September 19, 1994

Mr. Barry Blumenthal
OFFICE OF NAVAL RESEARCH
800 North Quincy
Ballston Tower #1
Code 4532
Arlington, VA. 22217-5660

FINAL REPORT FOR CONTRACT N00014-92-M-101

EXECUTIVE SUMMARY

During FY92, the ASW Environmental Acoustic Support (AEAS) Program transitioned the Optimization of the Performance of Theater ASW Mobile Acoustic Sensor (OPTAMAS) Program to the Acoustic Performance Prediction (APP) Program. The OPTAMAS system was designated as an interim solution to the Integrated Command ASW Prediction System (ICAPS) Version-2 Advanced Deployment Model (ADM). At the direction of the AEAS Program Manager, the OPTAMAS software source code was delivered on cartridge tapes to the APP Program's "integration agent". The integration agent was designated as the Naval Electronics System Engineering Activity (NESEA), in Patuxent River, Maryland. NESEA was responsible for the distribution and installation of the ICAPS-2 software to the Fleet. During the contract period of performance, a rigorous training and orientation program was implemented to rapidly familiarize NESEA personnel on the installation and operation of the OPTAMAS/Interim ICAPS-2 software. The Hardware platform for the ICAPS-2 software was a Sun Microsystems Workstation running under the UNIX operating system. Upon completion of the training program, NESEA distributed the Interim ICAPS-2 software to various ASW Operations Centers (ASWOCS) worldwide.

Contract N00014-92-M-101 was awarded to Systems Integrated Government Services Division personnel (now Alliant Techsystems), the original OPTAMAS developer, to support the Interim ICAPS-2 ADM software during the transition phase between the AEAS and APP Programs. This support was to include software consulting services to answer any questions regarding the installation, maintenance and operation of the Interim ICAPS-2 software. In addition, software maintenance support was provided to respond to software trouble reports (STRS) generated by Fleet users.

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS UNLIMITED

94-32250

DTIC QUALITY IMPROVED
Best Available Copy
This software maintenance support was to provide software patches/fixes to NESEA once STRS were generated in response to any problems Fleet users might encounter.

**CONTRACT EXECUTION**

During the period of performance the following deliverables were provided:

1) An automated installation script was developed, tested and verified to allow NESEA personnel to easily install the Interim ICAPS-2 software at Fleet sites worldwide. This installation script was necessary because the OPTAMAS/Interim ICAPS-2 software utilized a Vector Array Processor to perform rapid transmission loss calculations. Use of the Array Processor, required that the UNIX operating software kernel be modified to accommodate use of the array processor.

2) Software maintenance support was provided to NESEA during the contract's period of performance. Software services were provided to respond to six STRS which were generated by Fleet users. In addition, software consulting and training support was provided to NESEA personnel as required to facilitate a smooth transition of the Interim ICAPS-2 software to the Fleet.

**PURCHASED MATERIAL**

During the contract period of performance, magnetic cartridge tapes were purchased to support software distribution and support.

Please feel free to call me (619 277-5300) at any time if you have any questions regarding this report.

Sincerely,

**ALLIANT TECHSYSTEMS**

David F. De Leeuw
Operations Manager - ATC San Diego

DFD/VC
tvc94006

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS UNLIMITED