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

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

International & Americas Aerospace Aerospace
Quality Group
AAQG & IAQG Overview

Presented by: (Insert Presenter’s Name)
(Insert Presenter’s Title)
IAQG Charter & Purpose


 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
IAQG Council

JAQG
AAQG
EAQG
SJAC
SAE
AECMA

National Trade Associations

IAQG General Assembly Meetings
### IAQG International Membership

<table>
<thead>
<tr>
<th>Americas</th>
<th>Asia</th>
<th>Europe</th>
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<tbody>
<tr>
<td>The Boeing Company</td>
<td>Aerospace Ind. Devlpmnt. Corp.</td>
<td>Airbus</td>
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<td>GE Aircraft Engines</td>
<td>Ishikawajima Harima Heavy Ind.</td>
<td>Airbus Germany</td>
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<td>Pratt &amp; Whitney</td>
<td>Mitsubishi Heavy Ind.</td>
<td>Rolls-Royce</td>
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<td>United Technologies Corp.</td>
<td>Kawasaki Heavy Ind.</td>
<td>BAE Systems</td>
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<td>Rockwell Collins, Inc.</td>
<td>Fuji Heavy Industries</td>
<td>Alenia</td>
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<td>Honeywell Engines &amp; Systems</td>
<td>China Aviation Ind. Corp.</td>
<td>SNECMA Moteurs</td>
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<td>Lockheed Martin Corp.</td>
<td>Korea Aerospace Ind.</td>
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<td>Hispano-Suiza</td>
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<td>Messier-Bugatti</td>
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<td>Thales Avionics</td>
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<td>AECMA-EASE</td>
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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

<table>
<thead>
<tr>
<th>BOEING POLICY</th>
<th>SUPPLIER ACTION</th>
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<tbody>
<tr>
<td>AS9003 (Oct 2001) - Insp &amp; Test Quality System</td>
<td>Deploy</td>
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<tr>
<td>AIR9104 (TBD) - Registration Requirements (International)</td>
<td>Deploy</td>
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<td>AIR5359A (Jul 2001) - Registration Requirements</td>
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<tr>
<td>AIR5493 (Jun 2001) - Auditor Training</td>
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<tr>
<td>AS9101A (Apr 2002) - Checklist for AS9100</td>
<td>Deploy</td>
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<tr>
<td>AS9103 (Oct 2001) Variation Mgmt of Key Characteristics</td>
<td>Deploy</td>
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<tr>
<td>ARP9004 (Apr 2002) - Direct Ship</td>
<td>Deploy</td>
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<tr>
<td>AS9132 (Feb 2002) - 2D Bar Coding</td>
<td>Mar-03</td>
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<tr>
<td>AS9131 (Dec 2001) Nonconformance Documentation</td>
<td>NO</td>
</tr>
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</table>
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

13 Heritage Systems flow into Boeing’s One Quality System

(Boeing Document, D6-82479)
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.
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*
Total Current Suppliers = 2,616
Total Initial Suppliers = 3,130

Cum. BQMS Approved Suppliers:
September = 61% (1,598) YELLOW

Best case/earliest completion: Dec. 2002
90% complete by July 2002
75% complete by April 2002
50% complete by January 2002

Worst case/latest completion: Dec. 2003
90% complete by June 2003
75% complete by February 2003
50% complete by October 2002
Total Current Suppliers = 2,616

Cum. BQMS Approved Suppliers:
September = 61% (1,598)

Cum. CRB Recognized:
Total AS9100 Approved = 906
September = 7.0% (63)
Total BQMS Appendix A Approvals = 862
AS9100:1999 = 91% (786)
AS9100:2001 = 9% (75)
No Designator = 0% (1)

1999 vs. 2001 Based Approvals
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
Key Elements

- CRB AS9100 accreditation
  - ANSI-RAB accredited CRBs are listed at 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

为抓

Audit duration conforms with IAF Guidance to ISO/IEC Guide 62 plus AIR5359

为抓

Complete AS9100 audit report (ref. AIR5359, Appendix D) provided to supplier, including AS9101 checklist, and designated items reported to IAQG database

