

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) April 1, 2009		2. REPORT TYPE Final Report - Base Period		3. DATES COVERED (From - To) 05FEB2008 to 05FEB2009	
4. TITLE AND SUBTITLE Affordable Silicon Based Visible/Near Infrared Missile Warning Sensor				5a. CONTRACT NUMBER N00014-08-C-0121	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Rodgers, Wayne E. , Principal Investigator Ring, Lawrence S.				5d. PROJECT NUMBER 07PR09018-00	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Eddy Company 13590 Niabi Road Apple Valley, CA 92308-6641				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of Naval Research One Liberty Center 875 N. Randolph Street Arlington, VA 22203-1995				10. SPONSOR/MONITOR'S ACRONYM(S) ONR	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT The Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data or computer software marked with this legend are restricted as provided in paragraph (b)(4) of DFARS 252-227-7018, Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program.					
13. SUPPLEMENTARY NOTES Prepared in cooperation with Hargis, Bryon and Strong, Shadrian at Johns Hopkins University Applied Physics Laboratory, 11100 Johns Hopkins Road, Laurel MD 20723-6099					
14. ABSTRACT This Affordable Missile Warning Sensor uses affordable, robust and well-characterized silicon based CCD focal plane technology that has several advantages over infrared detectors traditionally used in missile-warning systems. The development reported here describes the steps taken to successfully produce improved pre-production units for testing under Mil Spec 810E/F requirements. The development effort also achieved control over the manufacturing processes necessary to produce consistent pre-production units. Laboratory and field-tests in appropriate environments were undertaken to verify performance capabilities.					
15. SUBJECT TERMS Affordable Missile Warning Sensors, Magneto-Optical Filters, Narrowband Infrared Imaging					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 109	19a. NAME OF RESPONSIBLE PERSON Wayne Rodgers
a. REPORT UNCLASSIFIED	b. ABSTRACT UNCLASSIFIED	c. THIS PAGE UNCLASSIFIED			19b. TELEPHONE NUMBER (include area code) 760-961-8457