



**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Welcome  
to the  
Quality Information Workshop**



**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Workshop Introduction**

Presented by: (Insert Presenter's Name)  
(Insert Presenter's Title)

# Why Have BCA Workshops?

- **Lots of changes in the business plan**
- **Need for BCA Quality & Suppliers to Communicate**
- **Has been 10 years since last Quality workshop / symposiums**
- **Working together with Long Beach, Tulsa & Wichita as centralized BCA quality organization (one voice).**
- **Motivating suppliers to be accountable for quality systems, compliance, on-time delivery and continuous quality improvement**

# Quality Information Workshop

## Sample Agenda

<b>Agenda Topic</b>
Continental Breakfast & Check-In
<b>Welcome</b>
<b>Boeing Business Plan &amp; Expectations</b>
<b>Industry Activity: IAQG and AAQG</b>
<i>IAQG &amp; AAQG Structure</i>
<i>Boeing position on each industry standard</i>
<i>AS9100 CRB Recognition &amp; Oversight</i>
<i>Small Group Discussion</i>
<b>Break</b>
<i>Processor control strategy - NADCAP as supplement</i>
<i>Small Group Discussion</i>
<b>Lunch</b>
<b>Improved Supplier Quality</b>
<i>Electronic Supplier Corrective Action Notice (ESCAN)</i>
<i>Supplier Quality Performance Rating</i>
<i>Automated Source Activity Planning (ASAP)</i>
<b>Break</b>
<b>Contract Language - Quality Requirements</b>
<i>Small Group Discussion</i>
<b>Workshop Evaluation</b>
<b>Close &amp; Thank You</b>
<b>End Meeting</b>

A collage of various Boeing commercial airplanes in flight against a light blue sky with soft, white clouds. The planes are shown from different angles, some in the foreground and others in the background, creating a sense of depth and activity.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Business Plan  
&  
Expectations**

Presented by: (Insert Presenter's Name)  
(Insert Presenter's Title)

# PQA Mission

**Provide data and processes that ensure all products conform to approved design and are in condition for safe operation**



**While motivating suppliers to be accountable for quality systems compliance, on-time delivery and continuous quality improvements.**



# PQA Key Messages

## ✈ Accountability

### – Boeing PQA

- Flying public
- FAA
- Boeing manufacturing
- Supplier

### – Supplier

- Product conformance
- System & process compliance

## ✈ Changing Business Environment (Adaptability)

### – Boeing PQA

- Global environment
  - Increased performance
- Adopt industry standards

### – Supplier

- Global environment
  - Increased performance
- Adopt industry standards

# 2002 PQA Business Plan Strategies

- **Implement other party system and process audits**
- **Implement a robust corrective action process**
- **Implement supplier code delegation**
- **Invoke supplier cost accountability for non-conformance and non-compliance**
- **Continue to improve internal and external processes**
- **Support selected industry & network partnerships**



# Industry & Enterprise Partnerships

## Business Plan Goals

- **Work with Boeing enterprise groups to standardize supplier expectations & minimize quality oversight**
  - **Begin with common BCA**
  
- **Work with industry groups to reduce variability and standardize supplier expectations across the aerospace industry**
  - **Reduce audits/audit variation**
  - **Eliminate redundant oversight**
  
- **Transition to industry standard business practices**

A collage of various Boeing commercial airplanes in flight, including a 747, a 777, and a 737, set against a background of white clouds. The text is overlaid on this image.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

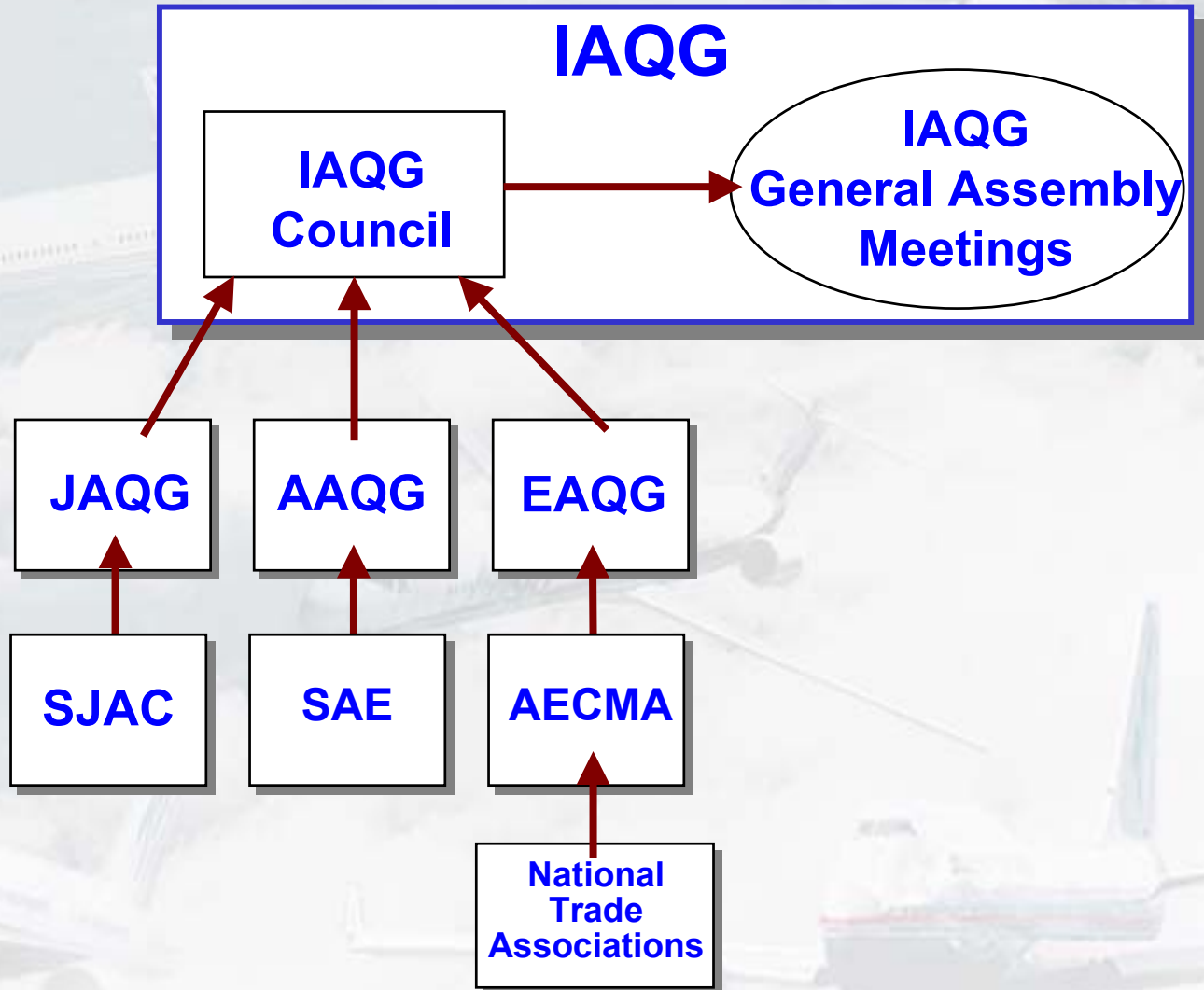
**International & Americas Aerospace  
Quality Group  
AAQG & IAQG Overview**

Presented by: (Insert Presenter's Name)  
(Insert Presenter's Title)

# IAQG Charter & Purpose

- Founded December 1998. Charter approved June 1999
- Establish and maintain a dynamic cooperation based on trust between international aerospace companies on initiatives to make significant improvement in quality and reductions in cost throughout the value stream
- Initial focus is to continuously improve the processes used by the supply chain to deliver consistently high quality products, thereby reducing non-value added activities and costs

# International Aerospace Quality Group



# IAQG International Membership

## Americas

The Boeing Company  
GE Aircraft Engines  
Pratt & Whitney  
United Technologies Corp.  
Rockwell Collins, Inc.  
Honeywell Engines & Systems  
Lockheed Martin Corp.  
Northrop Grumman  
Vought Aircraft Ind.  
Rolls-Royce Corp.  
Gulfstream  
Embraer SA  
Goodrich Corp.  
Bombardier Aerospace  
Bell Helicopter Textron, Inc.  
Parker Hannifin Corp.  
Cessna  
Raytheon Aircraft Co.  
Performance Review Institute  
SAE

## Asia

Aerospace Ind. Devlpmt. Corp.  
Ishikawajima Harima Heavy Ind.  
Mitsubishi Heavy Ind.  
Kawasaki Heavy Ind.  
Fuji Heavy Industries  
China Aviation Ind. Corp.  
Korea Aerospace Ind.  
Korean Air  
SJAC

## Europe

Airbus  
Airbus Germany  
Rolls-Royce  
BAE Systems  
Alenia  
SNECMA Moteurs  
EADS  
EADS-CASA  
Intertechnique  
Turbomeca  
Hispano-Suiza  
Messier-Dowty  
Messier-Bugatti  
Thales Avionics  
Volvo Aero  
Dassault Aviation  
Eurocopter  
Smiths Ind. Aerospace  
MTU Aero Engines  
Israel Aircraft Industries  
FiatAvio  
Fokker Aerostructures  
SAAB Aerospace  
AECMA  
AECMA-CERT  
AECMA-EASE

# IAQG/AAQG Focus on Improvement

- **Implement standards that incorporate best practices**
- **Establish process that promote continuous improvement**
- **Implement robust root cause corrective action**
- **Implement common performance metrics**
- **Emphasize lower-tier supplier control**
- **Requirements apply to primes as much as suppliers**
- **Improve customer and regulatory relationships**
- **Share results**

# Aerospace Quality Standards

## Numbering System

- ✈ **International standards - 91xx**
  - Are planned for harmonization across all 3 aerospace sectors and are recognized globally
  
- ✈ **Americas standards - 90xx**
  - Are published for use by AAQG, may become an 91XX standard if adopted by IAQG
  
- ✈ **“AS” standards – Americas (SAE)**
  
- ✈ **“EN” standards – Europe (AECMA)**
  
- ✈ **“JIS Q” standards - Japan / Asia (SJAC)**

# Aerospace Quality Standards

	BOEING POLICY	SUPPLIER ACTION
AS9100A (Aug 2001) Aerospace Quality Systems	Deploy	AS9100 CRB Certification Recommended
AS9003 (Oct 2001) - Insp & Test Quality System	Deploy	AS9003 CRB Certification Recommended
AIR9104 (TBD) - Registration Requirements (International)	Deploy	Awareness
AIR5359A (Jul 2001) - Registration Requirements	Deploy	Awareness
AIR5493 (Jun 2001) - Auditor Training	Deploy	Awareness
AS9101A (Apr 2002) - Checklist for AS9100	Deploy	Awareness
AS9103 (Oct 2001) Variation Mgmt of Key Characteristics	Deploy	Compliance, per BQMS commitment or contract
AS9102 (Aug 2000) First Article Inspection	Deploy	Compliance. Will be contractually flowed.
ARP9004 (Apr 2002) - Direct Ship	Deploy	Awareness. Contractually flow equivalent requirements.
AS9132 (Feb 2002) - 2D Bar Coding	Mar-03	Future compliance
AS9131 (Dec 2001) Nonconformance Documentation	NO	Awareness



# Aerospace Industry Activity

## Key Messages

- **IAQG/AAQG initiatives must deliver increased quality and decreased costs.** Otherwise, there is no benefit in collaboration.
- **Suppliers are also stakeholders of the aerospace industry. Get involved with IAQG/AAQG, especially at the sub-team level.**

# Aerospace Industry Activity

## Key Messages

- ➔ **Conduct gap analysis and assess impact relative to internal incorporation of industry standards, especially**
  - AS9100 and/or AS9003 (including CRB certification)
  - AS9103, variation management of key characteristics
  - AS9102, FAI requirements
  
- ➔ **Boeing is implementing aerospace industry standards where it makes sense. Look for contractual flow down and get prepared!**

# IAQG and AAQG

## Future Meeting Schedule

### ✈ IAQG Meeting Schedule

- October 7-10, 2002 - Torino, Italy
- April 7-11, 2003 - Edinburgh, Scotland – General Assembly
- October 2003 - Cincinnati, USA

### ✈ AAQG Meeting Schedule

- March 10-12, 2003 – Washington, DC
- June 9-11, 2003 – Wichita, KS
- September 8-10, 2003 – Montreal, Quebec

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**AS9100**

**Certification/Registration Body (CRB)  
Recognition & Oversight**

Presented by: (Insert Presenter's Name)

(Insert Presenter's Title)

# What is the Goal of the System?

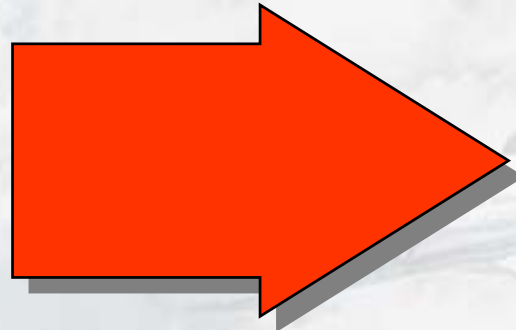
The goal of the system is for a supplier to receive one 9100 quality systems approval that will be acceptable to all aerospace OEMs throughout the world.

The key element in this is confidence.

# Hierarchy of Heritage Quality System Approvals

- D1-9000 AQS
- D1-9000 BQS
- SSP 41173  
NHB 5300.4 (1D2)
- AS 9000
- AQAP 110
- ISO 9001/  
NHB 5300.4 (1B)
- MIL-Q-9858 or  
Equivalent
- AQAP 120
- ISO 9002/  
NHB 5300.4 (1C)
- CQS or  
Equivalent
- MIL-I-45208 or  
Equivalent
- DQS (20E) or  
Equivalent
- LIMITED

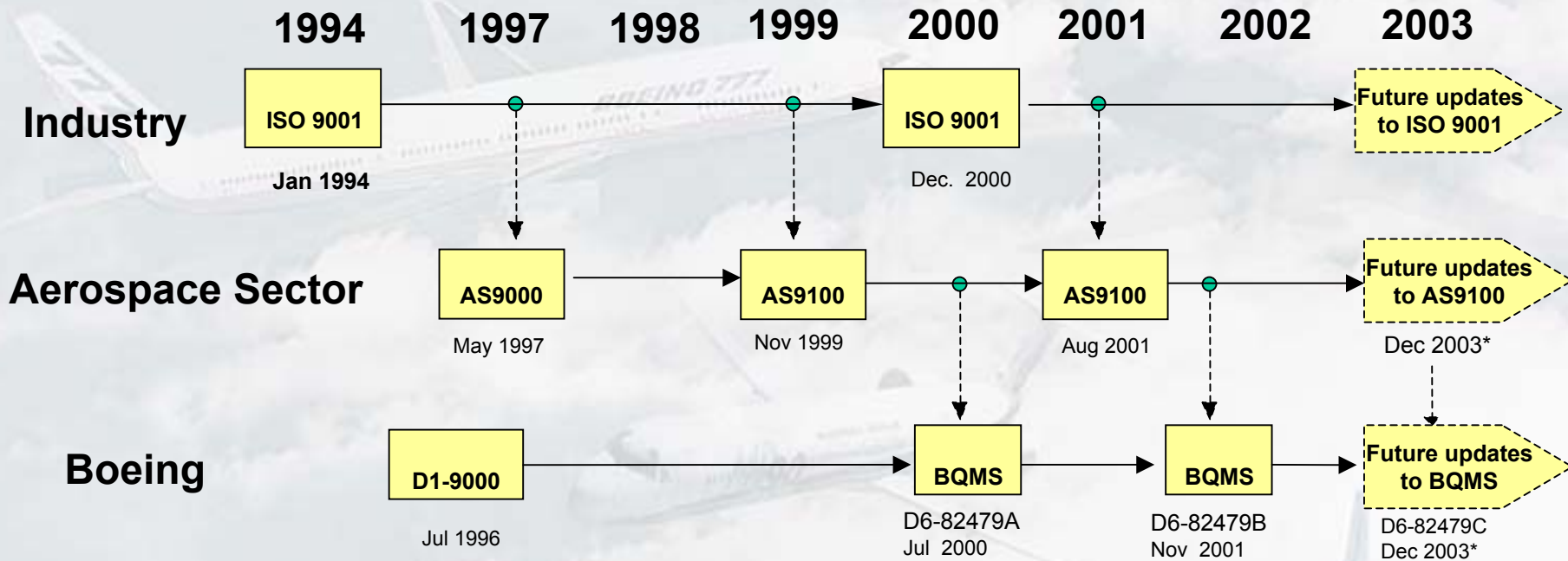
13 Heritage Systems flow into  
Boeing's One Quality System