为抓

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

为抓

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)
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


ジョン ボーイングは、AS9100 CRB認証を認識し、プロアクティブにAS9100 CRB認証を取得するよう奨励しています。

ジョン 提案AS9100 CRB認証を取得するためのプロセスを有しています。プロアクティブに。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

✈ Email Boeing inquiries to: mailto:pqit@pss.boeing.com
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

- AB
- CRB
- RMC
- AAQG OEMs
- Supplier/Client

AIR5359 Section 9.2
AIR5359 Section 9.5
AIR5359 Section 9.5
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)
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
Increasing Process Risk

- Few Capital Improvements
- High Personnel Turnover
- Low Technical Competence
- Low % of Aerospace Business

Major Findings
- High # of Escapes
- Investigations

Processes with Planning or Procedure Approval Required
- Many Different Types of Approved Processes
- High Quantity of Approved Processes
- Processes that could affect Safety of Flight

Risk-Based Management
Risk-Based Management

- Low % of Aerospace Business
- Low Technical Competence
- Few Capital Improvements
- High Personnel Turnover

- High # of Escapes
- Major Findings
- Investigations

- Next process audit in 3 months
- Next process audit in 24 months

- Many Different Types of Approved Processes
- High Quantity of Approved Processes
- Processes that could affect Safety of Flight
- Processes with Planning or Procedure Approval Required
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

It is…

National
Aerospace and Defense Contractors Accreditation Program

And It is…

Industry managed and Industry controlled

It is NOT third party
## Industry Use of NADCAP

<table>
<thead>
<tr>
<th>Primes that Requires NADCAP</th>
<th>Primes that Accept NADCAP</th>
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<tbody>
<tr>
<td>Boeing</td>
<td>Fiat Avio</td>
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<tr>
<td>Cessna Aircraft</td>
<td>Lockheed Martin</td>
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<tr>
<td>GE Aircraft Engines</td>
<td>MTU-Munich</td>
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<td>Hamilton Standard</td>
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<td>Honeywell</td>
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<td>Sikorsky Aircraft</td>
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<td>Vought Aircraft</td>
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The NADCAP Process

- **Auditor Qualification & Selection**
  - Primes monitor operational performance of the NADCAP process through metrics
  - Metrics drive process improvements
  - Cost of accreditation controlled by Processors through their performance

- **Audit Standard & Checklist**
- **NADCAP Efficiency & Effectiveness**
- **Boeing w/ industry primes**
- **Audits Planned & Conducted**
- **Audit Results**
- **NADCAP staff support**

Auditors are experienced in the technologies they audit
- Interviewed and selected by prime representatives
- Auditors can be impartial and more objective
- Auditor is on contract with NADCAP

Audits Planned & Conducted
- Auditor audits to the criteria established by the primes
- Audit is focused on process compliance with a product focus
- Audits are technology based and more in-depth

NADCAP schedules the audit and auditor

Audit Results
- Results given to processors and reported to NADCAP Staff
- Issues regardless of affected prime are shared with all primes through Supplier Advisory
- Results available to all primes through eAuditNet

Corrective Action
- Primes & NADCAP staff review corrective action
- Primes accept corrective action and grant accreditation
- Systemic industry problems are analyzed and root cause corrective action taken

NADCAP Efficiency & Effectiveness
- Primes monitor operational performance of the NADCAP process through metrics
- Metrics drive process improvements
- Cost of accreditation controlled by Processors through their performance

Boeing w/ industry primes
- NADCAP staff support
The NADCAP Process

- Auditor Qualification
  - Established by prime technical representatives
  - Common audit criteria which covers basic prime requirements
  - Common expectations with consistent interpretation of audit requirements
  - Results in reduction in redundant of audits

- Auditor Qualification
  - Interviewed and selected by prime representatives
  - Auditors on contract with NADCAP
  - Auditors are experienced in the technologies they audit
  - Impartial auditors
  - Resource needs easy to manage through "peaks and valleys" of our industry

