

**Docket No. SA-520**

**Exhibit No. 11-O**

**NATIONAL TRANSPORTATION SAFETY BOARD**

Washington, D . C .

**Alaska Airlines Action Plan**

(75 pages )

# Alaska Airlines

June 9, 2000

Mr. Bradley D. Pearson  
Manager, Flight Standards Division  
Northwest Mountain Region  
Federal Aviation Administration  
1601 Lind Avenue, SW  
Renton, WA 98055-4056

Dear Mr. Pearson:

This letter is in response to your letter of June 2, 2000 regarding the proposed amendment of our Operations Specifications along with information on the Action Plan Alaska has developed.

As described more fully in the enclosed materials, we have introduced changes that will ensure the airworthiness of all aircraft leaving Alaska's heavy maintenance facilities, and therefore believe amending our Operations Specifications is unnecessary and inappropriate. The interim measures we have taken, along with those long-term changes that we have already implemented, will ensure that maintenance paperwork is properly completed for all aircraft leaving our heavy maintenance facilities.

We also have been conducting a top-to-bottom review of our operations and have developed an Action Plan that, once completed, will make Alaska a model of safety and regulatory compliance. As you will see from the enclosed report, we have committed the necessary resources, including personnel, to effectively implement and validate these changes. We have added over 130 positions in our Maintenance & Engineering division alone.

We are willing to take all reasonable steps to assure the FAA that the changes we have made to our General Maintenance Manual and Continuous Analysis and Surveillance System are functioning properly. We believe validation of these changes can be accomplished with FAA oversight combined with auditing by our Quality Assurance Department using the CASS program, and by including these processes in our Safety Auditing Program under the purview of our Vice President Safety, but are of course open to other alternatives that may be proposed during this process.

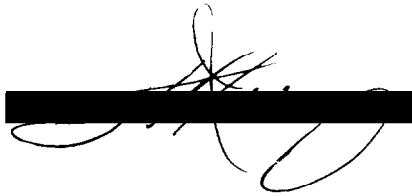
This response, including enclosures, contains confidential, commercial and financial information and is exempt from disclosure pursuant to 49 CFR Section 7.17.



Mr. Bradley D. Pearson  
June 9, 2000  
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We hope to continue our work with the FAA to resolve any questions about our heavy maintenance program. Rather than withdraw our ability to conduct heavy maintenance, we urge you to provide us with an opportunity to validate the substantial changes we have made. As your letter states, the FAA has been satisfied with the progress Alaska has made in correcting FAA-identified deficiencies. We believe the appropriate course would be to continue this process of implementing further improvements to our maintenance operations.

Sincerely,



John F. Kelly  
Chairman and Chief Executive Officer

This response, including enclosures, contains confidential, commercial and financial information and is exempt from disclosure pursuant to 49 CFR Section 7.17.

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## EXECUTIVE SUMMARY

Alaska Airlines has instituted both interim and long-term measures that will ensure that its maintenance operations meet or exceed all Federal Aviation Regulations and that all aircraft released from heavy maintenance are safe and airworthy with all maintenance properly documented. In addition to meeting these concerns, this Action Plan sets forth the means by which Alaska intends to continue its efforts to improve the safety and compliance of its maintenance and flight operations. Safety remains the number one critical success factor in Alaska's mission.

Alaska Airlines responded immediately to all concerns raised during the FAA's recent Special Inspection of Alaska Airlines and has in place a variety of "safety nets" that will confirm that all aircraft leaving heavy maintenance, both in-house and vendor, are safe and airworthy with all maintenance properly documented. All such aircraft are released personally by the Vice President Maintenance and Engineering or the Director of Quality Assurance and Training. Before any such aircraft is released into service, its maintenance records package receives a 100% audit by Quality Assurance using a pre-release audit checklist to confirm compliance with Alaska's FAA-approved maintenance program. A limited number of qualified individuals were specially trained to conduct these pre-release audits. These measures will remain in place until long-term changes recently implemented by Alaska have been validated by the FAA and will ensure the integrity of Alaska's heavy maintenance operations. Further information can be found under tab 12.

Alaska has already made substantial long-term changes to its maintenance program. The heavy maintenance procedures contained in our General Maintenance Manual (GMM) have been completely revised utilizing a meticulous process implemented by Alaska Airlines personnel in conjunction with highly-qualified outside consultants under the supervision of the FAA, with reference to Federal Aviation Regulations and ATOS job aids. See tabs 10 and 17. Similar changes have been or are being made to GMM sections dealing with Continuous Analysis and Surveillance System (CASS), Vendor Maintenance, Line Maintenance, Maintenance Control, Maintenance/Engineering interface, MEL/CDL Deferral process, Tool Calibration and ultimately every other section of the GMM. See tabs 9 through 16, 18 and 19.

Alaska has also initiated a top-to-bottom review of all operations and is implementing this Action Plan which, when completed, will make Alaska a model of safety and regulatory compliance. This plan has been endorsed by our Board of Directors and approved by our CEO, our President and the Vice Presidents of all affected departments. See tab 2. The cornerstone of this plan on the maintenance side is the development of a cutting edge Continuous Analysis and Surveillance System (CASS) that will not only detect and correct any deficiencies in Alaska's maintenance program, but will constantly improve the program through a process of data collection, analysis and corresponding changes. CASS oversight of our heavy maintenance operations will be fully operational by July 16, 2000. See tab 9.

Alaska has committed substantial resources to this action plan. We have increased dramatically the staffing at all levels of our Maintenance and Engineering Division, with over 130 new positions created. We have also retained outside experts to assist us with day-to-day operations as well as the development of new policies and procedures. A comprehensive staffing plan can be found at tab 7.

We have undergone a significant restructuring of all operating departments. We created an executive level safety position, Vice President of Safety, that reports directly to our CEO. Safety oversight has been consolidated in our Safety Department. We have made our President the Chief Operating Officer and vested in him the authority and responsibility to ensure that this Action Plan is implemented in a proper and timely fashion. The Executive Vice President's responsibilities were redefined to concentrate on improvements in the Maintenance & Engineering division. We have added many new management positions and reorganized our Maintenance & Engineering, Flight Operations and Safety departments. See tab 8.

Alaska Airlines retained a team of independent aviation experts to conduct a safety audit of all operations. We have received an interim report on our flight operations department and are implementing recommended changes. See tab 22. We expect to receive complete results of this audit, including those for Maintenance and Engineering, within the next seven days and will act promptly on the safety audit team's recommendations, both short-term and long-term in all operating departments.

As this Action Plan demonstrates, Alaska Airlines is committed to ensuring the safety and compliance of its maintenance and flight operations. Substantial changes have already been implemented. Further improvements will be accomplished in accordance with the time line set forth in this Action Plan to make Alaska Airlines a model of safety and regulatory compliance.

## APPROVAL OF ACTION PLAN

This Action Plan has been endorsed by the Alaska Air Group and Alaska Airlines Boards of Directors. The following officers have approved this Action Plan:

Chairman and Chief Executive Officer	John F. Kelly
President and Chief Operating Officer	William S. Ayer
Executive Vice President, Technical Operations & System Control	John R. Fowler
Vice President, Flight Operations	Kevin Finan
Vice President, Maintenance & Engineering	William F. Weaver
Vice President, Safety	David Prewitt





# VALIDATION OF ACTION PLAN

## SHORT TERM

We will use our own Quality Assurance and Regulatory Compliance auditors to measure the effectiveness of this Action Plan. An example of this short-term validation is what we are doing in our Heavy Maintenance and Vendor Maintenance. We audit 100% of the maintenance documents produced during a heavy maintenance check, for every airplane, at every location, whether accomplished in house or by an approved vendor. We also conduct random audits on every airplane during each heavy check. We analyze the findings to validate the new heavy maintenance procedures. If the analysis indicates a problem with the new procedure, it is corrected immediately.

## LONG TERM

Our expanded Continuous Analysis and Surveillance System (CASS) will be the cornerstone for long-term validation of our new procedures. Our Quality System will be constantly validated through a process of data collection and analysis that results in validation and system improvement.

After 12 months, the Vice President of Safety will select the appropriate means to validate the implementation and effectiveness of the plan. These may include a DOD Quality Safety Review, outside independent auditor, internal auditor, or the Internal Evaluation Board.

Validation will be against the original objectives, utilizing the same standard (criteria) with which the plan was developed.



## Alaska Airlines, Inc. ACTION PLAN TIME LINE

	JUN 2000	JUL 2000	AUG 2000	SEP 2000	OCT 2000	NOV 2000	DEC 2000	JAN 2001	FEB 2001	MAR 2001	APR 2001	MAY 2001
<b>MAINTENANCE &amp; ENGINEERING</b>												
CASS as Applied to Heavy Maintenance	█	█										
Expanded CASS Program	█	█	█									
Heavy Maintenance and Vendor Maintenance Procedures	█	█	█									
Vendor Oversight	█	█	█									
Heavy Maintenance Airworthiness Release	█	█										
Line Maintenance Procedures			█									
Maintenance and Engineering Interface				█								
Maintenance Control Procedures					█							
Maintenance Training	█								█			
GMM Revision/Conversion to General Procedures Manual								█				
Tool Calibration Program			█									
MEL/CDL Deferral Process	█	█										
New Positions and Personnel	█			█								
<b>FLIGHT OPERATIONS</b>												
Restructure of Flight Operations	█					█						
New Positions and Personnel	█					█						
Implementation of Independent Safety Audit Recommendations	█			█								
Operation Control	█											
Pilot Training	█		█		█							
Functional Check Flights	█	█										
Flight Operation Compliance Document		█		█								
<b>SAFETY DEPARTMENT</b>												
Safety Department Development and Staffing	█							█				
Safety Oversight Consolidation and Documentation	█		█		█							
Safety Database (Safety Information System)	█				█							
Internal Audit Program		█			█							
Industrial Injury Reduction Program		█	█		█		█					
Safety Communications		█	█		█		█					
Safety Awards Program				█		█						

PROJECT DESIGN COMPLETED
  PROJECT IMPLEMENTED
  PROJECT READY FOR FAA VALIDATION

(b)

# AUTHORITY AND RESPONSIBILITY FOR SAFETY

## OVERALL

The first of Alaska Airlines' Critical Success Factors states "We have an uncompromising commitment to safety. The well being of our employees and customers will override any other consideration." Safety is the first responsibility of everyone in the Company. All other operational and financial goals of the Company must be secondary to ensuring the highest degree of safety for our employees, our customers and the public. This Action Plan reaffirms and crystallizes Alaska Airlines' commitment to safety. The Company will require – and empower – each member of this organization to support safety as our number one critical success factor. Full compliance with regulatory regimes will be our starting point. Beyond that, the Company will promote a safety culture throughout the airline. This Plan, the substantial resources we have devoted and the work we have already completed is evidence of both our commitment and ability to achieve the high goals we have set for ourselves.

## BOARD OF DIRECTORS

The Board of Directors is accountable to Alaska Airlines' shareholders for the governance of the Company. In that role the Board has fiduciary responsibilities to stay informed about the affairs of the Company as necessary to perform its oversight role, to make fundamental decisions about the priorities, direction and significant actions of the Company, to elect officers who are competent and able to implement the Company's goals, and to ensure that its objectives are actually carried out.

Since the loss of flight 261, the Board has fulfilled these responsibilities by meeting at least once, and often twice, per month to be briefed on developments and to give input on the Company's plans to address safety issues. It acted in an advisory role to senior management in developing an initial plan to address safety issues in March 2000. It elected an acting Vice President / Flight Operations and a Vice President / Safety. It endorsed the selection of an independent safety audit team to review Alaska's maintenance and operations divisions. In April and May 2000 the Board received interim reports from the audit team on the recommendations from its review. At an April 2000 meeting, the Board discussed whether the responsibility for safety oversight should be delegated to a Board committee, and determined that it should reside with the full Board.

The Board of Directors has reviewed and endorsed this Action Plan in a special meeting on June 9, 2000. It will continue to oversee the implementation of the Plan. This will include receiving quarterly written reports from the Vice President / Safety and oral reports at Board meetings. The Board has also requested that the independent audit team perform a follow-up audit in six months and report its findings to the Board. The Board will retain other outside experts and consultants as it deems appropriate.



## **CHAIRMAN AND CEO**

The Chairman of the Board and Chief Executive Officer, as the presiding member of the Board of Directors, has a leadership role in effecting the Board's duties and ensuring that the Company carries out its directives. He is the voice of the Board of Directors in the day-to-day operation of the Company.

The Chairman and CEO is the immediate supervisor of the President and Chief Operating Officer and the Vice President of Safety. In this role he will supervise and provide direction in their implementation of this Plan. He will review audit reports on the status of the initiatives described in the Action Plan to ensure that the Company is meeting deadlines and validation benchmarks. He will continue to respond to calls on the safety hotline. The Chairman and CEO will lead management in sending the unambiguous message that safety is the Company's number one critical success factor and that all other operational and financial goals are subject to it.

## **PRESIDENT AND COO**

The President and Chief Operating Officer, subject to the direction of the Chairman and CEO, has the general and active management of the operation aspects of the Company and supervision and direction over its operational officers. His job is to clarify the respective roles of the various operating divisions in carrying out the Action Plan. The President will, with the Chairman and CEO, review audit reports on the status of the initiatives described in this Plan and, where necessary, direct any needed enhancements or amendments to the Plan. Along with the Chairman, it is the President's job to ensure appropriate organization structures to the operating departments, to ensure that key positions are filled by competent individuals, and to ensure that safety is our number one priority.