**BQMS**

(Boeing Document, D6-82479)

# Quality System Standards Timeline



\* The 2003 release of AS9100 and BQMS (D6-82479) will delete ISO 9001:1994 as supplemented by AS9100:1999 as an available quality management system

# Boeing Adoption of Aerospace Standards

## Example: Document D6-82479

**D6-82479**

**The top-level document:**  
*BQMS Requirements for Suppliers*

**APPENDIX A**

**Quality Management System**  
*ISO 9001 as supplemented by AS9100*

**APPENDIX B**

**Inspection and test quality system**  
*AS9003*

**ADDENDUM 1**

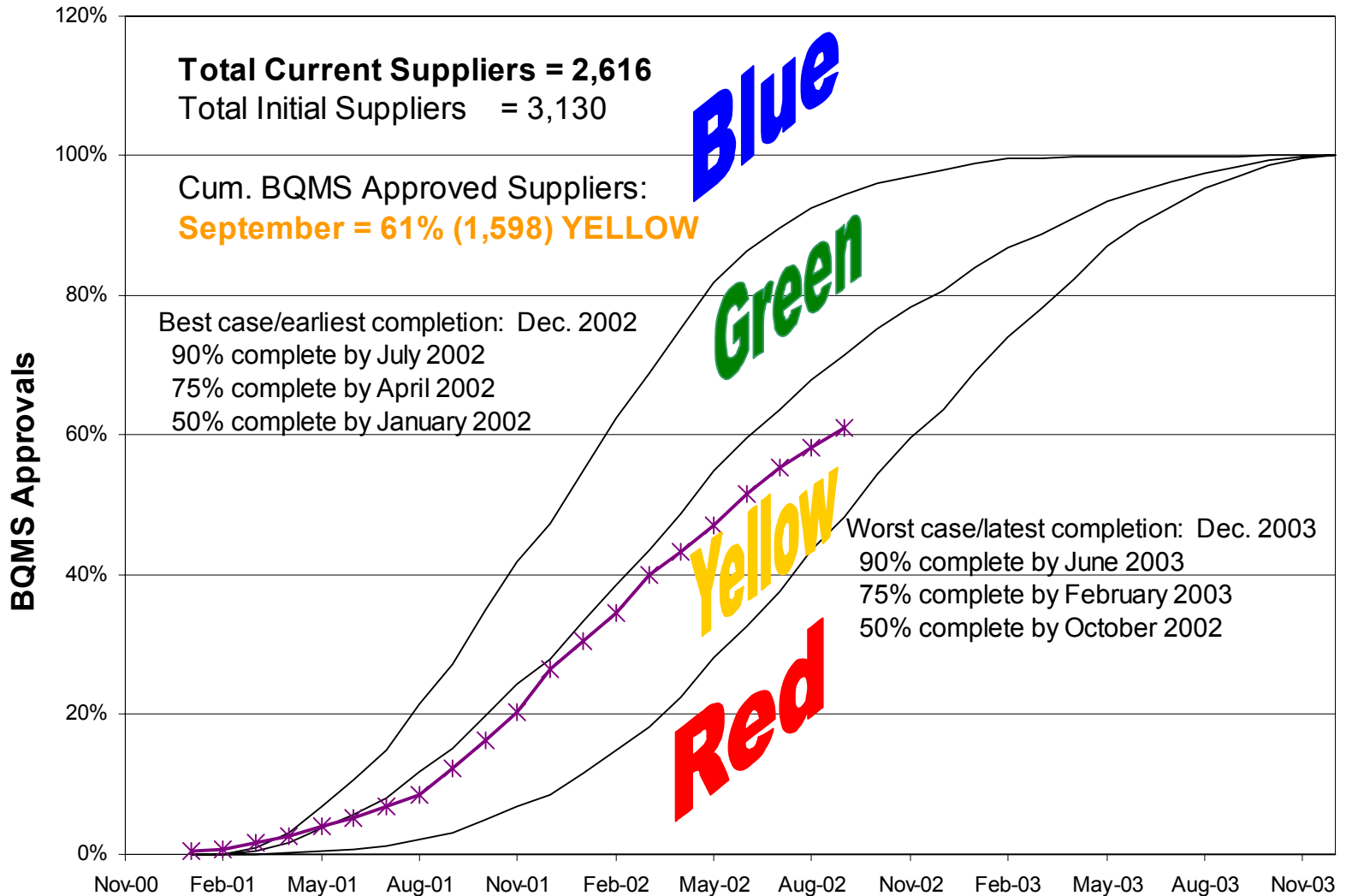
**AQS continuous improvement**  
*To be used with Appendix A or B*  
*AS9103*

**ADDENDUM 2**

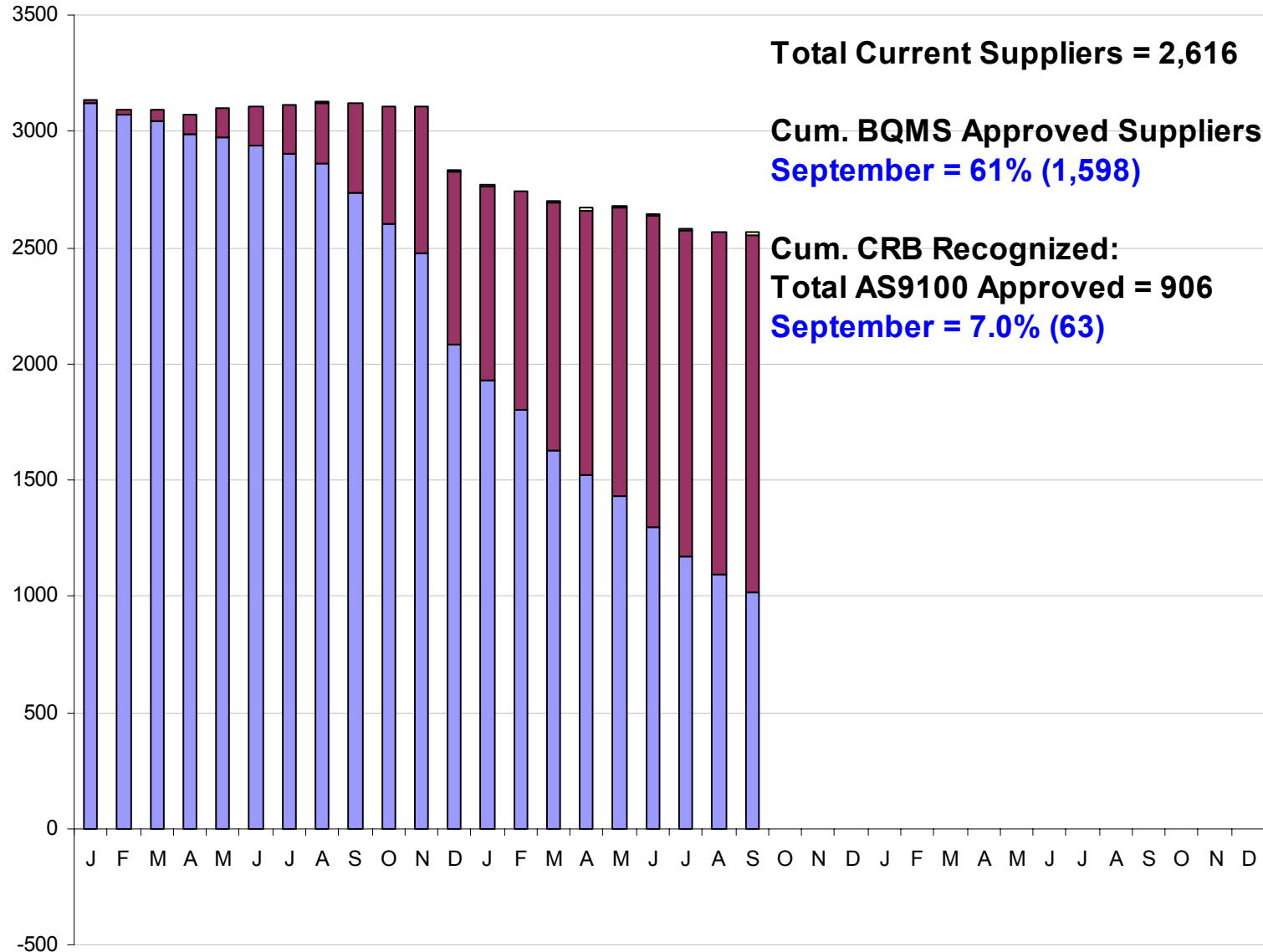
**Quality system requirements for software**  
*To be used with Appendix A only*



# BQMS for Suppliers - Approval Plan

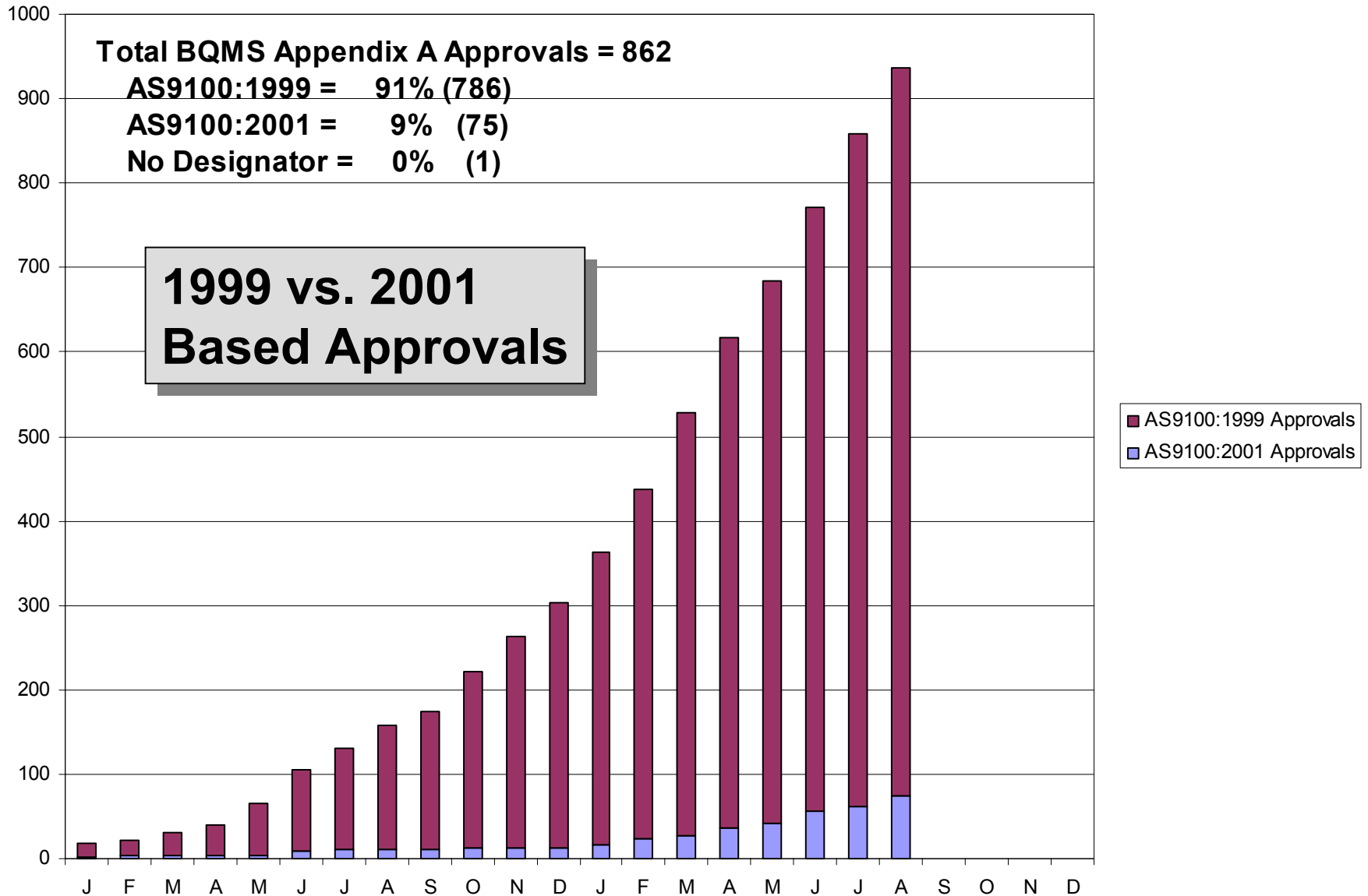


# Supplier BQMS CRB AS9100 Recognitions



CRB AS9100  
 BQMS  
 Heritage

# BQMS Appendix A (AS9100)



# Boeing Recognition Policy

## for AS9100 Certification

- Boeing encourages all suppliers to achieve AS9100 certification from an accredited CRB
- New suppliers are required to achieve AS9100 certification from an accredited CRB

# Boeing Recognition Policy

## for AS9100 Certification

- **Boeing recognizes CRB certification in accordance with SAE AIR5359 in conjunction with annual verification of the following Boeing performance criteria:**
  - Bronze quality rating (98% composite acceptance rate)
  - On-site quality system audit within last 48 months
  - No major findings against quality system since last audit
  
- **Boeing maintains responsibility for the Boeing approved supplier listing (ASL), and uses AS9100 CRB certification as one means of available data to mitigate redundant effort.**

# AS9100 CRB Certification Benefits

- **Suppliers assume responsibility for quality system approval, and better performing suppliers have a financial advantage**
- **Elimination of multiple, independent, OEM audits and/or reduction in audit days at suppliers**
- **Enables increased focus on product conformance initiatives**
- **Demonstrates commitment to aerospace industry sector**
- **Facilitates new business opportunities at other aerospace industry companies**

# AS9100 CRB Certification per AIR5359

## Key Elements

### → CRB AS9100 accreditation

- ANSI-RAB accredited CRBs are listed at [http://www.rabnet.com/qr\\_dir.htm](http://www.rabnet.com/qr_dir.htm)
- Boeing also recognizes internationally accredited CRBs, e.g. SCC, INMETRO, JAB, SBAC, UKAS, etc.

### → No CRB (or related body/auditor) consulting relationship in past two years

### → CRB contract includes right of access by AAQG member companies, accreditation body and other regulatory or government bodies

### → CRB audit team consists of all aerospace auditors, including at least one aerospace experience auditor (AEA) and one commodity expert

# AS9100 CRB Certification per AIR5359

## Key Elements

- ➔ **Audit duration** conforms with IAF Guidance to ISO/IEC Guide 62 plus AIR5359
- ➔ Complete AS9100 audit report (ref. AIR5359, Appendix D) provided to supplier, including **AS9101 checklist**, and designated items reported to IAQG database
- ➔ No AS9100 certificate issued until **all major and minor nonconformities corrected** with root cause analysis and corrective action verified by CRB, and existing certificates evaluated for continuing status
- ➔ **Accreditation body logo** appears on the CRB-issued AS9100 certificate



# CRB Client (Supplier) Oversight and Rights

- All CRB findings should be traceable to the standard, e.g. AS9100
  - The standard defines the “what”. Suppliers have the latitude to define the how and demonstrate effectiveness.
  - Suppliers and Boeing share a common goal of reducing cost while increasing quality
- Utilize CRB formal complaint process, as appropriate
- Utilize public RMC website and hotline (in-work)
- Report concerns directly to Boeing (IAQG/AAQG member company)

# AS9100 CRB Recognition

## Key Messages

- **The integrity of the AS9100 certification process is crucial to its survival**
  - The customer is the aerospace industry
  - The CRB clients are the aerospace industry supplier base
  - The supplier base is not the customer
  
- **We have one chance to get this right**
  
- **Boeing is ultimately accountable for its suppliers and the products they provide. Boeing will not relinquish its supplier responsibility.**

# AS9100 CRB Recognition

## Key Messages

- ➔ **Supplier quality management systems must conform to ISO 9001:2000 as supplemented by AS9100 by Dec. 2003**
- ➔ **Boeing encourages and has a process to recognize AS9100 CRB certifications. Be proactive. Get AS9100 CRB certified!**

# Where to Go for More Information

- ➔ **IAQG website:** <http://www.iaqg.sae.org/iaqg/>
- ➔ **AAQG website:** <http://www.sae.org/aaqg/index.htm>
- ➔ **BQMS website:**  
<http://www.boeing.com/companyoffices/doingbiz/supplier/>
- ➔ **ANSI-RAB accredited CRBs:**  
[http://www.rabnet.com/qr\\_dir.htm](http://www.rabnet.com/qr_dir.htm)
- ➔ **Email Boeing inquiries to:** <mailto:pqit@pss.boeing.com>

A collection of various Boeing aircraft models flying through a sky filled with white, fluffy clouds. The aircraft include a Boeing 747-400, a Boeing 777-300ER, a Boeing 737 MAX 8, a Boeing 787-9 Dreamliner, and a Boeing 767-300ER. The text "BOEING 777" is visible on the side of the central aircraft.

