

For consideration for paper session 1B (Technology Solutions Delivered to Operational Space Programs) of the 41st Space Congress

An Operational System for Launch Area Hazard Prediction and Mitigation

Mr. Allan Dianic*, Mr. Erik Magnuson
ENSCO, Inc.
1980 N. Atlantic Ave. Suite 230
Cocoa Beach, Florida 32931

ABSTRACT

The Meteorological And Range Safety Support (MARSS) system provides the Air Force and NASA with a combined meteorological/toxic hazard support capability to protect personnel and property engaged in vehicle processing, material handling, launch preparation and launch support activities. The primary users for MARSS are the Air Force's 45th and 30th Space Wings and NASA's Kennedy Space Center. These organizations provide joint base toxic and hazard support activities for their facilities, personnel and surrounding communities.

The MARSS system is the result of a highly successful technology transfer from innovative research to operational product and provides:

- Quality analysis of weather measurements from over 70 different instruments
- Extensive set of meteorological and hazard prediction tools for 2 and 3-dimensional toxic material release, blast hazards and risk to human life
- Use of expert systems technology to monitor real-time weather measurements in order to detect user specified hazardous conditions and alert when they are detected
- Continuous (24 hour/7 day) availability

The use of the MARSS system saves money through the improved efficiency of functional consolidation and integrated communication tools. A single user can now perform a series of support tasks that had previously taken 2-3 personnel. It further enhances communications between Government safety personnel and local town, county and state emergency response planners and personnel.

* Corresponding Author: Tel.: (321) 783-9735, ext. 207; email: dianic.allan@ensco.com