- Audits Planned & Conducted
  - NADCAP schedules the audit and auditor
  - Auditor audits to the criteria established by the primes
  - Audits are technology based and more in-depth
  - Audit is focused on process compliance with a product focus

- Audit Results
  - Results given to processors and reported to NADCAP Staff
  - Issues regardless of affected prime are shared with all primes
  - Supplier advisory provides advance notice of potential product impact issues
  - Results available to all primes through eAuditNet

- Corrective Action
  - Primes & NADCAP staff review corrective action
  - Primes accept corrective action and grant accreditation
  - Systemic industry problems are analyzed and root cause corrective action taken

- NADCAP Efficiency & Effectiveness
  - Primes monitor operational performance of the NADCAP through metrics
  - Metrics drive process improvements

Task Groups
- Prime Technical Experts
  - Boeing w/ industry primes
  - NADCAP staff support

NADCAP Staff Support
- Audits Planned & Conducted
- Audit Results

NADCAP Efficiency & Effectiveness
- Task Groups
- Prime Technical Experts
## 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)

<table>
<thead>
<tr>
<th>Technology</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
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<td><strong>Americas</strong></td>
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<tr>
<td>Heat Treat &amp; NDT</td>
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<td>Communicate Intent</td>
<td>4/5</td>
<td>Accreditation Required</td>
<td>8/31</td>
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<td>Chemical Processing</td>
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<td>Communicate Intent</td>
<td>4/5</td>
<td>Accreditation Required</td>
<td>3/31</td>
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<tr>
<td>Material Test, Welding, Shot Peening &amp; Composites</td>
<td>Developi ng plans to recommend requiring accreditation of these remaining technologies.</td>
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<td>The requirements for accreditation will be implemented in Europe and Asia as the program is established in those regions.</td>
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NADCAP Letter Response

Letter sent to 1610 global processors

NADCAP Letter - Response Categories

- NADCAP Not Applicable
- Refused
- NADCAP Accreditation Planned
- NADCAP Accredited
- No Response

- Processors
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

✈️ List of NADCAP accredited processors (registration required but at no cost)
  – www.eauditnet.com

✈️ Frequently asked questions
  – www.boeing.com/company/offices/doingbiz/d14426

✈️ Send questions to:
  – NADCAP@boeing.com
Let's Take a .... Break
Questions & Answers

Small Group Discussions
Let's Have....

Lunch
Boeing Commercial Airplanes
Supply Management Procurement Quality Assurance
Field Operations

Improved Supplier Quality

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

Quality Imperative

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

CFR § 14.21.165
Responsibility of Holder

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

Supplier Non-conformance “System”

Efficiency
Effectiveness
Expectations

Quality Imperative
+ Competitive Urgency

New approaches to assuring quality of delivered product

Supply Management - Procurement Quality Assurance
2002 Business Plan Elements

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.

Business Objectives

People
Develop and Position our People for the Jobs of Today & the Jobs of the Future

Maximize Technical Expertise and Maintain Critical Skills
Ensure People Consideration in our Business Decisions

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

Products
Increase Supplier Accountability for Product Conformance and System Compliance

Integrate Processes into One Plan for Product Verification
Implement & Maintain Strategic Delegation Choices
Integrate BCA PQA Site Processes
Continue to Improve Internal and External Processes

Process
Provide Data and Processes that Enable Quality Systems Compliance & On-time Delivery of Conforming Product

Support Selected Industry & Network Partnerships
Special Emphasis on Poor Performing Suppliers
Optimize Resource & Asset Utilization
Effectively and Efficiently Manage Daily Work Statement Including New Product Development Support, Work Transfers, BQMS, and STA

Performance
Reduce the Cost of Procurement by Running a Healthy Core Business

Optimize Resource & Asset Utilization

7-1-02
Boeing Limited
Improved Supplier Quality Initiative

Supplier Non-conformance “System”

