Feb. 23rd, 2015

**Zhongren Cao**

**C-3 Comm Systems, LLC.**

**P. O. Box 871**

**Vienna, VA 22183**

RE: Letter of Support for SBIR A15-020 Wireless Networking Using Multiple Antenna Interference Alignment

Dear Zhongren:

General Dynamics is pleased to support the C-3 Comm Systems LLC. proposal for phase I Self-Organizing Interference Alignment (SOIA) for Tactical Mobile Ad Hoc Communications Networks. In this proposal, C-3 Comm Systems is designing efficient algorithms to enable distributed clustering of multiple transceiver pairs for interference alignment in practical tactical mobile ad hoc networks. Such development will support significant network-wise throughput improvement for tactical communications in mobile edge networks by allowing multiple transceiver pairs to be active at the same time.

General Dynamics will closely monitor the progress and examine the potential for transition into products and programs such as the Universal Applications Product, Digital Modular Radio (DMR), Handheld Manpack and Small Form Factor (HMS). GD and C-3 Comm Systems will integrate the proposed SOIA technology with platforms running various waveforms for future implementation efforts.

General Dynamics will be pleased to play in an active role in the Phase II of this program as there are viable transition potentials for this technology to several programs such as HMS AN/PRC-154 Rifleman Radio. GD-MS has an active relationship with a number of DoD agencies and programs for which there is a potential future application of this technology.

General Dynamics Mission Systems (GD-MS) delivers tactical C4ISR systems to the DoD, leveraging technologies that provide decisive advantages to the warfighter. GD-MS is a prime contractor for Handheld, Manpack, and Small Form Factor (HMS), Command Post of the Future (CPOF), Warfighter Information Network-Tactical (WIN-T), Electronic Warfare, Security programs and many others supporting the Global Information Grid.

General Dynamics Mission Systems will collaborate with C-3 Comm Systems to benefit from available engineering resources and expertise that are available to expedite transition.

Please feel free to call or email: (480) 441-5147; [Sam.Khoury@gd-ms.com](mailto:Sam.Khoury@gd-ms.com)

Respectfully,

Sam Khoury

Advanced Research & Development Programs

General Dynamics Mission Systems