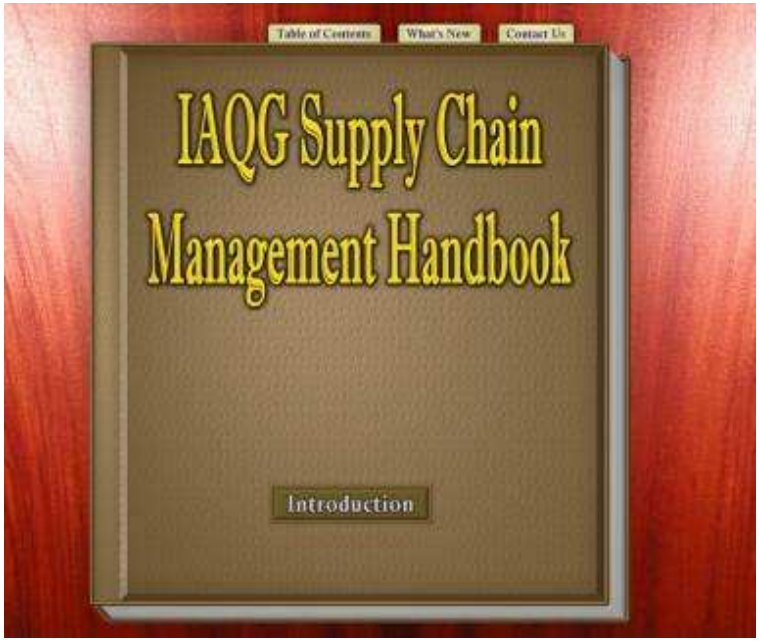


IAQG SCMH

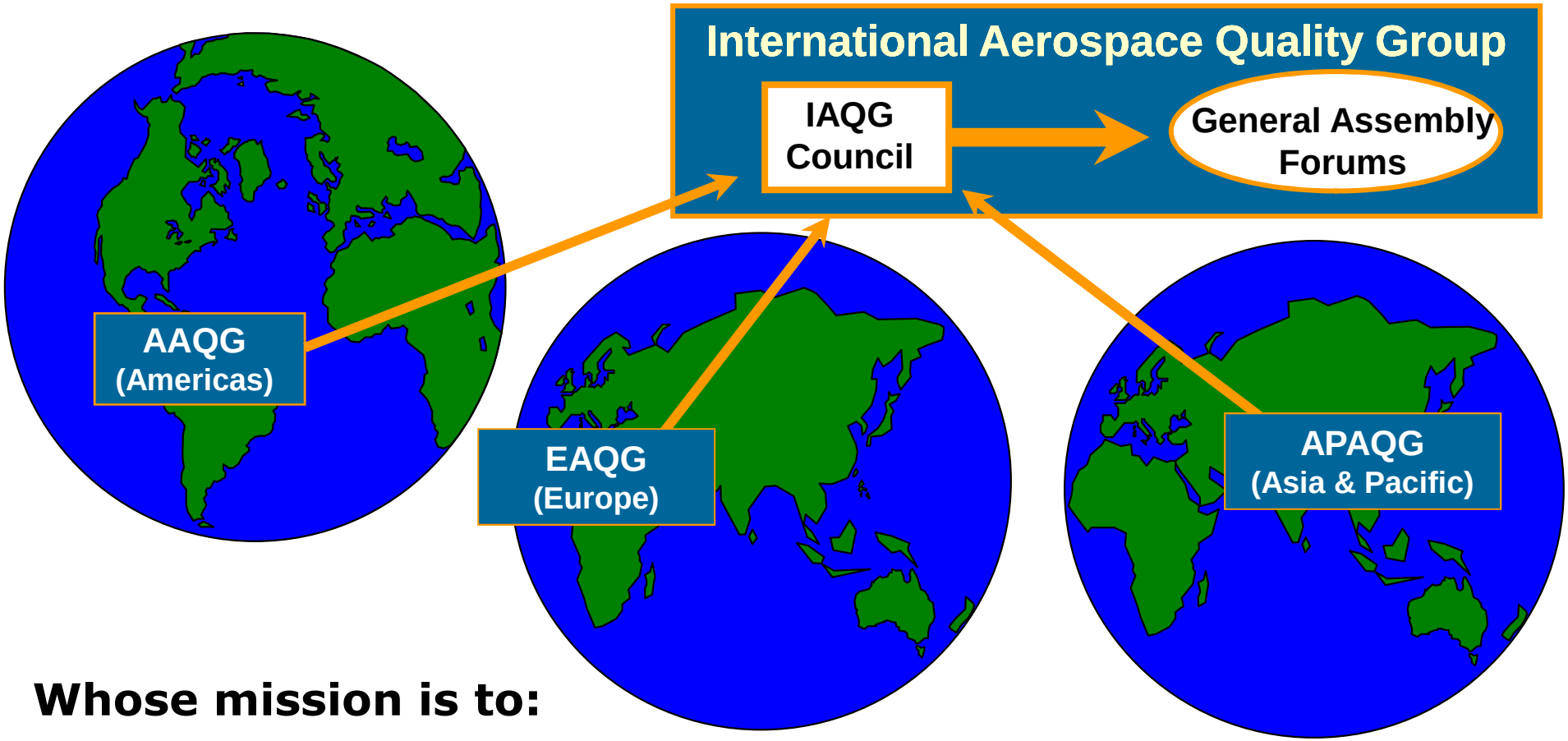
"Supply Chain Management Handbook"

Bill Schmiege
Parker Hannifin

Content

- Brief introduction to IAQG
- Introduction to Supply Chain Management Handbook (SCMH)
- SCMH content today and tomorrow
- Accessing e-SCMH
- Live demo focusing on the 2 SCMH sections
  - Root Cause Analysis and Problem Solving
  - Control of Non-Conforming Product

A Global Team



Whose mission is to:

Achieve significant performance improvements in Quality, Delivery, and consequently Cost, on all products and services throughout the value stream

IAQG Membership

Americas

- ATK
- The Boeing Company
- Bombardier
- Embraer
- GE Aircraft Engines
- Goodrich Corporation
- Gulfstream
- Honeywell Aerospace
- L-3 Communications
- Lockheed Martin
- Northrop Grumman
- Orbital
- Parker Aerospace
- Raytheon
- Rockwell Collins
- Rolls-Royce North America
- Spirit Aerosystems
- Textron – Bell Helicopter
- United Technologies Corp.
- Vought
- *SAE **