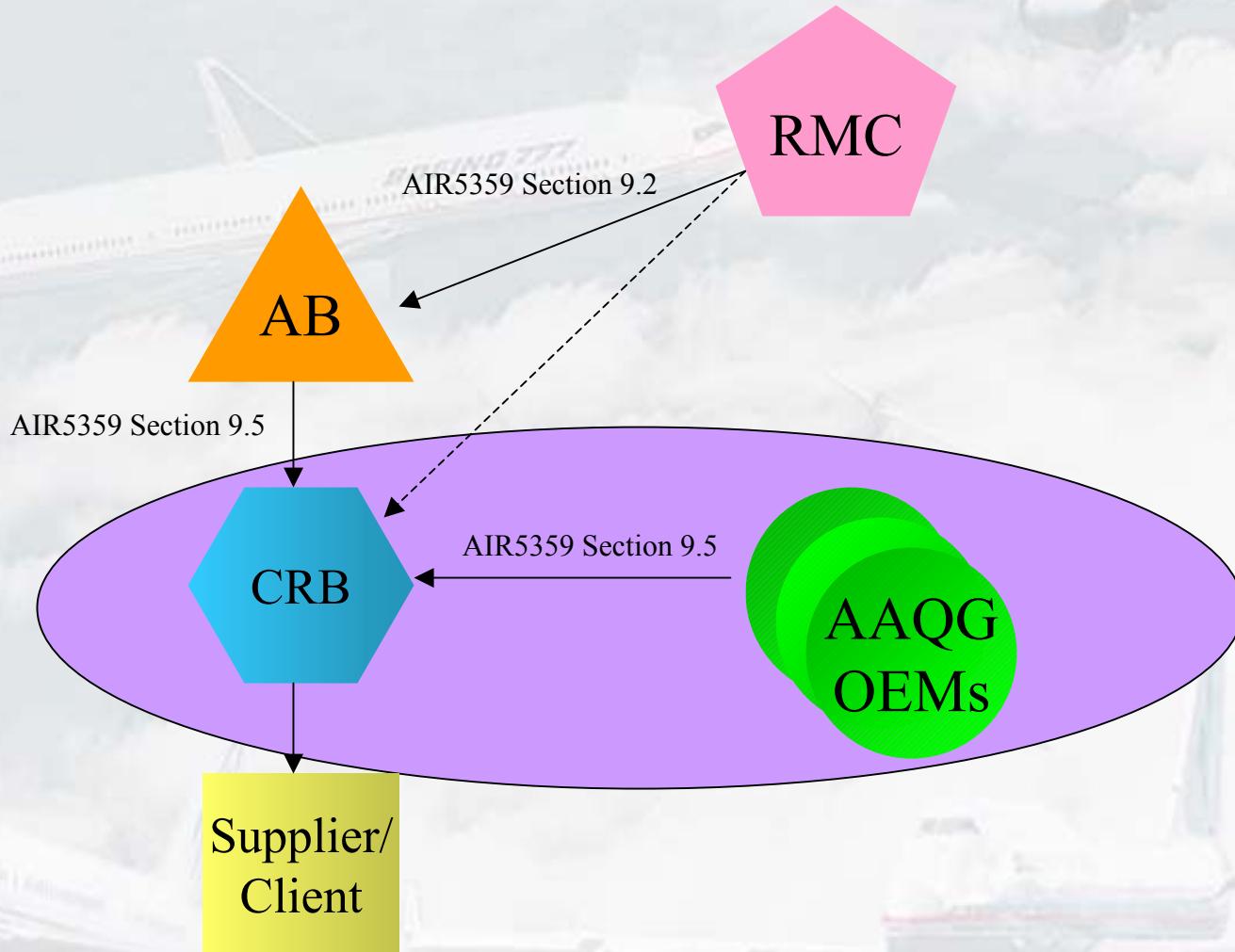
# Back-Up Slides

# SAE AIR5359 Overview

- **Requirements for accreditation bodies**
- **Requirements for registrars**
- **Requirements for auditors**
- **Requirements for assessment & reporting**
- **Authentication and oversight of accreditation bodies, registrars and Auditors**
- **Requirements for shared audits by OEMs**
- **Records**

**NOTE: Standard is currently being revised to add AS9003 (inspection & test) and AS9120 (distributors-TBD) registration**

# AIR5359 Oversight Relationships



# Boeing CRB Oversight Process

- ✈ **Boeing oversight only conducted on CRBs used by Boeing suppliers**
- ✈ **Data driven oversight process**
  - Accreditation body reports
  - CRB AS9100 audit records
  - Boeing quality performance, i.e probation/withdrawn, minimum Bronze rating, SER/SAR activity, etc.



# Boeing CRB Oversight Process

- ✈ **CRB Oversight Board meeting (semi-annual)**
  - Determine future CRB surveillance activity and assignments
  - Report on previously assigned CRB surveillance activity
  
- ✈ **CRB issue resolution process and hierarchy**
  - CRB
  - Accreditation body
  - Registrar Management Committee (RMC)

The background of the slide is a collage of various Boeing commercial airplanes in flight, set against a backdrop of white, fluffy clouds. The planes are shown from different angles and altitudes, creating a sense of dynamic movement. Some planes are in the foreground, while others are in the distance. The overall color palette is light and airy, dominated by whites and blues.

**Boeing Commercial Airplanes**  
**Supply Management Procurement Quality Assurance**  
**Field Operations**

**Questions & Answers**

**Small Group Discussions**

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Improving Processor Control through...**

**Risk-Based Management  
Supplemented by  
NADCAP Implementation**

Presented by: (Insert Presenter's Name)

(Insert Presenter's Title)

# Improving Processor Control

- **Why change our processor control strategy?**
- **Oversight through risk-based management**
- **The NADCAP process**
- **Our NADCAP implementation plan**
- **Key messages**
- **Where to get Information**

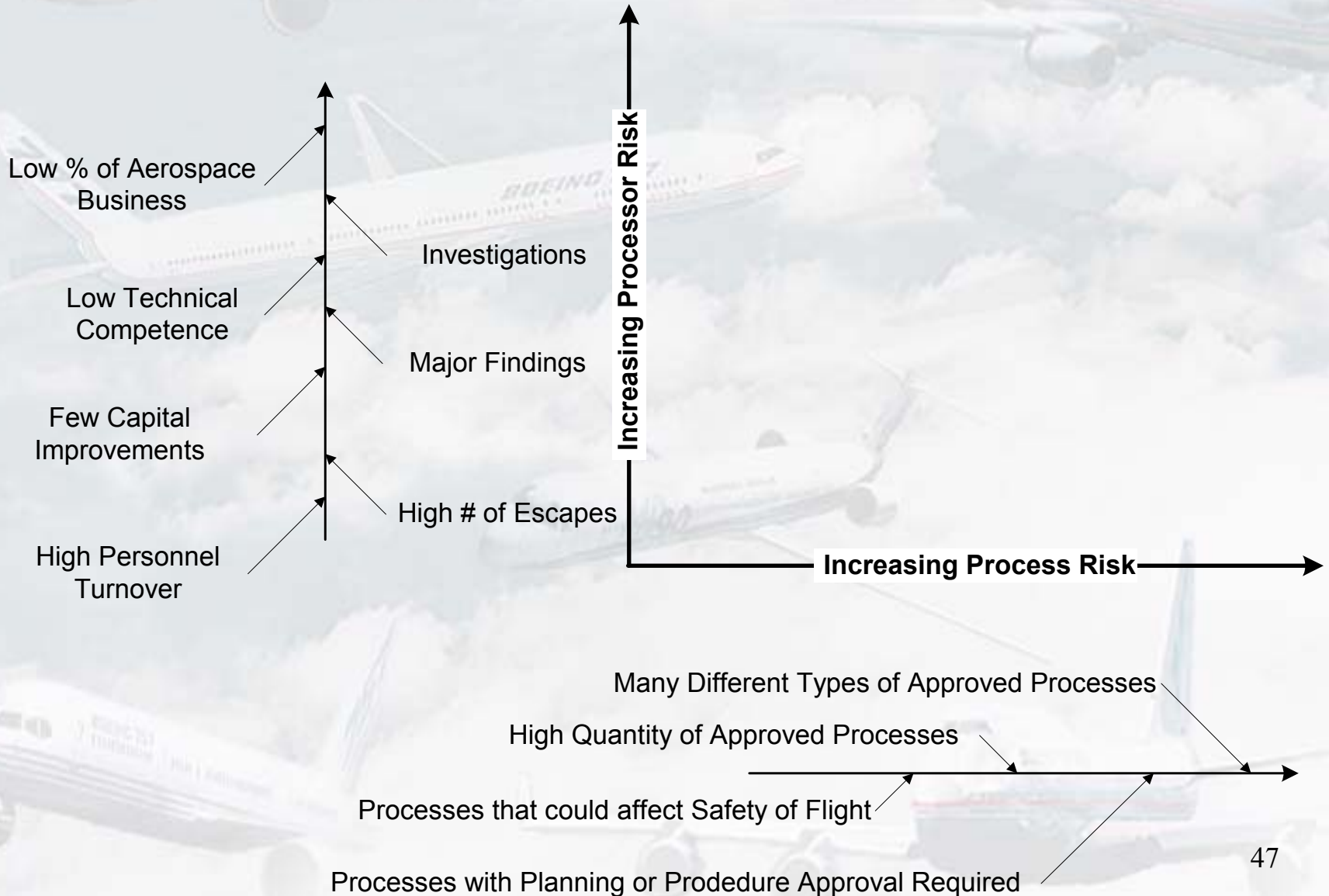
# Why change processor control strategy?

- **Processor control has been identified as the root cause for significant escapes**
- **Must improve or eliminate marginal processors**
- **We must more effectively focus resources on product and potential risk**
- **An initiative to improve quality and reduce process related escapes**

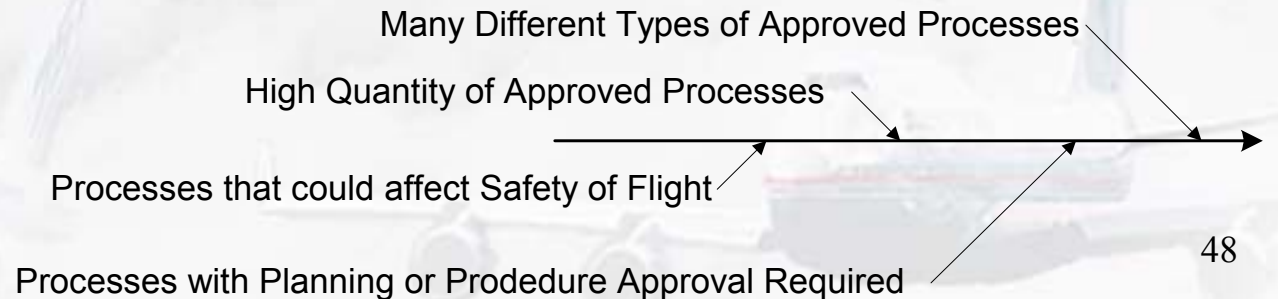
# Processor Approval and Oversight Strategy

- **Boeing remains responsible and accountable**
- **We will focus resources on product & processor risk potential**
- **We will use NADCAP wherever possible to perform maintenance audits**
- **We will maintain a leadership role within NADCAP**
- **At NADCAP accredited processors**
  - **Perform product audits at frequencies based on risk potential**
  - **Perform NADCAP related follow-up activity**
- **At Non-NADCAP accredited processors**
  - **Perform maintenance audits and product audits at frequencies defined by risk potential**
- **D1-4426 will continue to be our listing of approved processors**

# Risk-Based Management



# Risk-Based Management





# What is NADCAP

It is...

**National  
Aerospace and  
Defense  
Contractors  
Accreditation  
Program**

It is administered by...



an independent, not-for-profit  
trade association affiliated with



# What is NADCAP

And It is...

It is...

**National  
Aerospace and  
Defense  
Contractors  
Accreditation  
Program**

**Industry managed  
and  
Industry controlled**

**It is NOT third party**

# Industry Use of NADCAP

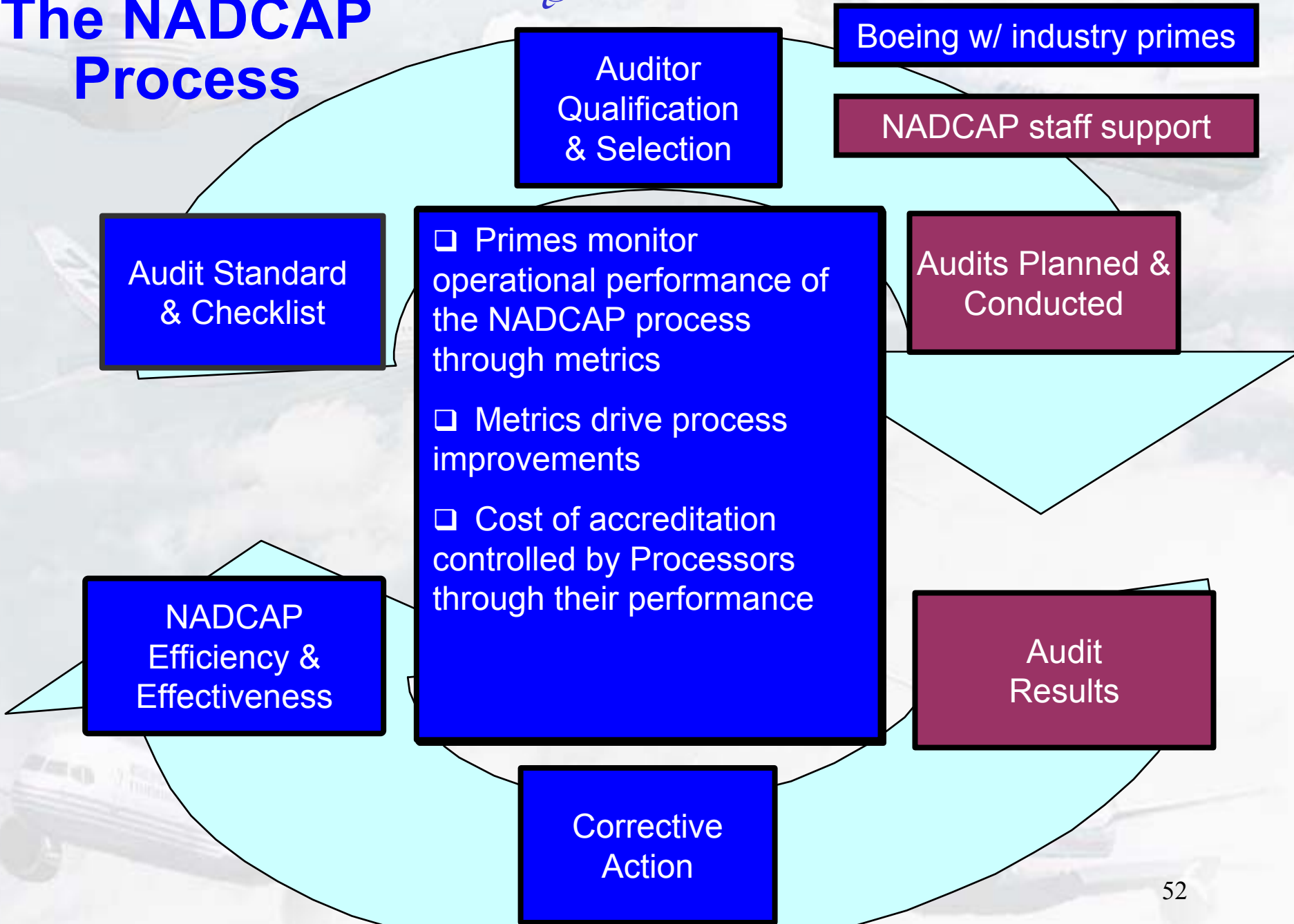
## Primes that Requires NADCAP

- Boeing
- Cessna Aircraft
- GE Aircraft Engines
- Hamilton Standard
- Honeywell
- MD Helicopters
- Northrop Grumman
- Pratt & Whitney
- Raytheon/Beech
- Rolls-Royce Corp.
- Rolls-Royce UK
- Sikorsky Aircraft
- Vought Aircraft

