Federal Aviation Administration

A Blueprint *for* AIR Transformation

March 2017

Contents

Our Mission:

Our continuing mission is to provide the safest, most efficient aerospace system in the world.

Our Vision:

We strive to reach the next level of safety, efficiency, environmental responsibility and global leadership. We are accountable to the American public and our stakeholders.

Today's aviation industry is highly innovative. New concepts and new technology are being introduced at an ever-increasing pace. The industry has also grown into a complex web of business relationships and suppliers that span the globe. The status quo has changed, and the Federal Aviation Administration's (FAA) Aircraft Certification Service (AIR) must rise to the challenge of this dynamic environment.

Therefore, AIR is transforming how it conducts business to continue advancing the FAA's mission to provide the safest, most efficient aerospace system in the world. The following document is AIR's Blueprint for transformation. It outlines AIR's strategic vision to become more efficient and effective, and to continue to serve all stakeholders. It is a living document that will be updated as AIR and the aviation industry evolves. Aviation safety requires the collective effort of government and the private sector. In the spirit of learning and collaboration, questions and comments are encouraged. Please share your input at NATL-AVS-AIR-Communications@faa.gov.

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Executive Director, Aircraft Certification Service

The Case for Change

The Aircraft Certification Service (AIR) plays a critical role in assuring that the U.S. National Airspace System is the safest in the world. This level of safety has been achieved in large part through the development of standards, policy, and guidance to assure the safe design and production of aviation products. Once products enter service, AIR advances its safety mission by managing operating risks. AIR's work has contributed to the significant decline in aviation-related accidents witnessed over the last three decades.[1] AIR's safety record is also a key driver of U.S. industry competitiveness.

The aviation system is rapidly changing, placing greater demands on its participants. It is more complex, more interconnected, and more reliant on new technologies. The aircraft certification system in use today will not sustain the level of success achieved to date. At stake is the safety record of the Aviation system, which is at or near its lowest levels in the last two decades. Any erosion in safety could compromise the consumer confidence that provides the foundation for a vast and diverse industry. In 2014, economic activity attributed to civil aviation-related goods and services totaled $1.6 trillion, contributed over 5 percent to U.S. Gross Domestic Product, and supported over 10 million jobs.[2] Civil aircraft manufacturing contributes significantly to the U.S. economy as the largest net export, with a trade balance of almost $60 Billion[2] (see Figure 1).

Also at stake is the ability of organizations in the aerospace industry (Industry) to continue to reach new global markets, without unnecessary delays, costs, or variations in service. Such inefficiencies discourage innovation and jeopardize the development of future products that could further improve aviation safety.

AIR therefore balances the business needs of entities seeking certification approval (applicants) with the public's expectations for safety. Each component of the Aircraft Certification Safety System—which extends beyond AIR to include Industry's responsibility to comply with regulations, and the public's participation in the regulatory process—must address the challenges posed by the changing environment:

- Industry growth: Industry is expanding and contracting at a much faster pace than the FAA can currently match or exceed.
- Globalization of aviation: Industry is made up of international networks and complex business arrangements that are challenging AIR's traditional regulatory model.
- Velocity of change: Advancements in technology and business models are increasing the need for organizational agility to rapidly adapt to the environment.
- Heightened expectations: The flying public, Industry, and government entities continue to increase their expectations for AIR to be more efficient and agile.

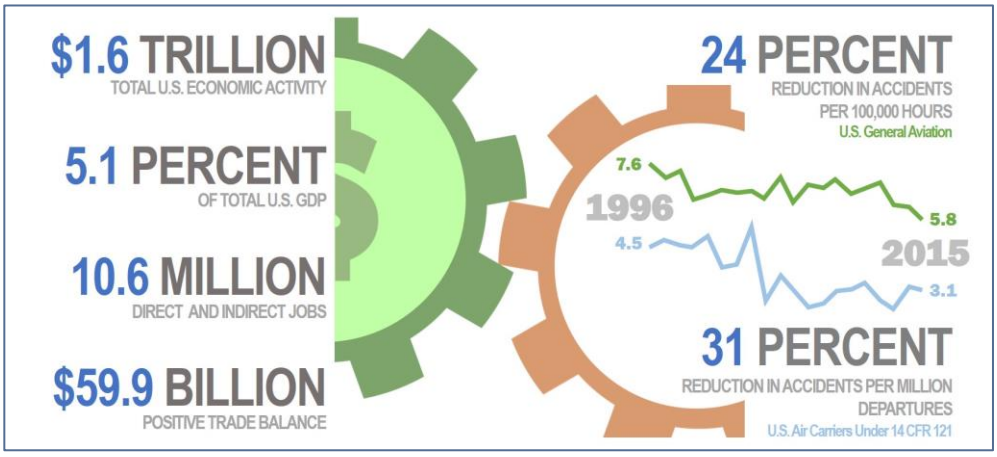

Figure 1. Safety and Economic Outcomes Supported by the Aircraft Certification Safety System

[1] *Preliminary Aviation Statistics for 2015*, National Transportation Safety Board. https://www.ntsb.gov/investigations/data/Documents/2015_preliminary_aviation_statistics.xls

[2] *The Economic Impact of Civil Aviation on the U.S. Economy*, Federal Aviation Administration, November 2016. https://www.faa.gov/air_traffic/publications/media/2016-economic-impact-report_FINAL.pdf.