Europe

- Airbus
- ALENIA
- Avio
- BAE Systems
- Dassault Aviation
- EADS
- EADS – CASA
- EADS Military
- Eurocopter
- Hegan
- Hispano-Suiza
- Israel Aircraft Industries
- Liebherr
- Messier-Bugatti
- Messier-Dowty
- MTU Aero engine
- PFW
- Rolls-Royce
- SAAB Aerospace
- SAFRAN
- Smiths Aerospace
- SONACA
- SNECMA

Asia

- AIDC (Aerospace Industrial Development Corp)
- AVIC 1
- AVIC 2
- Fuji Heavy Industries
- Hawker de Havilland
- Indonesian Aerospace
- IHI
- Kawasaki Heavy Ind.
- Korea Aerospace Ind.
- Korean Air Aerospace
- Mitsubishi Heavy Ind.
- SMIC
- *SJAC **

Europe – Continued

- Stork Fokker Aerostructures
- Sukhoi
- THALES
- Turbomeca
- Volvo – Aero
- Westland
- Zodiac
- *ASD * / ASD-EASE **

** Sponsor*

Mission

- Achieve significant performance improvements in Quality, Delivery, and consequently Cost, on all products and services throughout the value stream
  - Through the establishment of effective prevention oriented practices and processes
  - By standardizing Requirements, providing Process Guidelines and spreading Best Practices
  - By introducing a Culture of Quality as early as possible in the value stream thus reducing the cost of poor quality
  - Through establishing and maintaining dynamic cooperation between international Aviation, Space and Defense companies

IAQG produced documents

- Requirements to harmonize the Quality Management System
  - 9100 – Aerospace Quality Management System (Design and Manufacturing)
  - 9110 – Maintenance and Repair Stations
  - 9120 – Stockists & Distributors
- Requirements to raise Product Integrity
  - 9102 - First Article Inspection
  - 9103 - Variation Management of Key Characteristics
  - 9131 - Non-conformance Management
  - 9134 - Global Supplier Risk Management
  - Etc…
- Supply Chain Management Handbook to provide guidance material to aerospace suppliers to help them understand requirements and improve their quality performance

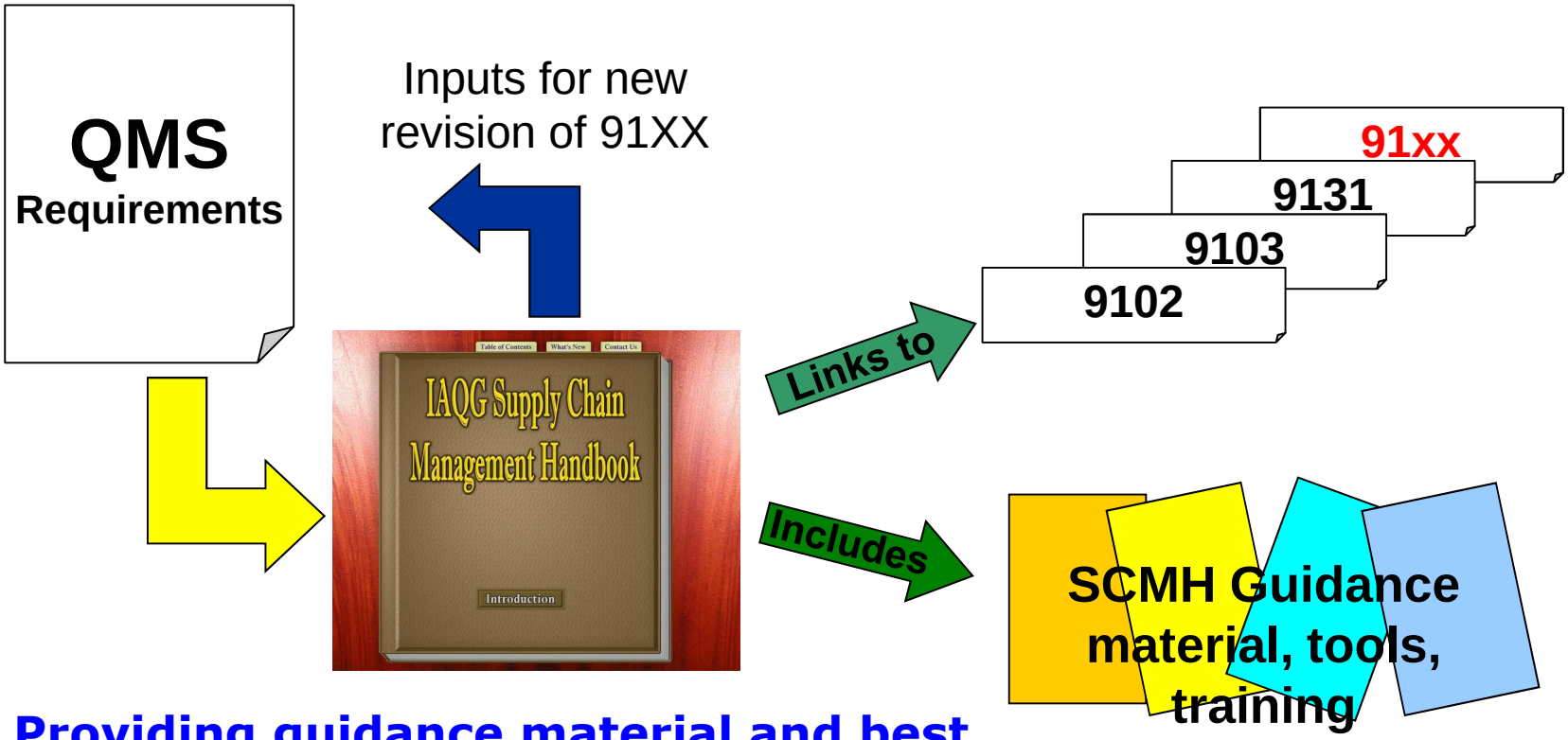
IAQG 5-Year Vision

- Product and Services Quality and Delivery will have improved 20% per year throughout the product lifecycle
- Robust processes achieved throughout the supply chain (Supply Chain Management Handbook Maturity Level 3 or better)
- IAQG Quality Management System certification program is robust, recognized and valued
- 90% of the supply chain certified to IAQG Quality Management System Standards

Supply Chain Management Handbook (SCMH):