## **EXECUTIVE VICE PRESIDENT**

The Executive Vice President of Technical Operations and System Control has responsibility for day-to-day coordination between operating divisions through System Operations Control, the preparation and readiness of emergency response and family assistance activity, and direct senior management oversight of all Maintenance and Engineering activities. He has responsibility and authority to ensure the support, resources, and accountability necessary to fully implement the Action Plan and other recommendations from the independent audit for Maintenance and Engineering. The Executive Vice President will ensure a consistent focus on the Action Plan without distraction from or impact to daily operational requirements. The Executive Vice President will by communications and example reinforce the Chairman and President's message that safety is the first priority and the Company's Number One Critical Success Factor.

## **VICE PRESIDENTS**

Each vice president oversees the employees and operation of his or her division and has the authority and responsibility to implement aspects of the Action Plan that relate to such division. As the officers closest to the actual operation they oversee, vice presidents must have detailed knowledge of their division's activities and the safety issues specific to them. Each vice president will delegate to the appropriate managing director, director, manager or other employee specific tasks and deadlines relative to this Plan and will see that they are performed. Vice presidents will provide day-to-day direction to their staffs on issues that arise in implementing the Action Plan. The vice presidents will, by communication example and expectation, reinforce senior management's message that safety is the Company's number one critical success factor.

## **OTHER EMPLOYEES**

All other Alaska Airlines employees will have a fundamental role in carrying out this Action Plan and ensuring that safety is our primary critical success factor. Many, if not most, will have specific responsibilities in implementing this Plan. Beyond the Plan, our employees are the ones who must properly perform the specific tasks that ensure the safety of our operations. Their compliance with the regulations that govern their work will be key to achieving the highest level of safety. Senior management expects that all employees will share equally management's commitment to the goals of this Action Plan.

## NEW POSITIONS AND PERSONNEL\*

### **MAINTENANCE & ENGINEERING**

#### 132 New Positions

Director, Line Maint. Planning & Records  
Director, Materiel Control & Distribution  
Director, Base Maint. – OAK  
Director, Special Projects  
Director, Powerplant & Component Avionics Maint.  
Director, Maint. Control & Tech. Services  
Director, Vendor Maint.  
Director, Quality Assurance  
Analyst, CASS  
Director, Technical Training  
Manager, Vendor Maint. - BFG  
Manager, FAA Liason  
Manager, Human Factors  
Manager, Quality Control - OAK  
Manager, Work Integrated Training  
Managers on Duty, Maint. Control (3)  
Supervisors, Base Maint. - OAK (7)  
Supervisors, Base Maint. - SEA (7)  
Supervisor, Powerplant Shop  
Supervisor, Line Maint. - PHX  
Engine Vendor Rep. - MCI  
Manager, Vendor Maint. – AMS  
Manager, Vendor Maint. - BFG  
Maint. Vendor Reps. - AMS (1)  
Maint. Vendor Reps. - BFG (3)  
Work Integrated Training Instructors (6)  
Maintenance Training Instructions (2)  
Powerplant Techs. (5)  
Lead Line Techs. (2)  
A&P Line Techs. (7)  
Avionics Line Techs. (2)  
Maint. Control Technical Specialists (8)  
QA Auditors (8)  
Materiel Control Coordinators (2)  
ARCTIC Analysts (2)  
Production Control Records Specialists (2)  
Other Mechanics (50)  
Engineers (3)  
Stock Clerks (15)

#### Three Changes

Staff Vice President, Maintenance  
Director, Base Maint. Planning  
Manager, Base Maintenance – SEA

## **FLIGHT OPERATIONS**

### 28 New Positions

Managing Director, Training, Flt. Standards & Technology  
Director, Flight Standards and Qualifications  
Director, Training Resource Management  
Director, Resource Planning & Financial Mgmt.  
Asst. Base Chief Pilot  
Manager, AQP, Ground Training & CRM Training  
Manager, Technical Publications & Communications  
Flight Operations Engineer - MEL/CDL & a/c Performance  
AQP Data Analyst  
Training Operations Quality Assurance Auditor  
Planning & Budget Analyst  
Asst. Fleet Captains (2)  
Instructor Pilot Scheduling & Qualification Administrator  
Training Schedulers (2)  
Records & Qualification Specialists (2)  
Dispatchers (5)  
Dispatcher Assistants (2)  
Supervisor, Pilot Scheduling (3)

### 2 Changes

Supervisor, Training Scheduling  
Manager, Simulators

## **SAFETY**

### 11 New Positions

Vice President, Safety  
Managing Director, Safety (temp)  
Director, Internal Audit  
Director, Occupational & Operational Safety  
Manager, Maintenance Safety  
Manager, Station Safety  
Manager, Cabin Health & Safety  
Manager, Safety Training & Awards  
Manager, FOQA Program Manager  
Manager, Information Management  
Administrative Assistant

\*Based on Comparison to January 2000. All positions have been approved, but some have not yet been filled.

**Maintenance & Engineering  
New Positions and Personnel  
Timeline**

- The following positions are identified as necessary to implement the plan, and required in the near term.
- These positions that are currently open are expected to be filled in 8 – 12 weeks, or approximately by mid August.
- Certain positions are high priority and either are or will be filled by a contract employee. Alaska will retain contract employees as long as necessary to ensure a smooth transition and learning curve for new full time employees.

<u>Position</u>	<u>Open</u>	<u>Interviewing</u>	<u>Filled</u>	<u>Contract</u>
Director, Materiel Control & Distribution			X	
Director, Base Maintenance OAK			X	
Director, Special Projects			X	
Director, Maintenance Control & Tech. Services	X			
Director, Quality Assurance				X
Analyst, CASS	X			
Manager, Vendor Maint BFG				X
Manager, FAA Liaison		X		X
Manager, Human Factors	X			
Manager, Quality Control OAK				X
Manager, Work Integrated Training	X			
Manager on Duty, Maint Control (3)		X		
Supervisor, Base Maint OAK (3)	X			
Supervisor, Base Maint SEA (3)	X			
Manager, Vendor Maint AMS				X
Maintenance Vendor Reps (4)				X
Work Integrated Training Instructors (3)	X			
Maintenance Training Instructors (2)		X		
QA Auditors (8)		X		X
Materiel Control Coordinators			X	
ARCTIC Analysts (2)	X			
Production Control Records Specialists (2)	X			
Engineers (3)		X		
Mechanics & Techs (22)	X			
Stock Clerks (15)			X	



**Maintenance & Engineering  
New Positions and Personnel  
Timeline**

- The following positions are identified as necessary to implement the plan, and are required in the long term.
- These positions that are currently open are expected to be filled in 12 - 14 weeks, or approximately by mid September.

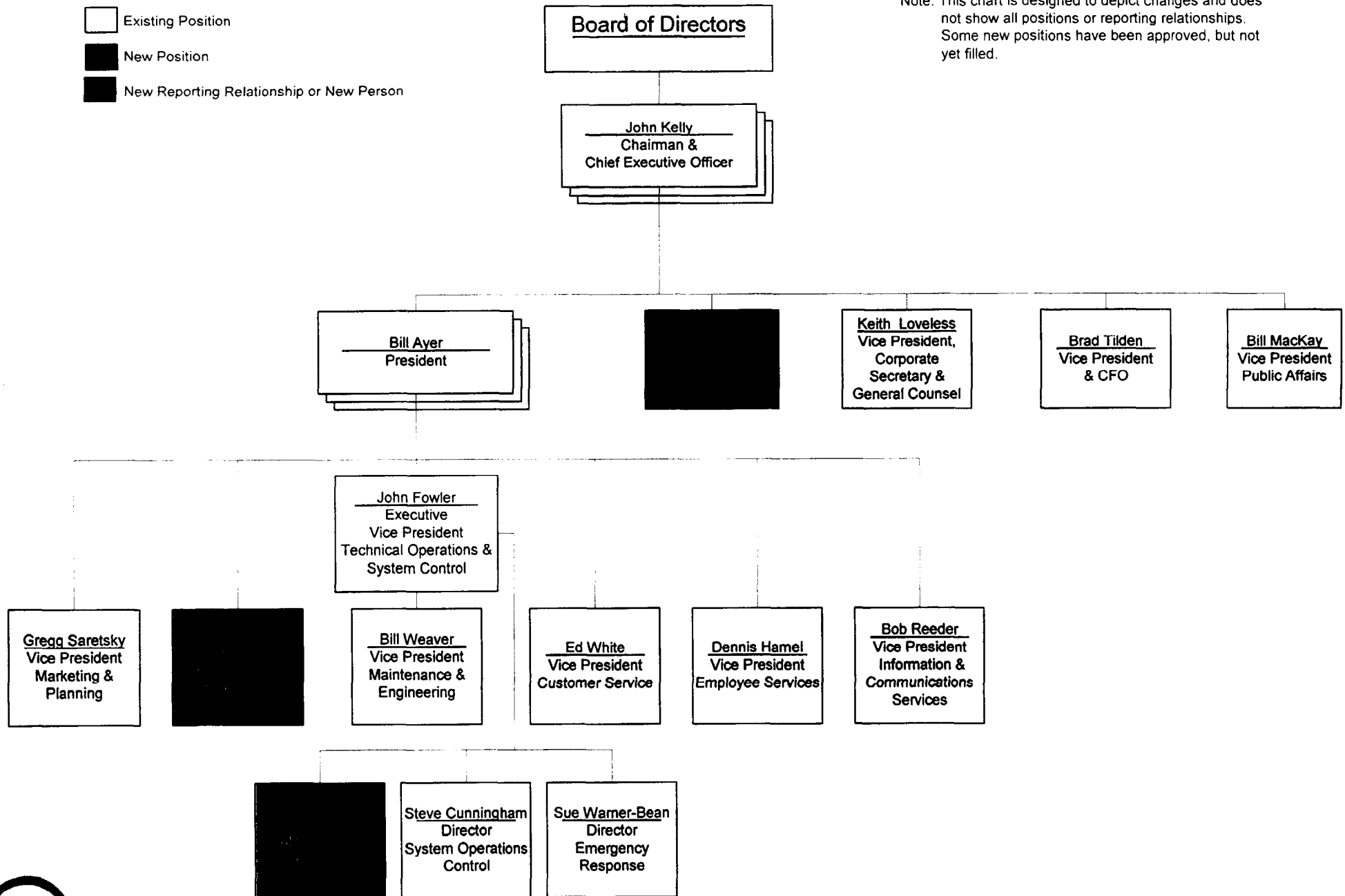
<u>Position</u>	<u>Open</u>	<u>Interviewing</u>	<u>Filled</u>	<u>Contract</u>
Director, Vendor Maint	X			
Director, Technical Training	X			
Supervisor, Base Maint OAK (4)	X			
Supervisor, Base Maint SEA (4)	X			
Supervisor, Powerplant	X			
Work Integrated Training Instructors (3)	X			

Comments:

- Remaining positions identified under Tab 7 are not considered critical to the implementation of the plan.
- To facilitate hiring for M&E , our employment department has taken the following actions:
  - Assigned a second coordinator
  - Added 2 Part Time Recruiters
  - In the process of adding another Full Time Recruiter

- Existing Position
- New Position
- New Reporting Relationship or New Person

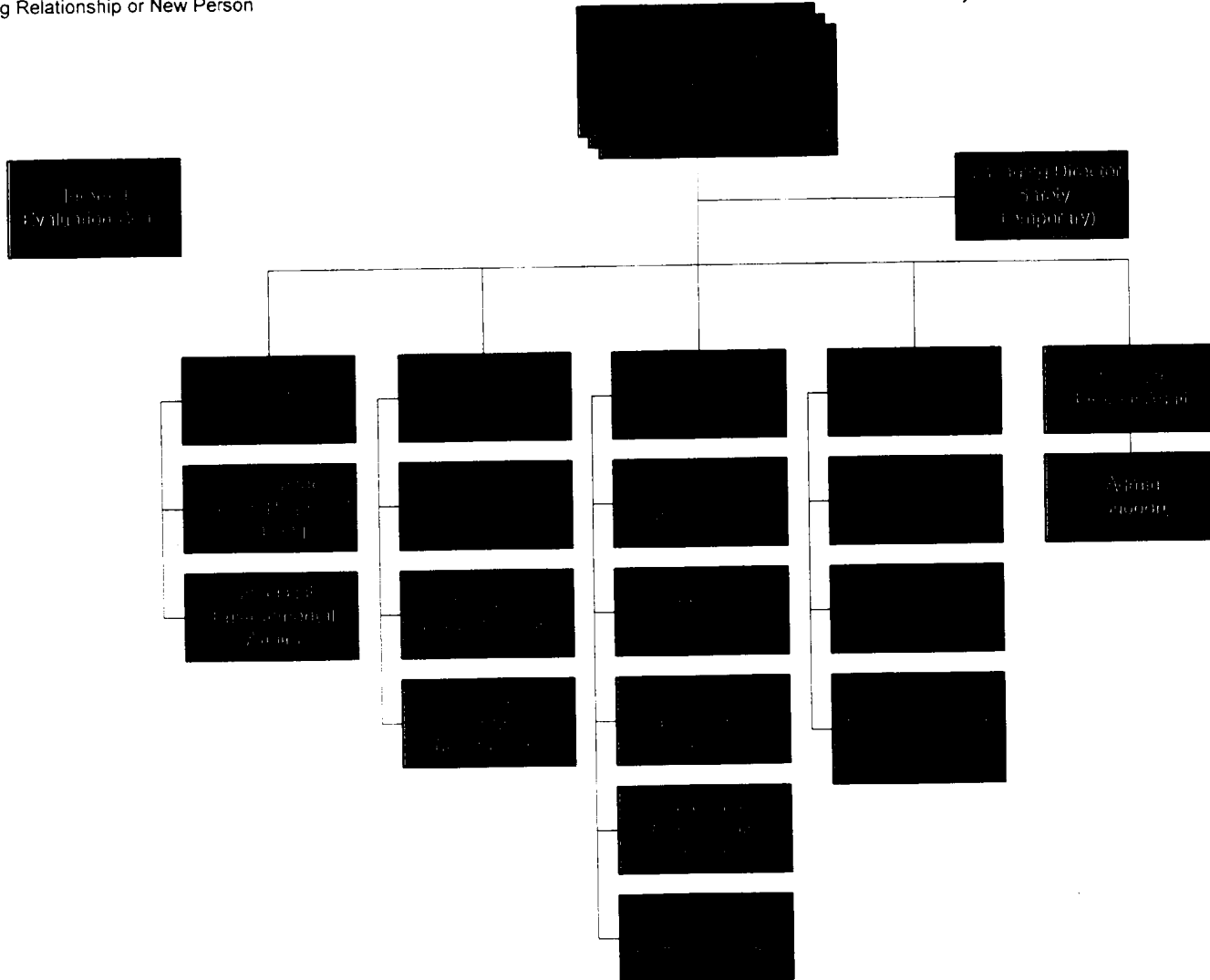
Note: This chart is designed to depict changes and does not show all positions or reporting relationships. Some new positions have been approved, but not yet filled.