These challenges could hinder AIR's ability to meet the diverse and ever-increasing expectations of its stakeholders, including the flying public, Industry, Congress, and other certification authorities. Inability to adapt to this dynamic environment could jeopardize aviation safety by delaying the adoption of innovative technologies. Incremental changes to the existing certification process will not address these challenges adequately. Instead, a refresh of the aircraft certification strategy is required—changes that focus the FAA's resources on the activities that have the greatest impact on system safety risks, while leveraging Industry's responsibility to comply with regulations. This requires fundamental changes to several aspects of the Aircraft Certification Safety System:

- Processes for early engagement in developing certification requirements, standards, and methods of compliance for new technologies
- Clarity of AIR's role and level of involvement
- Relationships and the nature of engagement between AIR and Industry personnel
- Partnerships with foreign civil aviation authorities
- Business practices for monitoring and managing performance
- Workforce development, empowerment, and organizational culture
- Insistence on Industry's ultimate responsibility to comply with the regulations

In short, a comprehensive transformation of the entire Aircraft Certification Safety System is needed to enable greater agility in adapting to the dynamic environment, while sustaining the FAA's global leadership in the advancement of aviation safety. The transformation will directly address the challenges posed by the changing environment in order to foster innovation, promote safety, and respond to stakeholder needs.

The transformation will build on changes to work flows, processes, regulations, and organizational structure, and will extend to include the aspects of culture change required to realize the vision. To succeed, all stakeholders will need to:

- Commit to a shared vision
- Demonstrate strong leadership
- Embrace group ownership of success
- Build confidence in the system
- Exercise patience and self-reflection

From the newest employee to the most senior executive, and across all stakeholders, we must fully embrace the transformation to attain its objectives.

Rising to the Challenge—A Blueprint for AIR Transformation

This document presents the vision and high-level plan—a *Blueprint*—for the transformation of the Aircraft Certification Safety System. It describes the work practices, organizational structure, and stakeholder commitments necessary to realize the future vision. Recognizing that open communication and collaboration are critical to success, AIR developed this Blueprint as a tool to communicate the strategic vision and promote engagement by all stakeholders. As such, it is a "living" document that will continue to evolve with input from both internal and external stakeholders. The Blueprint takes into account other visionary and strategic documents, such as AIR:2018[3], the Certification Management Team (CMT) Collaboration Strategy[4], the FAA Global Leadership Initiative (GLI), and the collaboration strategy between AIR and our stakeholders.

AIR Transformation is a comprehensive, multi-layered, and long-term endeavor. Building off the high-level vision and plan presented in this Blueprint, the Comprehensive Strategic Plan (CSP) will outline more detailed requirements for internal and external stakeholders (see Figure 2). The CSP will provide a tactical framework for achieving the transformation vision, and define measures for tracking progress towards it. It will describe the significant transformational activities and their expected impacts, implementation timelines, responsible parties, and dependencies. Collaboration among AIR and its stakeholders will be critical for the development of the CSP, as AIR initiatives will require corresponding stakeholder actions. The CSP will allow AIR to account for stakeholder initiatives and progress in adapting their business practices to operate within the future system.

The framework outlined in the CSP will allow the AIR workforce, industry partners, international entities and other FAA stakeholders to develop short-term implementation plans that will drive the system toward the future vision. These implementation plans will be developed on a yearly basis and will be compiled into the Integrated Implementation Plan, where they will be analyzed to identify potential conflicts, cross-functional activities, and critical milestones.

The sections that follow describe the high-level strategy, first as a vision for a transformed Aircraft Certification Safety System, and secondly as a set of major initiatives for realizing the transformation.