- What is the SCMH ?
  - A collection of guidance materials, trainings, best practices for Suppliers
- What are the Objectives of the SCMH?
  - Provide guidance material to help improve the "On Time and On Quality" performance through out the supply chain
  - Provide "how to" information for various Aerospace standards
- Note - The e-SCMH is a web based toolbox with **FREE** access to suppliers

Focus on "How" through SCMH



Providing guidance material and best practices on how to meet requirements and achieve objectives

Supply Chain Management Handbook

- SCMH Leaders:
  - IAQG Mentor:
    - Wayne Brown (Boeing)
  - AAQG (Americas):
    - Larry Weng (Boeing)
    - Bill Schmiege (Parker Hannifin)
  - APAQG (Asia Pacific):
    - Shuji Komori (FHI)
  - EAQG (Europe):
    - Bernard Lauras (Airbus)
    - Christian Buck (Safran)

Supply Chain Management Handbook

- SCMH contents have been developed by member companies of the IAQG and the document is structured to cover the entire product life cycle process:
  - Intended for use by companies at all levels of supply chain
  - Aligned with Product Life Cycle
  - Currently 10 sections published
  - Other sections “in work” or to be developed in the future

SCMH Content - Product Life Cycle

1. Sales, Master Scheduling & Sequencing

- Master Scheduling

2. Contract Requirements & Flow Down

- Requirements & Flow Down Templates

3. Design & Development

- Special Requirements & Critical Items
- Quality Functions in Design & Development
- Software Guidance (9115)

4. Suppliers sourcing selection & approval

- Supplier Selection and Capability Assessment
- Product Performance Detailed Assessment Checklists

5. Plant, material, skills, capacity planning & scheduling

6. Order Management and logistic (Internal & external)

- Lean Assessment Tool

7. Manufacturing and Inspection

- 9103 Material for Key Characteristics
- 9102 Material for First Article Inspection
- Foreign Object Debris (FOD)

8. Supplier operational management and product validation

- Notification of Change Tool
- Supplier Quality Mgt Basics

9. Control of non conformities, corrective and preventive actions

- Root Cause Analysis & Problem Solving
- Control of non conformities

10. Customer Support (Control of service operations)

- Counterfeit Part Prevention
- MRO Guidance Material

11. Business Management & Customer Sat. Monitoring

- Work Transfer
- Risk Management
- Configuration Mgmt.

Appendices

- 9100 Rev C Deployment Support
- People Capability PCAP 001
- Link to IAGQ Dictionary

Available | Work In Progress | New Priorities

Future SCMH Topics

- Many good suggestions for future SCMH sections
- As in-work sections are completed, new projects will be started
- Everyone is welcome to participate on writing teams
- Your input for future topics is encouraged
- Please use "Feedback" link in eSCMH to contact us

Next Focus

- Chap 1: Master Scheduling
- Chap 5: Planning of Product Realization
- Chap 6: Order Management and logistic
- Chap 10: MRO Guidance Material

Other Potential Future Topics ?

- Contract Review
- Design Quality Assurance model
- Sub-contract Management
- Design Review model
- Change In Design
- Capacity Planning & Scheduling model
- Production Control model
- Preventive Measures

- Production Control model
- Performance Metrics
- Service Operations (Logistics)
- Processes Description models
- Programme Management
- Other Party Management Process
- Work Instructions
- Etc…

SCMH available section Example 1:
Supplier Selection & Capability Model

Objective: Assessing Supplier Maturity for 11 Business Processes covering the entire product life cycle process

Four domains assessed:

- **Process**
- **People & Organization**
- **Tools & Data**
- **Performance Metrics**

Five levels of maturity:

1: Undefined and not capable

2: Defined and applied, but not 100% efficient or not applied everywhere in the company

3: Defined, applied and effective

4: Predictable

5: Optimized

	1	2	3	4	5
Process	Process not defined. Short term planning only, not taking into account customer medium and long term demand. No forecast and planning based on effective orders only.	Unidirectional process, top down limited, no feedback loop from operations to sales. Actual orders and forecasts shared between functions with no systematic relevant actions. Medium term planning of load vs.capacity on random basis only and reactive mode.	Regular joint review between all relevant functions, with feedback loop from operations to sales. Periodicity of Medium long term planning revision based on updated forecast of customer constraints (e.g. longest lead time).	3+ Integrated Process between all functions including feedback loop from operations to sales. Supply, demand, financial requirements integrated and priorities based	4+ Expertise optimized (Suppliers / partners and customers involvement). Rules based forecast models and continual demand management (anticipation, event capable and results oriented).
People and organisation	Accountabilities (organization, roles, responsibilities, and authorities), skills and competencies not defined.	Accountabilities defined across various functions (Sales, Planning, Product Management, Manufacturing, Purchasing, Finance & Human ressources) as required, but redundancies or gaps exist and no integrated approach.	Accountabilities		4+ Evidence of continual improvement culture mind set with partner and customers involvement.
Tools and data	No tools or local tools, (e.g spreadsheets only). No data or short term data only (sales, capacity, ressources…).	Basic Planning Tool: Data from different sources (static), shared but not integrated between functions and/or covering medium term only.	Existence of data from different shared and integrated between all relevant functions, and covering medium term.	Relevant functions, internaly & externally. Scenario and constraint based planning. Real time data. Medium and long term resources aligned with requirements plans (People, Finance, Investment, tooling, manufacturing facilities…).	4+ Event capable A.P.S. (anticipation of production rates changes and unplanned events, company ressources oriented…) collaborative with customer & suppliers systems. Improvement and automation + on demand synchronization + impact analysis, closed loop. Advanced statistical forecast models.
Performance metrics	No measurement.	Basic metrics (orders vs expected sales, short and medium term planning variations, ...) available but not systematicaly used to drive operation. Actual performance metrics (scrap & rework rates, stock turns, machine utilization rates...) locally available, but results not shared between functions and not regularly used in planning of resources and needs.	Metrics (orders vs expected sales, capacity margins used vs needs), medium term planning variations, ...) available to drive customer needs vs operation. Actual performance metrics (scrap & rework rates, productivity, stock turns, machine utilization rates...) shared between functions, and results regularly used in medium term planning of resources and needs.	3+ Top level metrics and associated targets (Customer Demand, On-time on Quality delivery, factory utilization, days of supply…) used in long term planning of resources and needs. Medium and long term forecast performance results integrated and periodically accuracy measured and reviewed.	4+ Metrics efficiency and effectiveness reviewed and optimized to support continual improvement, (profitability, inventory optimization and delivery performance).

