense, area defense, and ballistic missile defense, among others. The surveillance Technology Branch is interested in receiving research and development proposals in support of its mission. Specific areas of interest include, but are not limited to:

- 1) Innovative methods for increasing radar sensitivity,
- 2) Reducing the cost of systems through innovative technologies and architectures,
- 3) High performance, efficient, wideband transmitters and power amplifiers,
- 4) High dynamic range, wideband analog receivers,
- 5) Wideband digital receiver/exciter,
- 6) Wideband digital beamforming,
- 7) Antenna alignment and calibration techniques,
- 8) Waveforms and signal processing algorithms for more efficient extraction of target information in the presence of clutter and interference,
- 9) Innovative architectures for antennas which provide increased capabilities, lower weights, and/or lower cost,
- 10) Innovative operating modes for more efficient utilization of radar resources and more rapid establishment of tracks, and
- 11) Experimental and theoretical characterizations of the interaction of RF signals with devices and environments.

Proposals should address the value added by contrasting the proposed approach with conventional approaches and technology. This may be done by direct comparison or by a parametric analysis of sufficient depth to assess the benefits when the proposed approach does not permit direct comparison.

Address White Papers (WP) to Code 5340.1, or [e-mail](#), Fax (202) 404-8687, telephone (202) 404-8378. Allow one month before requesting confirmation of receipt of the WP, if confirmation is desired. Substantive contact should not take place prior to evaluation of a WPI by NRL. If necessary, NRL will initiate substantive contact.