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Response to Form 442 Question 4: Government Project Description

Agency - DARPA Strategic Technology Office

Program - Advanced Wireless Networks for the Soldiers (AWNS)

Contracting Agency - Air Force Research Laboratory

Contract # - FA8750-11-C-0201

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The Advanced Wireless Networks for the Soldiers (AWNS) program goal is to develop and demonstrate technologies and system concepts enabling densely deployed networks in which distributed and adaptive network operations compensate for limitations of the physical layer of the low-cost wireless nodes that comprise these networks. AWNS networks will manage node configurations and the topology of the network to reduce the demands on the physical and link layers of the nodes. The technology created by the AWNS effort will provide reliable and highly-available battlefield communications at low system cost.

The AWNS program will develop a prototype handheld wireless node that can be used to form high-density ad hoc networks and gateways to the Global Information Grid. This program will develop robust networking architecture(s) that will exploit high-density node configurations from related DARPA programs. Under this program the contractor will:

- Conduct experiments of the Wireless Network after Next (WNaN) system to facilitate continued research into performance in urban areas.
- Integrate and test various applications to determine how they perform over the WNaN wireless network.
- Conduct demonstrations for organizations interested in transitioning WNaN technology.

This program will culminate in a large-scale network demonstration using inexpensive multi-channel nodes.