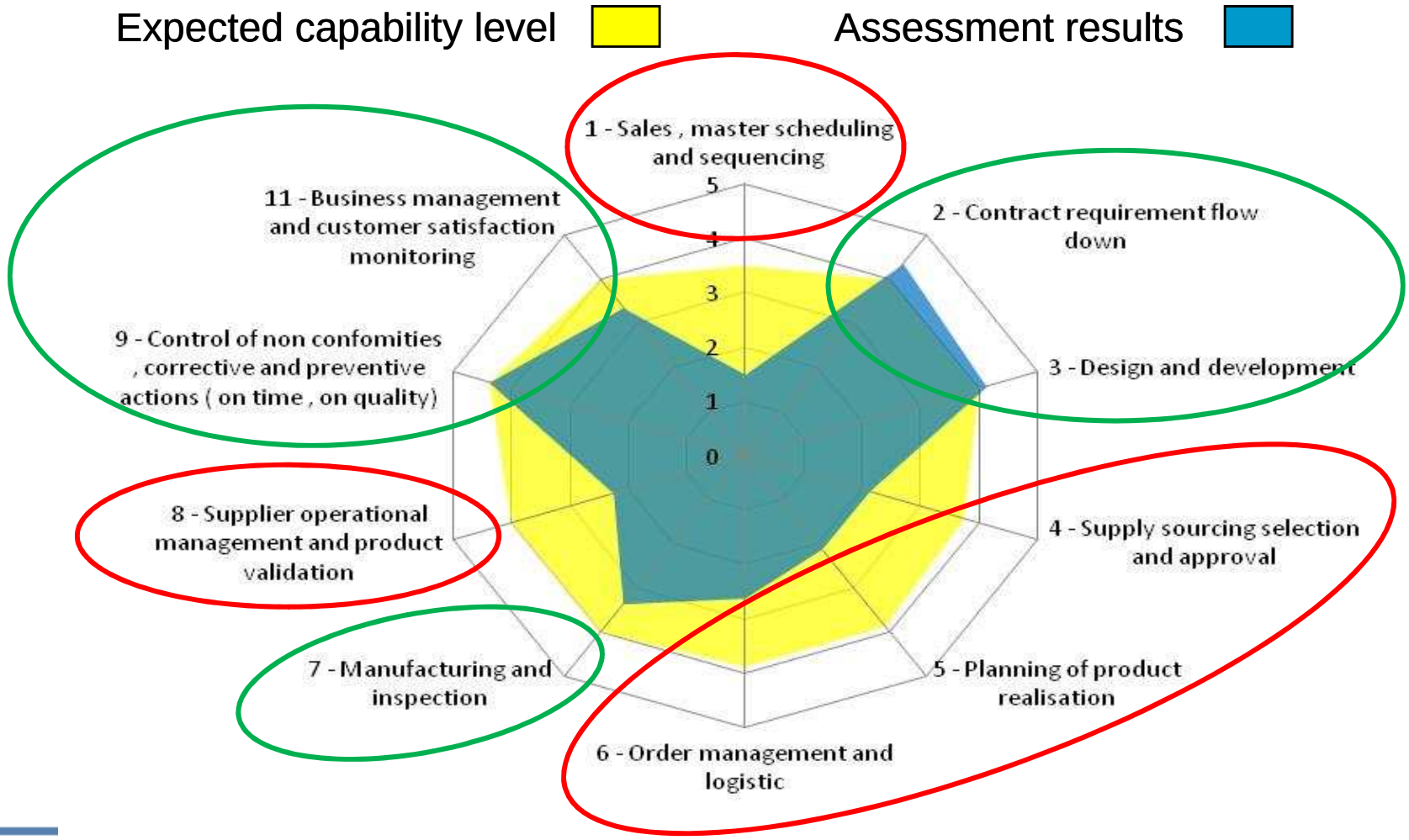
Areas of potential Supplier Development if deemed necessary

Expectation

Supplier performance

SCMH available section Example 1:
Supplier Selection & Capability Model

Results synthesis: show strengths and weaknesses
(10. Customer support not assessed in this example)

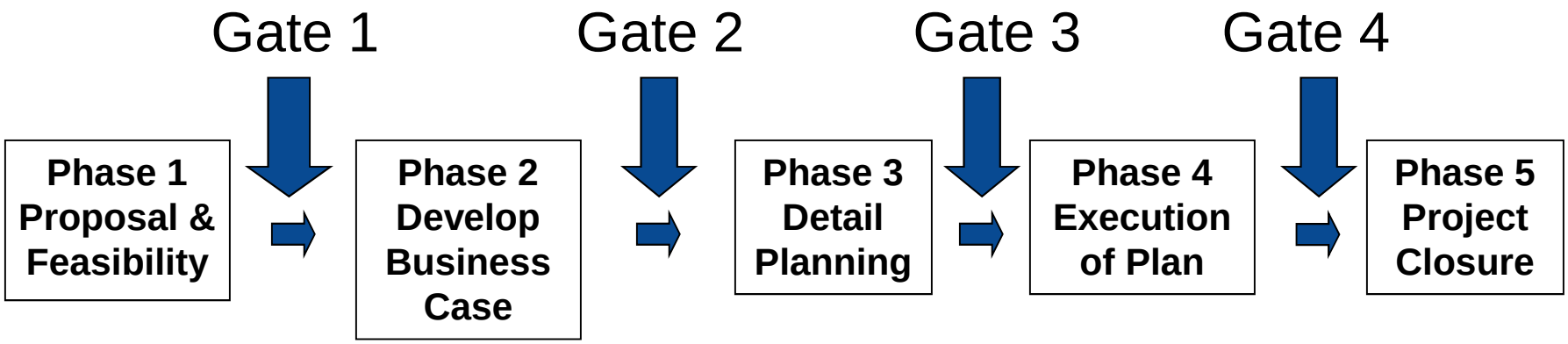


This model has been successfully tested

SCMH available section Example 2:
Work Transfer Management

- Objective:
  - To provide guidelines for the exercising of effective risk and management control when changing the source of supply of a component, a component package or an assembly across a company or its external supply chain.
- Content: Document describing
  - Main phases required in the decision making process to ensure all risks are identified and mitigated
  - Main activities to be conducted and action owners
  - Decision gates, including project closure and lessons learned