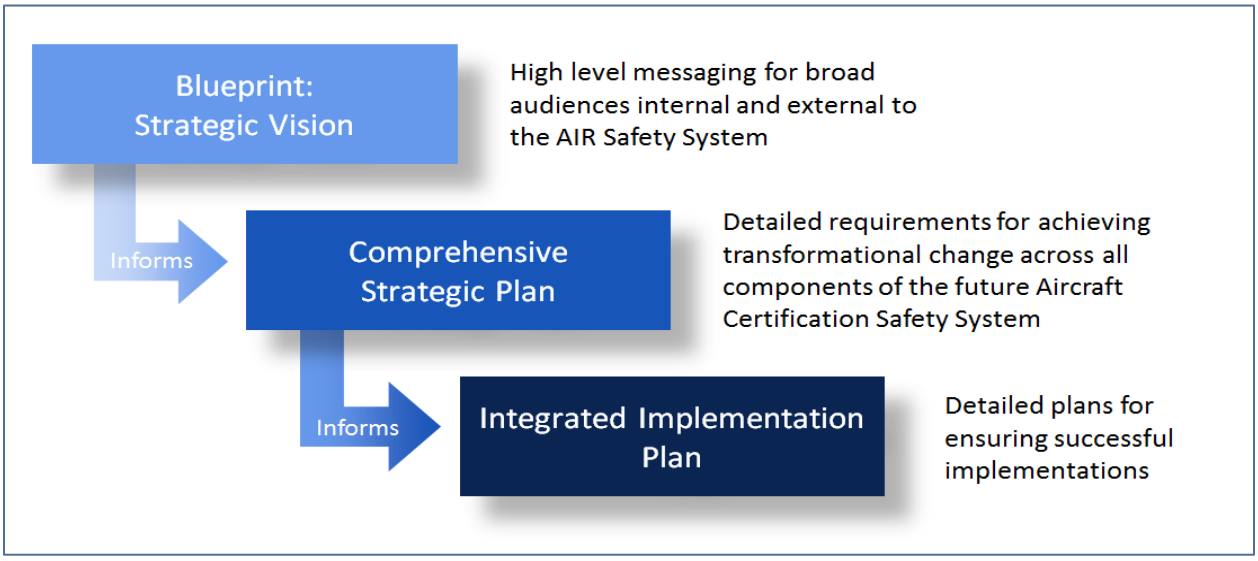

Figure 2. AIR Transformation Blueprint and Supporting Artifacts

[3] AIR:2018 - https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/air/media/AIR2018.pdf

[4] CMT Strategy – The CMT is comprised of four partners: The National Civil Aviation Agency (ANAC) of Brazil, the European Aviation Safety Agency (EASA), the U.S.'s Federal Aviation Administration (FAA), and Transport Canada Civil Aviation (TCCA). The strategy can be found here: https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/air/transformation/certification_strategy/media/cmt_strategy.pdf

The Vision for a Transformed System

The FAA's vision is "to strive to reach the next level of safety, efficiency, environmental responsibility and global leadership." In 2013, the Aircraft Certification Management Team (ACMT) released AIR:2018, communicating the organization's role in supporting that vision and key areas in which to build the foundation for tomorrow. That foundation is based on four key focus areas associated with the agency vision:

Safety: AIR and the airworthiness system stakeholders apply safety management principles to achieve the next level of product safety consistent with the Safety Continuum.[5]

People: AIR invests in a culture that empowers, develops, and motivates people, which also advances the success of our organization.

Organizational Excellence: AIR is an agile and adaptive organization that optimizes its effectiveness in achieving its mission.

Global Leadership: AIR promotes international partnerships to reduce barriers and leads the advancement of aviation safety across geopolitical boundaries.

Over the last few years, AIR laid the foundation to balance the needs of applicants, aircraft owners, and operators with the public's demand for safety assurance. AIR Transformation builds on that foundation, moving beyond AIR:2018 to improve AIR's responsiveness to the ever-increasing pace of change.

> "The greatest danger in times of turbulence is not the turbulence—it is to act with yesterday's logic."
>
> *—Peter Drucker* [6]

[5] The Safety Continuum: https://www.regulations.gov/document?D=FAA-2015-1621-0018
[6] *The New Realities* by Peter Drucker, 1989

Vision Elements

The transformed Aircraft Certification Safety System will embody eight key characteristics that will collectively advance AIR's safety mission and related stakeholder outcomes. These interdependent "Vision Elements" define the desired end state through activities identified in partnership with stakeholders, as outlined in the AIR CSP. Figure 3 introduces the eight Vision Elements that define AIR's future state. A description of each Vision Element follows.

