Sandia Labs – on the leading edge of DE Research

Sandia is a multidisciplinary national laboratory and federally funded research and development center (FFRDC) for the National Nuclear Security Administration. Sandia accomplishes tasks integral to the mission and operations of our sponsoring agencies by

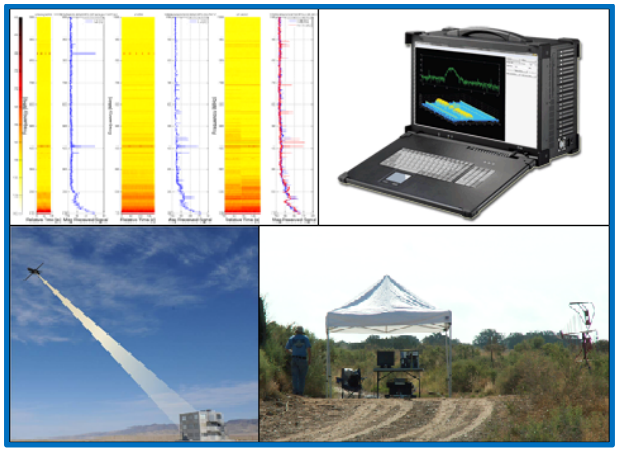
- Anticipating and resolving emerging national security challenges
- Innovating & discovering new technologies to strengthen the nation's technological superiority
- Creating value through products and services that solve important national security challenges
- Supporting "Strategic Partnership Projects" via contracts and cooperative research agreements

Sandia National Laboratories is a world leader in pulsed power science and technology. Sandia has decades of experience in directed energy research for National Security with expertise in Compact Pulsed Power System Design, High Power Electromagnetics, Modeling and Simulation, Semiconductor RF/Optoelectronic and Microelectronic Circuit Design, Effects Testing, Laser Applications, Materials Development and Characterization, Microsystems & Engineering Sciences Applications, and Sensor & Systems Exploitation.

Important Accomplishments in 2014

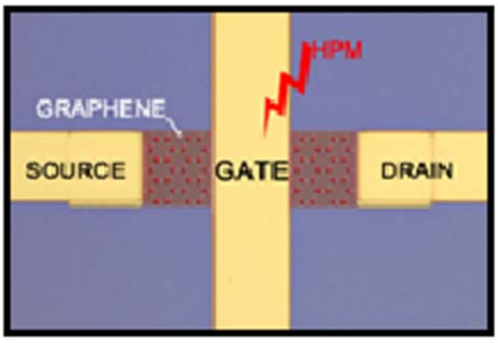
Electronic Battle Damage Assessment

- *Techniques to detect system changes based upon electromagnetic emissions.*
- *Developed a fieldable software defined radio based data acquisition system.*
- *Developed localization techniques for complex environments.*
- *Demonstrated eBDA for several national security programs.*



HPM Susceptibility of Graphene Devices

- *1st of its kind comparative study on HPM induced effects in graphene field effect devices (GFETs).*
- *Calibrated survivability of GFETs against known silicon device structures.*
- *Results suggest that graphene could enable robust applications.*



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U.S. DEPARTMENT OF ENERGY