SCMH available section Example 2:
Work Transfer Management



Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
✓Proposal & Feasibility ✓Gate Review	✓Team Launch and develop charter ✓Source Selection ✓Risk Assessment ✓Business Case ✓Gate Review	✓Detail Planning ✓Knowledge Transfer pre-move ✓Gate Review	✓Project Management ✓Technical Review Requirements ✓Production Readiness Review ✓FAI / LAI ✓Knowledge transfer ✓Gate Review	✓Identify Continuous Improvement opportunity ✓Capture Lessons Learned ✓Recognize team performance ✓Post implementation review

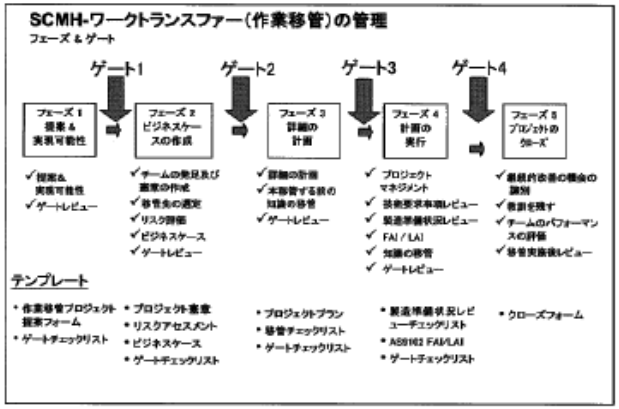
Templates

WT Project Proposal Form Gate Check List	Project Charter Risk Assessment Business Case Gate Check List	Project Plan Transfer checklist Gate Check List	Production Readiness Review Check List AS9102 FAI/LAI Gate Check List	Closure Form

Japanese version of SCMH Work Transfer Section

作業移管の管理

注:本資料は IAQG ウェブサイト(http://www.sae.org/iaqg/)に掲載されている SCMH (Supply Chain Management Handbook)の「11.1 Work Transfer Management」の資料 (March 26,2007 版)を和訳したものです。和訳版の作成に当たり，内容明確化のため補足文を追加する等，一部で英文版と相違のある箇所がありますので，その点ご了承願います。



7.0 ワークトランスファーの管理プロセス

7.0.1 目的及び適用範囲:
本章の目的は，部品，部品パッケージまたは組立品を，社をまたいで，あるいはそのサプライチェーンの外郭へ，供給元あるいは製造方法を変更する際の効果的なリスク管理／マネジメント管理を実行するための指針を提供することである。作業移管はある製造地点から別の製造地点へ，作業(製品及び関連活動)を動かすことである。

- 組織からサプライヤへ(MakeからBuyへ)
- サプライヤから組織へ(BuyからMakeへ)
- サプライヤA社からサプライヤB社へ変更
- サプライヤA社の工場地の変更

上記のタイプは2次外注でも同様に適用される。

作業移管する理由には以下が考えられる:

- 能力
- 購買戦略 (例: サプライチェーンを確保するためのセカンドソースの必要性)
- コスト削減

IAQG Supply Chain Management Handbook (SCMH) : March 26, 2007 版

作業移管の管理

- 業績の向上
- 新規技術

7.0.2 定義

移管チーム- 組織の構造のあらゆる分野のメンバーから構成される。 移管チームはゲートレビュー委員会に対し，彼らが最も効率的な判断ができるために必要な情報を提供する。移管チームは各フェーズでの作業に対し責任があるのに対し，ゲートレビュー委員会-承認権限-はそれぞれのゲートレビューで適切な判断をすることに責任を持つ。移管チームは各フェーズで必要な情報を集め，各フェーズの終わりにゲートレビュー委員会に全ての関連文書を提供する要約を準備する。添付 2 は，作業移管プロジェクトに参加する各部門の主たる役割と持つべき責任を示すフォーマットである。

ゲートレビュー委員会- 組織全体の各部のメンバー及びステークホルダから構成される多分野委員会である。メンバーは，その製品についての把握する限りのリスク，技術の複雑性，致命度に基づいて選定される。議長は，各フェーズ後の各ゲートレビューでの「Go」「条件(要処置)付きで進める」又は「No Go」の判断をする必要があるため，適切な権限レベルを持っていなければならない。部門代表者には以下が含まれる:品証，生産技術，計画，購買，設計，プログラムマネージャー，業務開発，契約，法務 など。

7.0.3 ゲートレビュー及び判断プロセス:
ある1つの工場から別の工場への作業の移管が成功するかどうかは，フェーズ毎にゲートで区切ってレビューをするプロセスにかかっている。今章では，ある工場から別の工場への作業移管を，5つのフェーズと4つのゲートレビュー／判断ポイントで行うための手引を示す

ゲート毎のレビュー/判断ポイントは，以下の2つの質問に答えを出すのに，組織内のあらゆる分野のメンバーを巻き込むことを意図して設計されている:「私たちは正しい計画で動いているか？」「私たちはそれをうまく実行しているか？」。各ゲートレビューでは，チームは以下の3つの中から1つの判断を下す:「Go (次のフェーズへ進める)」，「再指示 (判断を下すための追加の情報を入手要)」 又は「No Go (もはや実行可能でない，またはもっと良い機会が浮上してきたなどの理由で移管プロセスの停止)」。

ゲートポイントは直前のフェーズのレビューをし，以下の項目を考慮しつつ「Go」「No-Go」「条件(要処置)付きで進める」の判断をするのに役立つ。

- プログラムが妥当な価値命題を持ち，正しく実行されていることの保証。
- プログラムが実行不可能であることの早期発見，及び重要な資源を浪費する前のプログラムの停止。
- 作業移管の失敗に関するリスクの識別，数値化，解決。
- プログラムの成功又は失敗に対するリーダーシップの説明責任の創出。
- 移管マネージャー/チームが移管に関する問題を解決する際の支援。
- 移管プロセスの，効果的で効率的なレビューの保持。
- プログラムの資源配置を，一連の選択肢(行使されるか，されないかは現在のプログラムの価値命題による)として取り扱うこと。