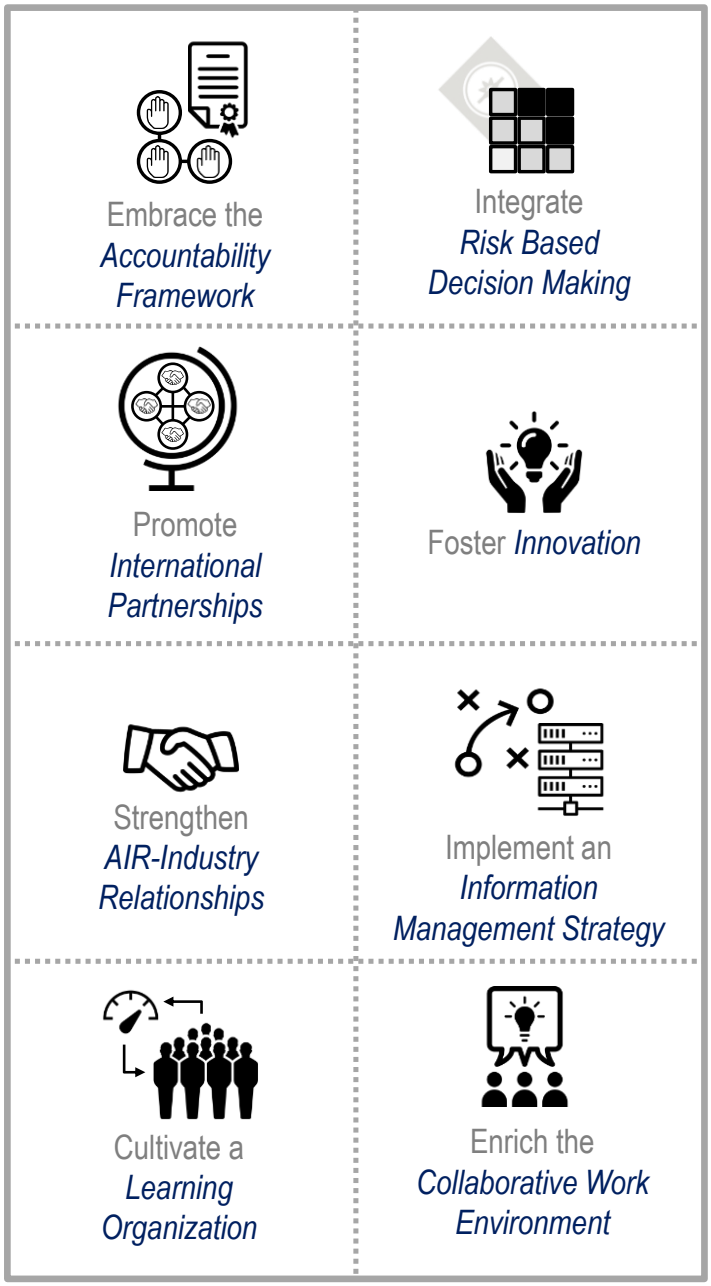

Figure 3. AIR Transformation Vision Elements

Embrace the Accountability Framework

The Accountability Framework helps clarify the FAA and Industry roles that form the backbone of the airworthiness system. Under this framework, final accountability for compliance to safety regulations rests with the organizations that seek or hold certification approvals. In the transformed system, further refinement of the roles and responsibilities will result in more efficient safety oversight. The degree of FAA involvement and delegation will correspond with organizational performance and commitment to the Accountability Framework. In cases where Industry demonstrates a culture that values compliance, AIR will be able to focus on overseeing the performance of design and production systems—relying less on the numerous, prescriptive interactions that can lead to project delays.

Integrate Risk-Based Decision Making

The transformed system will proactively address emerging safety risks through consistent, data-driven, risk-based decisions across the airworthiness lifecycle. Risk-based decision making will be integrated across the product lifecycle to promote consistency in the assessment of risk, the application of oversight, and the effective prioritization of resources. This will allow AIR to scale the level of rigor used in approvals and oversight and leverage resources more efficiently.[7]

[7] Information on the Safety Continuum: https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/air/transformation/certification_strategy/media/Safety_Continuum_Overview_2014_captioned.ppsx

Promote International Partnerships

AIR will employ a methodical process to establish, build, and maintain confidence in foreign aviation authorities' certification systems. The process will leverage mature partners' certification systems and maximize mutual recognition of certification approvals to minimize inefficient duplication of effort. AIR will promote knowledge sharing to mature the requirements of foreign safety assurance systems and actively shape global standards through international institutions, such as the International Civil Aviation Organization (ICAO). Through this leadership, AIR will promote the harmonization of rules and effective oversight of safety assurance systems across geopolitical boundaries.

Foster Innovation

The transformed system will minimize barriers to the safe and timely adoption of innovative products, technologies, and practices. To do this, AIR will engage Industry early to understand new ideas and ensure viable paths to compliance in their design, production, and operational use. Where innovation pushes beyond the current means for achieving compliance, AIR will proactively engage in establishing standards in collaboration with industry organizations and international bodies. The use of performance-based rules will promote innovative means of compliance not bound by unnecessary prescriptive technical requirements in the regulations. For organizations that are new to aerospace, AIR will help them navigate effectively by introducing them to the regulations and policies surrounding product design and manufacturing. These measures will pave the way for innovations that enhance the safety and value of aviation.

Strengthen AIR-Industry Relationships

The transformed system will promote collaborative relationships between AIR and Industry. The basis of this relationship will be more accountability, mutual respect of each other's values, a shared commitment to safety, and mutually developed performance measures. Industry will have systems in place that ensure compliance and encourage learning, allowing AIR to prioritize resources on system safety risks during the certification process. AIR will focus on pre-project engagement to encourage innovation and strengthen oversight of industry systems. This approach will allow AIR and Industry to engage in meaningful dialogue and collaborate to meet the needs of the future.