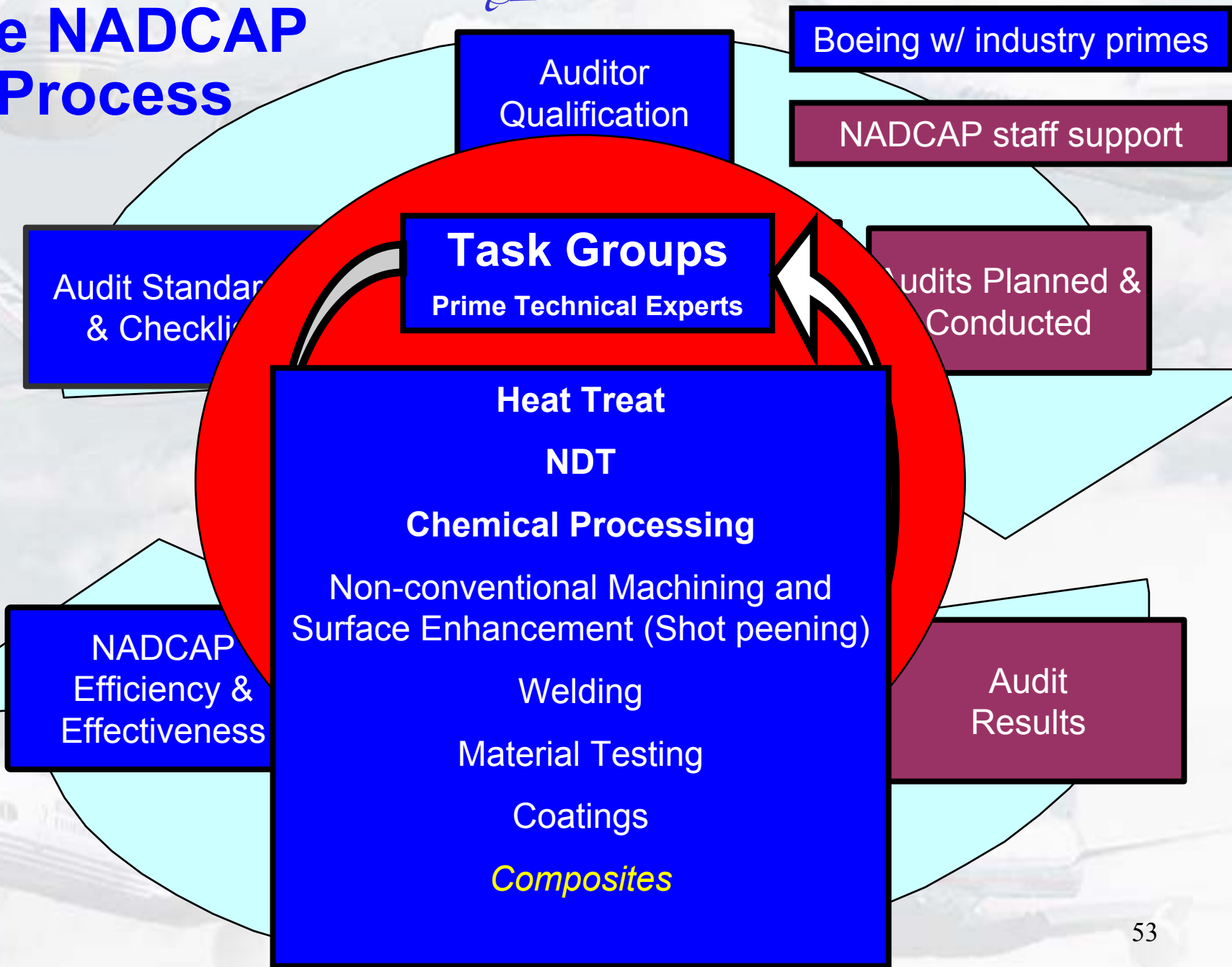
## Primes that Accept NADCAP

- Fiat Avio
- Lockheed Martin
- MTU-Munich

# The NADCAP Process







# The NADCAP Process



# When Will NADCAP Accreditation be Required

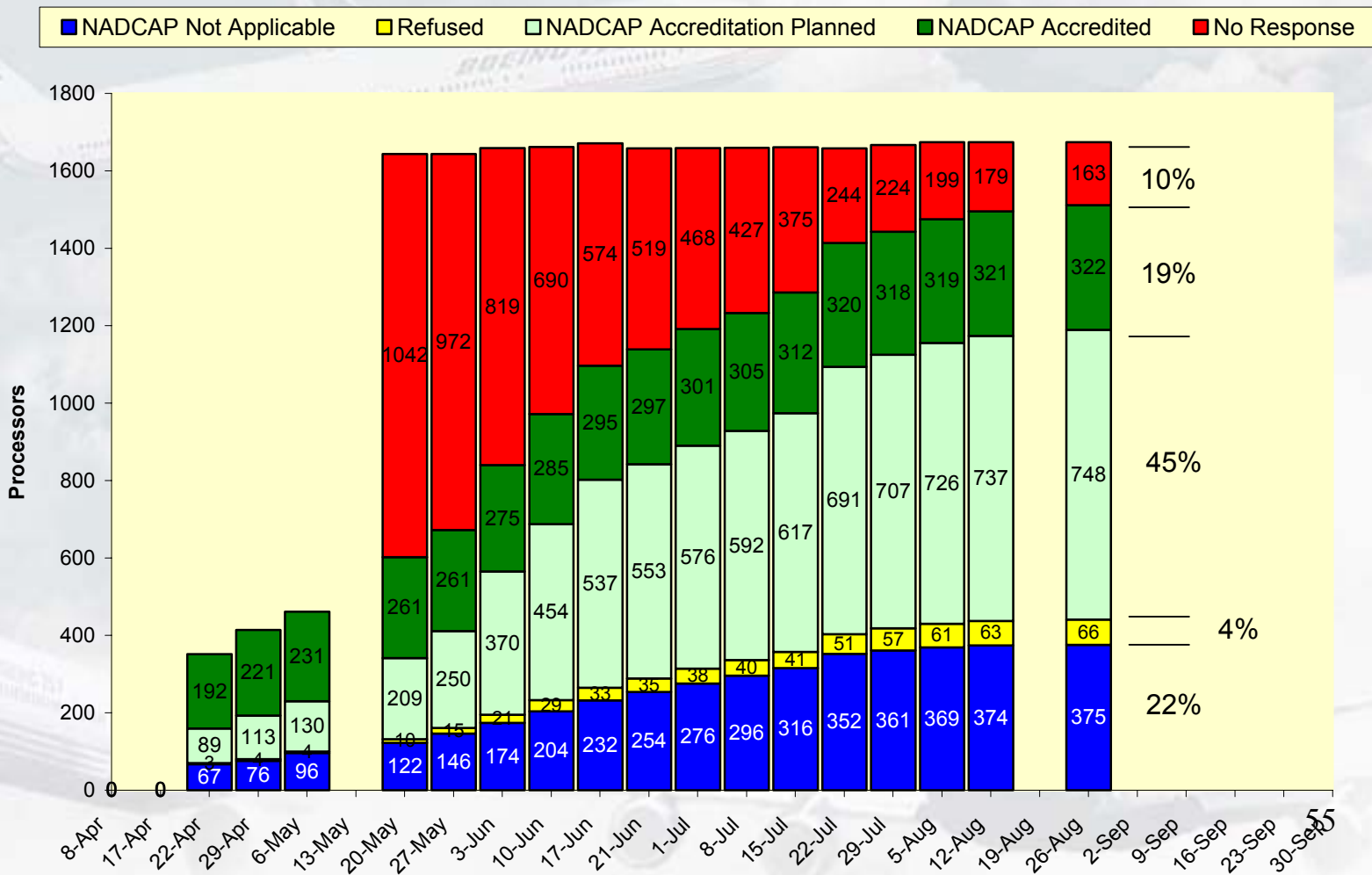
Boeing's Global NADCAP Implementation Plan  
 (As outlined in Boeing's April 5, 2002 letter to all approved processors)

Technology	2000			2001			2002			2003			2004			2005																																					
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>Americas</b>																																																					
Heat Treat & NDT	Communicate Intent  4/5 —————  8/31 Accreditation Required																																																				
Chemical Processing	Communicate Intent  4/5 —————  3/31 Accreditation Required																																																				
Material Test, Welding, Shot Peening & Composites	<b>Developing plans to recommend requiring accreditation of these remaining technologies.</b>																																																				
<b>Europe &amp; Asia</b>	<b>The requirements for accreditation will be implemented in Europe and Asia as the program is established in those regions.</b>																																																				

# NADCAP Letter Response

Letter sent to 1610 global processors

## NADCAP Letter - Response Categories



# Industry's Lessons Learned

- ➔ **Achieving NADCAP accreditation will be difficult and take longer than expected**
- ➔ **NADCAP has limited capacity to accredit processors**
- ➔ **Companies must begin the accreditation process long before it is required**



# Improving Processor Control

## Key Messages

- **Boeing will focus resources on product & processor risk potential**
- **Immediate action is required to ensure NADCAP accreditation is achieved in time**
- **Suppliers are responsible to ensure their processors are accredited on time and listed in D1-4426**
- **There will be fewer processors in the future**
- **Improved processor performance will reduce process related escapes**
- **Boeing remains responsible and accountable**

# Sources for NADCAP Information

- ✈ **General information**
  - [www.pri.sae.org](http://www.pri.sae.org)
- ✈ **List of NADCAP accredited processors (registration required but at no cost)**
  - [www.eauditnet.com](http://www.eauditnet.com)
- ✈ **Frequently asked questions**
  - [www.boeing.com/company/offices/doingbiz/d14426](http://www.boeing.com/company/offices/doingbiz/d14426)
- ✈ **Send questions to:**
  - [NADCAP@boeing.com](mailto:NADCAP@boeing.com)

Lets Take a....

**Break**

A collage of various Boeing commercial airplanes in flight against a background of white clouds. The planes are shown from different angles, including top-down, side, and rear views. Some have "BOEING 777" or "BOEING 737" visible on their fuselages.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Questions & Answers**

**Small Group Discussions**

Lets Have....

# Lunch

A collection of various Boeing commercial airplanes, including a 747, 777, 787, and 737, flying through a sky filled with white clouds. The planes are shown from different angles, some in profile and some from a top-down perspective.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

# **Improved Supplier Quality**

Presented by: (Insert Presenter's Name)  
(Insert Presenter's Title)

# Improved Supplier Quality Initiative

- **Need to Change**
- **Introduction**
- **Initiative Elements**
- **Conclusions**

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## Executive Summary

For 2002, PQA has undertaken the improved supplier quality initiative. This initiative engages each of the major functional organizations involved in supplier non-conformance handling to dramatically improve the process. The plan combines new standards for supplier engagement with heightened expectations for supplier performance. By improving the timeliness and content of communication with suppliers, we expect the resulting preventative and corrective action to be more immediate and effective. A new elevation process defines successive levels of engagement for a supplier not meeting expectations for continuous improvements in quality. Finally, increased commonality within Boeing Commercial Airplanes will result in reduced complexity, more common metrics, and facilitate the management of supplier performance. The primary elements of this plan are expected to be in place in the fourth quarter of 2002.

# Improved Supplier Quality Initiative



**It is our intent and  
obligation to produce  
100% conforming  
products**

## Quality Imperative

### CFR § 14.21.165 Responsibility of Holder

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FAA

The holder of a production certificate shall determine that **each part** and each completed product, including primary category aircraft assembled under a production certificate by another person from a kit provided by the holder of the production certificate, *submitted for airworthiness certification* or approval **conforms** to the approved design and is in a condition for safe operation.



# Business Environment

**Many major airlines are facing serious financial problems, even bankruptcy:**

- U.S. Airways already has declared bankruptcy; United has warned it may be next.
- American Airlines and Continental have announced deep cost-cutting measures.
- Southwest was the only major carrier to report a profit, but its net income fell 42%.
- Total **airline employment fell** by 80,000 in 2001 alone.
- The number of unneeded, parked airplanes has risen to 2,000, the highest ever.

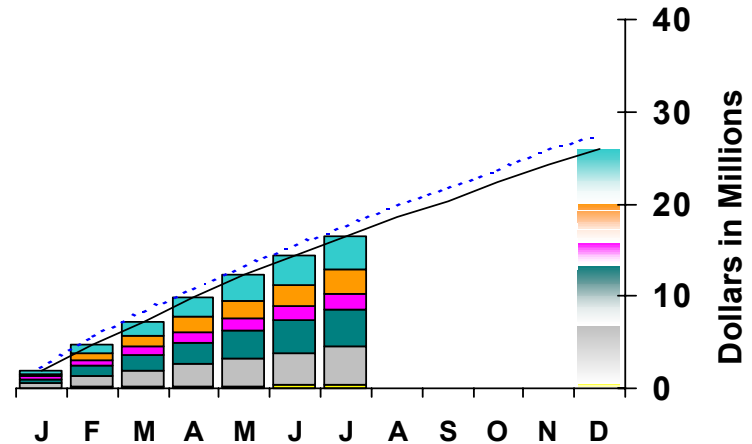


Simply put, our **airline customers are not healthy**, and they must regain their financial health before they become interested in ordering new airplanes. We must do everything we can at Boeing to improve productivity and enhance our quality to help airlines become more efficient and competitive.

**Quality Imperative**  
+ **Competitive urgency**

The current business environment demands greater attention to the cost of achieving 100% conformance.