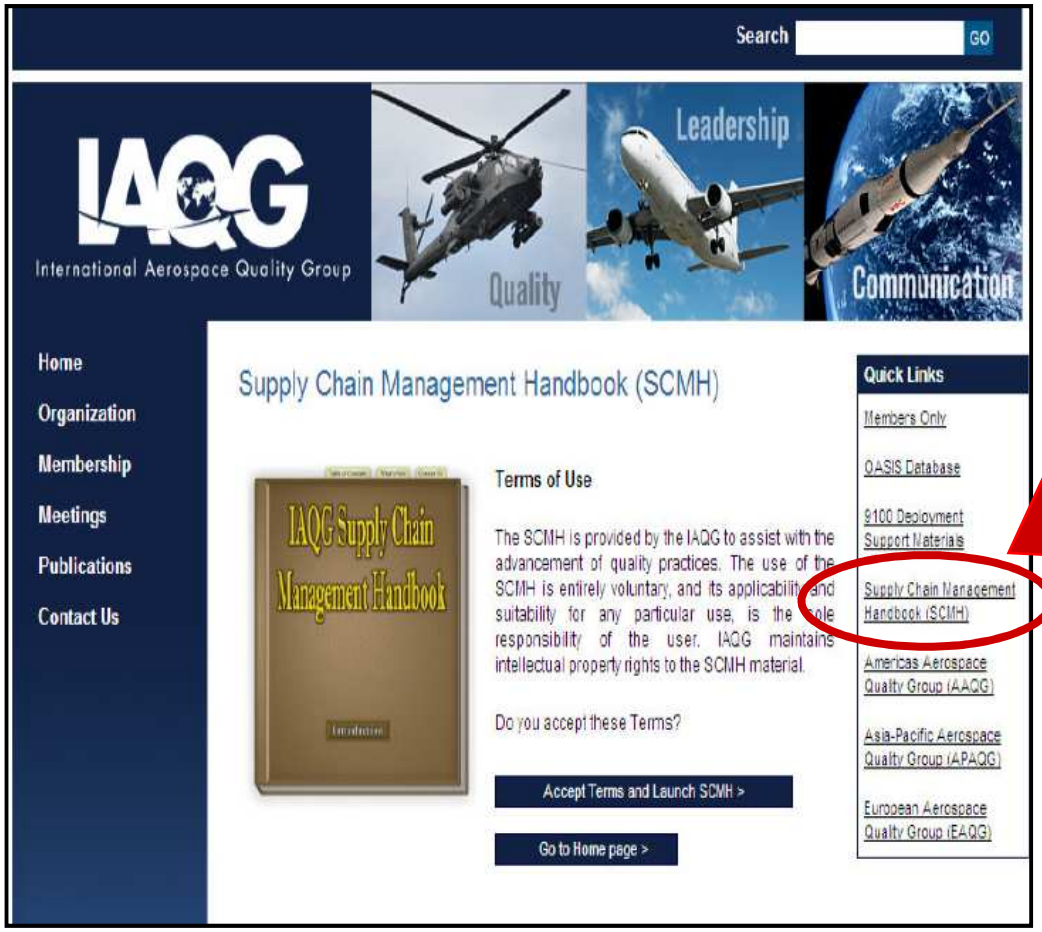
ある時点では，次のフェーズへ要処置付きで進めるという判断が移管チームによりなされることもある。このとき，どんな対策あるいはオープンなアイテムも，各アイテムを完了させる責任者を明記した様式(ゲートとラッカー)に記録されることが推奨される。チェックリストで必須だと決定された全ての項目は，次のフェーズの開始時にオープンのままで残せず，また必須項目以外も，後に続くフェーズゲートレビューの前あるいはその間にクローズしなければならない。

7.0.4.1 承認権限
本ゲートレビュープロセスは，全ての変更に対して適用可能であるが，管理のレベルは，提案された変更に関連し評価されたリスクの度合いによって変わる。適切な承認権限による十分なゲートレビューにより，各ステージから次のステージへ進めることができる。ゲートレビュー委員会は，処置完了が必要なアイテムがオープンのまま次のフェーズに進むことを判断することもある。この場合は，次のフェーズへと進めるべきアクションアイテムは文書化され，続くゲートレビューでの承認の前までにクローズされなければならない。

