DEPARTMENT OF THE NAVY
NAVAL RESEARCH LABORATORY
4555 OVERLOOK AVENUE SW
WASHINGTON DC 20375

IN REPLY REFER TO:
29 June 2006

Dear Colleague:

The Organizing Committee is pleased to announce the Fourth Tri-Service Waveform Diversity Workshop, which will be held from **14-15 November 2006** at the Naval Research Laboratory (NRL) in Washington DC. Unclassified presentations for unlimited distribution are solicited on topics pertinent to the workshop. Please respond as soon as possible. These workshops are aimed at further developing a growing technology area for support of system applications in sensors, communications, and countermeasures in the US DoD. In addition, the workshop is intended to provide a bridge between International IEEE/IEE Conferences on Waveform Diversity and Design, where less formal and interim efforts can be discussed. Consequently, presentations that summarize existing programs are encouraged.

New waveform-generation and adaptive-processing technologies, enabled by recent hardware advances in signal processing and RF technology, have the potential to improve significantly the capabilities of existing military missions by tightly coupling sensor, countermeasure, and communication systems, as well as to increase performance in each area. These hardware advances allow significantly more flexibility in modulation for radar and communications signals. This improved flexibility, coupled with dynamic reprogrammability, results in the capability of generating adaptive waveforms that are optimized for a user's specific application and operational environment. In addition, improved analog-to-digital converters and integrated analog circuitry allow direct synthesis of signals without the need for complex mixing stages and baseband processing. Finally, the phase accuracy in modern transceivers improves system performance in both the temporal and spatial domains. Thus, recent technological advances in processing and device design make waveform diversity possible.

Abstracts between 500 and 1000 words in **PDF format** must be received via email attachment by **8 September 2006**. Send these electronic submissions to Lynda Kelly at lynda.kelly@nrl.navy.mil. Both on the email message and in the PDF file, submitters are requested to include the following pertinent contact information: telephone number, facsimile number, email address, and official mailing address. If you have not received confirmation of your submission within 3 business days, please contact Ms. Kelly at 202-404-1864. Submitters will be notified by **29 September 2006** if their topic has been accepted for presentation.

A block of rooms is being held at the Holiday Inn Select in Alexandria VA at the rate of $192 per night or at the current government per diem rate at the time of the event. For hotel accommodations, call 800-368-5047 and refer to the Waveform Diversity Workshop room block. **Please note that the block of rooms is being held by the hotel until October 6, 2006. The hotel will not honor the special conference rates for any reservations made after that date.** There will be no registration fee for the workshop; however, a donation of $5 to defray the cost of daily refreshments is requested.

The attached registration form should be submitted as soon as possible, but no later than **6 October 2006**. Clearance information should be faxed no later than **6 October 2006** for Foreign Nationals and no later than **27 October 2006** for US citizens to:

Naval Research Laboratory
Attn: Lynda Kelly (Code 5340)
4555 Overlook Ave. SW
Washington, DC 20375

Fax: 202-404-8687
Voice: 202-404-1864

A clearance must be submitted for this Workshop, even if you have a clearance on file at NRL. Foreign Nationals must bring their passports. In addition, a Foreign National residing in the US needs to present their green card.

Participation and attendance will be limited and are by invitation only. We feel that this is an important technology area and hope that you can attend.

Eric Mokole (NRL)
Aaron Shackelford (NRL)

ORGANIZING COMMITTEE

Michael Wicks
Air Force Research Laboratory
Tel: 315-3302556
Email: Michael.Wicks@rl.af.mil

Robert McMillan
Army Space and Missile Defense Command
Tel: 256-955-5418
Email: bob.mcmillan@smdc.army.mil

Eric Mokole
Naval Research Laboratory
202-404-2700
Email: eric.mokole@nrl.navy.mil

Aaron Shackelford
Naval Research Laboratory
202-767-6807
Email: aaron.shackelford@nrl.navy.mil