**Year to Date Total Dollars Lost**

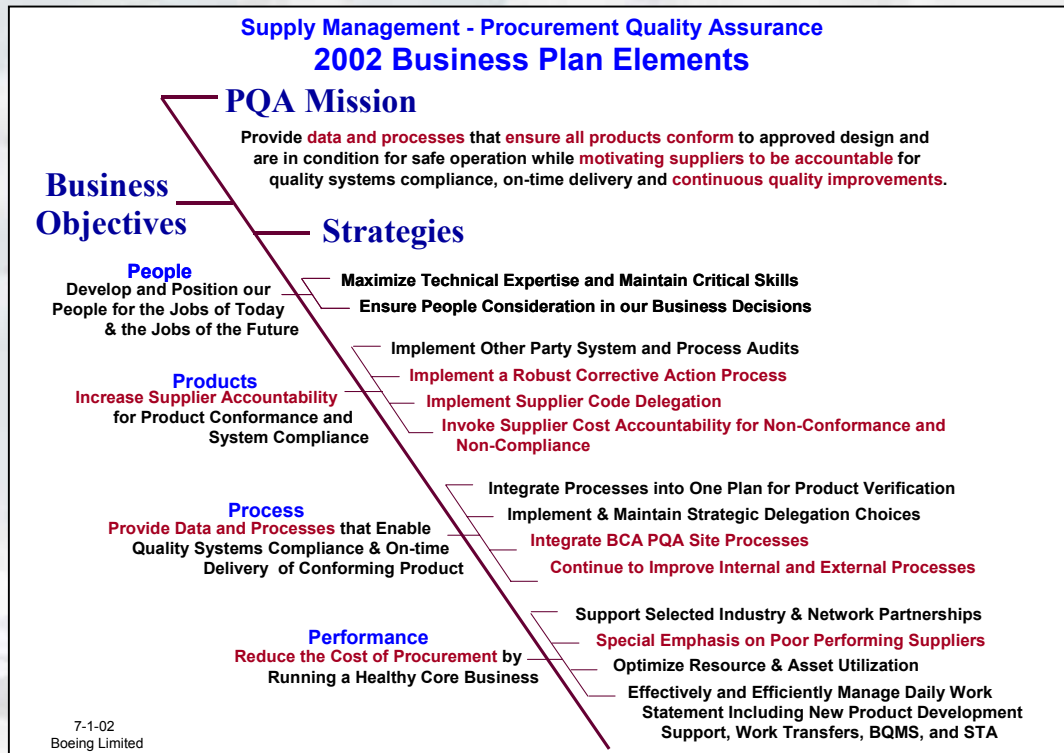


# Improved Supplier Quality Initiative

Supplier Non-conformance  
“System”

Efficiency  
Effectiveness  
Expectations

**Quality Imperative**  
**+ Competitive Urgency**  
**New approaches to assuring quality of delivered product**



# Improved Supplier Quality Initiative

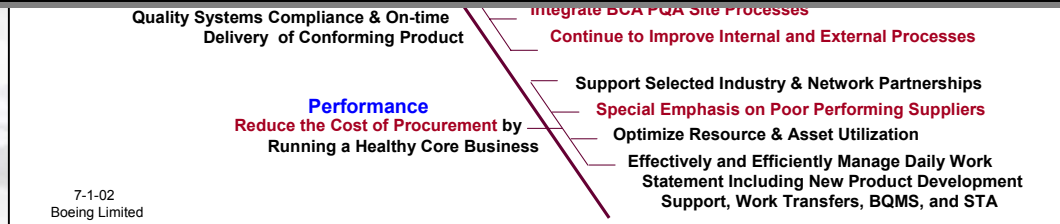
Supplier Non-conformance  
“System”

Efficiency  
Effectiveness  
Expectations

Quality Imperative  
+ Competitive Urgency  
New approaches to assuring  
quality of delivered product



## “Improved Supplier Quality” Initiative



# ISQ Initiative Objectives

## Efficiency

**New information system and communication channel  
standardization and commonality  
simplified processes**

## Effectiveness

**More timely and accurate non-conformance data  
More rapid and thorough root cause analysis and corrective action**

## Expectations

### Boeing

- **Provide more accurate and timely NCR notification**
- **Improve processes and reduce flow time**
- **“One face” to Suppliers – greater consistency**
- **Take action when suppliers do not meet expectations**

### Suppliers

- **Quality health metrics**
- **Corrective action performance**
- **Continuous improvement**
- **Urgency and accountability**

# Improved Supplier Quality Initiative Elements



# Improved Supplier Quality Initiative Elements

## Supplier Expectations and Elevation Process

### Supplier Quality Metrics

- SPMS
- Other Metrics

### Elevation Process – 3 types of elevation:

- Delegation, Improvement, Commitments

### Contractual Expectations



## Enabling Information System

### E-SCAN

- Common Non-Conformance View
- Metrics and Tracking
- Supplier Portal Access

## timely and accurate non-conformance data

### Corrective Action Process Team

- Minimum Content Requirements
- 24 Hour Notification
- Single Process for Supplier Parts
- Timeliness and Accuracy Metrics
- On-Site “Partner” Engagement

# Non-Conformance Communication

- Where we are today
- Where we are going
- How we get there
- Key messages

It is our intent and obligation to produce 100% conforming products.

## CFR § 14.21.165 Responsibility of Holder

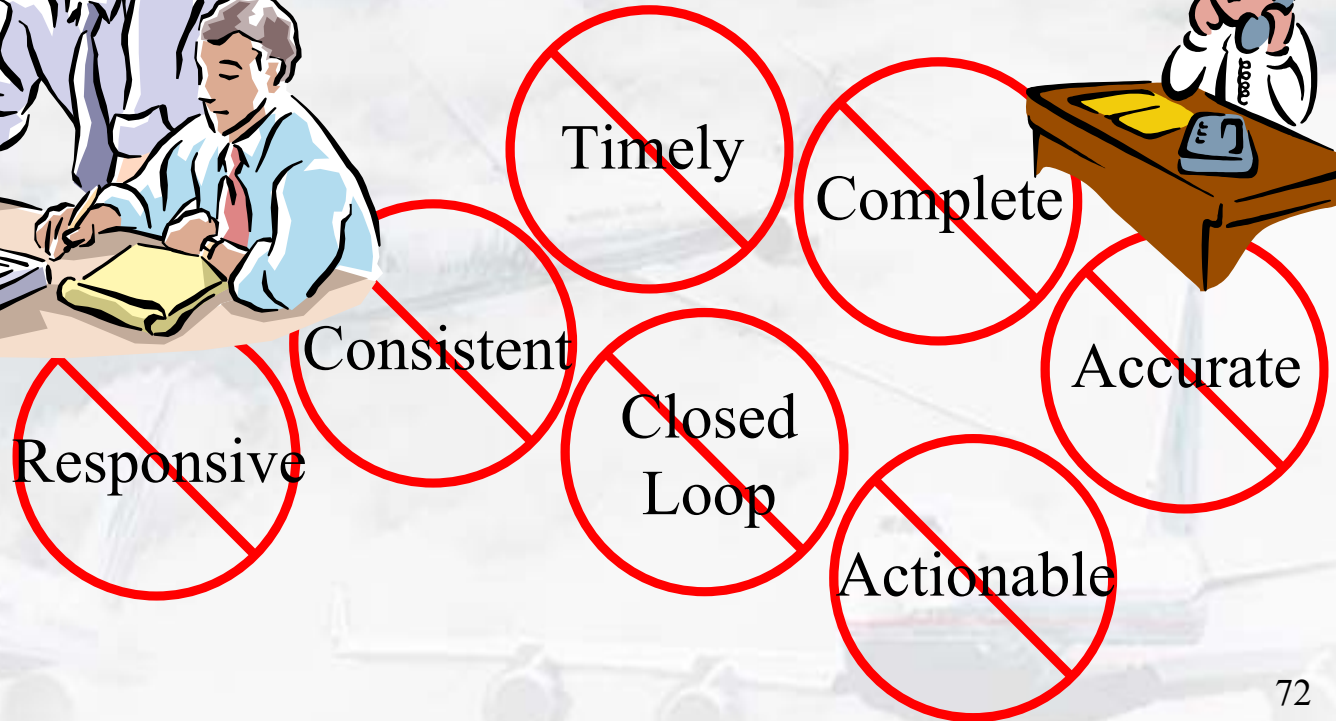
FAA

The holder of a production certificate shall determine that **each part** and each completed product, including primary category aircraft assembled under a production certificate by another person from a kit provided by the holder of the production certificate, *submitted for airworthiness certification* or approval **conforms** to the approved design and is in a condition for safe operation.

# Where are We Today



## Non Conformance Communication





# Where are We Going



## Non Conformance Communication



Web Based  
Timely Complete  
Accurate



Consistent Responsive  
Closed Loop



# How We Get There

## ✈ Web based information systems

The screenshot shows a Microsoft Internet Explorer browser window titled "Boeing Portal - Home Page - Microsoft Internet Explorer". The address bar shows "https". The main content area is titled "BCA Supply Chain Management" and features a navigation bar with "Home", "Contact Us", "Help", and "Log Off".

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- [Frequently Asked Questions](#)

**My Products**

- [BCA Supplier Council](#)
- [DART - Distributed Access Request Tool](#)
- [DCAC/MRM Supplier Information](#)
- [Supplier Quality](#)

**Announcements**

- [View the new, improved supplier portal - coming soon](#)

**Improving Inventory Management**  
click here

**Consolidated Freight Survey**  
If you are involved in your company's shipping process, we would appreciate a few minutes of your time to fill-out a survey that will let us know how efficient the process is for you.

**News from BCA**

- [Streamlining Seat Certification](#)
- [Supplier information](#)
- [Forum magazine](#)
- [More ...](#)

**What's New**

- [On-line Conferencing Service](#)
- [New international bar code spec](#)
- [New functions coming soon](#)

**My Profile**

- [Update Information](#)

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# Supplier Quality Link

Boeing Portal - Home Page - Microsoft Internet Explorer

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Address <https://>

## BCA Supply Chain Management

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- [Frequently Asked Questions](#)



**Consolidated Freight Survey**

If you are involved in your company's shipping process, we would appreciate a few minutes of your time to fill-out a survey that will let us know how efficient the process is for you.

Welcome, *Your Name Here*

**Online Conferencing Now Available!**  
WebEx the selected web-based communication service, will enable Boeing to host external conferences and collaborate with it's Suppliers in a secure meeting environment.  
*Note: Only Boeing employees can host meetings.*  
Click [here](#) for additional information on WebEx and learn how you can participate.

**My Products**

- [BCA Supplier Council](#)
- [DART - Distributed Access Request Tool](#)
- [DCAC/MRM Supplier Information](#)
- [Supplier Quality](#)

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**Improving Inventory Management**

[click here](#)

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- [More ...](#)

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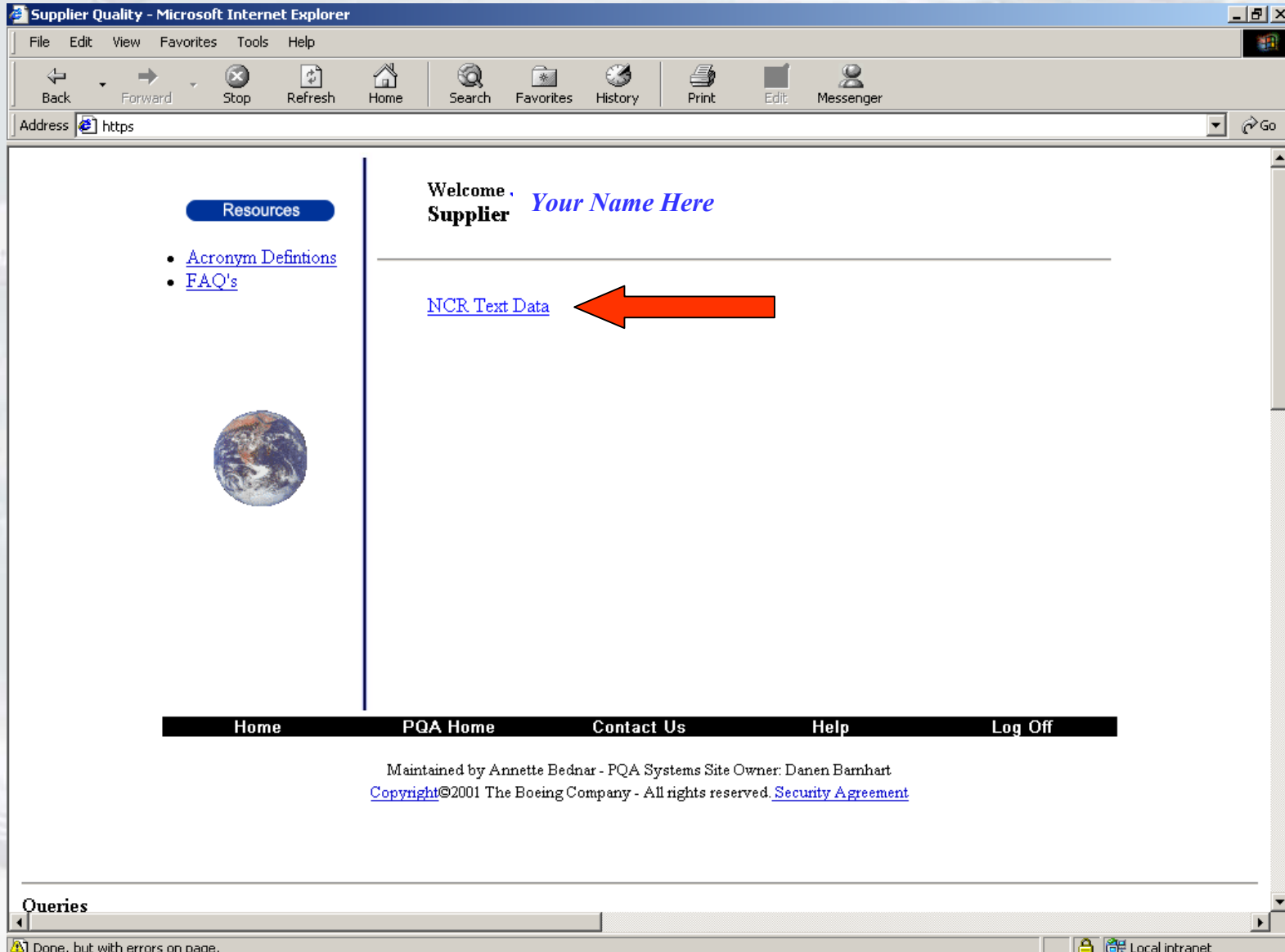


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Local intranet

# NCR Text Data Link



Supplier Quality - Microsoft Internet Explorer


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Address <https>


**Resources**

- [Acronym Definitions](#)
- [FAQ's](#)



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**Supplier**

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Queries

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Local intranet

# Specific Supplier NCR Data

https://rptest.ca.boeing.com/pqasuppliers/PQAMain\_internal.cfm - Microsoft Internet Explorer

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Address https: Save This Page

Supplier: Supplier Code:

<u>NCR Date</u>	<u>NCR Number</u>	<u>NCR Status</u>	<u>CA Status</u>	<u>Part No</u>	<u>Part Description</u>
06/19/2002	<a href="#">N1810014991</a>	Complete	Complete	315T4025-2	RUBBER BLOCK
05/22/2002	<a href="#">N1560009695</a>	Complete	Complete	472W2124-1	BOOT
05/22/2002	<a href="#">N1560009695</a>	Complete	Active	472W2124-1	BOOT
05/20/2002	<a href="#">N1810014589</a>	Complete	Complete	312W5101-88	RUBBER BLOCK
05/16/2002	<a href="#">N1660021420</a>	Complete	Active	472W2124-1	BOOT SEAL, WASTE SYSTEM
05/14/2002	<a href="#">N1430032494</a>	Complete	Complete	113N5403-1	SEAL
05/14/2002	<a href="#">N1430032494</a>	Complete	Complete	113N5403-1	SEAL
04/03/2002	<a href="#">N6800017225</a>	Complete	Complete	66-3478-3	GASKET
02/13/2002	<a href="#">N6800014966</a>	Complete	Complete	141N6920-9	PLUG
02/13/2002	<a href="#">N6800014966</a>	Complete	Complete	141N6920-9	PLUG
12/12/2001	<a href="#">N1410013692</a>	Complete		311N5235-7	SEAL
06/22/2001	<a href="#">N1410010794</a>	Complete		312W5210-65	BLOCK
06/21/2001	<a href="#">N1410010776</a>	Complete		312U2201-40	BLOCK
06/21/2001	<a href="#">N1410010778</a>	Complete	Complete	312W5210-55	BLOCK
06/21/2001	<a href="#">N1410010781</a>	Complete	Complete	312W5101-68	BLOCK
05/29/2001	<a href="#">N1410010397</a>	Complete		312W5101-63	BLOCK
05/29/2001	<a href="#">N1410010405</a>	Complete	Complete	312W5101-71	BLOCK
04/19/2001	<a href="#">N1410009681</a>	Complete		312W5210-65	BLOCK
04/18/2001	<a href="#">N1410009664</a>	Complete		312W5101-68	BLOCK
04/12/2001	<a href="#">N1410009545</a>	Complete		312W5101-80	BLOCK
04/10/2001	<a href="#">N1410009493</a>	Complete		312U2201-48	BLOCK
04/10/2001	<a href="#">N1410009495</a>	Complete		312W5210-55	BLOCK
04/05/2001	<a href="#">N1410009418</a>	Complete		312U2201-40	BLOCK
03/27/2001	<a href="#">N6030026628</a>	Complete	Complete	353W4113-1	SEAL ASSY.
03/20/2001	<a href="#">N1410000117</a>	Complete		312W5101-71	BLOCK