Easy access to SCMH

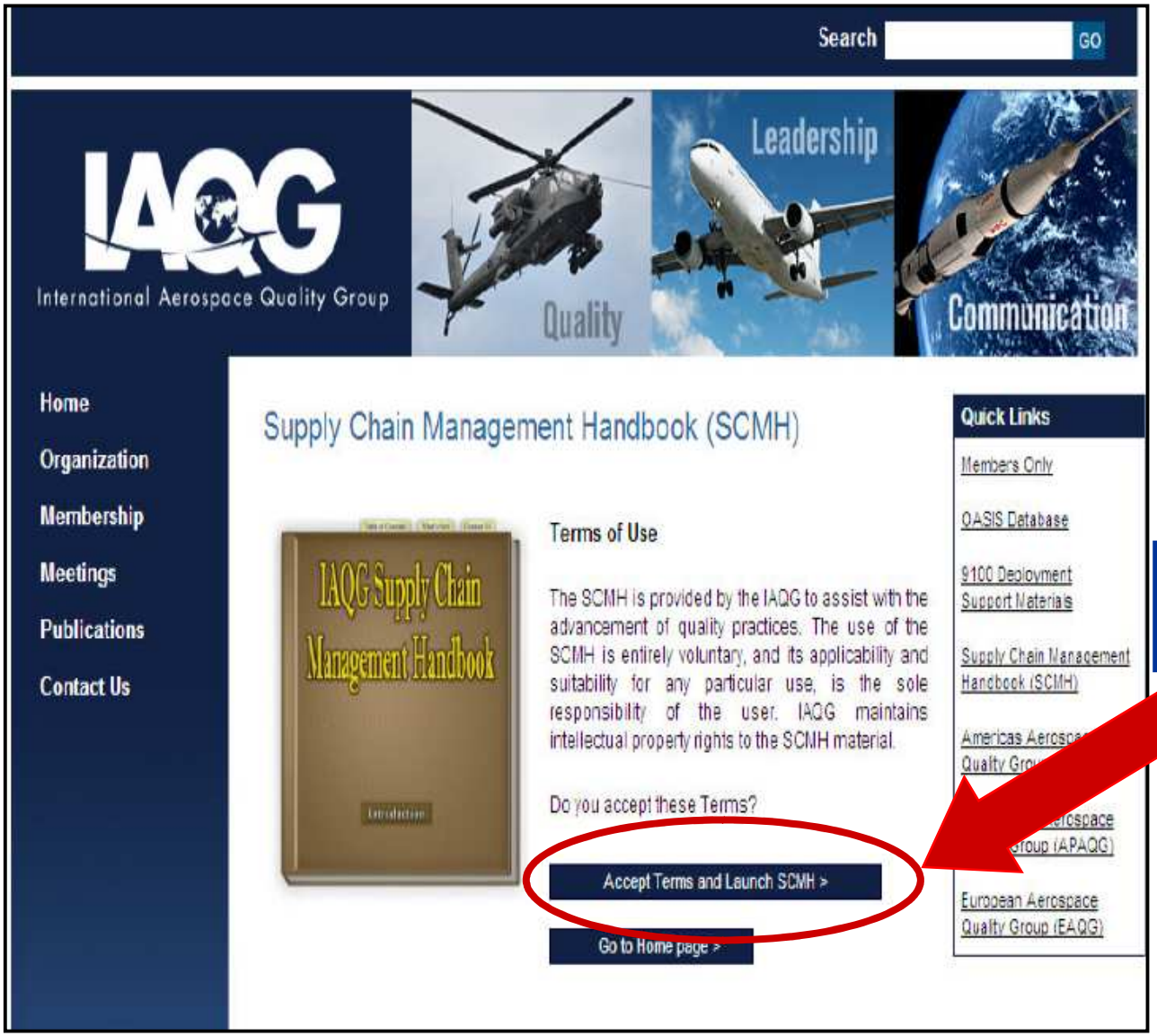
http://www.iaqg.sae.org/iaqg

http://www.iaqg.sae.org/scmh



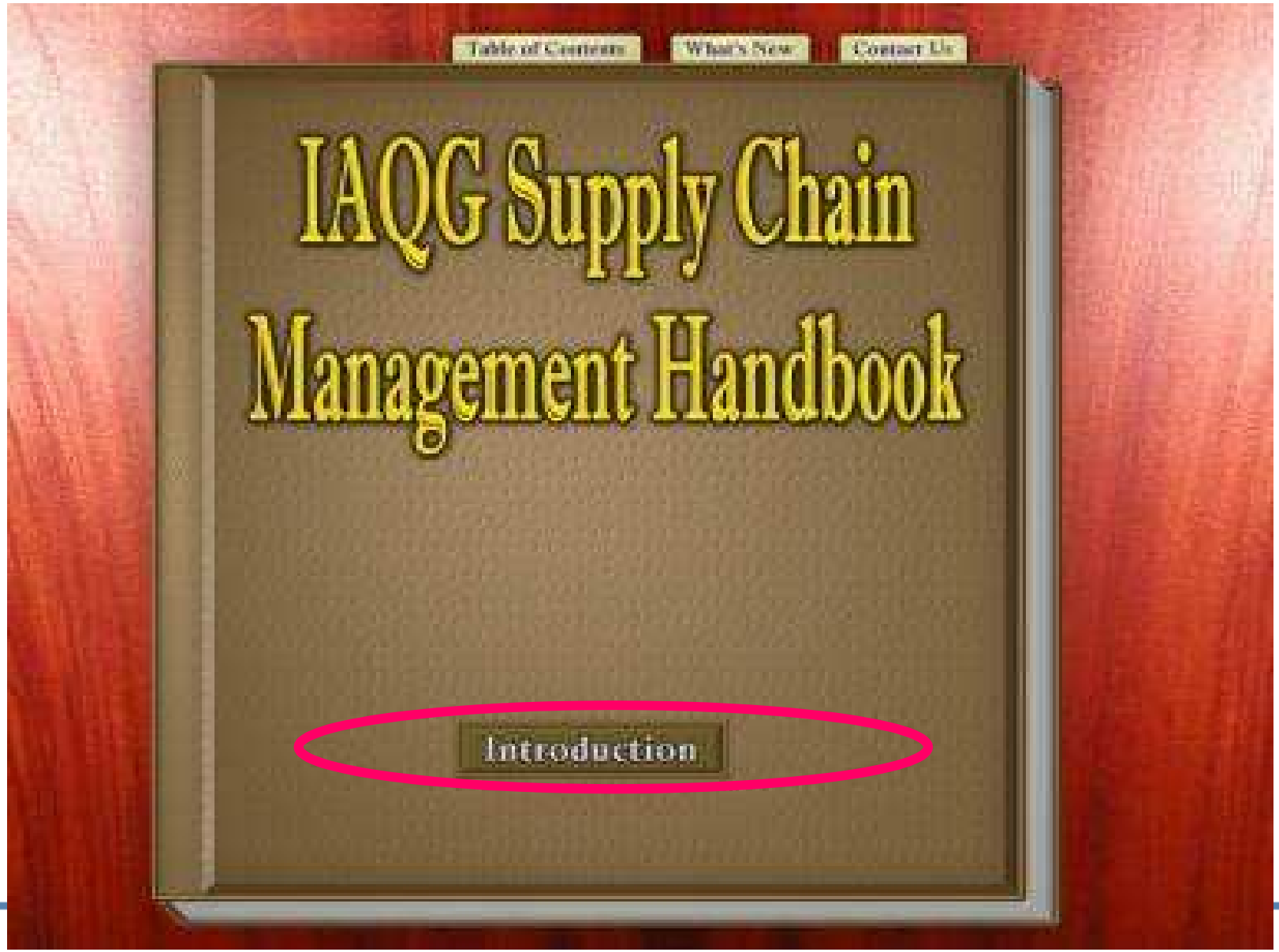
Immediate and FREE access

Easy access to SCMH



Immediate and FREE access

Easy access to SCMH



SCMH Introduction

- The Supply Chain Management Handbook (SCMH) **provides guidance materials** to continuously improve On Time, On Quality Delivery (OTOQD) throughout the entire value stream.
- It's objective is to help the supply chain **improve their quality performance** through better understanding of aviation, space and defense industry quality management system requirements and expectations.
- The Handbook is provided at **no cost** to organizations at all levels throughout the supply chain, including customers.
- The chapters of the SCMH are structured around the eleven elements of a supply chain business process model covering the entire product lifecycle.
- The intention of the guidance material in the SCMH is to assist organizations with understanding the various topics and is **not intended to be requirements, nor auditable**.
- Use of the guidance material does not ensure compliance to any referenced QMS Standards.

