

NAVY Transition Assistance Program

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N04-255 - Adaptive Technologies, Inc.

Flight Deck Cranial

NEED & CUSTOMER REQUIREMENT

Need: Carrier flight deck maintainers need improved head and hearing protection. The legacy cranial was designed in the 1950s and is incompatible with modern aviation constraints of higher noise levels, Night Vision Device (NVD) compatibility, Chemical, Biological, and Radiological (CBR) equipment, and is not compliant with NAVOSH or ANSI Z89.1-2003 requirements.

Value to the Warfighter: The product being transitioned provides increased protection from head injuries. The new cranial will be compliant with the ANSI Z89.1-2003 industrial head protection standard, while providing a stable platform for NVD use, hearing protection integration, and will be compatible with CBR and other forms of personal protective equipment.

Operational Gap: The legacy cranial is not and is incapable of becoming compliant with any modern head protection standards. Further, it is difficult or impossible for the legacy cranial to meet operational requirements when using night vision or CBR equipment. This product transition will solve these and other user concerns such as comfort, head retention, and hygiene.

Customer Specifications: NAVAIR's PMA202-08000 performance specification details the need for ANSI Z89.1-2003 compliant head protection, compatibility with night vision, CBR, and state-of-the-art hearing protection. ATI's advanced flight deck cranial meets these and many other specifications such as weight, heat reduction, improved hygiene, comfort, and communications.

Technology Description: The APC-2G protective cranial system provides head protection to ANSI Z89.1-2003 standards. It is the only design to provide the option of independent head and hearing protection so the user can reconfigure for specific work locations. Reduced user touch areas greatly decrease heat and increase hygiene over other helmet systems. The AN/AVS-9 night vision system has been seamlessly integrated to allow stable, hands-free operation in all operational environments.

TECHNOLOGY DEVELOPMENT MILESTONES (SBIR/STTR)

Milestone	TRL	Risk	Measure of Success	TRL Date
APC-2G Qualification	7	Low	Pass Verification and Operational Tests	December 2009
APC-2G Fleet Assessment	8	Low	Positive fleet feedback from assessments in the operational environment	April 2010
APC-2G Procurement	9	Low	Successful SVR/PRR	July 2010

Open contract: N68335-08-C-0292 ending July 2010

SPONSORSHIP of original SBIR/STTR Topic

SYSCOM: NAVAIR

Transition Target: PMA-202 FDC
Head and Hearing Protection

Original Sponsoring Program:
Maintainers Head and Hearing Protection

TPOC Phone Number:
301-757-6983



TECHNOLOGY TRANSITION OPPORTUNITIES (PHASE III)

Other Potential Applications:

Initial target platforms are all USN flight deck environments: CVN, LHD, LPD. USN and USAF flight lines, and engine test houses, are secondary platforms of interest. The APC-2G cranial integrates with both legacy and new advanced hearing protection equipment.

Business Model:

ATI is managing the qualification and developmental testing of the APC-2G protective cranial. The system will be transitioned for manufacturing by an affiliate company, Aegisound. Aegisound will be ramping to production by the beginning of FY2011. Aegisound is slated for ISO9001:2008 by the end of CY2009.

Objective:

The protective cranial being transitioned as part of this SBIR program will be ready for sale by FY2011. We are seeking the interest of DoD acquisition programs, LRIP procurement contracts, and follow-on volume procurements for the APC-2G protective cranial and compatible hearing protection devices.

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