Done Local intranet

# Link to Specific NCR Details

https://rptest.ca.boeing.com/pqasuppliers/PQAMain\_internal.cfm - Microsoft Internet Explorer

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Save This Page

Supplier: Supplier Code:

<u>NCR Date</u>	<u>NCR Number</u>	<u>NCR Status</u>	<u>CA Status</u>	<u>Part No</u>	<u>Part Description</u>
06/19/2002	<a href="#">N1810014991</a>	Complete	Complete	315T4025-2	RUBBER BLOCK
05/22/2002	<a href="#">N1560009695</a>	Complete	Complete	472W2124-1	BOOT
05/22/2002	<a href="#">N1560009695</a>	Complete	Active	472W2124-1	BOOT
05/20/2002	<a href="#">N1810014589</a>	Complete	Complete	312W5101-88	RUBBER BLOCK
05/16/2002	<a href="#">N1660021420</a>	Complete	Complete	472W2124-1	BOOT SEAL, WASTE SYSTEM
05/14/2002	<a href="#">N1430032494</a>	Complete	Complete	113N5403-1	SEAL
05/14/2002	<a href="#">N1430032494</a>	Complete	Complete	113N5403-1	SEAL
04/03/2002	<a href="#">N6800017225</a>	Complete	Complete	66-3478-3	GASKET
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02/13/2002	<a href="#">N6800014966</a>	Complete	Complete	141N6920-9	PLUG
12/12/2001	<a href="#">N1410013692</a>	Complete	Complete	311N5235-7	SEAL
06/22/2001	<a href="#">N1410010794</a>	Complete	Complete	312W5210-65	BLOCK
06/21/2001	<a href="#">N1410010776</a>	Complete	Complete	312U2201-40	BLOCK
06/21/2001	<a href="#">N1410010778</a>	Complete	Complete	312W5210-55	BLOCK
06/21/2001	<a href="#">N1410010781</a>	Complete	Complete	312W5101-68	BLOCK
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03/27/2001	<a href="#">N6030026628</a>	Complete	Complete	353W4113-1	SEAL ASSY.
03/20/2001	<a href="#">N1410000117</a>	Complete	Complete	312W5101-71	BLOCK

Done Local intranet

# Specific NCR Details

https://rptest.ca.boeing.com/pqasuppliers/PQANCRView.cfm?NCRNo=N1660021420 - Microsoft Internet Explorer

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NCR ID: N1660021420 Initiation Date: 05/16/2002 Status: Complete  
 Item Description: BOOT SEAL, WASTE SYSTEM Rejected Quantity: 1 Serial ID:

**DISCREPANCIES**

NCR Rev	Discrepancy Description
0	<p>*** STORES CHECK REQUIRED ***</p> <p>THE 472W2124-1 BOOT SEAL IS MISSING THE GROOVE SHOWN ON DWG 472W2124 SHT 1 REV-. SEE ATTACHMENT</p> <p>MFG DATA: MFR 25099 REV PL/NC LOT 63308 DATE 12/13/01 CG5</p> <p>ISSUED TO RF001</p>

**DISPOSITIONS**

NCR Rev	Disposition Description
0	Waste System Boot Seal not meeting drawing requirements is not acceptable to Quality Assurance, scrap.

**DEFECTS**

Def No	Item ID	Disp Qty	Disp Code
1	472W2124-1	0	

**DRAWINGS**

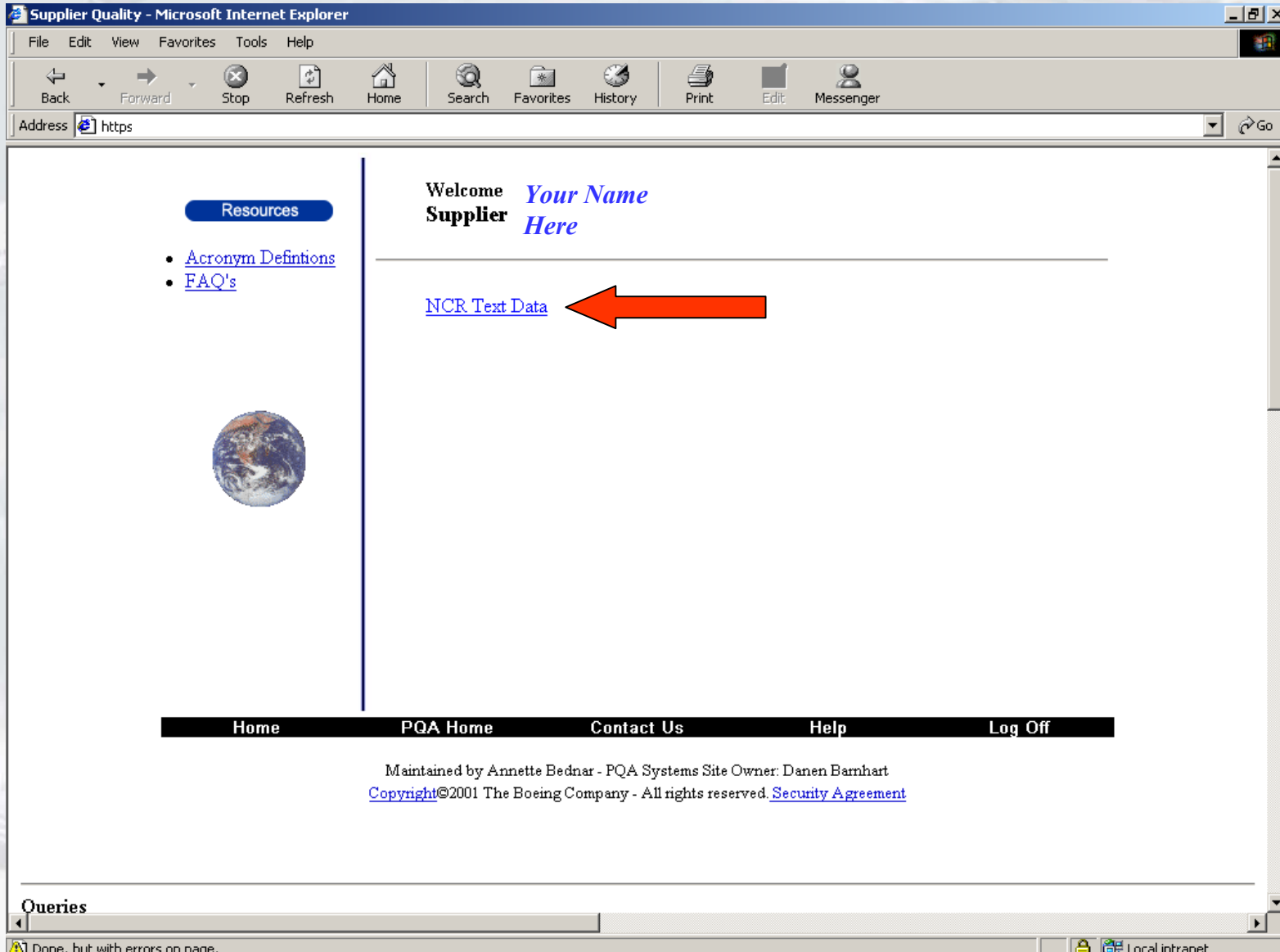
Rev No	Drawing ID	Seq No	Sheet ID
0	472W2124	1	1
0	417U1204	2	53
0	417U1204	3	01

**SPECIFICATIONS**

Rev No	Spec ID

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# Specific NCR Details



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**Resources**

- [Acronym Definitions](#)
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Supplier *Here*

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# Supplier Quality

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## Procurement Quality Assurance E-SCAN

Queues Reports Admin Search Help Exit

Action	NCR Serial ▲	Date Written ▲	Program ▲	Supplier Code ▲	Supplier Name ▲	Division ▲	Assigned PQR ▲
Set Action NOTES	N1610025206	07/09/2002	Multi			A	
Set Action NOTES	N1610025353	07/17/2002	777			A	
Set Action NOTES	N1610025457	07/22/2002	Multi			A	
Set Action NOTES	N1610025512	07/23/2002	Multi			A	
Set Action NOTES	N1610025987	08/15/2002	Multi			A	
Set Action NOTES	N1610026176	08/23/2002	Multi			A	

Records 1 to 6 of 6 records.

NCR Serial Number Search:  Go

NCR Review Queue

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# Supplier Quality

E-SCAN - Microsoft Internet Explorer

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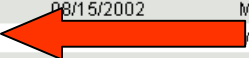
Action	NCR Serial	Date Written	Program	Supplier Code	Supplier Name	Division	Assigned PQR
Set Action NOTES	N1610025206	07/09/2002	Multi			A	
Set Action NOTES	N1610025353	07/17/2002	777			A	
Set Action NOTES	N1610025457	07/22/2002	Multi			A	
Set Action NOTES	N1610025512	07/23/2002	Multi			A	
Set Action NOTES	N1610025987	08/15/2002	Multi			A	
Set Action NOTES	N1610026176		Multi			A	

Records 1 to 6 of 6 records.

NCR Serial Number Search:  Go

NCR Review Queue

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# Supplier Quality

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Address http:

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[NCR Review List / NCR Detail](#)

**Supplier Name:** **Supplier Code:**

**GENERAL INFO**

<b>NCR Serial:</b> N1610026176	<b>Part Number:</b> BACA14AZ10A	<b>Location:</b> Everett
<b>NCR Type:</b> NCR	<b>Part Description:</b> ADAPTER	<b>Program:</b> 0
<b>Date Written:</b> 08/23/2002	<b>Part Serial:</b>	<b>Rejected Department:</b> 6599B
<b>Date Closed:</b>	<b>NCR Quantity:</b> 40	<b>Aircraft No:</b> Multi
<b>NCR Status:</b> Active	<b>NCR Cost:</b> \$0.00	<b>Cause Group:</b>

**SUPPLEMENTAL INFO**

<b>Record Type:</b> 10	<b>Right/Left:</b> N	<b>Customer Number:</b>
<b>Multi Unit:</b> N	<b>BFE:</b> N	<b>P.O. Number:</b> 000419098

**DESCREPANCY DESCRIPTION**

~2 1~2 Two of two Adapters sampled exhibit dramatically different Microstructures indicating parts were processed separately as two different lots. The test report and pack slip received with the order indicate parts are from one lot. Lot# 110362 REF: BPS-F-125 para. 4.2 a mount# 13171-13174

**DISPOSITIONS**

Route to Liaison Engineering for MRB disposition. Receipt has been flagged ~6CRITICAL~6 by Expedite.

**DRAWINGS**

Drawing ID	Rev. No.	Sheet ID.	Zone
BACA14AZ	0	1	

**SPECIFICATIONS**

Spec ID	Rev. No.
BPS-F-125	0
MIL-F-18280	0

Done Local intranet

# On-Line Supplier Corrective Action

## Prototype Entry Screen

Supplier Name:

Supplier Code:

**INFORMATION FOR SCAN: 0000213-02-40C**

Part Number: 141N6920-9

Ref. Document: N1410009006

Part Description: Flap Cable

Aircraft Number: 5108

Location: Everett

Program: 747

### PROBLEM STATEMENT

Station 810, insufficient clearance between Flap Cable 39222841 and 5924872-513 & -514 Assembly cut-outs.

### IMMEDIATE CORRECTIVE ACTION



Provide attachment as required to supplement text explanation.

Provide Effectivity for ship or date that defect will be removed from delivered product.

Effectivity

### ROOT CAUSE



Provide attachment as required to supplement text explanation.

### ROOT CAUSE CORRECTIVE ACTION



Provide attachment as required to supplement text explanation.

Provide Effectivity for ship or date that defect will be permanently fixed as a result of root cause corrective action implementation.

Effectivity

### CORRECTIVE ACTION VERIFICATION PLAN



Provide attachment as required to supplement text explanation.

Submit

# On-Line Supplier Corrective Action

## → Situation

- Supplier Corrective Action (CA) responses are inadequate.
- CA does not prevent reoccurrence of non conforming hardware.
- Immediate Corrective action information is not complete.
- Root cause statements and solutions do not address systemic issues.

## → Target

- Corrective Action responses that are effective and prevent recurrence of defects in delivered product.

## → Proposal

- Assist suppliers to develop adequate responses through clarification and communication of Boeing expectations.
- Communicate expectations during the Supplier Symposiums.
- Deliver expectations through E-Scan attachment.
- Close the communication loop as the CA Specialist and Field Rep interact with the supplier.

# On-Line Supplier Corrective Action

## Corrective Action Criteria

### Immediate Correction Statement (Direct Cause Corrective Action)

- **Has the undesired condition been corrected?**
- **Has the extent of undesired condition been identified and contained?**
- **Have all parties involved in the undesired condition been informed of the problem?**
- **Has a Direct Cause been Determined?**
- **Has a solution or corrective action plan been developed for the Direct Cause (What, who, how)?**
- **Does the plan include a schedule for completion of the Direct Cause Corrective Action? (When?)**
- **Has a plan to verify the effectiveness of the Direct Cause Solution been developed?**

# On-Line Supplier Corrective Action

## Corrective Action Criteria

### Root Cause Statement

- **Is the Root Cause response a statement of fact, not a narrative discourse that either attempts to explain the situation away or rationalize the condition?**
- **Does the Root Cause statement address a fundamental issue without any obvious “why” questions embedded in it?**
- **Does the Root Cause focus on a single fundamental issue?**
- **Is the Root Cause statement self-contained and comprehensible as a stand alone statement?**
- **Does the root cause statement refrain from repeating the finding? (Watch out for circular logic)**

# On-Line Supplier Corrective Action

## Corrective Action Criteria

### Root Cause Corrective Action Plan

- ➔ **Does the Root Cause corrective action plan address the Root Cause Statement?**
- ➔ **Does the Root Cause corrective action plan fix the identified Root Cause?**
- ➔ **Does the Root Cause corrective action plan assign responsibility and schedule for the completion of the action plan?**
- ➔ **Does the Root Cause corrective action plan establish training requirements and implementation plans?**
- ➔ **Does the Root Cause corrective action plan provide evidence of revisions to policies, procedures, or work instructions?**



# On-Line Supplier Corrective Action

## Corrective Action Criteria

### Verification of the Corrective Action Plan

- **Has the supplier determined when the plan will be implemented?**

**For Example;**

- **Procedures Updated**
- **Training Completed**
- **Notices Sent to Sub Tier Suppliers**

### THE FOLLOW UP AUDIT

- **Has the supplier determined when and what will be audited?**
- **Will this be added to the annual audit questionnaire?**

# On-Line Supplier Corrective Action

## Corrective Action Criteria

### Response Evaluation Criteria

#### Phase I

<b>16-20 Points:</b>	<b>Gold</b> <b>Exceeds Expectations</b>
<b>13-15 Points</b>	<b>Silver</b> <b>Meets +</b>
<b>9-12 Points</b>	<b>Bronze</b> <b>Meets Expectations</b>
<b>0-8 Points</b>	<b>Yellow</b> <b>Needs improvement</b>

#### Phase II

<b>16-20 Points:</b>	<b>Gold</b> <b>Exceeds Expectations</b>
<b>15 Points</b>	<b>Silver</b> <b>Meets +</b>
<b>14 Points</b>	<b>Bronze</b> <b>Meets Expectations</b>
<b>0-13 Points</b>	<b>Yellow</b> <b>Needs improvement</b>

#### Immediate Correction Statement

- Has undesired condition been corrected?
- Has the extent of undesired condition been determined and contained?
- Have all parties involved in the undesired condition been informed of the problem?
- Has Direct Cause been Determined?
- Has a solution or corrective action plan been developed for the Direct Cause (when, who, how)?
- Does the plan include a schedule for completion of the Direct Cause Corrective Action
- Has a plan to verify effectiveness of Direct Cause Solution been developed?