Efficiency
Effectiveness
Expectations

Quality Imperative
+ Competitive Urgency

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People
Maximize Technical Expertise and Maintain Critical Skills
Ensure People Consideration in our Business Decisions

Strategies

People
Develop and Position our People for the Jobs of Today & the Jobs of the Future

“Improved Supplier Quality” Initiative

Quality Systems Compliance & On-time Delivery of Conforming Product

Integrate BCA PQA Site Processes
Continue to Improve Internal and External Processes
Support Selected Industry & Network Partnerships
Special Emphasis on Poor Performing Suppliers
Optimize Resource & Asset Utilization
Effectively and Efficiently Manage Daily Work
Statement Including New Product Development Support, Work Transfers, BQMS, and STA

7-1-02
Boeing Limited
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

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
Improved Supplier Quality Initiative Elements

Supplier Expectations and Elevation Process

Supplier Quality Metrics
• SPMS
• Other Metrics

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Enabling Information System

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Corrective Action Process Team
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• 24 Hour Notification
• Single Process for Supplier Parts
• Timeliness and Accuracy Metrics
• On-Site “Partner” Engagement

timely and accurate non-conformance data
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**

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

Responsive Consistent Timely Complete Accurate
Closed Loop Actionable
Where are We Going

Non Conformance Communication

Web Based
Timely
Accurate
Consistent
Responsive
Closed Loop
How We Get There

- Web based information systems
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Specific NCR Details

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

Discrepancies:

- STORES CHECK REQUIRED
- THE 472W2124-1 BOOT SEAL IS MISSING THE GROOVE SHOWN ON DWG 472W2124 SHT 1 REV.
- SEE ATTACHMENT
- MFG DATA: MFR 25099 REV PLNC
- LOT 83308 DATE 12/13/01 CG5
- ISSUED TO RF001

Dispositions:

- Waste System Boot Seal not meeting drawing requirements is not acceptable to Quality Assurance, scrap.

Defects:

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Specific NCR Details

Welcome Supplier
Your Name Here

NCR Test Data

Resources
- Acronym Definitions
- FAQ's
## Supplier Quality

### Procurement Quality Assurance E-SCAN

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### Supplier Quality

#### The Boeing Company

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Records 1 to 6 of 6 records.

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# Supplier Quality

## The Boeing Company

### NCR Number List / NCR Detail

**Supplier Name:**

**Supplier Code:**

### GENERAL INFO

**NCR Serial:** N1610026178

**Part Number:** BAC14AZ10A

**Location:** Everett

**NCR Type:** NFR

**Part Description:** ADAPTER

**Program:** 0

**Date Written:** 08/29/2002

**Part Number:** BAC14AZ

**Rejected Department:** 65893

**Date Closed:**

**NCR Quantity:** 40

**Aircraft No:** Multi

**NCR Status:** Active

**NCR Cost:** $0.00

**Cause Group:**

### SUPPLEMENTAL INFO

**Record Type:** 10

**Right/Left:** N

**Customer Number:**

**Multi Unit:** N

**BRE:** N

**P.O. Number:** 0304416038

### DEFICIENCY DESCRIPTION

-01 1-2 Two of two Adapters sampled exhibit dramatically different Microstructures indicating parts were processed separately as two different lots. The last report and pack slip received with the order indicate parts are from one lot. Lot #110882 REF BSF-125 para 4.2 amount #13171-13174

### DISPOSITIONS

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

### DRAWINGS

**Drawing ID:**

**Rev No.:**

**Sheet ID:**

**Zone:**

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**Rev No.:**

**MIL-F-10280**

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### On-Line Supplier Corrective Action

**Prototype Entry Screen**

**Supplier Name:** Andalucia Aerospacial  
**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.

**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.

**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?

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

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Gold</th>
<th>16-20 Points: Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Silver</td>
<td>13-15 Points: Meets +</td>
</tr>
<tr>
<td></td>
<td>Bronze</td>
<td>9-12 Points: Meets Expectations</td>
</tr>
<tr>
<td></td>
<td>Yellow</td>
<td>0-8 Points: Needs improvement</td>
</tr>
</tbody>
</table>