■ New Position

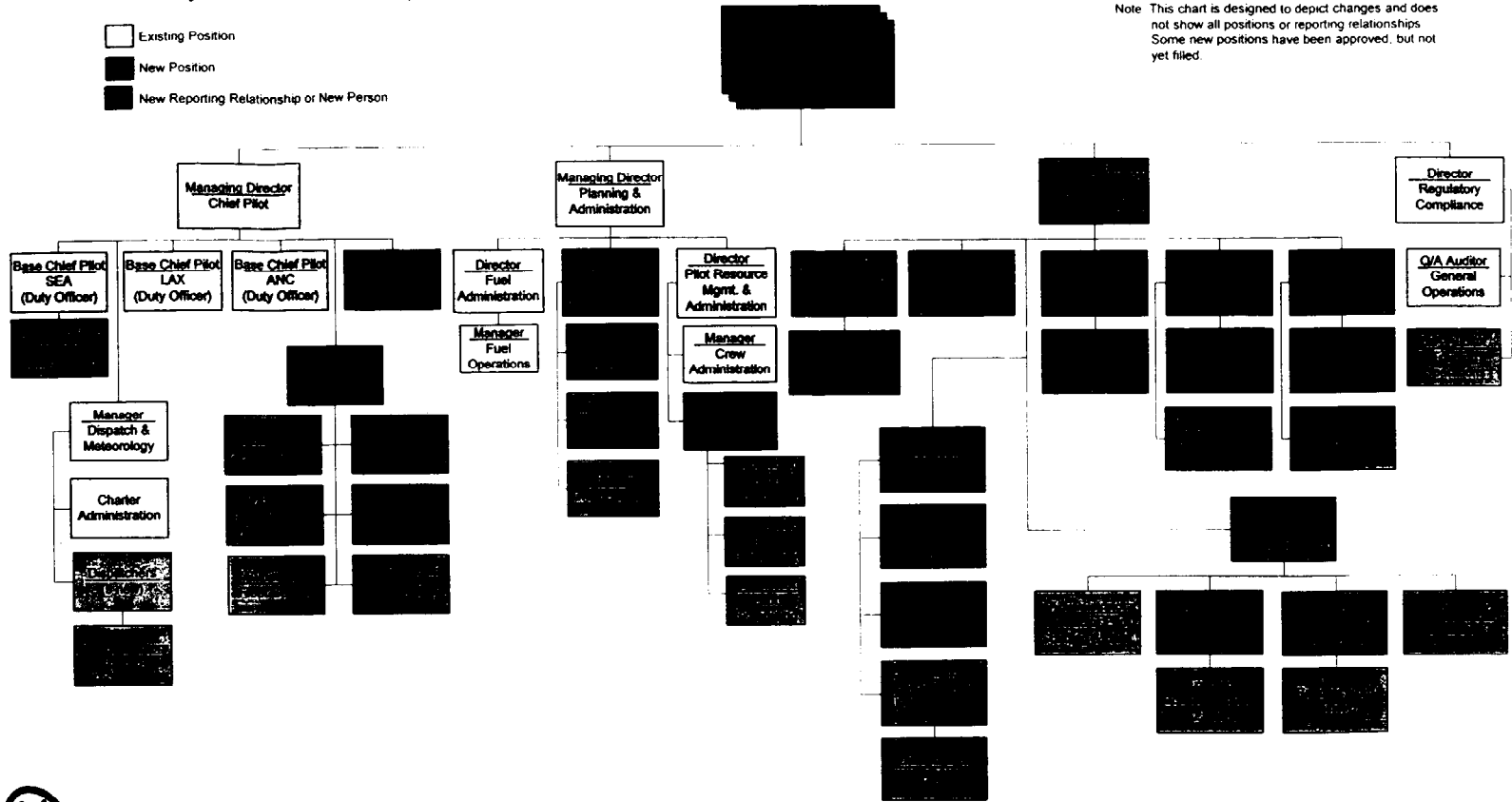
■ New Reporting Relationship or New Person

Note: This chart is designed to depict changes and does not show all positions or reporting relationships. Some new positions have been approved, but not yet filled.



- Existing Position
- New Position
- New Reporting Relationship or New Person

Note: This chart is designed to depict changes and does not show all positions or reporting relationships. Some new positions have been approved, but not yet filled.

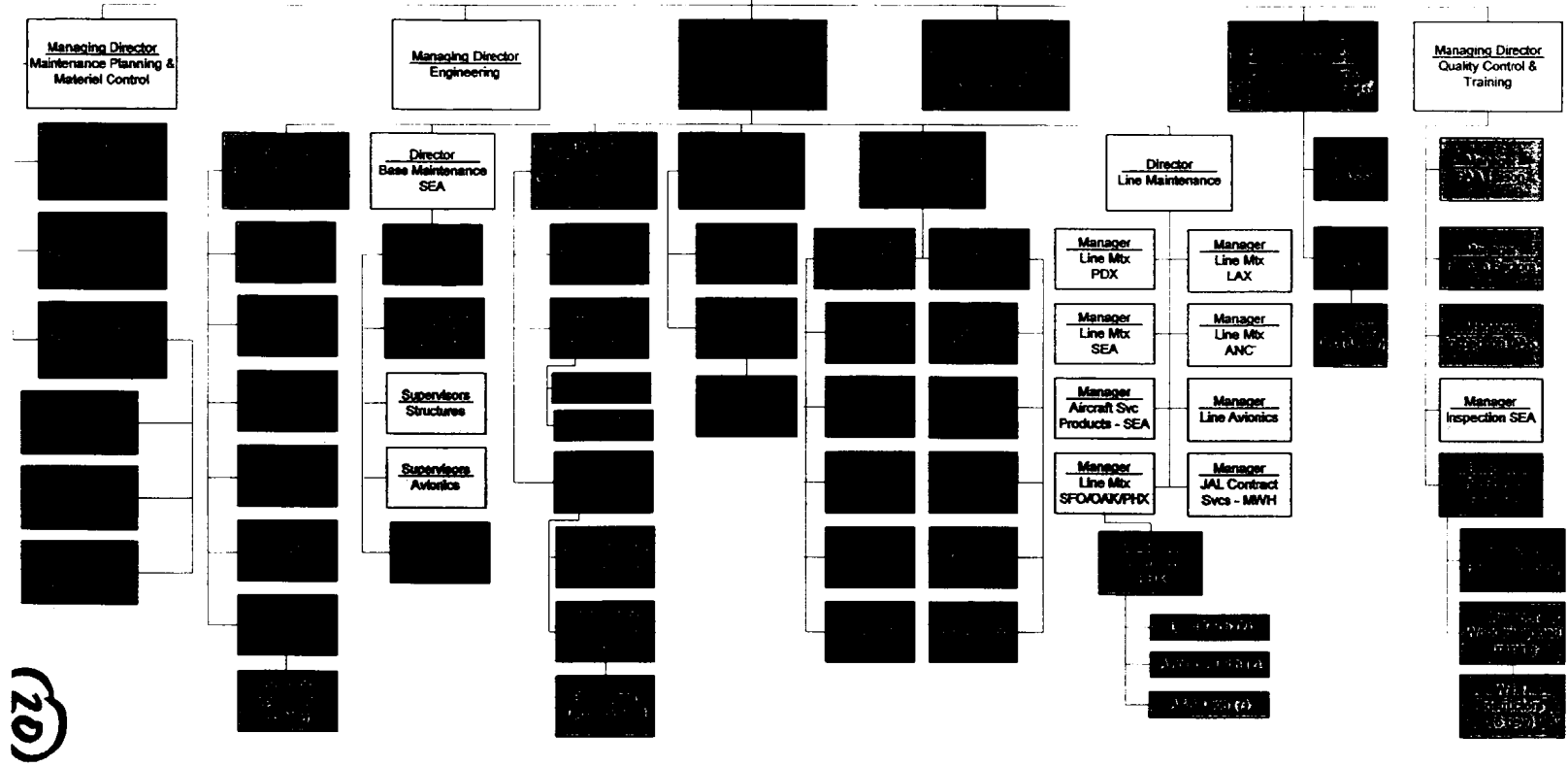


(21)

Existing Position  
 New Position  
 New Reporting Relationship or New Person

**Bill Weaver**  
Vice President  
Maintenance & Engineering

Note: This chart is designed to depict changes and does not show all positions or reporting relationships. Some new positions have been approved, but not yet filled.



# CONTINUOUS ANALYSIS AND SURVEILLANCE SYSTEM (CASS)

## OBJECTIVE

Ensure that the Continuous Analysis and Surveillance System (CASS) accurately monitors the performance and effectiveness of our inspection program and the program covering other maintenance, preventive maintenance, and alterations; and ensure that it is capable of correcting any deficiencies in those programs.

## CRITERIA

Compliance with FAR Part 43; Part 121.373 Continuing analysis and surveillance; Reference to Order 8300.10 Airworthiness Inspectors Handbook; Advisory Circular (AC) 120-16 Continuous Airworthiness Maintenance Program; AC 120-17 Maintenance Control by Reliability Method; ATOS job aids 1.3.11

## PLAN

An expanded CASS is currently being developed using the following methodology:

- Identify the standards and company requirements.
- Using the standards, other job aids and subject matter experts, write new CASS procedures for the General Maintenance Manual (GMM) and the Quality Assurance Auditing Manual.
- Working closely with the FAA Certificate Management Office, we will evaluate each procedure to ensure that it contains all Systems Safety Attributes.
- Identify additional areas to be audited, write the specific audits for these areas, and expand the existing Quality Assurance Audit Manual to include all elements of a CASS.
- Incorporate these procedures into our GMM and our Quality Assurance Audit Manual.
- Train our employees to understand the need for, requirements of, and their individual role within the CASS.
- Begin collecting data using the new and existing audits.
- Begin analyzing the data collected using our new CASS procedures.
- Review the reports from the analysis and correct any adverse trends identified by the new CASS.
- Measure the performance and effectiveness of the expanded CASS procedures.

## **AUTHORITY AND RESPONSIBILITY**

The Director of Quality Assurance will be the company official that approves the expanded CASS Program.

The Manager of Quality Assurance will be responsible for the implementation of the CASS.

## **MILESTONES FOR IMPLEMENTATION**

### CASS as Applied to Heavy Maintenance

- Identifying the standards and company requirements for the new CASS has been completed.
- Writing the CASS procedures will be completed by June 13, 2000.
- Evaluation of the procedures to ensure that they contain all Systems Safety Attributes will be completed by June 13, 2000.
- Defining additional areas to be audited, writing the specific audits for each of these areas and expanding the existing audits will be completed by June 14, 2000.
- The procedures will be incorporated into our General Maintenance Manual by June 15, 2000.
- Training will be completed by June 15, 2000.
- Begin collecting data (audits) under the new CASS by June 16, 2000.

### CASS as Applied to Remainder of Maintenance Program

- Identifying the standards and company requirements for the new CASS has been completed.
- Writing the CASS procedures will be completed by June 23, 2000.
- Evaluation of the procedures to ensure that they contain all Systems Safety Attributes will be completed by June 23, 2000.
- Defining additional areas to be audited, writing the specific audits for each of these areas and expanding the existing audits will be completed by June 30, 2000.
- The procedures will be incorporated into our General Maintenance Manual by July 11, 2000.
- Training will be completed by July 17, 2000.
- Collecting data (audits) under the new CASS will begin by July 20, 2000.
- By October 31, 2000, the first data will be analyzed and processed through the Internal Evaluation Board for the correction of any adverse trends that may have been identified. NOTE: The data collected and analyzed the first time will only be for a partial quarter.
- The performance and effectiveness of the CASS will be validated at the end of the first complete quarter after implementation, January 15, 2001.