> The FAA must continue to enable the growing Unmanned Aircraft Systems (UAS) industry while maintaining safety. It is forecasted that annual UAS sales will nearly triple to 7 million by 2020, from the 2.5 million forecasted today.
>
> *— FAA Aerospace Forecast* [8]

[8] FAA Aerospace Forecast Fiscal years 2016-2036. Unmanned Aircraft Systems (pp. 30-33). http://www.faa.gov/data_research/aviation/aerospace_forecasts/media/FY2016-36_FAA_Aerospace_Forecast.pdf

Implement an Information Management Strategy

In the transformed system, AIR will employ an information management strategy to guide the development of tools that track and measure performance as well as overall aviation system health, promote effective knowledge sharing, and enhance stakeholder collaboration. This strategy will evolve as necessary to meet the diverse needs of AIR and its stakeholders, while maintaining appropriate levels of standardization across the Aircraft Certification Safety System. The approach will equip the AIR workforce with the tools necessary to more efficiently and effectively assess system-level issues and make better-informed, data-driven decisions.

Cultivate a Learning Organization

AIR will establish a culture that fosters learning and is supported by a robust capability to monitor, assess, and respond to changes in organizational health and system performance. This capability will allow for improved strategic planning based on a comprehensive view of the aircraft certification environment. AIR will implement change management practices to guide the response to such changes in conditions. AIR will promote knowledge sharing across organizational boundaries to enable the continuous improvement of safety management and compliance systems. These changes will be supported by the realignment of AIR's organizational structure and development of AIR's workforce, and will position the organization to evolve with the dynamic aerospace environment.

Enrich the Collaborative Work Environment

AIR will realign the organizational structure to align the people, work, and management reporting chain with specific functions, minimizing geographic restrictions on resources. With the needs and success of the workforce in mind, AIR will focus on creating a culture rooted in strong internal relationships. In this culture, employees and their management can resolve differences in a mutually respectful manner recognizing the roles and responsibilities of each. Employees will be trusted and encouraged to exercise the collaboration necessary to realize the vision. Diverse career opportunities, clear expectations, an emphasis on leadership competencies, a focus on AIR's risk-based decision making, and a systems approach to safety management will strengthen the culture of empowered employees. AIR will employ effective information management systems that provide employees the information they need, when they need it. Employees will be encouraged to collaborate across the organization to make informed decisions at the optimal level. AIR will have a collaborative workspace that is able to meet the needs of geographically diverse teams. This workspace will support frequent and meaningful engagement and knowledge sharing and will foster collaboration within the FAA, Industry, and foreign Civil Aviation Authorities (CAA).

Though described independently, it is important to emphasize the interconnectivity of these Vision Elements. As such, they are highly interdependent parts of a holistic vision for the future, touching all aspects of the Aircraft Certification Safety System. For example, AIR employees must be empowered with the knowledge, tools, and discretion to cultivate the strong relationships needed to engage organizations early in the development of innovative technologies or practices. These relationships, in turn, are strengthened by clear accountability as well as effective tools that enable the sharing of information and promote a common understanding of performance. In this manner, each Vision Element is enabled by, and enables, other Vision Elements. This mutual reinforcement is necessary to advance key safety and stakeholder outcomes in the future system, and was the basis for selecting the eight Vision Elements.

Realizing the Transformation

The Vision Elements will be realized through a set of key Transformation Initiatives. Collectively, these initiatives represent the high-level strategy for achieving AIR Transformation. The Transformation Initiatives will reinforce objectives laid out in the transformation framework adopted by AIR with Industry's input. The framework is structured metaphorically around three "pillars" that encompass the range of Transformation Initiatives. These three pillars—refreshing the certification strategy, investing in management systems, and improving the organization and investing in people—reinforce AIR:2018's focus on Safety, People, Organizational Excellence, and Global Leadership. Metaphorically, these three pillars rest on a foundation of Industry commitment and change management to underscore the critical importance of these enablers. Figure 4 depicts the framework for AIR Transformation.

Figure 4. Framework of AIR Transformation

Each initiative is described below under the primary Vision Element that it supports; however, it is important to note that initiatives can support multiple Vision Elements due to the interdependent nature of the transformation strategy. Initiatives are defined broadly to provide flexibility for defining more concrete, supporting activities in the CSP, in partnership with stakeholders.

Embrace the Accountability Framework

1. Mature the practices used to certify an organization's systems. Develop accompanying guidance and outreach efforts to enhance the recognition of applicant capabilities, and enable clear and consistent engagements between AIR, delegated organizations, designees, applicants, design and production approval holders, and other industry organizations.
2. Establish system oversight processes so that FAA discretion is used to apply oversight optimally across the range of design, production, and airworthiness certification responsibilities.
3. Scale the level of rigor used in reviewing design and production approval applications and decrease transactional interactions in the certification process.