#### Root Cause Statement

- Is the Root Cause response a statement of fact, not a narrative discourse that either attempts to explain the situation away or rationalize the condition?
- Does the Root Cause statement address a fundamental issue without any obvious "why" questions embedded in it?
- Does the Root Cause focus on a single fundamental issue?
- Is the Root Cause statement self-contained and comprehensible as a stand-alone statement?
- Does the root cause statement refrain from simply repeating the finding? (Watch out for circular logic)

#### Root Cause Corrective Action (CA) Plan

- Does the Root cause CA plan address the root cause statement?
- Does the Root cause CA plan fix the identified root cause?
- Does the Root cause CA plan assign responsibility and schedule for completion of actions?
- Does the Root cause CA plan establish training requirements, and implementation plans?
- Does the Root cause CA plan provide evidence of revisions to policies, procedures, or work instructions?

**NOTE: If documents are revised, are affected supporting documents updated as well?**

#### Verification of Corrective Action Plan

- Has the supplier determined when will the plan be implemented? (Procedures Updated, Training Completed, Notices sent to sub tier suppliers, etc)

#### Follow-up audit

- Has the supplier determined when and what will be audited to determine if CA has been effective?
- Will this be added to the annual audit questionnaire?

# ISQ Initiative Objectives

## Efficiency

**New information system and communication channel  
standardization and commonality  
simplified processes**

## Effectiveness

**More timely and accurate non-conformance data  
More rapid and thorough root cause analysis and corrective action**

## Expectations

### Boeing

- **Provide more accurate and timely NCR notification**
- **Improve processes and reduce flow time**
- **“One face” to Suppliers – greater consistency**
- **Take action when suppliers do not meet expectations**

### Suppliers

- **Quality health metrics**
- **Corrective action performance**
- **Continuous improvement**
- **Urgency and accountability**

# Non-Conformance Communication

## Key Messages

- **The current state of non-conformance and corrective action communication is inadequate. Boeing has a competitive urgency to improve both processes.**
- **Boeing is entering a new era of non-conformance communication, and the web based tool known as E-SCAN is how we are going to get there**
- **The new process requires higher expectations for both Boeing and the suppliers**
- **For more information, contact your procurement agent or your PQA field representative**

# Improved Supplier Quality Initiative Elements



## Supplier Expectations and Elevation Process

### Supplier Quality Metrics

- SPMS
- Other Metrics

### Elevation Process – 3 types of elevation:

- Delegation, Improvement, Commitments
- ### Contractual Expectations

Enabling Information Systems and Accurate Non-conformance Data

### E-SCAN

- Common Non-Conformance View
- Metrics and Tracking
- Supplier Portal Access

### Corrective Action Process Team

- Minimum Content Requirements
- 24 Hour Notification
- Single Process for Supplier Parts
- Timeliness and Accuracy Metrics
- On-Site “Partner” Engagement

# Supplier Quality Performance Rating

Performance Level	6 month average
Gold	100% Acceptance Rate
Silver	99% Acceptance Rate
Bronze	98% Acceptance Rate
Yellow	95% Acceptance Rate
Red	Below 95% Acceptance Rate

**Expectation**

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**Minimum**

---

**Unacceptable**

# Supplier Quality Performance Rating

Performance Level	6 month average
Gold	100% Acceptance Rate
Silver	99% Acceptance Rate
Bronze	98% Acceptance Rate
Yellow	95% Acceptance Rate
Red	Below 95% Acceptance Rate



# Delegation

## Source Acceptance Delegation

- ➔ Delegation of source acceptance is the process of granting **specific supplier personnel** authorization to inspect and accept identified source accepted parts and assemblies **on behalf of the assigned PQA field representative.**

## Supplier Code Delegation

- ➔ A process that delegates product inspection and acceptance responsibilities to an **external supplier on behalf of BCA.**



# Supplier Code Delegation Benefits

## Supplier

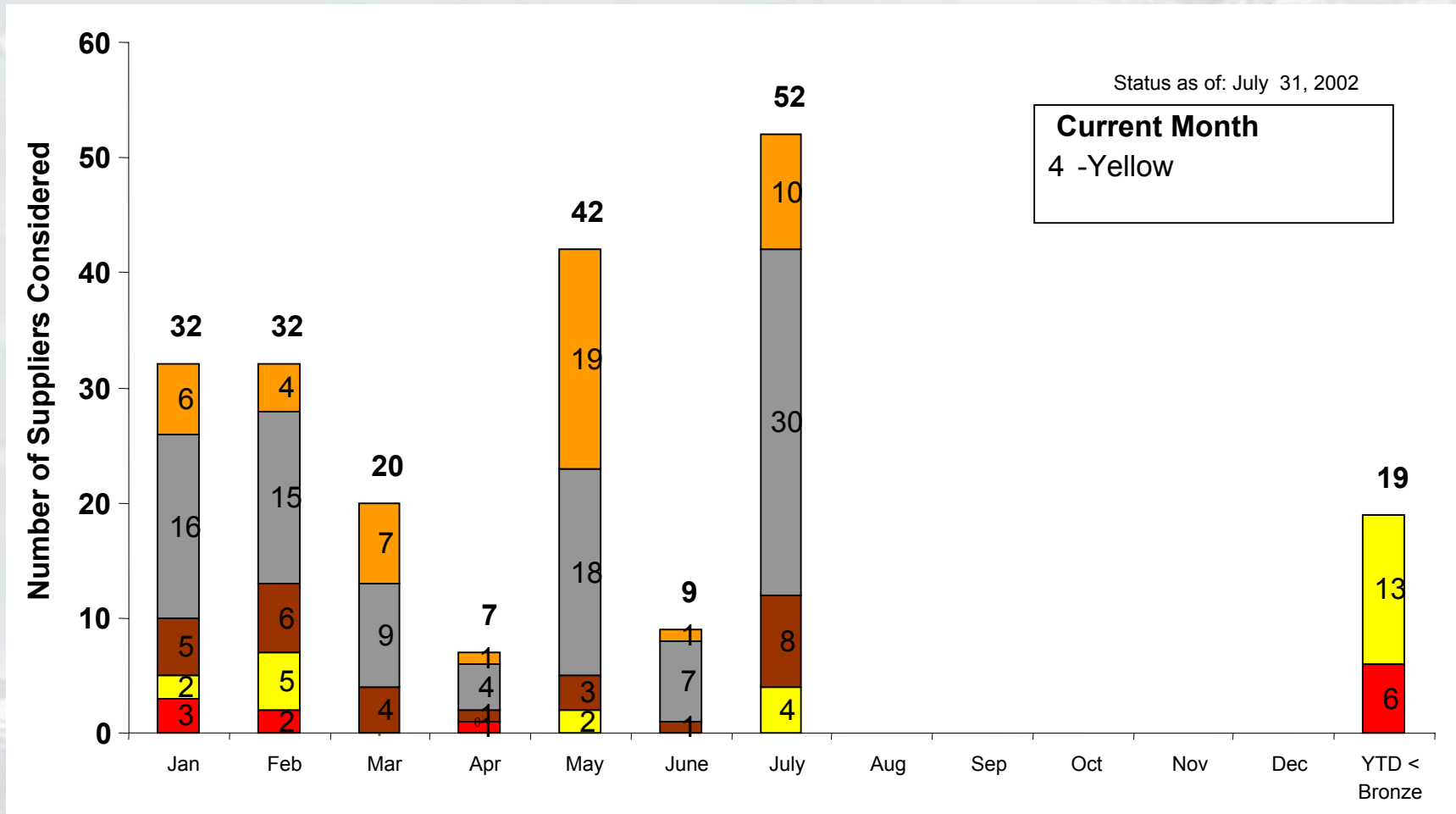
- Recognizes superior supplier performance
- Reduces internal administrative costs
- Reduces product flow time

## Boeing

- Supplier accountability
- Redundant inspections
- Point of use

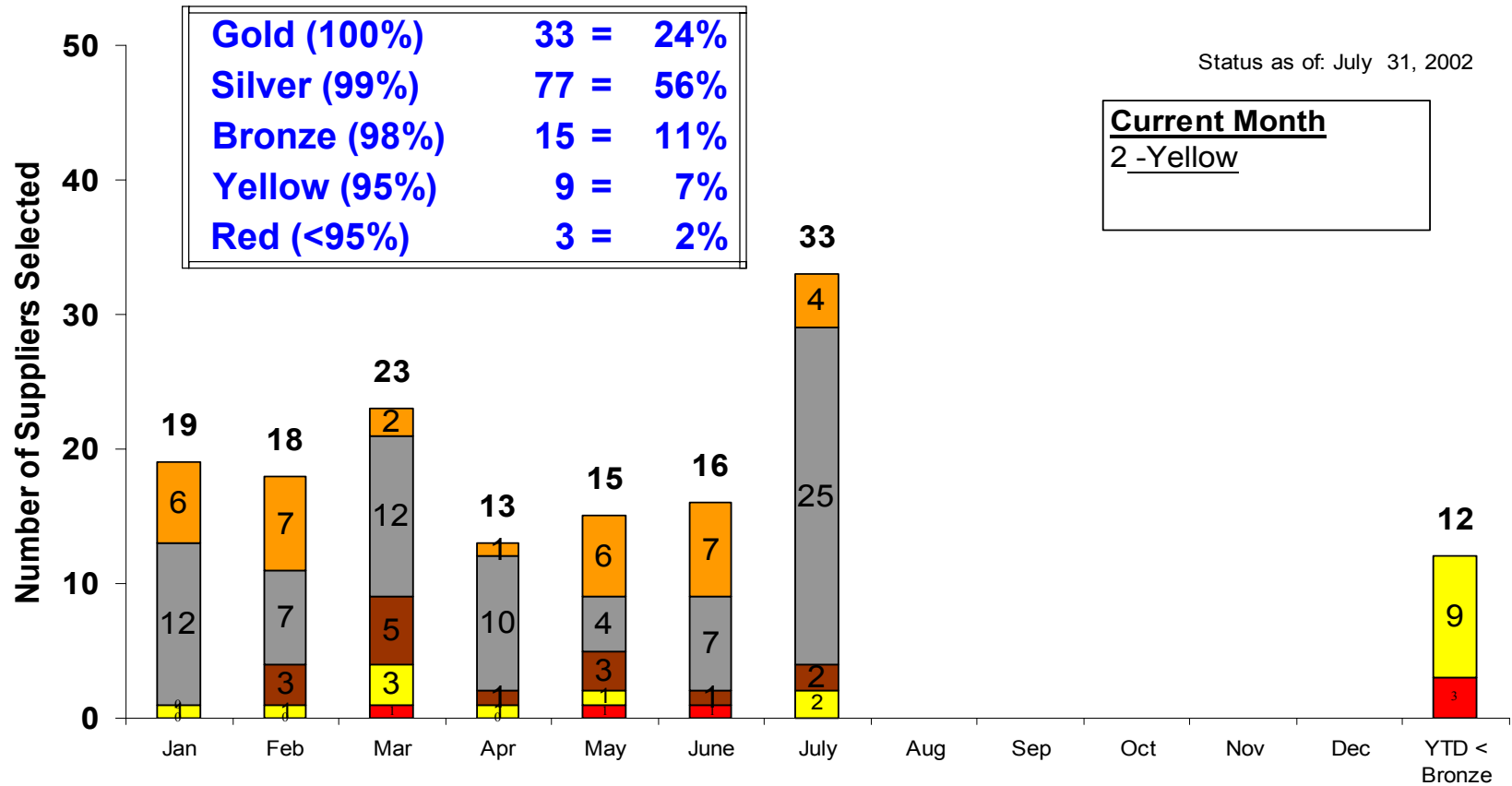
# Supplier Selection Metric

## Bidder Board Activity by 12 month SPMS acceptance rate



# Supplier Selection Metric

## Source Board by 12 month SPMS acceptance rate



# Supplier Quality Performance Rating

Performance Level	6 month average
Gold	100% Acceptance Rate
Silver	99% Acceptance Rate
Bronze	98% Acceptance Rate
Yellow	95% Acceptance Rate
Red	

Suppliers performing below Bronze will enter into the Elevation Process



# Elevation Process Summary

		<u>Tier 0</u>	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>
Trigger	Metrics	Daily Management	Suppliers with < Bronze.	Suppliers < Bronze 2 months	Supplier < Bronze 5 months No significant improvement
	C/A	Daily Management	Delinquent high factory impact	Delinquent high factory impact	Delinquent high factory impact
	C/I	Daily Management	Not meeting commitments	Not meeting commitments	Not meeting commitments
Who		-PA -PQA -Supplier -QAI	- PA & 1 <sup>st</sup> level Mgmt -PQA & 1 <sup>st</sup> level Mgmt -Supplier Mgmt -QAI	-PA & Sr. Mgmt -PQA & Sr. Mgmt -Supplier Executive Mgmt -QAI	-SM&P Directors -Supplier Executive Mgmt -PA -PQA -QAI
	Potential Actions	-Supplier meetings -Improvement plan -System audits	-Supplier meeting -Product audit -C/A improvement plan -Increased PA involvement	-Meeting with supplier -Probation -Withdraw delegation authority -No new business -Contractual remedies	-Meeting with supplier -BQMS Disapproval -Work movement -Contractual remedies

# Supplier Quality Performance Rating

Performance Level	6 month average
Gold	100% Acceptance Rate
Silver	99% Acceptance Rate
Bronze	98% Acceptance Rate
Yellow	95% Acceptance Rate
Red	Below 95% Acceptance Rate

## Expectation

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**Timely acceptable  
corrective action**

**Incorporating poor  
C/A to Elevation  
process**

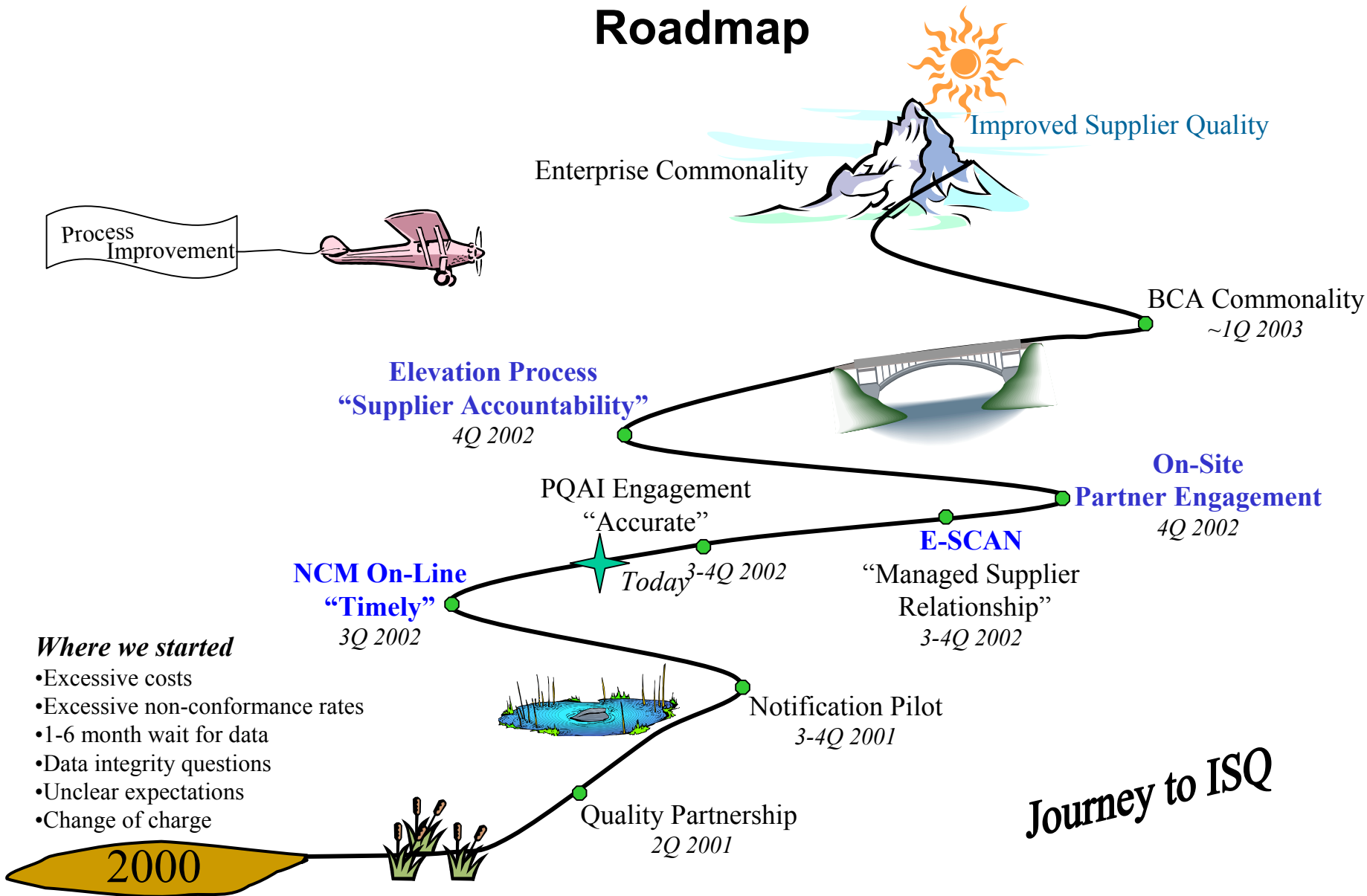
# Elevation Process

## Key Messages

- **Know your SPMS rating**
- **Strive for Gold**
- **Ratings are used to make procurement decisions**
- **Resolve data issues with Procurement agents or field quality reps**
- **Poor performance results in increasing level of negative visibility**

