





Boeing respectfully submits that this plan and its initiatives reflect, and are in the best traditions of, the commitment to continuous learning and improvement that has helped make commercial aviation the safest mode of transportation.

I. Immediate Containment and Mitigation

After the January 5 accident, Boeing acted promptly to implement the following containment and mitigation actions focused on the safety of its production operations and supply chain:

Improvements directed at Boeing's production system:

- Revised the build plans, training, maintenance planning, aircraft manual documentation, removal requirements and inspection criteria for the Mid-Exit Door (MED) plug;
- Instituted additional controls to prevent defects in the MED plug and similar structures and assemblies;
- Added conformance inspections to nine critical build points;
- Quality Management System (QMS);
- Published alerts on removals and rework, signed by all factory employees;
- and quality procedures, and to provide feedback;
- Appointed a recognized safety and quality leader, Admiral Kirkland Donald, to

- Implemented a revised management and salaried compensation model focused on quality and safety, with aligned key performance indicators across all programs.

Improvements directed at Boeing's supply chain:

- Instituted additional controls at Spirit to prevent defects in the MED plug and similar structures and assemblies;
- Added new inspections at Spirit, as well as pre-shipment approval requirements on fuselages prior to shipment to Boeing;
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II. Key Performance Indicators

A significant component of the Product Safety and Quality Plan is the identification of six critical, safety-focused production health KPIs:

- (i) Employee Proficiency (measures share of employees currently staffed to commercial programs who are proficient);
- (ii) Notice of Escape (NoE) Rework Hours (measures rework due to Fabrication and supplier-provided escapes to Final Assembly);
- (iii) Supplier Shortages (measures Fabrication and supplier shortages/day);
- (iv)



The Company will measure the effectiveness of these efforts through surveys of Speak Up reportants and by examining a variety of quantitative metrics.

Traveled work.

process 737 airplanes may not move to the next factory position until identified build



these processes. In January 2024, Boeing alerted the 737 workforce of rework and removal documentation requirements, including an interim measure prohibiting anyone except Manufacturing and Quality team leads from initiating a removal. Subsequently, Boeing introduced new mandatory removal training across all programs and tightened



supplier oversight procedures, consistent with the broader command media and process simplification initiative discussed above. Boeing is currently revising its governance processes to help suppliers better understand their quality requirements, tighten acceptance criteria for supplier traveled work or defects, and drive better supplier quality performance. As part of this effort, Boeing is comprehensively reviewing its supply chain contracts to identify opportunities for simplification and improvement.

Industry engagement. Boeing is working actively with industry partners to discuss the industry standards to drive improvements. Boeing will continue these efforts and is also creating a framework to support SMS standards and adoption across the supply base.

These initiatives will be tracked with specific metrics including measures of NOE rework hours and supplier-caused nonconformance rework hours to ensure continuous improvement in reducing supplier defects.

d. Training

While Boeing offers extensive training on production-related subjects, its training programs must adapt to new workforce challenges including smaller pools of qualified applicants and high employee turnover. Once Boeing finishes implementing its planned enhancements in late 2024, new manufacturing and quality employees will receive up to two more weeks of foundational training, followed by enhanced structured on-the-job training (SOJT).

Since February, Boeing has added over 300 hours of coursework to its foundational training curriculum for new mechanics and inspectors as well as those who need or request additional training. This material includes new courses on SMS Positive Safety Culture, regulatory and process compliance, critical production skills, and quality-focused topics. Boeing is also strengthening its SOJT curriculum, including with access to workplace coaches and peer trainers. The SOJT curriculum revisions will be implemented throughout 2024. The Company

production floor (less than two years for Quality employees) for proficiency with safety, quality, and compliance requirements.

employee input through Safety and Quality events; Seek, Speak and Listen sessions; and other qualitative and quantitative feedback.

e. Production System Compliance

SAI findings, Boeing has targeted improvement in four critical areas of production system compliance: Foreign Object work instructions.



priority areas and throttled production activities upon discovering significant non-compliances. It also has implemented additional short- and long-term corrective actions in each of these areas:

FOD control. In the first quarter of 2024, Boeing began work on an enhanced FOD control plan involving command media revisions; additional training, signage, messaging, and guidance; and other internal process changes. Boeing has implemented some of these enhancements in its 737 factory, including improved FOD zone designations, assignment of responsibility for FOD control at each work area to

and Quality events, oversight, and other measures. The Company also expects to disseminate supplemental command media and associated instructions on FOD control by the end of this year.