**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 Timely and Accurate Information Systems for 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

<table>
<thead>
<tr>
<th>Performance Level</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gold</strong></td>
<td>100% Acceptance Rate</td>
</tr>
<tr>
<td><strong>Silver</strong></td>
<td>99% Acceptance Rate</td>
</tr>
<tr>
<td><strong>Bronze</strong></td>
<td>98% Acceptance Rate</td>
</tr>
<tr>
<td><strong>Yellow</strong></td>
<td>95% Acceptance Rate</td>
</tr>
<tr>
<td><strong>Red</strong></td>
<td>Below 95% Acceptance Rate</td>
</tr>
</tbody>
</table>

- **6 month average**

- **Unacceptable**

- **Minimum**
## Supplier Quality Performance Rating

<table>
<thead>
<tr>
<th>Performance Level</th>
<th>6 month average</th>
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<tbody>
<tr>
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<tr>
<td><strong>Yellow</strong></td>
<td>Below 95% Acceptance Rate</td>
</tr>
<tr>
<td><strong>Red</strong></td>
<td>Below 95% Acceptance Rate</td>
</tr>
</tbody>
</table>

Suppliers performing to Bronze or better are eligible for Supplier Code Delegation.
Delegation

Source Acceptance Delegation

Delegate 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

Status as of: July 31, 2002
Current Month
4 - Yellow

Number of Suppliers Considered

<table>
<thead>
<tr>
<th>Month</th>
<th>Current Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>16</td>
</tr>
<tr>
<td>Feb</td>
<td>15</td>
</tr>
<tr>
<td>Mar</td>
<td>7</td>
</tr>
<tr>
<td>Apr</td>
<td>4</td>
</tr>
<tr>
<td>May</td>
<td>19</td>
</tr>
<tr>
<td>June</td>
<td>2</td>
</tr>
<tr>
<td>July</td>
<td>52</td>
</tr>
<tr>
<td>Aug</td>
<td>10</td>
</tr>
<tr>
<td>Sep</td>
<td>30</td>
</tr>
<tr>
<td>Oct</td>
<td>18</td>
</tr>
<tr>
<td>Nov</td>
<td>9</td>
</tr>
<tr>
<td>Dec</td>
<td>8</td>
</tr>
<tr>
<td>YTD  &lt; Bronze</td>
<td>19</td>
</tr>
</tbody>
</table>
Supplier Selection Metric
Source Board by 12 month SPMS acceptance rate

<table>
<thead>
<tr>
<th>Status</th>
<th>Number</th>
<th>Acceptance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold (100%)</td>
<td>33</td>
<td>24%</td>
</tr>
<tr>
<td>Silver (99%)</td>
<td>77</td>
<td>56%</td>
</tr>
<tr>
<td>Bronze (98%)</td>
<td>15</td>
<td>11%</td>
</tr>
<tr>
<td>Yellow (95%)</td>
<td>9</td>
<td>7%</td>
</tr>
<tr>
<td>Red (&lt;95%)</td>
<td>3</td>
<td>2%</td>
</tr>
</tbody>
</table>

Status as of: July 31, 2002

Current Month
2 - Yellow
### Supplier Quality Performance Rating

<table>
<thead>
<tr>
<th>Performance Level</th>
<th>6 month average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>100% Acceptance Rate</td>
</tr>
<tr>
<td>Silver</td>
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</tr>
<tr>
<td>Bronze</td>
<td>98% Acceptance Rate</td>
</tr>
<tr>
<td>Yellow</td>
<td>95% Acceptance Rate</td>
</tr>
<tr>
<td>Red</td>
<td></td>
</tr>
</tbody>
</table>

Suppliers performing below Bronze will enter into the Elevation Process.
# Elevation Process Summary