## VALIDATION

### Short Term:

The Director of Quality Assurance will be responsible to ensure that CASS is functioning in accordance with the original criteria and for short-term validation by determining the effectiveness of:

- CASS procedures
- CASS audits
- CASS auditors
- CASS analyst
- CASS reports
- CASS results

These conclusions and supporting details will be made available to the FAA.

### Long Term:

After 12 months, the Vice President of Safety will select the appropriate means to validate the implementation and effectiveness of the plan. These may include a DOD Quality Safety Review, outside independent auditor, internal auditor, or the Internal Evaluation Board.

Validation will be against the original objectives, utilizing the same standard (criteria) with which the plan was developed.



# HEAVY MAINTENANCE AND VENDOR MAINTENANCE PROCEDURE

## **OBJECTIVE**

Ensure that the GMM accurately reflects heavy maintenance and vendor maintenance practices and procedures that are in conformance with applicable FARs to further ensure that actual maintenance practices conform to the GMM; and that all maintenance is properly documented.

## **CRITERIA**

Compliance with FARs 91.407, 121.135, Part 121 Sub Part L, 121.701, 121.703, 121.707 and 121.709. Reference to ATOS job aids 1.2.1, 1.2.5, 1.3.1, 1.3.3, 1.3.7 will be referenced for conformity to the Element Performance Inspection (EPI) and Safety Attribute Inspection (SAI) criteria.

## **PLAN**

Safety Net Provisions: Only the Vice President of Maintenance and Engineering and the Director of Quality Control and Training will have final release authority for aircraft undergoing heavy maintenance. A pre-release audit checklist was developed to confirm that all maintenance records required for a heavy maintenance check are properly completed before the Airworthiness Release is signed. The Director of Quality Control and Training selected and trained a very limited number of qualified individuals who are authorized to review the documentation for accuracy.

Permanent Changes: We assembled a team of professionals dedicated to and focused specifically on this project and augmented that team with various subject matter experts in each of the key areas required to develop comprehensive heavy maintenance and vendor maintenance procedures.

The Director, Special Projects formed a specialized team comprised of two highly qualified outside consultants along with internal subject matter experts who immediately drafted and implemented detailed GMM revisions for "Heavy" maintenance and "Vendor" maintenance procedures. The team then reviewed and applied CASS criteria from the ATOS Job Aids to the heavy maintenance and vendor maintenance procedures. The Quality Assurance Audit Manual was subsequently revised to incorporate the additional CASS requirements.

Working with the local Certificate Management Office, Alaska Airlines requested the assistance of FAA subject matter experts to attend and observe the process. Additionally, we asked for advice from attending FAA personnel of best practices on applying System Safety Attributes (SSA) and conformity to applicable FARs for our procedures.

The evolution of the process followed a logical progression as discussed below:

- Documentation of current practices and procedures
- Review and revision of draft procedures
- Training of personnel
- Implementation of the procedures
- Critique and refinement of the process as required

Our plan was a very deliberate review and measurement of conformity to all applicable Federal guidelines through the use of Element Performance Inspection (EPI) and Safety Attribute Inspection (SAI) Job Aids. Additionally, we utilized findings from the recent FAA special inspection to focus our attention to any portions of our existing procedures that needed revision.

We also scrutinized each step of every process by drawing from a pool of Subject Matter Experts to gain a better understanding of how each process functions. We evaluated the “user friendliness” of the procedure.

The following is an outline of how we implemented our GMM review and revision of the heavy maintenance and vendor maintenance process.

- I. Identified key elements of GMM subject to revision.
  - A. Maintenance Facilities / Main Maintenance Base.
  - B. Heavy Maintenance Organization.
  - C. Outsource Vendor Maintenance Organization.
- II. Reviewed existing procedures, evaluated conformity to applicable FARs and audit findings.
  - A. Reviewed applicable ATOS EPI and SAI Job Aids.
    1. Researched and reviewed reference FARs listed within the EPIs and SAIs.
    2. Conferred with FAA advisory staff for clarification of regulations as required
  - C. Gathered and reviewed audit findings that pertain to the subject matter.
  - D. Interviewed and conferred with recognized Subject Matter Experts.
  - E. Conferred with Technical Consultants.
- III. Identified discrepancies and or flawed procedures.
  - A. Categorized and listed discrepancies.
  - B. Eliminated duplicate and unnecessary steps.
  - C. Clarified verbose and unclear procedures.
- IV. Revised procedures.
  - A. Diagrammed the process.
  - B. Accounted for and confirmed corrections of audit findings.
  - C. Reviewed process diagram with Subject Matter Experts.
  - D. Consulted FAA advisory staff for content and conformity.
  - E. Wrote procedures to mirror the process diagram.
  - F. Wrote and developed a training curriculum prior to release.
- V. Reviewed and re-audited Procedure.
  - A. Verified conformity to ATOS EPIs and SAIs.
  - B. Tested procedure with end user(s).

- C. Submitted to FAA advisory staff for review.
  - D. Revised as necessary and produced final draft.
  - E. Finalized training curriculum and scheduled end user training classes.
- VI. Submitted final draft to the Internal Maintenance Review Board.
- A. Draft submitted to Technical Publications for GMM revision.
  - B. Determined a release date to coincide with confirmation of end user training.
  - C. Released and implemented the process.
  - D. Analyzed and surveying the process at regular intervals (in process).
  - E. Revise and amend the process as necessary (in process).

**AUTHORITY AND RESPONSIBILITY**

The Vice President, Maintenance and Engineering is responsible for the ownership and approval of the process. The Staff Vice President of Maintenance is accountable for implementation and adherence to the procedures.

**MILESTONES FOR IMPLEMENTATION**

- Heavy Maintenance GMM Revision ..... Completed 5/25
- Vendor Maintenance GMM Revision ..... Completed 5/25
- Heavy / Vendor Maintenance CASS process ..... Completed 5/25
- Flight Operations Manual Revisions ..... Completed 5/25
- Development of Maintenance Training ..... Completed 5/27
- Creation of training video and handout ..... Completed 5/27
- Training of instructors and designees ..... Completed 5/29
- Submittal of GMM revisions to MRB ..... Completed 5/26
- Implementation of personnel training ..... Completed 5/30
- Release of GMM Revision # 161 ..... Completed 5/30

## VALIDATION

### Short Term:

- The Quality Assurance department audits the work package prior to induction of each aircraft. This audit ensures that all known tasks have been accounted for and are a part of the scheduled work.
- Random audits by Quality Assurance of heavy maintenance procedures will occur during each scheduled heavy maintenance visits for each aircraft.
- All heavy and vendor maintenance check aircraft are subjected to a pre-release audit by Quality Assurance prior to airworthiness release.
- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria, pursuant to CASS.
- These conclusions and supporting detail will be made available to the FAA.

### CASS Long Term:

- After twelve months, the Vice President, Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a DOD Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# HEAVY MAINTENANCE VENDOR OVERSIGHT

## OBJECTIVE

To ensure all heavy maintenance performed at a vendor meets or exceeds requirements of applicable FARs and the Alaska maintenance program.

## CRITERIA

Compliance with FARs: 121.363, 121.365, 121.367, 121.373, 121.375, 121.377, 121.378, 121.379, 121.709.

Reference ATOS job aids 1.2.1, 1.2.5, 1.3.1, 1.3.3, 1.3.7.

## PLAN

A highly qualified consultant was retained to review and suggest enhancements to Alaska's heavy maintenance vendor system. The review included: FAR compliance, communication skills, training development, and vendor maintenance organization model.

Alaska has increased the number of heavy maintenance vendor representatives by four and positioned consultants to immediately support QA/QC at the vendor and ensure FAR compliance.

A two-day vendor representative training class was developed to cover all applicable maintenance FARs and to ensure heavy maintenance vendor representatives are trained to perform these tasks. The class included focus on safety awareness maintenance human.

Input from the consulting team led to the development of a vendor maintenance staffing model to parallel the Alaska heavy maintenance model. The vendor representatives now report to the Staff Vice President, Maintenance (Director of Maintenance). This provides improved vendor representative reporting procedures, better support to the vendor representatives, and direct responsibility of the Staff Vice President of Maintenance (Director of Maintenance per FAR 119.65)

A permanent Manager, Vendor Maintenance was assigned at each heavy maintenance vendor. This provides continuity between Alaska and the vendors. The Manager is responsible for providing management oversight and ultimately ensuring compliance with Alaska's maintenance program and the FARs. To support this manager, Alaska has assigned additional vendor representatives, additional materiel representatives, and other required support groups (ARCTIC specialists, QA and QC personnel) to vendors.

We developed a vendor representative professional development training plan for vendor representatives. This includes: contract maintenance policies, procedures and expectation training, aircraft systems, safety, and supervisory classes.

A vendor heavy maintenance Policies and Procedures Manual is being developed for each heavy check vendor to codify all aspects of the vendor representative's job to ensure consistency, FAR compliance, and consideration of industry best practices. This manual provides the basis for vendor representative accountability, consistency of policies and training of new vendor representatives.

A "Zero Defects" paperwork compliance training class was developed to stress paperwork requirements, analyze data regarding past paperwork problems, develop recommendations to correct problems, and form teams when appropriate to work for systemic solutions to even the most minor paperwork issues. The "Zero Defects" training class has begun and a schedule for completion for all Alaska Airlines maintenance and inspection personnel will be ready by June 20, 2000.

## **RESPONSIBILITY AND ACCOUNTABILITY**

Director of Maintenance (Vice President, Maintenance & Engineering)

## **MILESTONES FOR IMPLEMENTATION**

- Training classes for heavy check vendor representatives ..... Completed
- New vendor representatives and materiel representatives at the vendors..... Completed
- Develop Policies and Procedures Manual..... Completed by July 14, 2000

## **VALIDATION**

### Interim Measures:

- Vendor heavy maintenance is covered by the Heavy Maintenance and Vendor Maintenance Procedures (tab 10) and the Airworthiness Release Procedures (tab 12). As such, all paperwork will be monitored by that program. This will ensure accuracy of heavy check paperwork.
- All training received will be recorded in ARCTIC to document those who receive the proper training.
- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria, per CASS.
- These conclusions and supporting detail will be made available to the FAA.

Long Term:

- After twelve months, the Vice President, Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# HEAVY MAINTENANCE AIRWORTHINESS RELEASE

## OBJECTIVE

Ensure that all maintenance work performed is properly documented to confirm the airworthiness of aircraft leaving heavy maintenance before the aircraft is released.

## CRITERIA

FAR Part 43 (applicable rules), Part 121.709.  
Reference ATOS Job Aids.

## PLAN

Safety Net Provisions: Only the Vice President of Maintenance and Engineering or the Director of Quality Control and Training will have final release authority for aircraft undergoing heavy maintenance. A pre-release audit checklist was developed to confirm that all maintenance records required for a heavy maintenance check are properly completed before the Airworthiness Release is signed. The Director of Quality Control and Training selected and trained a very limited number of qualified individuals who are authorized to review the documentation for accuracy.

Permanent Changes: Airworthiness release authority for heavy checks has been restricted to Quality Control Supervisors. A GMM revision has been issued to clarify the process used to perform Airworthiness Releases for functional check flights.

Section 7-3-0 of the GMM, entitled "Airworthiness Release," was completely rewritten to add controls, specify language to be used in logbook entries, break out responsibilities by Base and Line Maintenance, identify individuals authorized to release aircraft, and more clearly define "functional check flight." Five other GMM sections were revised due to the rewrite of Section 7-3-0 to eliminate redundant language and add clarity. Training has been completed and the new procedures have been implemented and observed by the local Certificate Management Office.

A task card titled "Airworthiness Release Audit" was developed and is being used to audit each document produced during heavy maintenance. This task card was derived from the audit checklist previously discussed, formalizes the use of the audit checklist and makes it a part of the aircraft's maintenance record.



## **AUTHORITY AND RESPONSIBILITY**

The Vice President, Maintenance and Engineering and the Director of Quality Control and Training currently have the final authority and responsibility for the airworthiness release of each airplane.

## **MILESTONES FOR IMPLEMENTATION**

- The new Procedures GMM sections and two work cards have been approved, training has been accomplished and are currently being used.
- Base Maintenance Lead Mechanics, Supervisors and designated personnel were provided with additional training to ensure that all work is completed or properly deferred prior to Quality Control signing the Airworthiness Release for heavy maintenance aircraft.

## **VALIDATION**

### Short Term:

- The Quality Assurance Department is conducting a 100% audit of heavy check paperwork on each aircraft to ensure all required maintenance records are properly completed before the Airworthiness Release is signed.
- The Quality Assurance Department is conducting random audits of the Airworthiness Release process.
- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is functioning effectively on its own and in accordance with the original criteria, per CASS.
- These conclusions and supporting detail will be made available to the FAA.

### Long Term:

- After twelve months, the Vice President, Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a DOD Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# LINE MAINTENANCE PROCEDURES

## OBJECTIVE

Ensure that all line maintenance procedures are in compliance with applicable federal regulations and contain the instructions and information necessary to allow all line maintenance personnel to perform their duties and responsibilities with a high degree of safety.

## CRITERIA

FARs Part 43 (applicable rules); Part 121.135; 121.709.  
Reference ATOS Job Aids 1.3.2 and 2.1.2

## PLAN

We developed and are using a task card to audit all documents generated during a line maintenance visit. We selected qualified individuals, trained each of them in this process and provided a special training code that identifies each person who has the authority to release aircraft.

