PHOTO AVAILABLE: AFCEA's SIGNAL Magazine: Bionic Bugs May Be Next Defense Department Innovation

For Immediate Release

FAIRFAX, Va./EWORLDWIRE/June 5, 2007 --- The U.S. Defense Department is working to embed insects with microchips to create fleets of biological flying sensors controlled by human operators several miles away. The department's Defense Advanced Research Projects Agency (DARPA) is researching the use of butterflies, moths, dragonflies and even hopping and swimming insects as sensor platforms capable of detecting sounds, gases or heat-emitting objects.

This program is reported in the June 2007 issue of SIGNAL Magazine ('http://www.afcea.org/signal') in a page 16 story titled, "Scientists Design Sensor-Embedded Insects" 'http://www.afcea.org/signal/articles/templates/Signal_Article_Template.asp?articleid=1338&zoneid=209'). The story is part of a multi-article report on DARPA science and technology research.

The DARPA bionic bug program is titled "HI-MEMS," for Hybrid Insect Micro-Electromechanical Systems. Its goals are twofold: to develop ways of controlling insects electronically, and to turn them into sensor platforms that would report data back to their human controllers. Scientists are looking to embed micro-electromechanical devices in insect larvae or pupae. Because most insect tissue development occurs in the later stages of metamorphosis, the insects would grow around the circuitry and adapt to it-in effect, forming an organic tissue-machine interface. Both control devices and sensors could be embedded to tailor the cybugs for specific tasks.

SIGNAL Magazine is the multiple-award-winning official journal of AFCEA International. For more than 60 years it has been the authoritative magazine for defense communications and electronics, particularly in the field of command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR).

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from June 2007 SIGNAL Magazine
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