<table>
<thead>
<tr>
<th>Tier 0</th>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trigger</strong></td>
<td><strong>Health Metrics</strong></td>
<td><strong>Corrective Action</strong></td>
<td><strong>Continuous Improvement</strong></td>
</tr>
<tr>
<td>Daily Management</td>
<td>Suppliers with &lt; Bronze.</td>
<td>Suppliers &lt; Bronze 2 months</td>
<td>Supplier &lt; Bronze 5 months No significant improvement</td>
</tr>
<tr>
<td>Daily Management</td>
<td>Delinquent high factory impact</td>
<td>Delinquent high factory impact</td>
<td>Delinquent high factory impact</td>
</tr>
<tr>
<td>Daily Management</td>
<td>Not meeting commitments</td>
<td>Not meeting commitments</td>
<td>Not meeting commitments</td>
</tr>
<tr>
<td><strong>Who</strong></td>
<td>-PA</td>
<td>-PA &amp; 1st level Mgmt</td>
<td>-PA &amp; Sr. Mgmt</td>
</tr>
<tr>
<td>-PQA</td>
<td>-PQA &amp; 1st level Mgmt</td>
<td>-PQA &amp; Sr. Mgmt</td>
<td>-Supplier Executive Mgmt</td>
</tr>
<tr>
<td>-Supplier</td>
<td>-Supplier Mgmt</td>
<td>-Supplier Executive Mgmt</td>
<td>-PA</td>
</tr>
<tr>
<td>-QAI</td>
<td>-QAI</td>
<td>-QAI</td>
<td>-PQA</td>
</tr>
<tr>
<td><strong>Potential Actions</strong></td>
<td>-Supplier meetings</td>
<td>-Supplier meeting</td>
<td>-Meeting with supplier</td>
</tr>
<tr>
<td>-Improvement plan</td>
<td>-Product audit</td>
<td>-Probation</td>
<td>-BQMS Disapproval</td>
</tr>
<tr>
<td>-System audits</td>
<td>-C/A improvement plan</td>
<td>-Withdraw delegation authority</td>
<td>-Work movement</td>
</tr>
<tr>
<td></td>
<td>-Increased PA involvement</td>
<td>-No new business</td>
<td>-Contractual remedies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Contractual remedies</td>
<td></td>
</tr>
</tbody>
</table>

Responsible Manager: Jeff Alberts  
Document Owner: John Roughton  
Revision: 0(08/06/2002)
## Supplier Quality Performance Rating

<table>
<thead>
<tr>
<th>Performance Level</th>
<th>6 month average</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>100% Acceptance Rate</td>
<td>Timely acceptable corrective action</td>
</tr>
<tr>
<td>Silver</td>
<td>99% Acceptance Rate</td>
<td>Incorporating poor C/A to Elevation process</td>
</tr>
<tr>
<td>Bronze</td>
<td>98% Acceptance Rate</td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>95% Acceptance Rate</td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td>Below 95% Acceptance Rate</td>
<td></td>
</tr>
</tbody>
</table>
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

Where we started
- Excessive costs
- Excessive non-conformance rates
- 1-6 month wait for data
- Data integrity questions
- Unclear expectations
- Change of charge

NCM On-Line
“Timely”
3Q 2002

PQAI Engagement
“Accurate”

Elevation Process
“Supplier Accountability”
4Q 2002

E-SCAN
“Managed Supplier Relationship”
3-4Q 2002

On-Site Partner Engagement
4Q 2002

BCA Commonality
~1Q 2003

Enterprise Commonality

Notification Pilot
3-4Q 2002

Quality Partnership
2Q 2001

Journey to ISQ

Improved Supplier Quality
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/
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
   Office: 425.266.6251, Mobile: 206.369.7435
Let's Take a...

Break
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/adoptions of aerospace industry standards and support Boeing quality initiatives
Special Business Provisions (SBP)
Attachment 10 Overview

Intent of SBP Attachment 10
• Originally designed to bridge gap from D1-9000 to AS9100
• Now captures additional quality expectations

- 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”.”
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.).
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) or by fax at (425-294-2160).”
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.”
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/
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)
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

Workshop Evaluations

Final Questions