The current General Maintenance Manual section on line maintenance will be rewritten. The process to be used for this rewrite can be found in the tab titled GMM Revision/Conversion to GPM.

The development and implementation of new Line Maintenance procedures is our number two priority following CASS, and will be written and implemented using the following methodology:

- Identify the standards and company requirements.
- Using the standards, other job aids and subject matter experts, write new Line Maintenance procedures for the GMM.
- Working closely with the FAA Certificate Management Office, we will evaluate each procedure to ensure that it contains all Systems Safety Attributes.
- Incorporate these procedures into our GMM.
- Train our employees on the new procedures.

## AUTHORITY AND RESPONSIBILITY

The Vice-President, Maintenance and Engineering has the oversight authority to ensure that Line Maintenance procedures are written, implemented and validated.

The Director of Maintenance (Staff Vice President, Maintenance) has the responsibility for developing, implementing and validating the new Line Maintenance procedures.

## **MILESTONES FOR IMPLEMENTATION**

- The new Line Maintenance procedures will be written and included in the General Maintenance Manual (GMM) by August 31, 2000.
- All employees will be trained on the new procedures by December 31, 2000.
- We will start using the new procedures at our line stations by December 31, 2000.
- The new procedures will be validated by December 31, 2000.

## **VALIDATION**

### Short Term:

- The Director of Quality Assurance will perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria, per CASS.
- These conclusions and supporting detail will be made available to the FAA.

### Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# MAINTENANCE CONTROL PROCEDURES

## OBJECTIVE

Ensure that all Maintenance Control procedures are in compliance with applicable Federal Aviation Regulations and contain the instructions and information necessary to allow all Maintenance Control personnel to perform their duties and responsibilities with a high degree of safety.

## CRITERIA

FARs Part 43 (applicable rules); Part 121.135; Part 121.628.  
Reference ATOS Job Aids 1.3.5/3.2.3/7.1.6

## PLAN

Develop and implement new Maintenance Control procedures using the following methodology:

- Identify the standards and company requirements.
- Using the standards, other job aids and subject matter experts, write new Maintenance Control procedures for the General Maintenance Manual (GMM).
- Working closely with the FAA Certificate Management Office, we will evaluate each procedure to ensure that it contains all Systems Safety Attributes.
- Incorporate these procedures into our GMM.
- Train our employees on the new procedures.
- Begin using the new procedures in Maintenance Control.
- Validate the new procedures.

This process fully described in tab 17.

## AUTHORITY AND RESPONSIBILITY

The Vice President, Maintenance and Engineering has the authority and responsibility to ensure that line maintenance procedures are written, implemented and validated.

The Director of Maintenance Control (Staff Vice President, Maintenance) has the responsibility for developing, implementing and validating the new line maintenance control procedures.



## **MILESTONES FOR IMPLEMENTATION**

- Identification of the standards and company requirements will be completed by December 2000.
- The new Maintenance Control procedures will be written and included in the General Maintenance Manual (GMM) by December 2000.
- The new Maintenance Control procedures will be evaluated to ensure that it contains all Systems Safety Attributes by December 2000.
- The new Maintenance Control procedures will be incorporated into our GMM by December 2000.
- All employees will be trained on the new procedures by December 2000.
- We will start using the new procedures at our line stations by December 2000.
- The new procedures will be validated by December 2000.

## **VALIDATION**

### Short Term:

- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria.
- These conclusions and supporting detail will be made available to the FAA.

### Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# MAINTENANCE & ENGINEERING INTERFACE PROCEDURES

## OBJECTIVE

Ensure that all Maintenance and Engineering Interface procedures are in compliance with applicable federal regulations and contain the instructions and information necessary to allow all Maintenance and Engineering division personnel to perform their duties and responsibilities with a high degree of safety.

## CRITERIA

FARs Part 43 (applicable rules); Part 121.135 Sub Part L; SFAR 36.  
Reference ATOS Job Aids 1.3.9/1.3.10/1.3.12.

## PLAN

The current General Maintenance Manual section on Maintenance and Engineering interface will be completely rewritten. The methodology to be used for this rewrite can be found in this document under the tab titled GMM Revision/Conversion to GPM.

The development and implementation of a new Maintenance and Engineering Interface procedure will be written and implemented using the following process:

- Identify the standards and company requirements.
- Using the standards, other job aids and subject matter experts, write new Maintenance and Engineering Interface procedures for the General Maintenance Manual (GMM).
- Working closely with the FAA Certificate Management Office, we will evaluate each procedure to ensure that it contains all Systems Safety Attributes.
- Incorporate these procedures into our GMM.
- Train our employees on the new procedures.
- Begin using the new procedures in Maintenance and Engineering division.
- Validate the new procedures.

## AUTHORITY AND RESPONSIBILITY

The Vice-President, Maintenance and Engineering has the oversight authority to ensure that Maintenance and Engineering interface procedures are written, implemented and validated.

The Director of Maintenance (Staff Vice President, Maintenance) and Managing Director of Engineering share the responsibility for developing, implementing and validating the new Maintenance and Engineering interface procedures.

## **MILESTONES FOR IMPLEMENTATION**

- The new Maintenance and Engineering Interface procedures will be written and included in the GMM by September 29, 2000.
- All employees will be trained on the new procedures by December 31, 2000.
- We will start using the new procedures at our line stations by December 31, 2000.
- The new procedures will be validated by December 31, 2000.

## **VALIDATION**

### Short Term:

- The Director of Quality Assurance will perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria, per CASS.
- These conclusions and supporting detail will be made available to the FAA.

### Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# MAINTENANCE TRAINING

## OBJECTIVE

Ensure that all maintenance personnel (including major maintenance vendors and inspection personnel) are fully trained and competent to perform their duties.

## CRITERIA

FAR 121.375

Reference Advisory Circulars 60-14, 120-116 and 120-49;

## PLAN

We will double the existing training staff to support the increased training requirements.

Maintenance training programs will be reorganized to ensure each person who determines the adequacy of work completed is fully informed about procedures, techniques, new equipment.

In addition to a formal training program, there will be a standardized and formalized OJT program established and implemented. Scheduling of maintenance training will be conducted by the Maintenance Training Department.

Maintenance Production will add contingency staffing to support maintenance training programs and schedules. Training is mandatory and will be conducted in such a manner as to ensure that all personnel are fully trained to competently perform their duties.

We are developing a training profile for all maintenance personnel by work area, which will detail all required training necessary for competent completion of their duties. The training profile will also dictate follow-on recurrent training requirements.

The maintenance training syllabus will outline course subject matter. Formal training courses will include a final exam that measures the student's knowledge of the course subject matter. Each student passes a final exam with a score of 80% or better. OJT will be validated through performance evaluations that measure the ability of the student to perform the task assigned. We will provide recurrent training on a scheduled basis and complete and maintain a record of each student's completed training.

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## **RESPONSIBILITY AND AUTHORITY**

The Vice President, Maintenance and Engineering has authority and responsibility to ensure that the maintenance training program is established and maintained. The Director of Quality Control and Training is responsible for implementation of the maintenance training program.

## **MILESTONES FOR IMPLEMENTATION**

- Identification of new organization structure and approve staff additions will be completed by June 30, 2000.
- Staff will be retained by August 2000.
- Development of a training syllabus will be completed by August 2000.

## **VALIDATION**

### Short Term:

- The Director of Quality Assurance will perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria, per CASS.
- These conclusions and supporting detail will be made available to the FAA.

### Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# GENERAL MAINTENANCE MANUAL REVISION AND CONVERSION TO GENERAL PROCEDURES MANUAL

## OBJECTIVE

Comprehensively review, analyze and amend the General Maintenance Manual to conform with applicable FARs and provide instructions and information necessary to allow employees to perform their duties and responsibilities with a high degree of safety.

## CRITERIA

FARs 91.407, 121.135, 121.367, 121.369, 121.373, 121.380, 121.701, 121.701, 121.703, 121.707 and 121.709.

Reference ATOS Job Aids.

## PLAN

The first four priorities in the GMM revision (CASS, Line Maintenance, Maintenance Control, and Engineering) have already been identified in cooperation with the PMI. The prioritization of the remaining sections will also be accomplished in consultation with the CMO.

- A. Identify all key elements of the GMM subject to revision.
- B. Review existing procedures and evaluate conformity to applicable FARs and audit findings
  - Review applicable ATOS EPI and SAI Job Aids
  - Research and review referenced FARs listed within the EPIs and SAIs
  - Confer with FAA advisory staff for clarification of regulations as required
  - Gather and review any audit findings that pertain to the subject matter
  - Interview and confer with recognized Subject Matter Experts
  - Confer with Technical Consultants
- C. Identify discrepancies and or flawed procedures
  - Categorize and list discrepancies
  - Eliminate duplicate and unnecessary steps
  - Clarify verbose and unclear procedures
  - Secure consensus and agreement and eliminate waste
- D. Revise and rewrite procedures
  - Diagram the process (Flow Chart)
  - Account for and confirm corrections of audit findings
  - Review process diagram with Subject Matter Experts
  - Consult with FAA advisory staff for content and conformity
  - Write procedures to mirror the process diagram.

- Write and develop a training curriculum prior to release as applicable
- E. Review and re-audit Procedure
- Verify conformity with all applicable FARs
  - Verify conformity with ATOS EPIs and SAIs
  - Test procedures with “end user(s)”
  - Submit to FAA advisory staff for final review
  - Revise as necessary and produce final draft
  - Finalize training curriculum and scheduled end user training classes
- F. Submit final draft to Maintenance Review Board for Approval
- Determine a release date to coincide with confirmation of end user training
  - Release and implement the process
  - Analyze and survey the process at regular intervals
  - Revise and amend the process as necessary.
  - Submit to Technical Publications.

## **RESPONSIBILITY AND AUTHORITY**

The Vice President of Maintenance and Engineering has responsibility and authority for the ownership and implementation of the process.

## **MILESTONES FOR IMPLEMENTATION**

As individual sections of the manual are revised, implementation of those sections will proceed without delay in conjunction with any applicable training requirements. Each GMM section review and revision will contribute to the transformation into a GPM which will be completed by December 15, 2000.

## **VALIDATION**

### Short Term:

- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria, per CASS.
- These conclusions and supporting detail will be made available to the FAA.

### Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.

- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# TOOL CALIBRATION PROGRAM

## OBJECTIVE

Perform a comprehensive review and audit of established calibration specifications for each tool and piece of test equipment requiring calibration. Ensure that the program is in compliance with the GMM and applicable FARs.

## CRITERIA

FARs Part 121.369, 135.411, 145.47  
Reference Order 8300-10 Airworthiness Inspectors Handbook  
Advisory Circular (AC) 120-16 Continuous Airworthiness Maintenance Program  
Advisory Circular (AC) 120-17 Maintenance Control by Reliability Methods  
ATOS Job Aids 1.3.3, 1.3.8 and 5.1.1

## PLAN

Our Calibration Laboratory performed a thorough internal audit to assure compliance with the procedures contained in the GMM. Portions of the GMM were identified as requiring improvement and clarification regarding the calibration program administration.

We reviewed our records that categorize tools and test equipment as those requiring calibration, and those that do not, to ensure that all tools and test equipment are categorized in accordance with our GMM and the manufacturers' established procedures regarding such categorization. That review confirmed that all tools and test equipment are properly categorized.

We performed a comprehensive review of established calibration specifications for each tool and piece of test equipment requiring calibration.

We reviewed calibration records to verify that all tools and test equipment that requires calibration have been calibrated in accordance with, or to a higher standard than, the established standards and intervals.

Calibration records were also reviewed for recent Calibration Lab findings to ensure the adequacy of the manufacturer's established calibration interval. Based on this review, we decided to decrease the calibration interval from the one-year recommended by the manufacturer to six months for one tool (atomizer tester). Note that this is more restrictive than the manufacturer's recommended yearly interval.

Our NDT testing equipment will be returned to the manufacturer for calibration on a twelve-month interval.

A Maintenance Information Letter (MIL) was published that places emphasis on the existing GMM prohibition against the use of mechanic-owned tools that would otherwise require calibration under this program.

A skilled calibration technician was added to the Calibration Laboratory staff to improve management and operation of the calibration program.

CSET review and verification is in progress and on-going surveillance will be monitored via the CAS program.

### **RESPONSIBILITY AND AUTHORITY**

The Director of Maintenance (Staff Vice President, Maintenance) is accountable for the development, implementation and surveillance of this program.

### **MILESTONES FOR IMPLEMENTATION**

Hiring of skilled calibration technician.....	Completed
Internal Tool Calibration Audit .....	Completed
Maintenance Information letter.....	Issued
GMM revisions for Tool Calibration .....	Completed

### **VALIDATION**

#### Short Term:

- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria.
- These conclusions and supporting detail will be made available to the FAA.

#### Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a D.O.D. Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# MEL / CDL DEFERRAL PROCEDURES

## OBJECTIVE

Ensure that MEL/CDL procedures are in compliance with applicable Federal Regulations and contain instructions and information necessary to allow employees to perform their duties and responsibilities with a high degree of safety.

## CRITERIA

FAR 121.628.

Reference ATOS Job Aids 1.3.5, 3.2.3 and 7.1.6.

## PLAN

Interim Measures: A temporary procedure was implemented to provide flight crews with a complete listing of all deferrals. This listing is available in the Aircraft Log. We are evaluating a more efficient way to accomplish this, which will include corresponding revisions to the GMM and Flight Operations Manual.