# Improved Supplier Quality Initiative

## Roadmap





The background of the slide is a collage of various Boeing commercial airplanes in flight, set against a backdrop of white, fluffy clouds. The planes are shown from different angles and altitudes, creating a sense of dynamic movement and global connectivity. The overall color palette is light and airy, dominated by whites and blues.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**ASAP**  
**Automated Source Activity Planning**

Presented by: (Insert Presenter's Name)  
(Insert Presenter's Title)

# ASAP

## (Automated Source Activity Planning)

- **What is Automated Source Activity Planning:**
- **Interactive tool for Suppliers to inform Boeing of upcoming source inspections, which is accessible via the World Wide Web**
  - **Boeing acknowledges source request by documenting arrival time in ASAP**
  - **Tool for establishing priorities**
  - **Visibility of entire source process**
    - **First Time Quality**
    - **Inspection Results**
    - **Open Action List**
    - **Real Time Data**
    - **Scheduling**

# ASAP

## (Automated Source Activity Planning)

### ➔ Supplier Access

- Boeing Partners Network via the Internet

### ➔ Boeing Access

- Representatives, Administrators, Coordinators
  - ASAP Homepage (Intranet), Boeing Partners Network
- All Other Boeing Employees
  - ASAP Homepage (Intranet)

# ASAP

## (Automated Source Activity Planning)

### ✈ Training

- **Supplier User's Guide available on the Web**  
**@<http://hbapp.web.boeing.com/quality/asap/>**

Supplier Name	
<b>View Your Source Requests</b>	<input type="button" value="Go To Your Requests Page"/>
<b>Add A New Request</b> <small>ASAP is now being used for multiple Boeing components. Select the component from which your Purchase Order or Contract was issued.</small>	<input type="text" value="Choose a Component"/> <input type="button" value="Submit A New Request"/>
<b>View/Update Your Supplier Profile Information</b>	<input type="button" value="Go To Supplier Profile Page"/>
<b>View Your First Time Quality (FTQ) Report</b>	<input type="button" value="Go To FTQ Report Page"/>
<b>View Your Open Action List (OAL)</b>	<input type="button" value="Go To OAL Page"/>
<a href="#">Administrative Contacts</a> <a href="#">Submit Your Questions and Suggestions Here</a> <a href="#">ASAP Supplier's User Guide</a>	



# ASAP

## Key Messages

- **ASAP is Web based and easy to use**
- **Process ASAP – BPN request forms as soon as possible to ensure implementation within the next few months**
  - **Required even if you currently have a BPN account assigned, this will help speed up processing**
- **Work with your PQA Representative and submit completed forms to:**

**Ryan J. Barron**

**E-mail: [ryan.j.barron@boeing.com](mailto:ryan.j.barron@boeing.com)**

**Office: 425.266.6251, Mobile: 206.369.7435**

Lets Take a....

# Break

A collage of various Boeing commercial airplanes in flight against a cloudy sky. The planes are shown from different angles, including top-down, side, and rear views. Some are white with blue accents, while others are more colorful. The text is overlaid on this background.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Quality  
Contract Language**

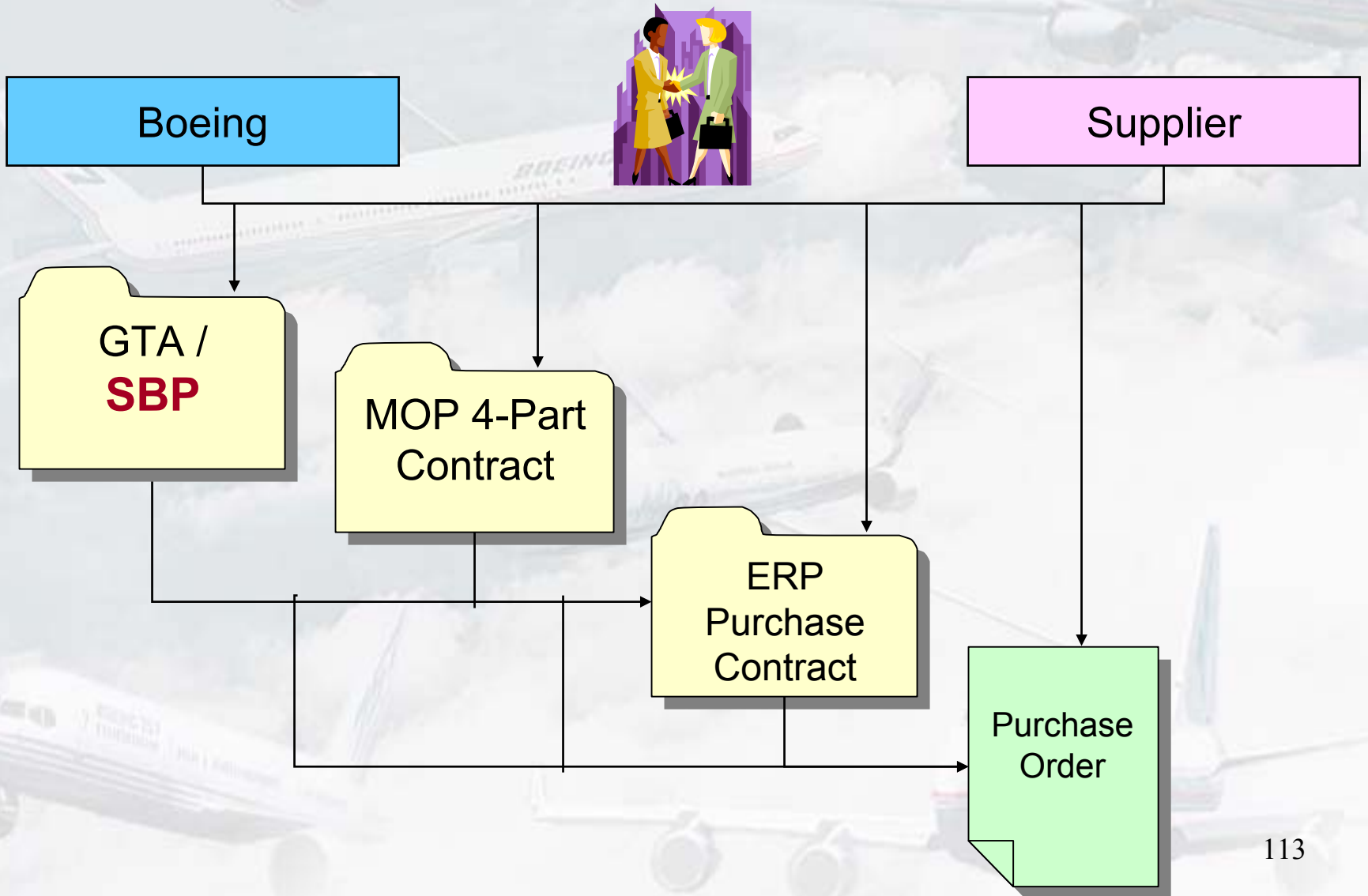
Presented by: (Insert Presenter's Name)  
(Insert Presenter's Title)

# Quality Contract Language Revisions Intent

- **Standardize** quality assurance expectations at appropriate suppliers
- Move blanket quality requirements out of purchase orders and up into the purchase **contract**.
- **Group** quality requirements into more user-friendly format
- **Remove** overly prescriptive language and **clarify** ambiguous requirements
- Incorporate Boeing recognition/adoption of **aerospace industry standards** and **support Boeing quality initiatives**



# BCA Contract Flow Diagram



# Special Business Provisions (SBP)

## Attachment 10 Overview

### Special Business Provisions

### Intent of SBP Attachment 10

- Originally designed to bridge gap from D1-9000 to AS9100
- Now captures additional quality expectations

### Attachment 10

Defines Quality Management System (A10.1)

BCA Common Requirements (A10.2)

Site Unique Requirements (A10.3)

# Summary of Revisions

## BCA Common (A10.2)

### ✈ English Language (A10.2.4)

- **OLD:** “The Seller shall maintain an English language translation of (1) its quality manual, (2) the operating instructions that implement the quality manual requirements, and (3) an index of all other seller procedures that contain quality requirements.”
- **NEW:** “The Seller shall maintain an English language translation of (1) its quality manual, and (2) an index of all other Seller procedures that contain quality requirements.”

### ✈ Digital Product Definition (A10.2.5)

- **SAME:** However, D6-51991 document has now been adopted across the Boeing enterprise.

# Summary of Revisions

## BCA Common (A10.2)

### ✈ Change in Quality System Procedures (A10.2.6)

- **OLD:** “The Seller shall immediately notify Boeing in writing of any ***change to the quality control system that may affect the inspection, conformity or airworthiness*** of the product.”
- **NEW:** “The Seller shall immediately notify Boeing in writing of any change to Seller’s ***quality manual (or top level document) that may affect continued compliance to Document D6-82479***, “Boeing Quality Management System Requirements for Suppliers”.

# Summary of Revisions

## BCA Common (A10.2)

### ✈ Verification of Corrective Action (A10.2.8)

- **NEW:** “When Boeing notifies Seller of a detected nonconformance, Seller shall immediately take action to eliminate the nonconformance on all products in Seller’s control. ***Seller shall also maintain on file verification that root cause corrective action has occurred and has resolved the subject condition***. At the specific request of Boeing, this verification shall occur for the ***next five (5) shipments*** after implementation of the corrective action to ensure detected nonconformance has been eliminated. Boeing reserves the right to review the verification data at Seller’s facility or have the data submitted to Boeing.”

# Summary of Revisions

## BCA Common (A10.2)

### ✈ Corrective Action Report (A10.2.9)

- **NEW:** “Where Seller is requested to submit a corrective action report, Seller will submit its **response within ten (10) days of receipt** of such request unless an extension is otherwise provided by Boeing. Any corrective action report submitted to Boeing shall be in the format specified by Boeing. In the event Seller is unable to respond within the allotted ten day time frame, Seller will notify Boeing of its inability to fully respond as soon as possible but no later than five days after receipt of said request at which time Seller shall submit a request for extension which shall include the reason for the extension request and the time needed to complete the corrective action report.”

# Summary of Revisions

## BCA Common (A10.2)

### ➔ Nonconformance Reporting for Delivered Product (A10.2.10)

- **NEW:** “Seller shall provide written notification to Boeing *within one business day* when a *nonconformance* is determined to exist, or is suspected to exist, *on product already delivered to Boeing* under this agreement and the following is known:
  - Affected *process* or *product* number and name
  - Applicable *purchase order* number(s), *quantity*, and *dates delivered*
  - *Description* of the problem (i.e., what it is and what it should be);
  - Affected *drawing number*(s) and zone(s);
  - Suspect/affected *serial number(s)* or date codes, when applicable
  - *Proposed actions/requests* (i.e., units to be checked, recording required, method of check, etc.).

# Summary of Revisions

## BCA Common (A10.2)

### ➔ Nonconformance Reporting for Delivered Product (A10.2.10) - *continued*

*“...Notification shall include above information as a minimum. The Seller shall **notify** the Boeing Procurement Representative who manages the purchase contract, the Boeing Procurement Quality Assurance Field Representative, and the Boeing Procurement Quality organization where product was delivered. For product procured by **BCA Puget Sound**, the Seller shall also notify BCA Supply Management and Procurement Special Investigations Group via **e-mail** at (**[smpsi@boeing.com](mailto:smpsi@boeing.com)**) or by fax at (425-294-2160).”*



# Summary of Revisions

## BCA Common (A10.2)

### → Supplier Quality Performance

- **NEW:** “Seller shall be responsible for achieving and maintaining quality performance threshold for Boeing Supplier Performance Measurement (SPM) Bronze standard, at minimum, within one year of SBP award or the addition of this requirement into an existing SBP, as applicable. If Seller fails to achieve minimum quality performance threshold for SPM Bronze standard, Seller shall be responsible for one or more of the following as directed by the Boeing contracting site:
  - The Seller shall at the Seller’s own expense obtain source inspection from a Boeing qualified contractor
  - The Seller shall reimburse the Boeing contracting site(s) for reasonable Boeing costs incurred at the point of manufacture. Such costs shall include travel, lodging and Boeing labor costs.”

# Summary of Revisions

## Site Unique (A10.3)

### → Quality Reports (A10.3.10)

- **NEW:** “When requested by Boeing, Seller agrees to work with Boeing to develop and implement a continuous improvement plan designed at improving Seller’s SPMS quality rating and other aspects of Seller’s performance which may be reflective of Seller’s quality assurance system, including but not limited to Non-Conformance Records (**NCR**), Supplier Nonconformance Notifications (**SNN**), *etc.* Seller’s plan will include sufficient detail to allow Boeing to evaluate Seller’s progress.”

# Summary of Revisions

## Site Unique (A10.3)

### ✈ First Article Inspections (A10.3.11)

- **NEW:** “First Article Inspection (FAI) shall be performed by the Seller.

For Sellers approved to Boeing Quality Management System (BQMS), D6-82479 **Appendix A, FAI will be conducted in accordance with SAE AS9100 and SAE AS9102,** Aerospace First Article Inspection Requirement, (or international technical equivalent). When documenting the FAI, the Seller may use the forms contained within AS9102, or equivalent forms so long as they contain the minimum information required by AS9102. Copy of AS9102 can be obtained through the Society of Automotive Engineers (SAE) at the following web site address: <http://www.sae.org/>

# Summary of Revisions

## Site Unique (A10.3)

### ✈ First Article Inspections (A10.3.11) - *continued*

“...For Sellers approved to BQMS, D6-82479 Appendix B, the Seller shall develop and utilize an appropriate process for the inspection, verification, and documentation of the first production article. The FAI shall be in accordance with SAE AS9003.”

# SBP Attachment 10 Implementation Plan

- **Implementing revised SBP Attachment 10 on new contracts and contract updates, i.e. BQMS approval and supplier code delegation**
- **Determining plan for existing contracts**
- **Contract language alignment and plan in-work for:**
  - MOP 4-part contracts
  - ERP purchase contracts
  - ERP / PCOS purchase orders
  - D6-56586 (Buyer Furnished Equipment only)

A collage of various Boeing commercial airplanes in flight against a cloudy sky. The planes are shown from different angles, including top-down, side, and rear views. Some have "BOEING 777" or "BOEING 737" visible on their fuselages.

**Boeing Commercial Airplanes**  
**Supply Management Procurement Quality Assurance**  
**Field Operations**

**Questions & Answers**

**Small Group Discussions**

A collage of various Boeing commercial airplanes in flight against a cloudy sky. The planes are shown from different angles, including top-down, side, and rear views. Some are white with blue and red stripes, while others are white with blue accents. One plane in the center has 'BOEING 777' written on its fuselage.

**Boeing Commercial Airplanes  
Supply Management Procurement Quality Assurance  
Field Operations**

**Workshop Evaluations**

**Final Questions**