Integrate Risk-Based Decision Making

1. Expand the use of risk analysis tools to inform AIR's level of involvement and oversight with all approval holders, delegated organizations, and certification projects, allowing all stakeholders to leverage resources more efficiently and effectively.
2. Implement a consistent risk analysis methodology with accompanying guidance. This will promote consistency in decisions across the certification process (design, production, and COS), and between projects.
3. Institute continuous analysis of system performance and incorporate performance data into the risk analysis methodology to continuously adapt the risk analysis methodology.

Promote International Partnerships

1. Actively demonstrate leadership in the international community as the regulatory gold standard to maximize harmonization, support the development of collaborative solutions to new challenges to aircraft certification, and ensure effective engagement with international regulatory and standards bodies.
2. Establish and refine systems and agreements needed to optimally leverage international partners' certification systems and maximize the seamless transfer of products.
3. Enhance transparency and knowledge sharing between international authorities to promote safety assurance and mutual confidence.

Foster Innovation

1. Create a process for timely updates to the regulatory framework to include performance-based regulations complemented by adaptable means of compliance (e.g., consensus-based or private) and the early identification of applicable requirements to provide a viable path to certification for innovative products.
2. Create a welcoming environment to incentivize innovation.
3. Create processes to work new technologies and business practices, including steps to reinforce and continue to protect trade secrets.

Strengthen AIR-Industry Relationships

1. Establish a shared commitment to compliance to encourage Industry to internalize principles of self-correction and voluntarily disclose issues.
2. Create an environment for meaningful dialogue to increase collaborative decisions across organizations and to foster mutual respect and appreciation for what each organization values.
3. Collaboratively develop a set of mutual performance measures to promote interactions focused more on system performance and less on direct AIR involvement in individual projects to promote consistency and accountability across AIR and with external stakeholders.

Implement an Information Management Strategy

1. Support risk-based decision making by identifying information needs, and collecting and distilling data into meaningful information.
2. Create and implement standardized tools to enable an efficient workflow across all workgroups in AIR.
3. Create and implement a standardized knowledge-sharing platform with Industry to identify and reduce risk across organizations.

Cultivate a Learning Organization

1. Institutionalize a forward-looking culture, performance monitoring and a system of best practices that promotes continuous improvement of AIR and Industry engagements and operations.
2. Develop internal health monitoring to understand and improve the increasing efficiency and effectiveness of AIR.
3. Initiate collaboration with community forums and experts to continuously increase AIR's depth of knowledge.
4. Conduct strategic planning based on a holistic picture of the aircraft certification environment to ensure a comprehensive approach to increasing efficiency and effectiveness.

Enrich the Collaborative Work Environment

1. Build and strengthen leadership competencies to increase adaptability and the ability to manage key stakeholder relationships.
2. Encourage collaboration, innovation, and knowledge sharing across AIR, including the creation of a workplace that supports effective teaming and the use of collaborative technology.
3. Create a culture for frequent collaboration between AIR and Industry to address new technologies and tackle difficult problems.
4. Support the continued excellence of AIR's workforce through formal and informal growth and development programs
5. Refine AIR's organizational structure to align the people, work, and management reporting chain with specific functions to support informed decision making with a structure that establishes clear authority.

"Culture does not change because we desire to change it. Culture changes when the organization is transformed. The Culture reflects the realities of people working together every day."

— Frances Hesselbein [9]

[9] "The Key to Cultural Transformation" by Frances Hesselbein in Leader to Leader, Volume 1999, Issue 12, March 1999. http://onlinelibrary.wiley.com/doi/10.1002/ltl.40619991201/full

Implementation Timeline

As the Vision Elements are intentionally broad, their supporting initiatives are phased in this Blueprint as near, mid, and far-term endeavors. The resulting implementation timeline, which is shown in Figure 5, considers several factors, including the importance of Transformation Initiatives as enablers of other activities, the maturity of current AIR and Industry efforts that support the vision, and the key regulatory milestones. As with the Vision Elements and Transformation Initiatives, this proposed implementation timeline serves as a launching point for collaboration with stakeholders.