We performed a thorough review of all deferrals, including MEL, CDL, INT (interior), PLT (planning time) and MCT (maintenance control time) deferrals, to ensure that they were properly categorized and contained accurate authorization references. The FAA has completed a similar review of deferrals.

Permanent Changes: We changed the MEL/CDL manual to clarify that performance limitations must be listed on all CDL placards. The revision also clarifies where such placards must be located. An email message was sent to all maintenance stations apprising them of these requirements, which were immediately implemented. The revision is complete and approved by FAA.

Our Maintenance Control group enacted shift turnover procedures that involve a review of open MEL/CDL items. Scheduled maintenance "A" checks require a similar review. We revised Maintenance Control procedures and "A" check task cards to require a review of all deferrals to confirm that they are properly categorized and contain accurate authorization references.

Lavatory and Potable Water Systems have been upgraded from the Passenger Convenience Items list and re-designated as individual MEL items.

## **RESPONSIBILITY AND AUTHORITY**

The Vice President of Maintenance and Engineering has oversight authority to ensure that the MEL/CDL program is established and maintained. The Director of Maintenance (Staff Vice President of Maintenance) is responsible for implementation of the MEL/CDL policies and procedures.

## **MILESTONES FOR IMPLEMENTATION**

- All MEL/CDL revisions have been submitted for review and approval.
- Approval was granted on all outstanding issues June 9, 2000.
- Implementation of the revisions will occur immediately for Maintenance Control and Flight Operations.
- MEL/CDL manual revisions will be distributed to all manual holders not later than June 16, 2000.
- In order to simplify the deferral process for our employees, we development of a decision tree that was approved by the FAA.
- Additional training regarding use of this tool will commenced June 6, 2000.
- Six of nine maintenance controllers have received training, the remaining three will receive training by June 16, 2000.
- That training has been expanded to include line maintenance and is expected to begin July 15, 2000.

## **VALIDATION**

### Short Term:

- The Maintenance Control Manager On Duty reviews daily each item deferred to ensure that it was properly deferred.
- The Director of Quality Assurance will be responsible to perform the necessary audits, collect and analyze data, and determine if the process is effectively functioning on its own and in accordance with the original criteria.
- These conclusions and supporting detail will be made available to the FAA.



Long Term:

- After twelve months, the Vice President of Safety will select the appropriate means to validate the completion and effectiveness of the plan. These may include a DO.D Quality Safety Review, Outside Independent Auditor, Internal Auditor, or the Internal Evaluation Board.
- Validation will be against the original objective utilizing the same standard (criteria) with which the plan was developed.

# NEW POSITIONS AND PERSONNEL IN MAINTENANCE AND ENGINEERING

## OBJECTIVE

Critically review and assess requirements for additional staff to support functionality and growth of the Maintenance and Engineering Department.

## CRITERIA

FAR 119.65  
Reference Order 8300-10 and 8400-10

## PLAN

A **Director of Special Projects** position was created and filled. This position reports to the Executive Vice President, Technical Operations and System Control and is responsible for managing high priority projects largely associated with the initiatives outlined herein and recommendations from our independent audit.

A new position, **Director of Materiel , Control and Distribution**, was created and filled, and reports to the Managing Director of Maintenance Planning and Materiel Control and is responsible for the management of materiel control, component repairs, inventory levels, supply services and distribution.

The **Staff Vice President, Maintenance** position was filled and reports to the Vice president of Maintenance and Engineering. This is our "Director of Maintenance" and is responsible for all line maintenance and heavy maintenance activities internally and at vendor locations.

A new position, **Director of Quality Assurance**, was created and filled, and reports directly to the Vice President of Maintenance and Engineering and is responsible for the managing all the Continuous Audit and Surveillance program (CASP) and all quality assurance matters as it applies to the Maintenance and Engineering Division.

A new position, **FAA Liaison**, reporting to the Director of Quality Control and Training, is responsible for communication, resolution and compliance concerning FAA and Maintenance and Engineering issues. The FAA Liaison is the primary point of contact between the Certificate Management Office and the Company.

A new position, **Manager of Quality Control**, Oakland, was created and filled, and reports to the Director of Quality Control and Training and is responsible for the quality control system and all quality control related matters as it applies to aircraft maintenance at the Oakland maintenance facility.

A new position, **Director of Base Maintenance, Oakland**, was created and filled. This position will provide a higher level of management oversight and reports directly to the Staff Vice President, Maintenance.

A **Director of Vendor Maintenance** was created. Reporting to the Staff Vice President, Maintenance this position will ensure a high level of vendor oversight in the areas of Compliance, Quality and Contract Administration.

The position of **Director, Powerplant & Component Avionics Maintenance** was created. This position will report to the Staff Vice President, Maintenance and have authority and responsibility for tooling and test equipment, engine shop, tool crib, and in-house component repair.

The Maintenance Planning department was divided into two sections. The **Director, Base Maintenance Planning**, formerly Director, Maintenance Planning and Production Control, will focus on heavy maintenance planning, and the newly created position **Director, Line Maintenance Planning and Records** will bring an increased focus to line maintenance and RON activities.

A new **CASS Analyst** position was approved and will report to the Director of Quality Assurance and is responsible for daily interpretation of CASS Audit Data. The Analyst is also responsible for consolidation of data and generating reports of findings at regular intervals.

The **Quality Assurance Audit Staff** was increased by eight positions, four of which have been filled. These positions report to the Manager of Quality Assurance and are responsible for implementing and execution of the various audit processes embedded within the CAS program. Auditors will be strategically assigned to heavy maintenance facilities, vendor locations and off site locations as required to fulfill the requirements of the CAS program

Eight **Maintenance Training Instructors** are being added and will report to the Manager of Maintenance Training and are responsible for conducting formalized maintenance training and implementing on the job training (OJT) programs as they pertain to the maintenance and Engineering Division

Twenty-two **Maintenance Supervisors** are being added and will report to the Manager(s) of Base or Line Maintenance as assigned and are responsible for implementation on a daily basis the work plan and associated maintenance procedures for their respective shift

Sixty-six **Mechanics** positions have been added, 44 of which have been filled, and will report to the Supervisor(s) of Base or Line Maintenance as assigned and are responsible for directly implementing assigned work in accordance with the daily work plan, GMM policies and procedures and all supporting technical documentation in a quality and workman like manner.

Three **Engineers** are being added (one Structures, one Systems and one Avionics) and will report to the Director of Engineering and are responsible for review development of technical data necessary to support repairs and or modifications of company aircraft utilizing manufacturer's data, FARs and Airworthiness Directives etc.

Fifteen **Stock Clerks** have been hired and will report to the Manager of Materiel and Stores and are responsible for processing material inventory and aircraft parts in support of company operations and maintenance activities system-wide.

**Vendor Oversight Staffing** was increased by four technical representatives, two materiel coordinators, two ARCTIC analysts, and two Quality Control representatives. These positions have been filled and report to the Manager(s) of Vendor Maintenance at a specific vendor location and are responsible for implementation of the work plan and specific duties to which they have been assigned.

NOTE: Positions identified herein are the first phase of reorganization. Additional staffing in each category is expected as organizational changes continue to evolve. The Organizational Chart at tab 8 and the New Positions and Personnel listing at tab 7 further describe new positions Alaska Airlines created.

### **RESPONSIBILITY AND AUTHORITY**

The Vice President/Maintenance and Engineering authorizes and approves staffing levels.

# RESTRUCTURE OF FLIGHT OPERATIONS

## OBJECTIVE

Restructure the Flight Operations Organization to ensure clear lines of authority and responsibility, to maintain a high standard of regulatory compliance, and to facilitate oversight and management of three essential and basic functions:

- Line Flying (pilots in direct performance of their duties);
- Administration (pilot support functions – Scheduling and Planning); and
- Training and Standards (pilot qualifications and quality assurance).

## CRITERIA

14 CFR 119, 14CFR 121 subpart T, SFAR 58.

Reference Order 8400.10, Air Transport Oversight System Safety Attributes and Element Performance Inspection Job Aids.

## PLAN

The Vice President Flight Operations will develop an organizational structure utilizing best industry practices to ensure clear lines of authority, responsibility and accountability. Compliance and audit functions will be clearly delineated and assigned. A structure that ensures standardization in both training and operations across the fleet will be developed. Staffing and infrastructure necessary to support a safe, compliant and efficient organization will be identified. New positions as identified and staffing as required will be provided.

The Flight Operations department will add the following staff to ensure operational compliance with Federal Aviation Regulations and Operations Specifications:

### 28 New Positions

Managing Director, Training, Flt. Standards & Technology

Director, Flight Standards and Qualifications

Director, Training Resource Management

Director, Resource Planning & Financial Mgmt.

Asst. Base Chief Pilot

Manager, AQP, Ground Training & CRM Training

Manager, Technical Publications & Communications

Flight Operations Engineer - MEL/CDL & a/c Performance

AQP Data Analyst

Training Operations Quality Assurance Auditor

Planning & Budget Analyst

Asst. Fleet Captains (2)

Instructor Pilot Scheduling & Qualification Administrator

Training Schedulers (2)

Records & Qualification Specialists (2)



Dispatchers (5)  
Dispatcher Assistants (2)  
Supervisor, Pilot Scheduling (3)

2 Changes

Supervisor, Training Scheduling  
Manager, Simulators

**AUTHORITY AND RESPONSIBILITY**

The Vice President Flight Operations has the authority and responsibility for the development and implementation of the Flight Operations Organization plan.

**MILESTONES AND IMPLEMENTATION**

Develop Organizational Structure..... Completed  
Complete Staffing Plan..... Completed  
Division Staffing Complete .....October 31, 2000

**VALIDATION**

Regulatory Compliance will conduct random audits of the Flight Operations organization for compliance with SAIs and EPIs. In addition, the upcoming DOD Air Carrier Survey in September 2000 will provide an overall validation of the organization.

# IMPLEMENTATION OF INDEPENDENT SAFETY ASSESSMENT TEAM RECOMMENDATIONS

## OBJECTIVE

Establish an Implementation Team to ensure that recommendations made by the Independent Safety Assessment Team be prioritized, scheduled and assigned accountability for implementing the accepted recommendations.

## CRITERIA

14 CFR 119 & 121.  
Reference Order 8400.10

## PLAN

An Implementation Team has been established, made up of representatives from among affected Flight Operations departments, other divisions and the Air Line Pilots Association.

The Implementation Team will develop an "Action Items" checklist. The checklist will identify the (1) action items recommended by the Independent Safety Assessment Team, (2) the individuals accountable to accomplish the action items, (3) action items completion due dates, and (4) status for reporting.

The Implementation Team will assign the action items to accountable individuals. Due dates will be determined. Status check dates and benchmarks will also be determined.

## AUTHORITY AND RESPONSIBILITY

Authority and responsibility to implement the Process and Plan will be vested in the Vice President, Flight Operations.

## MILESTONES FOR IMPLEMENTATION

Accountable individuals identified and action items assigned. Due dates agreed upon. Expected results outlined, and milestones will be agreed upon.

Implementation Team Established.....	June 8, 2000
Identify Accountable Personnel.....	June 22, 2000
Preliminary Plan.....	July 14, 2000
Resource & Timeline Estimation.....	July 21, 2000
Final Plan .....	July 28, 2000

Implementation progress will be reported to the Implementation Team monthly until action items are accomplished.

## **VALIDATION**

Action items will be audited by the Flight Operations Regulatory Compliance group to ensure that *recommendation are appropriately accomplished as outlined by the Implementation Team.*





# OPERATIONAL CONTROL

## OBJECTIVE

To develop a system of operations control and document the procedures in a Standard Operating Procedure manual and the Flight Operations Manual.

## CRITERIA

14 CFR 121 Subpart T.

Reference Safety Attribute Inspection (SAI) 3.1.4 & Element Performance Inspection (EPI) 3.1.4, Order 8400.10, Air Transportation Operations Inspector's Handbook

## PLAN

Flight Operations will establish a systems analysis team comprised of subject matter experts from all disciplines within Flight Operations, Maintenance, and the Federal Aviation Administration. This team will examine the process of dispatching, flight following and verifying the airworthiness of aircraft operated by Alaska Airlines and confirm the compliance to the criteria listed above. Once the team has reviewed existing procedures and identified discrepancies, they will develop, document and verify the needed procedures to meet Federal Aviation Regulation requirements with reference to (SAI) 3.1.4 and (EPI) 3.1.4.

## AUTHORITY AND RESPONSIBILITY

The Vice President of Flight Operations is named on the Operations Specifications as the Director of Operations and therefore has the authority and responsibility for implementation of operational control of the airline.

## MILESTONES FOR IMPLEMENTATION

Team established.....	June 13, 2000
Current process identified.....	June 23, 2000
Discrepancies identified.....	July 31, 2000
Process & procedures developed and documented.....	August 31, 2000

## VALIDATION

Procedures published in the Flight Operations Manual are audited by the Flight Operations Regulatory Compliance department approximately once per quarter. The Flight Operations Manual will also be reviewed by the General Operations Manual review board and the Federal Aviation Administration Certificate Management Team. The Standard Operations Practices manual will be reviewed by the Flight Operations Regulatory Compliance group at least once a year or as revisions are made.

# PILOT TRAINING

## OBJECTIVE

To develop and document a system to enroll, manage and qualify Pilots for specific operations at Alaska Airlines. Documentation of the procedures will be in a Standard Operating Procedure Manual.

