



**PHOTO AVAILABLE: AFCEA Educational Foundation announces The 2008 National High School Science Fair Grande Prize Winner**

*Winning Project focuses on Solar Energy*

For Immediate Release

FAIRFAX, Va./EWorldWire/June 9, 2008 --- The AFCEA Educational Foundation is pleased to announce that Nathan Monroe is this year's grand prize winner for the 2008 AFCEA National High School Science Fair Award for the best high school science project related to communications, intelligence or information systems. The winning project was selected from science fairs nationwide and will be displayed at AFCEA and the U.S. Naval Institute's Joint Warfighting Conference and exposition, June 17-19, 2008, at the Virginia Beach Convention Center. The award includes a cash prize and a trip to Virginia Beach for the winner and his family.

Monroe is a junior at Episcopal High School in Jacksonville, Fla. His project is entitled, "Harnessing Solar Energy, Year 4: Increasing the Efficiency of a Hybrid Polymer Photovoltaic Cell with the Addition of Zinc Oxide Nanofibers in Varying Lengths." The goal of this project is to increase the energy efficiency of a new type of solar cell that uses a polymer material base instead of silicon. The idea of improving solar cell efficiencies has been a quest since solar cells have been developed due to their low efficiency values. The project's results find an apparent relationship between zinc oxide nanofiber length and solar cell efficiency.

Monroe has received numerous other awards for his project, including first place senior chemistry division in the North East Florida Regional Science and Engineering Fair; Yale Science and Engineering Association Inc. most outstanding project in computers, engineering, physics or chemistry; American Society of Mechanical Engineers Award for Excellence; and the University of North Florida College of Arts and Sciences Trophy for Excellence. He competed in the Florida state science fair in April in Lakeland, Fla., placing second in the chemistry division, and the international science and engineering fair in Atlanta, Ga., in May, placing second in the "energy and transportation" category behind a student from Denmark.

Through his high school Monroe is involved in the National Honor Society, Mu Alpha Theta National Math Honor Society, and Joe Berg Science Honors Society. In addition he is a member of the varsity cross country team and serves as an ambassador at his school. In his spare time he volunteers as a camp counselor for "Camp I Am Special," a camp for severely autistic, mentally handicapped, and physically handicapped children and adults.

Also attending the Joint Warfighting conference and exposition is the Science Fair's First Honorable Mention winner, Nicholas Christensen, a sophomore at Wetumpka High School, Wetumpka, Ala. He will be exhibiting his project, "Do You 'ear Wha' I 'ear? Redigitizing Voice Signals Into Lower Frequencies to Revolutionize Hearing Assistance Technology."

For a listing of all the 2008 AFCEA Science Fair winners, go to '<http://www.afcea.org/education/scholarships/sciencefairwinners08.htm>'.

The AFCEA Educational Foundation promotes excellence in education with scholarships, awards, grants and prizes, awarded annually to students studying the scientific and technical disciplines that support communications, intelligence and information systems. AFCEA International, established in 1946, is a non-

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profit membership association serving the military, government, industry, and academia as an ethical forum for advancing professional knowledge and relationships in the fields of communications, IT, intelligence, and global security. For more information, visit '<http://www.afcea.org>'.

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**SOURCE:** AFCEA International

**AVAILABLE MEDIA:** : Nathan Monroe, AFCEA's 2008 National High School Science Fair Grand Prize Winner (size: 0.0 k)

shown accepting the Northeast Florida Regional Science Fair First Place Award from CAPT Bob Whitkop, USN (Ret.), Jacksonville Chapter President.

<http://eworldwire.com/mediauploads/Afceaaward.jpg>