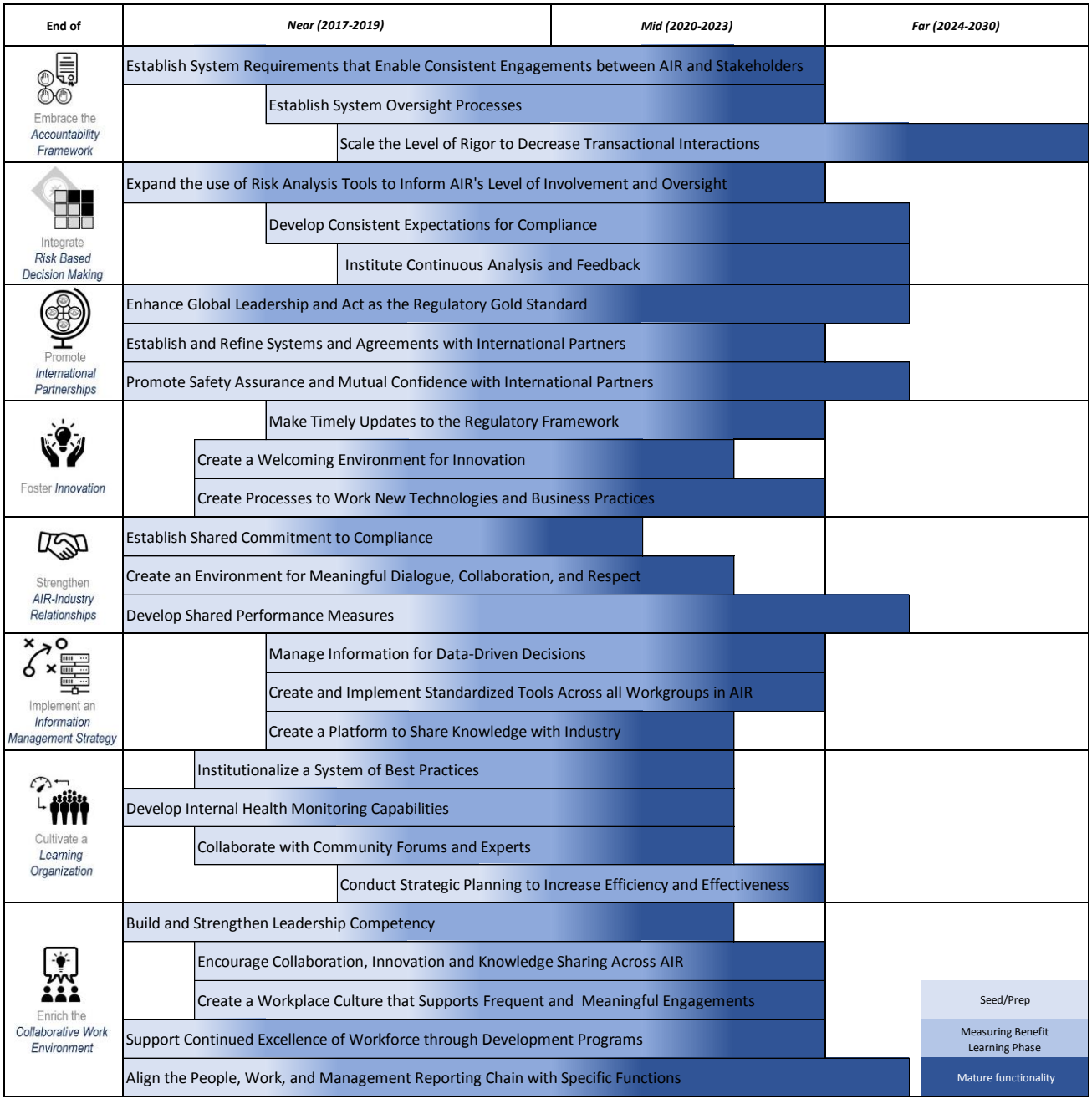

Figure 5. Initiative Implementation Timeline by Primary Vision Element Supported

The Path to Success

AIR Transformation represents a holistic approach to overhauling a decades-old system that is struggling to keep pace with the rapidly evolving aviation environment. This exciting opportunity to transform the Aircraft Certification Safety System requires more than redefining processes, changing regulations, or restructuring organizations. While these changes are all critical components, achieving full transformation—effectively operating in this new environment—requires each of the following:

- A shared vision: All stakeholders in the Aircraft Certification Safety System must embrace and be committed to achieving the same vision. Clarity in our common purpose ensures collective progress.
- Strong leadership: All Stakeholders must lead by example with transparency and purpose toward the shared vision of the Aircraft Certification Safety System.
- Group ownership of success: The roles of AIR and Industry are equally and critically important in advancing aviation safety. Our definition of success must expand beyond individual organizations to encompass the entire endeavor. All stakeholders must proactively collaborate to ensure the success of the integrated system through active participation and respect for each other's needs.
- Confidence in the system: We must establish consistency, maintain positive expectations, and operate in good faith to build confidence in each other. We will continually measure and analyze outcomes and adapt to a dynamic system in order to assure safety while meeting the needs of our stakeholders.
- Patience: Successfully changing a national system with global implications will take time. We will persevere and adjust as necessary in the face of challenges that are bound to surface. Setbacks and learning are part of the path to success, and we must accommodate these in our expectations.

