

CREATION OF AN AVIATION PROGRAM FOR OIL SPILL DISPERSION

In September 2004, Aviation Operations Solutions (AOS) contracted with MARINE SPILL RESPONSE CORPORATION (MSRC), a spill response company that represents a consortium of major oil companies, and oil pipeline and tanker companies. The purpose of the contract was to provide aviation expertise to produce an airborne response to oil spills occurring in the oceans and costal waters of the United States.

AOS first had to determine the types of aircraft that could meet the new requirements as to time and ability to deliver enough dispersant. AOS presented the aircraft types and their specifications to MSRC along with the AOS assessments. MSRC determined their requirements and the date the program should be operationally ready.

MSRC now has operational airborne dispersant capability on the West Coast of the United States and the Gulf of Mexico.

AOS has been directly involved in the oversight of the development of the spray system for the large aircraft, the training of the pilots and ground crews, and the maintenance and inspection schedules for the spray planes. AOS was instrumental in the aircraft modification and certification process of the large turbo-prop aircraft, and in the successful testing of the aircraft and spray system, conducted by a team associated with the University of Kansas and the University of Arkansas.

AOS has also developed an operations plan outline that is the basis for all the airborne oil spill dispersant operations. This has required coordination of airspace issues with FAA Air Traffic Control Facilities, Airport Authorities, U.S. Military and the many other entities involved. In some cases, it has been necessary to obtain Letters of Agreement with the facilities involved. AOS has also insured that all parties are aware of, and comply with, the applicable regulations and advisory circulars. Of particular importance is the development of the communications network of frequencies and facilities needed to support the mission, including the addition of satellite communications to the communications suite.

LARGE AIRCRAFT CERTIFICATION PROCESS

During development, it became necessary for AOS to become involved in the large airplane certification process due to unforeseen difficulties. To accomplish this an AOS Principal spent many hours working with the FAA to facilitate the aircraft certification process, working with the aircraft owner, employees, Designated Engineering Representatives (DERs), engineers, spray system fabricator, and the test pilot.

The process required aircraft structural re-engineering in support of the spray system and was accomplished within all safety requirements and FAA guidelines.

AOS was a member of the test flight team, and a participant on 21 spray test flights

. PERFORMANCE TESTING OF THE SPRAY SYSTEMS

The spray systems were flight tested over four days at a test site in Arizona with AOS participation. AOS served as a facilitator during final installation and system adjustments, and the flight testing.

The installations in both the large and small aircraft were examined and the expected performance was discussed with each contractor. Additionally, assistance was provided in overseeing last minute spray system modifications.

AOS participated in the briefings outlining the spray testing procedures and flight paths and provided coordination between the ground test crew and the flight crew.

AOS participated in the analysis of the preliminary spray system results.