OUTCOMES

IMPROVE AVIATION SAFETY	IMPROVE OPERATIONAL EFFECTIVENESS	REDUCE ENVIRONMENTAL IMPACT

Goal 1 Improve Airport Operations, Air Traffic, and Air Space Management Capabilities

Objective 1a: Separation Management

Identify and develop new separation management tools, procedures, and/or requirements for the aerospace community to safely evolve separation management, improve access and flexibility in the NAS, enable the most efficient aircraft routes, and increase airspace capacity.

Objective 1b: Air/Surface Traffic Management

Identify and develop new traffic management tools, operating procedures and/or requirements for the aerospace community's use of airborne and surface movement data to enable en route efficiency more flexible arrival and departure operations and to efficiently use runway capacity.

Objective 1c: Integrated Weather Information

Identify and develop high quality weather analysis and forecast capabilities for the aerospace community to support efficient airport operations and air traffic management decision-making to safely mitigate the impacts of adverse weather.

Objective 1d: Collaborative Decision Making

Identify and develop methods for better access to and exchange of aerospace information for the aerospace community to make the best use of available airspace and airport/spaceport capacity and improve NAS efficiency through greater flexibility, predictability, user preference accommodation, and timely coordination/collaboration.

Objective 1e: Airport/Spaceport Systems

Identify and develop guidelines for the design and implementation of airport/spaceport systems, infrastructure and procedures and their use to increase efficiency, optimize capacity, and enhance safety.

Objective 1f: Aerospace Vehicle Operation

Identify, develop, and validate new and enhanced tools, procedures, and/or requirements for the aerospace community to effectively and safely manage the expanded operation of existing and future aerospace vehicles in the evolving NAS.

Objective 1g: Noise and Emission Management

Identify and develop tools, methods, and procedures and/or requirements for the aerospace community to reduce the noise and emissions from aerospace vehicle operations.

Goal 2 Accelerate use of new technologies for aerospace vehicles, airports and spaceports

Objective 2a: Applied Innovation

Identify and demonstrate new aerospace vehicle and airport/spaceport technologies that could be adopted by the aerospace community to improve safety, increase efficiency, and reduce environmental impacts.

Objective 2b: Certification/Licensing

Identify, develop, and validate technologies, procedures, and methods for the aerospace community to effectively and efficiently certificate and license aerospace operators and vehicles in different environmental conditions and envelopes.

Objective 2c: Alternative Fuels

Identify and evaluate alternative fuels that provide equivalent safety and improved performance relative to conventional fuels.

Objective 2d: Data Analysis

Provide data and analyses to decision-makers to inform development of guidance, standards, and policy measures.

Goal 3 Increase Infrastructure durability and resiliency

Objective 3a: Durability – NAS, Airport & Spaceport Infrastructure

Identify and develop methods for the aerospace community to increase useful life of airport/spaceport infrastructure, NAS materials, and equipment to reduce maintenance, repairs, and replacement costs.

Objective 3b: Resiliency – NAS, Airport & Spaceport Infrastructure

Identify, develop, and validate procedures for the aerospace community that enable recovery of NAS operations following a disruptive event and ensure continued safe operations.

Objective 3c: Cybersecurity – Aviation Ecosystem*

Identify, develop, and validate new and enhanced tools, procedures, and strategies to enhance the aerospace community's ability to prevent, deter, detect, and respond to cyber-attacks to ensure continued safe operations.

***** Aircraft, Airlines, Airports, Aviation Operators, & Actors

Goal 4 Improve the operation of the human component of the system

Objective 4a: Human Performance

Identify, develop and validate new technologies, policies, training methodologies, personnel selection tools and procedures to improve the performance of humans in the operation of the aerospace systems.

Objective 4b: Aeromedical Factors

Identify, develop and validate medical, computational biology, forensic sciences, and biomedical engineering tools and procedures, to optimize human protection and survival in aerospace operations.

Goal 5 Improve integrated modeling capabilities and system-wide analysis

Objective 5a: Aerospace System

Identify and develop a sufficient scientific understanding of aerospace systems to enable aerospace community's development of solutions to enhance safety, improve efficiency, and reduce environmental impacts.

Objective 5b: Data Engineering

Identify, develop, and validate new methods and analytical and predictive capabilities for the aerospace community to collect, aggregate, analyze, and share NAS data to effectively monitor and improve system-wide performance.

Objective 5c: System Performance

Identify and develop tools, methods, studies, reports, and assessments for use by the aerospace community that evaluate, in an integrated manner, the system-wide performance, and impacts of new and existing aerospace vehicles, air traffic concepts, and airport/spaceport operations.