A change in culture is paramount to fully realizing AIR Transformation. There is an expectation for all of us to change what we do and, in many cases, how we do it. Changing how we operate requires changing how we think. Changing how we think requires changing what we believe is possible—in this way, our expectations can drive our reality

Key Concepts

Accountability Framework: A structure where each stakeholder's roles and obligations, responsibilities and accountability are clearly established. The Accountability Framework asserts that applicants have a responsibility to show compliance with the regulations, maintain compliance and report nonconformances and other breakdowns in their safety systems. It also asserts that the FAA fulfills its discretionary role in the investigation of compliance and regulatory oversight of industry.

Adaptive Organization: An organization that is able to perceive change in its environment and quickly act in response to it. Adaptiveness is achieved through experimentation and course correction, encouraging knowledge sharing and decision making at all levels of the organization.

Aircraft Certification Safety System: The set of interconnected functions, processes, and entities (both public and private) that collectively ensure the safe design, production, and continued operational safety (COS) of aerospace products. The system encompasses AIR's activities related to design, manufacturing, airworthiness approvals and oversight, standards and policy development, and COS; Industry's role in ensuring compliance to regulations; and the public's active participation in the regulatory process.

AIR Transformation: AIR's holistic approach to creating an Aircraft Certification Safety System that is more responsive to stakeholder expectations and changes in the environment.

Airworthiness System: The collective policies, standards, processes and entities dedicated to ensuring that aircraft, engines, propellers and parts conform to their approved design and are in a condition for safe operation.

Career Development Framework: A structured approach for identifying career paths, and the supporting skills, competencies, and formal and informal training required to support career development.

Change Management: The discipline that guides how we prepare, equip and support individuals to successfully adopt change in order to drive organizational success and outcomes (Prosci).

Collaboration: The act of individuals working together to achieve a defined and common goal. Collaboration is enhanced by supporting technology and workspace.

Collaborative Technology: A suite of tools (software and hardware) that enable collaboration within AIR and with Industry. These tools are incorporated into work practices to improve the manner by which work is conducted.

Collaborative Workspace: A physical workspace that encourages collaborative work, including easy access to collaboration rooms and an interconnected environment that allows geographically dispersed individuals to collaborate as if they were co-located.

Compliance Culture: The set of beliefs and behaviors embraced by the Aircraft Certification Safety System stakeholders that emphasize the value of compliance. Compliance is at the heart of product design and manufacturing, the recognition and resolution of mistakes is non-punitive, self-learning is expected and safety is prioritized.

Compliance Library: The documents that an applicant can continually refer to in order to use previously established means of compliance on applicable projects. These documents are both public and private. Public documents may include FAA Advisory Circulars (AC), Industry Standards, general Issue Papers, and Orders. Private documents include documents that establish proprietary means of compliance.

Compliance Philosophy: A "just culture" that is instrumental in ensuring compliance with regulations and the identification of hazards and management of risk. The Philosophy holds that when deviations from regulatory standards occur as a result of flawed procedures, simple mistakes, lack of understanding, or diminished skills, self-reporting by industry is encouraged to facilitate collaborative root cause analysis and training, education and process improvements. On the other hand, reluctance or failure to adopt remediation actions, intentional or reckless deviations, and egregious actions of repetitive non-compliance are considered the highest risk to safe operations in the NAS and can result in strong enforcement or punitive action.

Continued Operational Safety (COS): The set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life

Health Monitoring: A framework of methods and tools to determine the status of organizational activities, capabilities and objectives for the purpose of analyzing and evaluating performance, making decisions on where improvements are needed, initiating improvements, and verifying the effectiveness of those improvements. This capability will enable the identification of both organizational and product trends and their potential impact on safe operations in the NAS.

Innovation Center: A structured business practice that proactively seeks out new and innovative technology, and employs a stakeholder-focused, collaborative approach to promote, facilitate, and advance innovation in the steps leading to airworthiness approvals. Engagement with the Innovation Center is flexible and may begin far in advance of formal application in order to explore the technology and identify the path to certification.

Risk-Based Decision Making (RBDM): The use of consistent, data-informed approaches to enable the FAA to make smarter, system-level, risk-based decisions. RBDM emphasizes the review of safety data to integrate the assessment of risk into decision making processes; enabling informed decision making.

Safety Continuum: The level of safety established by regulation, guidance and oversight that change based on risk and societal expectations of safety. The safety continuum applies an appropriate level of safety from small UAS to large transport category aircraft. The differing level of safety balances the needs of the flying public, applicants and operators while facilitating both the advancement of safety and the encouragement of technological innovation

Stakeholder: Any entity that has an interest in, can be affected by, or can impact the actions, objectives, or policies of the Aircraft Certification Safety System.

System Oversight: Application of risk-based oversight programs at a systems level, which provides a more holistic and comprehensive approach to assuring compliance, assessing performance and mitigating risks.

System Performance: The measurable results that a set of interrelated, interdependent and interacting elements (such as activities, processes, products, services, and organizations) are able to achieve.

U.S. Department of Transportation

Federal Aviation Administration

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