

The National Airspace System (NAS) Infrastructure Management System (NIMS) will migrate the FAA's maintenance approach from an equipment-based system to proactive service management. Using COTS enterprise and workforce management software and existing maintenance monitoring assets, maintenance information from the NAS will be transmitted from the field to the national level through a tiered architecture consisting of:

- a National Operations Control Center (NOCC) in the Air Traffic Control System Command Center (ATCSCC);
- three geographical area Operations Control Centers (OCCs) in Atlanta, Kansas City, and San Diego;
- 26+ Service Operations Centers (SOCs); and
- a nationwide network of Work Centers (WCs).



Enterprise Management or Remote Monitor and Control:
Provides for detecting change in operating status, setting system/subsystem data parameters, and controlling operations of NAS equipment, systems, or services.

Workforce Management: The assignment, scheduling, dispatching, and tracking of staff (including contractors and service providers) and identification of resources (e.g., spare parts, test equipment) for maintenance, training, flight check, and certifications.



Coming Soon
NIMS Homepage
<http://nimspt.dot.gov>

Requirements Sponsor Organizations:

Director, Airway Facilities (AAF-1)
Director, Air Traffic Service (AAT-1)

Performing Organization:

NIMS Product Team

For More Information:

NIMS Product Team Lead
202-267-8898

Integration Services Contractor:

Raytheon Integrated Services Company
Upper Marlboro, MD

Capital Investment Plan Project M-07



U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591



NAS INFRASTRUCTURE MANAGEMENT SYSTEM



NAS infrastructure management using an integrated information system

Real-time navigational aid availability to enhance air traffic management

Performance-based, service management approach, focusing on customer and user satisfaction

Enhanced tactical capacity and strategic planning

NAS Infrastructure Management System (NIMS)

System-wide information on the status of National Airspace System equipment and the specialist workforce will be used to optimize the delivery of air traffic maintenance services and to help determine the true cost of providing those services.

NIMS will work with new and existing systems to develop the interfaces and sensor connectivity to relay data through the system. NIMS system monitoring

will provide a strategic overview and status of agency assets essential to providing effective air traffic operations. Enhanced tactical information will contribute to reduced delays and improved flow control management, as well as providing the service levels necessary to support free flight.

Timely information on equipment status at remote sites will contribute to a more complete picture of the

health of the NAS. Optimal deployment of the AF specialist workforce has the potential to reduce the amount of preventive maintenance and to reduce the current Mean Time to Restore (MTTR) for the NAS, which increased 250 percent from 1983 to 1997. Other projected NIMS benefits include:

- Improved collaborative decision-making with NAS users
- Reduced airspace restrictions
- More routine approvals of user-preferred routes
- Optimized airport arrival/departure rates
- Reduced en-route delays
- More efficient airport gate scheduling and reduced surface congestion
- Effective airspace management through system and service predictability
- NAS-wide information security services

NIMS contributes to the FAA's mission goals in the areas of safety, security, capacity, and efficiency. COTS technology is available within NIMS to provide centralized monitoring of the security of NAS systems and secure channels for transmitting monitor and control information and commands.

During 1998, at the NIMS Premier Facility (NPF) in the ATCSCC, the NIMS Product Team will begin evaluating human factors and validating the various COTS products and interfaces that comprise NIMS. The NPF will use real-time data to simulate the day-to-day operation of a centralized maintenance control and reporting system. All the NIMS functions will be contained in the NPF, thus providing a realistic platform to develop and verify initial operational procedures and to refine the AT/AF concepts of operations.

Workforce Management



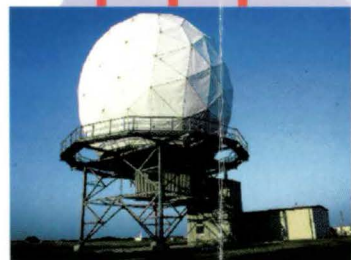
NOCC



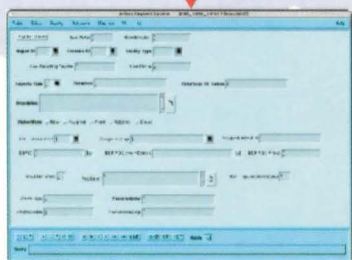
OCC



Specialists Dispatched



Equipment Alarm Generated



WORK CENTER

TASK
TICKET
CLOSED

TASK
TICKET
INITIATED