## CRITERIA

14 CFR 121 Subpart N, O, Appendix E, F and H, SFAR 58.  
Reference 120 Series ACs, Air Carrier and Commercial Operators and the FAA approved Flight Operations Training Manual.

## PLAN

Flight Operations will establish a systems analysis team comprised of subject matter experts with disciplines from training scheduling, training curriculum development, flight instructors, check airman, record clerks and crew scheduling. This team will examine the process of enrolling an airman in a training program, management of the required training, documentation of required training and establishment of pilot qualifications.

Once the team has reviewed existing procedures and identified discrepancies, they will develop, document and verify the needed procedures to meet Federal Aviation Regulation requirements.

## AUTHORITY AND RESPONSIBILITY

The Managing Director of Training, Standards & Technology

## MILESTONES FOR IMPLEMENTATION

Team established.....	June 9, 2000
Current process identified.....	June 30, 2000
Discrepancies identified.....	July 31, 2000
Process & procedures developed and documented.....	August 31, 2000

## VALIDATION

A new audit position has been created in the Regulatory Compliance department. This auditor will be performing constant surveillance of pilot training until the process can be automated. At that time, random, periodic audits will be performed and documented in a regulatory compliance database.

# FUNCTIONAL CHECK FLIGHTS

## OBJECTIVE

To revise and document the process of performing functional check flights. This system will include qualification & training of designated pilots, notification of trained and qualified pilots, procedures for accepting an airworthy airplane from maintenance, operational control during check flight, and documentation of the check flight and any unsatisfactory results.

## CRITERIA

14 CFR Part 91.407 and §§121 701 & 121.709

## PLAN

Flight Operations will establish a systems analysis team comprised of subject matter experts with disciplines from our current “flight test” pilot group and regulatory compliance department. This team will examine the process of qualification and training of designated pilots; transfer of operational control and airworthiness of the aircraft; performing the check flight; documentation of the check flight and any discrepancies; and returning the aircraft to service.

Once the team has reviewed existing procedures and identified changes, they will develop and document the procedures to perform a functional check flight.

## AUTHORITY AND RESPONSIBILITY

The Managing Director Chief Pilot has authority and responsibility for this project.

## MILESTONES FOR IMPLEMENTATION

Team established.....	June 9, 2000
Current process identified .....	June 23, 2000
Process & procedures developed and documented.....	July 14, 2000

## VALIDATION

The Federal Aviation Administration plans to monitor aircraft coming out of heavy checks, thus will observe the transfer of operational control from maintenance to flight operations. A Flight Operations Regulatory Compliance auditor will audit the training and qualification records of the flight check pilot group and procedure manual used to define transfer of operations.

# FLIGHT OPERATION COMPLIANCE DOCUMENT

## OBJECTIVE

To document responsibility, means of compliance, required division interface and audit controls for all applicable Federal Aviation Regulations and Operations Specifications.

## CRITERIA

14 CFR, 49 CFR, Operations Specifications.  
Reference Advisory Circulars, ATOS Safety Attribute Inspection (SAI) & Element Performance Inspection (EPI), Order 8400.10, Air Transportation Operations Inspector's Handbook

## PLAN

Establish an internal database to contain FAR reference, Operations Specifications reference, Alaska Airlines point of contact, FAA point of contact, Alaska Airlines person responsible, authority of responsible person, means of compliance, interfaces among Alaska Airlines divisions/departments, contact for interface, audit controls and process measurements. This database would be shared with the local Certificate Management Office.

If available, we may opt instead to use the CSET web based automated compliance document. This Internet accessible document will be maintained by both Alaska Airlines and Federal Aviation Administration Certificate Management Office.

## AUTHORITY AND RESPONSIBILITY

Director, Regulatory Compliance

## MILESTONES FOR IMPLEMENTATION

Data based established ..... July 31, 2000  
Data entry ..... Continuous

## VALIDATION

This document is readily available to Alaska Airlines and the Federal Aviation Administration (FAA) and will be provided to any FAA inspection team at their request.



# SAFETY DEPARTMENT DEVELOPMENT AND STAFFING

## OBJECTIVE

To establish an effective safety organization to support Alaska Airlines activities.

## CRITERIA

FAR 119.65, and other applicable Federal Guidelines

## PLAN

The Vice President, Safety will develop a safety structure that fully supports all airline operations. A safety manager will represent each major operational area in the safety department. Many elements of the safety department already exist in the company and will require relocation or reassignment of personnel to the safety department. Six new positions will be required to complete the department's proposed structure. Work will begin immediately to document those requirements and to begin the recruitment and selection process.

New positions in the safety department are provided below:

**Vice President, Safety** – A full time Vice President of Safety reporting to the Chairman, Chief Executive Officer of Alaska Airlines. The Vice President Safety has responsibility for all facets of the safety program. In addition to management of the safety program, the Vice President Safety will oversee the internal audit process and serve as Chairman of the Internal Evaluation Board.

**Director, Quality and Internal Audit** – This new position will be responsible for the management of the Internal Audit program. This Director will serve in a leadership role in the Internal Evaluation Board with regard to Internal Audit. He or she will ensure that the audit program is implemented in accordance with the written program and will be responsible for tracking and management of corrective action and for briefing senior management regarding audit results.

**Manager, Maintenance Safety** - This new managerial position will reside in the maintenance and engineering department and be an integral part of the on-going oversight of maintenance activities. This position will report to the Vice President, Safety. This new management position will be heavily involved in the Internal Audit Program for Maintenance and Engineering and will be responsible for all maintenance-related safety issues. This position will serve as a member of the Internal Evaluation Board.

**Manager, Station Safety** - This position will report through the Director Operational (Ground) Safety to the Vice President, Safety. This manager will be required to audit all stations on an annual basis. The manager will also serve as a subject matter expert on safety for the Vice President, Customer Services and, will play an important role in the program to reduce industrial

injuries and accidents in the work place. This position will serve as a member of the Internal Evaluation Board.

**Manager of Cabin Health and Safety** - This position is being created to focus on safety issues in the cabin. In addition to serving as a subject matter expert in support of In-Flight Services, this manager will be required to perform the internal audit oversight function of In-Flight Services and will serve as a member of the Internal Evaluation Board.

**Manager Safety Training** - This position is responsible for ongoing review of all airline safety programs. This manager is responsible for ensuring that appropriate levels of safety, risk management, human factors and CRM are resident in all airline-training programs. In addition, this manager will be responsible for the development of new safety training curriculum as new safety training requirements occur. This manager is also responsible for the management of the corporate safety awards program. This manager will be responsible for the development of awareness programs for all aspects of the safety program at Alaska Airlines.

### **RESPONSIBILITY AND AUTHORITY**

Vice President Safety has primary responsibility and authority for the development and implementation of the safety department staffing plan.

### **MILESTONES AND IMPLEMENTATION**

Vice President/Safety .....	On Staff June 1, 2000
Staffing Plan Complete .....	June 30, 2000
Department Staffing Complete .....	October 1, 2000

### **VALIDATION**

Assessment of the safety department with regard to staffing and support is a high priority item during DOD Air Carrier Survey. Alaska Airlines is scheduled for a review in September 2000, the first validation of the safety structure will occur at that time.

Additional validation and confirmation of the department's effectiveness will occur through regular interface with the FAA, OSHA, EPA and other agencies as they interact and evaluate the company's various safety programs.

# SAFETY OVERSIGHT CONSOLIDATION OF DOCUMENTATION

## OBJECTIVE

To consolidate safety oversight functions and formally establish the Safety Department's roles, responsibilities and programs in the appropriate company manual.

## CRITERIA

Applicable Federal Regulations, FAR 119.65.  
Reference ATOS 2.0 Manuals.

## PLAN

The safety department staff will revise chapter 7 of the Alaska Airlines System Regulations Manual to describe in detail the operational programs and processes resident in the safety department. The manual will specifically address all management level safety department personnel with regard to their duties and responsibilities as well as the level of authority and responsibilities of each member. Programs such as Internal Audit, Safety Awards Programs, Accident/Incident Reporting and other major safety programs will be outlined in this chapter.

## AUTHORITY AND RESPONSIBILITY

The Vice President, Safety has the authority and responsibility for the management and implementation of this process.

## MILESTONES FOR IMPLEMENTATION

Written program completed by – August 15, 2000

## VALIDATION

The program will be validated through coordination with the FAA to ensure adequacy and completeness of this written program in accordance with ATOS principles.

DOD review September 2000.

# SAFETY DATABASE (SAFETY INFORMATION SYSTEM)

## OBJECTIVE

To develop a safety database system to track and measure trends in safety and to permit effective monitoring of the accomplishment and effectiveness of corrective measures.

## CRITERIA

DOD Quality Safety Review (Operations)

## PLAN

Interim measures: Until an acceptable database system can be acquired and put into place, all existing safety reporting systems will remain in effect. A manual tracking system has been developed and will be used to track all safety information during the development and implementation of a database system. A traditional safety hazard log (paper system) will be used as the manual system until the automated system is operational.

Permanent Change: The Safety Department will begin work immediately to define and develop a safety database to use in the tracking and management of safety information. The system will be capable of tracking data from all employee groups. A system like BASIS will be the model for the Alaska Airlines Safety Information System. After a database system is in place, regular analysis of data will be accomplished by the Safety Department and reports of trend information will be shared with all levels of the company and incorporated into training and procedural review. This new system will be capable of housing ASAP information as well.

The primary purpose of the Safety Information system will be to track incident and accident information in order to identify trends and to serve as a tool in the prevention effort. The current plan is to expand the capability of the database to include additional types of safety information such as hazard reports, safety suggestions and human factors information.

## RESPONSIBILITY AND AUTHORITY

The Vice President, Safety is responsible for and has the authority for the development and implementation of this program.

## MILESTONES FOR IMPLEMENTATION

Database Design .....	June 30, 2000
Implementation .....	September 30, 2000



## **VALIDATION**

This system is an item of interest for the DOD. Validation of the process, design and implementation will be accomplished during the DOD's September 2000 visit and by ongoing oversight by the FAA.

# INTERNAL AUDIT PROGRAM

## OBJECTIVE

Develop and implement an effective Internal Audit Program (IAP) to provide oversight of all operating departments within Alaska Airlines conformance with company policies and procedures as well as applicable federal, state and local regulations. To develop an effective process to validate major changes to process or procedures at Alaska Airlines.

## CRITERIA

AC 120-59, DOD Quality Safety Review and other applicable Federal Regulations and Guidelines, ATOS 7.1.3 Process Measurement.

## PLAN

The Internal Audit Program (IAP) will provide a comprehensive method for operational departments to continually monitor internal processes, programs, and procedures to ensure that each operating department remains in compliance with appropriate Company policies and procedures and applicable federal, state and local regulations.

The Internal Audit Program will be mandatory for Flight Operations, In-flight Services, Maintenance & Engineering and airport operations.

The Internal Audit Program will provide a formal, continuous evaluation of Alaska Airlines' operations to enhance system safety and ensure continual improvement and compliance. Each operating department will be subject to a formal internal audit program, which will encompass all stations, facilities, domiciles, line stations and maintenance bases under the operating departments' control. The Internal Audit Program describes a comprehensive program of audits that is conducted by operating departments through self audit, the Internal Evaluation Board and the Safety Department to measure the effectiveness of internal programs and processes. Department-specific audit programs will be developed to review all internal processes, programs, and procedures. The Maintenance & Engineering Department's existing Quality Assurance Program and Continuous Analysis and Surveillance Program meet the requirements for internal audit as outlined in this policy.

The Safety Department and Internal Evaluation Board will prepare an annual schedule outlining all areas to be audited. The schedule will specify audit due dates and required dates for all follow-up activity. The Safety Department and Internal Evaluation Board will conduct an annual on site visit to Flight Operations, In-flight Services and Airport Operations each year and conduct ongoing audits of all stations throughout the year. The Safety Department will provide a proposed audit schedule to each of these departments at the beginning of each year. Time sensitive audits or reviews may be conducted on a continual basis rather than a one-time annual schedule. Each operating department will audited at least annually. Audits may be performed on a more frequent basis. When regulation or policy requires audits at different intervals, that time frame will apply. Maintenance & Engineering will forward audit findings on a regular basis



(normally quarterly) through Safety Department and the Internal Evaluation Board to senior management for review. Internal Evaluation Board will report a summary of audit findings on an annual basis to senior management.

Senior Management is defined as the President and Chief Executive Officer. When making the report to senior management, the Internal Evaluation Board and the Safety Department shall include all audit information and findings in the report. Senior Management will be actively involved in the review process to ensure audit program effectiveness and provide oversight and guidance to operating departments. Senior Management's involvement includes review of all audits and corrective actions through periodic meetings, briefings or written reports to assess the effectiveness of each operating department's corrective action plan and audit program.

The Audit: Each department may be subject to either a single annual audit or a continual progression of audits throughout the year based upon the department's operational requirements and structure. Departments that are monitored by continual running audits will be subject to an annual audit review. During this review, all individual audits will be collected and reviewed by Management. The collected audits will be combined and analyzed, and a corrective action plan will be developed for each finding, and forwarded to Senior Management for review. The same process will be followed for departments that are under an individual annual audit program. In all cases, audit information will be analyzed by the operating department and by the Safety Department, and a corrective action plan developed. Senior management will be briefed on the audit results and plan of corrective action. During the conduct of either style of audit, auditors should apply the appropriate classification to each audit finding. When Class A findings are identified (definitions of findings are provided in the written internal audit program), the vice president of the appropriate operating department should be notified immediately. Every effort must be made to correct or eliminate Class A and Class B audits findings on the spot. Auditors must ensure that when a Class A or B finding cannot be corrected on the spot, that adequate precautions are taken to prevent injury or accidents. When notified of apparent violations of 14 CFR, management must evaluate each finding and decide if self-disclosure in accordance with AC 00-58 is warranted.

