

FY 2017 R&D BLI Review

NAS Operations PPT

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**Federal Aviation
Administration**



New ATM Requirements



**Federal Aviation
Administration**





New ATM Requirements NextGen– F&E

Need

- The New ATM Requirements program identifies new opportunities to improve the efficiency and effectiveness of air traffic management in terms of operations. The activities include research and development of procedures, tools, and systems to support operational improvements that will increase the number of arrivals and departures at major airports.

Research Goals

- This project conducts cross-cutting research to develop systems that support the capacity enhancements for the NextGen portfolios. It will develop requirements for new air traffic management systems and air traffic control processes to achieve the capacity performance target.

FY 2017 Outputs

- Technology development to identify viable alternatives that could provide for future weather and surveillance radar needs
- Harmonization of protocols and standards for enterprise information use both internally and with external agency partners
- Develop future collision avoidance requirements to support new classes of users to ensure interoperability within the NAS
- Development, validation, and allocation of aviation requirements for weather
- Evaluate methods for ground systems to communicate procedures to the aircraft
- Evaluate advanced communications standards such as L-band Digital Aeronautical Communication System (LDACS) or Satellite-based communication for operational usage

FY 15/16 Planned Activities

- Define high level requirements document for Multi-function Phased Array Radar (MPAR) alternative
- Collect and standardize baseline versions of exchange models
- Conduct ACAS Xu proof of concept to inform RTCA SC-228 standards development
- Support the development of LDACS System Specification
- Development of Test Plan of Satellite-based Push-to-Talk communications standards with international community
- Develop initial document for two-way communications procedures between FMS and ground systems

