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Physical Optics Corporation (POC) Awarded \$13.5 Million Production Contract from Naval Air Systems Command

To Supply Digital Data Set (DDS) Systems for Navy T-45 Aircraft

December 17, 2012 – Torrance, CA – [Physical Optics Corporation](#) (POC) today announced it has received a production contract in the amount of \$13.5 million from the Naval Air Systems Command (NAVAIR), Patuxent River, MD, to produce 85 Digital Data Set (DDS) Systems and 20 spares for use on the T-45 aircraft. Work begins in the Torrance, CA, facility immediately, and this phase of the contract is to be completed by February 2014. The contract has the potential to be expanded, placing DDS Systems onto additional T-45 aircraft through production options as funding becomes available.

The DDS physically replaces three older units on the T-45 aircraft into a single highly advanced system, greatly improving flight data recording, flight safety, aircraft maintenance and training program efficiency.

“DDS will make a positive impact on fleet training and aircrew situational awareness in their training environment,” said U.S. Navy CAPT Leon Bacon, who recently took charge of the Naval Undergraduate Flight Training Systems Program Office (PMA-273), the Program Office responsible for the T-45C aircraft and pilot training.

In the first system release, the DDS will be a functional replacement for the Airborne Data Recorder (ADR), Signal Data Computer (SDC), Advanced Signal Data Computer (ASDC), Airborne Video Cassette Recorder (AVCR) and the Mission Data Loader (MDL). The DDS will also include important CNO Safety Mandated features such as Crash Survivable Flight Incident Recorder (CSFIR), Crash Survivable Memory Unit (CSMU) which meets ED-112 standards, Terrain Awareness Warning Systems (TAWS) and aids the use of Military Flight Operations Quality Assurance (MFOQA). The technical advancement of the DDS is an added advantage to the Navy by recording 32 Hz sensor sampling rates, a significant memory improvement, and has enhanced communication interfaces such as Gigabit Ethernet (Web Server connection) and triple MIL-STD-1553 buses with redundant RS422 capability.

“DDS is significant,” Bacon said, “not only for the long-term program dollar savings it can provide, but also in the functional capability that is critical to our ability to properly sustain the fleet.”

Joanna Jansson, Ph.D., POC Chairman, President and CEO said, “POC is fully prepared and committed to delivering quality products to the Navy.” Further “we are capable of providing additional enhancements such as DoD approved/NMCI certified USB devices, and wireless capability in future product releases.”

Elements of DDS originated as a Small Business Innovation Research (SBIR) Phase I topic sponsored by NAVAIR’s Air Combat Electronics Program Office (PMA-209). CAPT Tracy Barkhimer, Program Manager of PMA-209, said, “The seeds of the All – In – One, multifunctional recorder, which combines video, audio and data into a single ED-112 crash survivable unit, had its beginning as an SBIR research topic sponsored by this office.”

“It’s very rewarding to see a SBIR research project transition into a program that will not only enable the warfighter, but will improve flight-safety statistics and also save the taxpayer in the end,” said Barkhimer, a supporter of advanced technology.

The NAVAIR SBIR Program enables small businesses like POC to develop technology through a three Phase process. Phase I is initial competition for contract award. Phase II is technology development and maturation. The overall goal is to transition into a NAVAIR Program upon completion of Phase III. The SBIR Program encourages small business participation in the developing technologies which may benefit both the NAVY and commercial sectors.

About Physical Optics Corporation

Physical Optics Corporation (www.poc.com - Torrance, California), is a systems integrator of advanced technology serving the military, defense and security markets since its founding in 1985. As a highly innovative women-owned small business, POC has grown to a \$50M company with 235 employees, which includes 85 Engineers and 55 Ph.D.s. POC is located in Torrance, CA with 5 buildings that occupy over 100,000 square feet. With 6 spinoff companies, POC is strong financially and holds over 135 issued patents, covering 40 technologies. POC's production and quality programs are certified to ISO 9001:2000, AS9100C, AS9110A and managed under CMMI- ML3.

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T-45



DDS – Digital Data Set



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