Analysis: The analysis phase begins immediately following the completion of an annual audit or at the conclusion of the annual review. Data from either an annual audit or continuing audits are combined and an analysis of findings completed. During this phase, all findings will be deidentified and cataloged by the operating department. A paper trail must be maintained throughout the audit process. Documentation will be presented to Senior Management and forwarded to Safety Department and Internal Evaluation Board as part of the final report.

Corrective Action: Defines actions planned or taken to mitigate, corrects or eliminates individual audit findings or deficiencies. A formal plan must be outlined that specifically deals with each audit finding. The focus of data analysis should be to determine the root cause and risk. The use of line employees in this part of the audit process is encouraged. Departments shall prepare a written plan, which outlines corrective action for each audit finding. This plan will be part of the information presented to senior management and forwarded to the Safety Department and Internal Evaluation Board as part of the final report. It is imperative that corrective action be developed for all below-standard findings. An effective method must also be developed to monitor and measure the effectiveness of corrective actions taken by the department. Corrective action may take many forms. It may be as simple as a policy letter, or require in-depth changes to training programs, manuals or procedures. Regardless of the form or type of corrective action

planned, an on-going evaluation of the action's effectiveness must take place. Each new or subsequent audit should evaluate and consider the effectiveness of corrective action steps taken during prior audits. A continual review of corrective action steps assures a level of internal oversight as well as providing a method of validating corrective action plans.

Senior Management Report: After the analysis phase and corrective action plan development phase has been completed, and not more than 90 days after an audit is completed, a formal report of audit findings, corrective action and methods planned for tracking findings through resolution will be presented to senior management. This plan will outline specific corrective action and provide a timeline for completion. For departments that run yearlong programs, an annual corrective action plan is due by year-end. This report should be a consolidated summary of all findings, corrective action steps with specific time lines for resolution.

The Safety Department in coordination with the Internal Evaluation Board is responsible for oversight of the Internal Audit Program with regard to storage of audit information and for periodic follow-up with operating departments. The Safety Department will develop a system to track audit findings that remain open or require follow-up action. The Safety Department and Internal Evaluation Board will periodically review corrective action plans and determine if action is being completed as scheduled and is effective in correcting or eliminating the base finding. A designated Safety Manager will be assigned oversight responsibility for each operating department. This manager will monitor progress within his/her assigned department with regard to corrective actions taken within the department and the effectiveness of that action. In addition, the assigned manager will perform or assist in the performance of the operating department's audit. During that audit, a review of the department's Internal Audit Program will be conducted. The operating department's Analysis Phase and Action Plan will be considered and evaluated with regard to progress made toward resolution of audit findings. The results of safety audits will also be forwarded to senior management for review.

Validation Process: The safety department will develop a process to validate new programs that are instituted in operating departments. The validation process will provide both a short and long term validation of new programs and be used at direction of the President & COO or the Chairman & CEO.

Short-term Validation: Short-term validation will normally be a process-oriented evaluation of a new or modified process or procedure in an operating department. The safety department will either form an internal team or, when necessary elicit outside third party experts to perform the validation process. The results of these assessments will be provided to the Internal Evaluation Board and Senior Management for consideration and review.

Long-term Validation: Long term validation of major process and procedural changes will be accomplished through the internal audit process. As major change to process or procedure are implemented by operating departments, Internal Evaluation Board members will insure that required changes are made to the internal audit program so as to insure that appropriate oversight is accomplished.

## **RESPONSIBILITY AND AUTHORITY**

The Vice President Safety has responsibility and authority for this program. The Vice President Safety, the Director of Quality and Internal Audit in coordination with the Internal Evaluation Board have responsibility for the management of this program.

## **MILESTONES FOR IMPLEMENTATION**

Written program completed .....	July 15, 2000
IEB reorganization and training completed .....	August 30, 2000
Audit process implementation – Incrementally .....	August 30, 2000
Review and evaluation of audit process .....	August 30, 2001
Validation Process formalized in manual .....	July 15, 2000

## **VALIDATION**

The first review of this program will occur as part of the DOD Survey in September 2000. That review will validate the program with regard to meeting DOD guidelines for internal audit. The FAA, as part of its on-going surveillance of the airline, will also be involved in the review of the internal audit program. In addition, as part of the FAA and DOD tabletop review every six months, an ongoing assessment of the internal audit program will be possible as the program matures and full implementation is accomplished.

In order to provide an additional level of oversight to the Internal Audit Program, the Alaska Airlines Internal Audit Department or an outside third party will evaluate the process no less than every twenty four months to measure the program's effectiveness on behalf of Senior Management.

# INDUSTRIAL INJURY REDUCTION PROGRAM

## OBJECTIVE

Establish a comprehensive program to effectively reduce industrial injuries among all work groups.

## CRITERIA

OSH Act of 1970, 29 USC 654.

## PLAN

In light of the airline industry's high rate of employee industrial injuries, the safety department will develop an aggressive occupational safety program to focus on these issues. The occupational safety focus will be combined with the traditional ground safety function to create an operational safety department with a broader focus. This department will work with management, labor and government agencies to develop aggressive programs to reduce injuries and to improve operational safety on an company-wide basis.

## RESPONSIBILITY AND AUTHORITY

Vice President, Safety is responsible for and has the authority to manage and implement this program.

## MILESTONES FOR IMPLEMENTATION

Department Staffing ..... Completed by October 1, 2000

## VALIDATION

Reduction of industrial injuries by operating departments will be an item of interest and will be evaluated as part of the Internal Audit Program for operating departments. Validation of programs is achieved by measuring the effectiveness of efforts in this area.

Injury rate per 100 employees and lost time injury rate per 100 employees will be the primary measures of effectiveness during the initial stages of this program. Other measures of effectiveness will be established as the program matures.

# NON-PUNITIVE SAFETY COMMUNICATIONS

## OBJECTIVE

Enhance employee communication systems to encourage open communication between all employee groups and airline management on safety-related issues.

## CRITERIA

Compliance with Federal Regulations as described in CSET Appendix 27.

## PLAN

Interim Measures: In March 2000, the Chairman and CEO established a toll-free safety hotline, which employees can use to report any safety concern directly to management. This line is being monitored and coordinated by the Safety Department.

Permanent Change: Institute a company-wide program that stresses each employee's responsibility to report safety issues and incidents and that encourages reporting by emulating the principles described in ASAP. This program will provide a non-punitive response on the part of the company to employee-reported safety-related information. The Company is also creating new avenues to report safety incidents and issues. The Vice President, Safety is establishing several means of making safety reports, including e-mail, toll-free phone line, fax and existing safety reports. An option for making anonymous reports to the Corporate Safety Department will be available. In addition, the company will put in place a compliance hotline staffed by an outside vendor. Any employee with a safety concern who is not comfortable raising it within the Company may call the hotline and convey the information to a live operator. The hotline vendor will report back to the Company for investigation and follow-up.

Alaska Airlines will aggressively work with the FAA to develop and implement ASAP programs for all covered work groups.

## AUTHORITY AND RESPONSIBILITY

The Vice President, Safety has both the authority and the responsibility for the management and implementation of this program.

## MILESTONES AND IMPLEMENTATION

Company-wide program by July 15, 2000

ASAP – Dependent upon FAA approvals - Applications will be forwarded for consideration by September 1, 2000 for Flight Operations ASAP. Other groups to follow.

Compliance by August 31, 2000.



## **VALIDATION**

These initiatives will be validated by improved reporting of safety related events within the Company. This activity can be measured by analysis of database information, the number of safety reports and the number of calls received by the safety department and external compliance hotline. Validation is measured by activity.

The internal audit program will monitor the results of these programs. FAA and DOD oversight will also evaluate the effectiveness of these measures. Alaska is currently scheduled for DOD assessment in September 2000.



# **SAFETY AWARDS PROGRAM**

## **OBJECTIVE**

Institute a safety awards program to recognize outstanding achievements in safety by all employee groups.

## **CRITERIA**

Best Practices

## **PLAN**

Alaska Airlines Safety Department will develop a company-wide safety awards program to recognize outstanding achievement in safety. The program will provide safety awards for all employee groups and be managed within the Safety Department. Safety awards will be publicized to the maximum extent possible to honor awardees and to increase and enhance safety awareness on the part of all employees. Two types of award programs are envisioned. First awards for specific actions will be developed to honor employees who prevent a specific accident or incident. Secondly, an awards program will be developed to award employees in various groups for consistent or improvement in specific areas of safety, e.g. reductions in ground damage or industrial injuries.

## **AUTHORITY AND RESPONSIBILITY**

The Vice President Safety has the authority for the development of and is responsible to implement and manage this program.

## **MILESTONES AND IMPLEMENTATION**

Written program developed and included in Alaska Airlines System Regulations, Chapter 7 – 15 by October 31, 2000.

## **VALIDATION**

Implementation and management of the program will be included as part of the internal audit process. Recognition of employee achievements in safety will be an area of interest during department audits.

## DEPARTMENTAL COORDINATION (Manuals, Procedures, Processes)

### OBJECTIVE

To create a permanent group to facilitate coordination and standardization of new manuals, revisions to existing manuals, major changes to procedures and to serve as an interface for all cross-departmental processes.

### CRITERIA

14 CFR Part 121, Subpart G, Order 8400.10, Air Transport Operations Inspectors Handbook, ATOS 2.0 Manuals,

### PLAN

To develop a permanent system that will effectively manage the process for manual and procedural changes in the operating departments. This program will be implemented through the creation of a standing committee (Manual and Policy Review Committee) that will report to the Internal Evaluation Board (IEB). The committee will be made of management personnel from each operating department. The members should be management personnel that are normally involved in the development of policy and manual revision. The Manual & Policy Review Committee will be responsible for the specific set of manuals that comprise the G.O.M. or other manuals as directed by the IEB. No revision or major procedural change will be permitted without coordination and acceptance by the committee. The committee will formalize the coordination and acceptance process in the Safety and Environmental Manual.

A secondary objective for this committee will be the complete revision of all company operating manuals. The vision is that all operating departments would begin a revision process under the leadership of the committee to insure that all manuals are standardized and are ATOS compliant with regard to design and structure.

### AUTHORITY AND RESPONSIBILITY

The Vice President Safety has the authority and responsibility for the development and modification of this program. The Director Quality and Internal Audit and the Internal Evaluation Board have direct responsibility for the management of the program.

### MILESTONES FOR IMPLEMENTATION

Written program completed by – 30 September 2000

## VALIDATION

The program will be validated through coordination with the FAA POI to insure adequacy and completeness of this written program in accordance with ATOS principles.

This process will also become an audit item as part of the internal audit program and will be evaluated annually as to its effectiveness. Because the IEB has overall responsibility for the internal audit process, the Vice President Safety will use either the Internal Audit Department (financial) or an outside party to evaluate and validate this process.

**Alaska Airlines, Inc.  
FAA VALIDATION TIME LINE**

		JUN 2000	JUL 2000	AUG 2000	SEP 2000	OCT 2000	NOV 2000	DEC 2000	JAN 2001	FEB 2001	MAR 2001	APR 2001	MAY 2001
<b>MAINTENANCE &amp; ENGINEERING</b>													
CASS as Applied to Heavy Maintenance	Director/Quality Assurance												
Expanded CASS Program	Director/Quality Assurance												
Heavy Maintenance and Vendor Maintenance Procedures	VP/Maintenance & Engineering												
Vendor Oversight	Staff VP/Maintenance												
Heavy Maintenance Airworthiness Release	VP/Maintenance & Engineering												
Line Maintenance Procedures	VP/Maintenance & Engineering												
Maintenance and Engineering Interface	VP/Maintenance & Engineering												
Maintenance Control Procedures	VP/Maintenance & Engineering												
Maintenance Training	VP/Maintenance & Engineering												
GMM Revision/Conversion to General Procedures Manual	VP/Maintenance & Engineering												
Tool Calibration Program	Director/Maintenance												
MEL/CDL Deferral Process	VP/Maintenance & Engineering												
New Positions and Personnel	VP Maintenance & Engineering												
<b>FLIGHT OPERATIONS</b>													
Restructure of Flight Operations	VP/Flight Operations												
Implementation of Independent Safety Audit Recommendations	VP/Flight Operations												
Operation Control	VP/Flight Operations												
Pilot Training	Managing Director/Training, Standards & Technology												
Functional Check Flights	Managing Director/Chief Pilot												
Flight Operation Compliance Document	Director/Regulatory Compliance												
<b>SAFETY DEPARTMENT</b>													
Safety Department Development and Staffing	VP/Safety												
Safety Oversight Consolidation and Documentation	VP/Safety												
Safety Database (Safety Information System)	VP/Safety												
Internal Audit Program	VP/Safety												
Industrial Injury Reduction Program	VP/Safety												
Safety Communications	VP/Safety												
Safety Awards Program	VP/Safety												

 PROJECT READY FOR FAA VALIDATION

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