Tool control. Since January, Boeing has improved tool control by retraining first line workers on current processes, communicating expectations to employees on the importance of compliance, and adding an assessment on tool control to the foundational training curriculum. Boeing also has implemented further mitigation measures that include



ideas for improving the production system; (iii) establishing a leadership program for manufacturing, quality, and f about safety, quality, and compliance.

These efforts are well underway. Since January 5, the Company has hosted 20 quality stand downs at every major facility in BCA, with more than 70,000 employees participating to share their perspectives on improving safety, quality, and compliance. The stand downs have generated more than 35,000 suggestions, spurring more than 5,600 completed action items. BCA will now transition from stand downs to holding quarterly Safety and Quality events to maintain focus on these issues.

Over the last four months, Boeing has developed EIT training materials and an implementation guide, along with a plan to phase in EITs throughout BCA by early 2025. All programs and various fabrication facilities and delivery centers have launched EIT programs, with 300 EITs now operating. Boeing is also soliciting nominations for Safety and Quality Awards and creating new awards focused on SMS and product safety.

To strengthen the performance and capabilities of manufacturing and quality leaders, Boeing is creating an upskilling program for supervisors and managers, instituting basic management training for all 737 program leaders, and aligning similar content already in use in other BCA programs. Boeing is also simplifying and augmenting internal communications about safety and quality and working to enhance culture and equip leaders with resources to effectively convey these messages. For example, the Company has rolled out a set of new, targeted communications to accompany implementation of the new Product Safety and Quality Plan also has deployed more digital and physical signs on the factory floor and is creating displays to educate the production workforce on safety, quality, and compliance topics.

Boeing will track the direct implementation of these initiatives, using measures such as the number of Safety and Quality events, EITs and resulting improvement ideas, and upskilling programs completed. It will also evaluate the results of these initiatives in terms of defect reductions and improvements in employee sentiment on safety and quality as measured through periodic surveys. Finally, it is enhancing these surveys to more directly measure safety and quality aspects of Company culture.

g. Installation Plan Improvements

Installation Plan (IP) work instructions, which translate often-complex engineering requirements, can be difficult for mechanics to understand. Boeing is implementing a plan to (i) examine the design-build process for opportunities to enhance the safety of critical systems and structures, and (ii) simplify and clarify work instructions in IPs.



-build process is using design-build audits
production and maintenance
risk. A number of critical 737 structures and systems have been identified for DBAs, with Boeing having completed five DBAs and incorporated twenty-three resulting improvements. DBAs of safety critical areas will be performed across all programs in the coming years. The effectiveness of the resulting enhancements will be measured by examining Continued Operational Safety Program-reportable quality escapes.

Boeing is also simplifying and clarifying IP work instructions. This initiative will implement improvements across programs (beginning with the 737), and provide mechanics and inspectors ready access to all relevant information for performing their tasks. Boeing has begun revising IPs, including deployment of a proof-of-concept IP for a shim and drill on the 737. More proof-of-concept revisions are planned for the months ahead. Boeing will assess these improvements through relevant KPIs, surveys and interviews, and analysis of Speak Up reports.

IV. Special Audit Items

The SAI identified issues falling into nine categories: part and material control, tool control, FOD, work instructions, stamping, training, documentation/command media, engineering, and quality escapes. While most of these findings are addressed in the attention areas described above, three findings Boeing quality escapes; Boeing liaison engineering and -related findings warrant separate treatment.

Quality escapes. Boeing is addressing these findings systemically to both resolve the immediate quality concerns and disseminate best practices to the factory. Boeing will provide Corrective Action Plans for the SAI quality escapes to the FAA as part of its SAI submission in July. These corrective actions will be deployed across programs. Boeing has taken interim actions to address the specific findings identified in the SAI loose or noncompliant fastener installation, riding conditions, and FOD escapes including through enhanced quality reviews, additional controls in the form of revised drawing requirements, planned work instruction improvements, and other process enhancements. Boeing will track these mitigation efforts through monitoring under its tiered QMS oversight model, which entails self-assessments, management reviews, and process management by both internal and external stakeholders.

Liaison engineering and MRB. Boeing is working to ensure continued compliance with the terms and intent of applicable regulations, including by clarifying and strengthening processes for submitting data to the FAA and improving engineering guidance documents. Boeing will track its SAI-related engineering actions and continue to ensure the compliance and consistency of its internal engineering requirements and procedures.

Spirit SAI findings. As the Production Approval Holder, Boeing is responsible for its production system, including parts and assemblies originating from suppliers. Recognizing this



While not a specific recommendation of the Panel, Boeing has developed and implemented standard design practice documentation, as well as structured Technical Design Reviews, to ensure engineering quality in human factors and other disciplines.

Over the long-term, Boeing is committed to sustaining these efforts and ensuring the