Easy access to SCMH

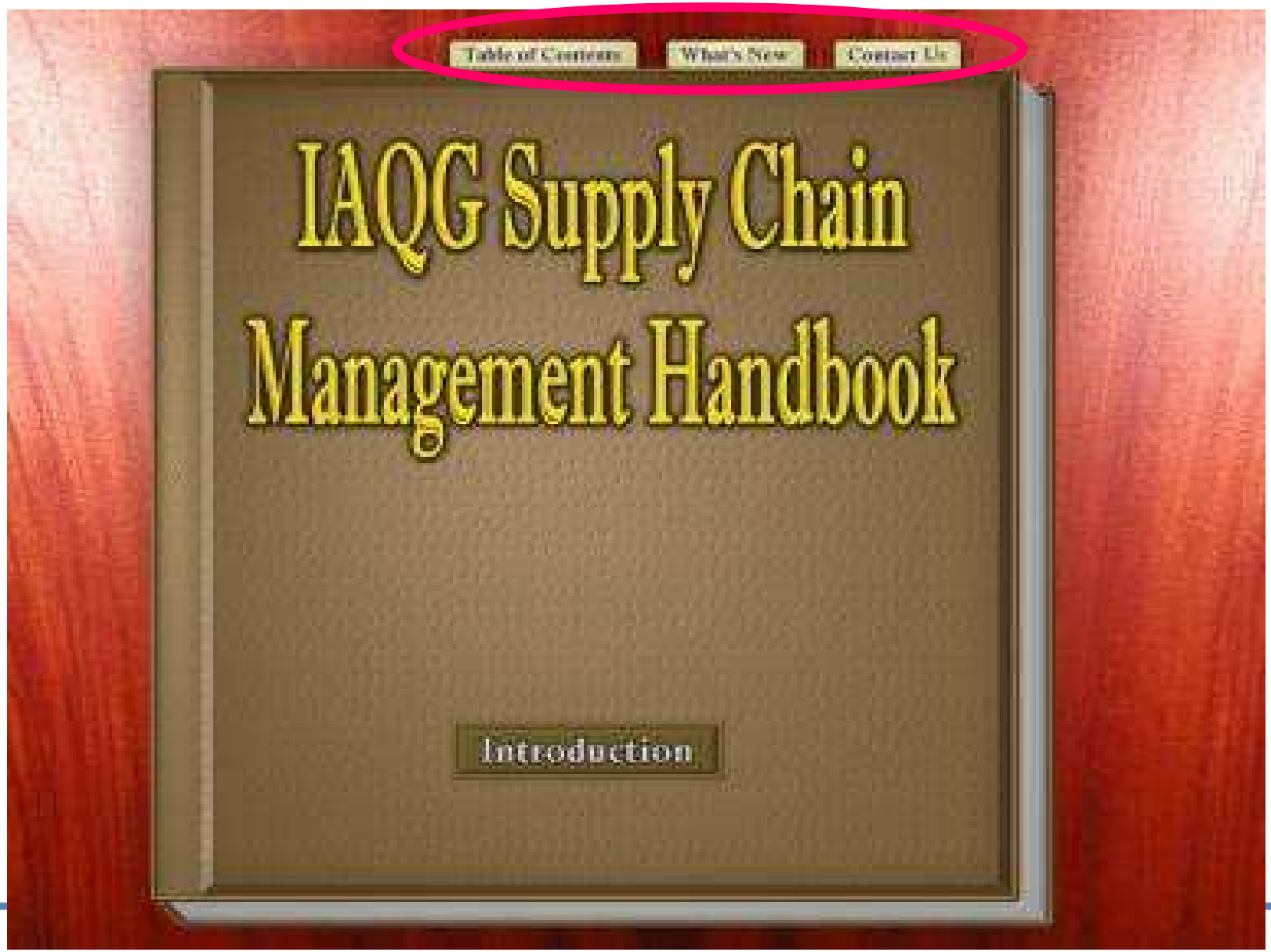


Table of Contents

Hyperlinks available to immediately access information

Table of Contents

Hyperlinks available to immediately access information

Requirements Flowdown

International Aerospace Quality Group

- **Provide assistance to organizations in executing an effective purchasing system**
- **Provides communication processes for buyers and supplier**
- **Provides clarification for every paragraph in AS9100.**
- **Communication break downs are commonly linked to quality escapes in the aerospace supply chain.**

Section:	7.2.2 para.2	Section Title: Records of Review			
9100 Clause	Review of Requirements Related to the Product: The organization shall review the requirements related to the product. This review shall be conducted prior to the organization's commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and shall ensure that: Records of the results of the review and actions arising from the review shall be maintained (see 4.2.4).				
Generic Expectation	The organization shall maintain some record of the review being performed to establish that there is agreement among the parties and that any deviations or changes from the original offer or any internal actions required to assure compliance with order requirements. Ref.AS9100 4.2.4 Control of Records.				
Product Type		COTS/Standards	Raw Material	Build-to-Print	Supplier Design
Specific Expectation	Organization (Buyer)	AS9100 See 7.4.2 Purchasing Information	AS9100 See 7.4.2 Purchasing Information	AS9100 See 7.4.2 Purchasing Information	AS9100 See 7.4.2 Purchasing Information
	Supplier (Seller)	Maintain records of review and actions as a result of review of contractual documents including correspondence, exceptions, additions, and clarifications. Records need to be legible, readily identifiable & retrievable for a period of time. Records must be available for review by customer or regulatory agency.	Maintain records of review and actions as a result of review of contractual documents including correspondence, exceptions, additions, and clarifications. Records need to be legible, readily identifiable & retrievable for a period of time. Records must be available for review by customer or regulatory agency.	Maintain records of review and actions as a result of review of contractual documents including correspondence, exceptions, additions, and clarifications. Records need to be legible, readily identifiable & retrievable for a period of time. Records must be available for review by customer or regulatory agency.	Maintain records of review and actions as a result of review of contractual documents including correspondence, exceptions, additions, and clarifications. Records need to be legible, readily identifiable & retrievable for a period of time. Records must be available for review by customer or regulatory agency.

Variation Management

Chapter 7 Manufacturing and Inspection

Manufacturing and product integration processes, including inspection.

7.1 Variation Management of Key Characteristics (24 Feb 2010)

- 7.1.1 Introduction
- 7.1.2 Overview
- 7.1.3 Guidance Material -Presentation Format
- 7.1.4 9103 Guidance -Training Tutorial

  Alternative to the PPT file, this tutorial is available in a "zip" with an "exe" file type, it is an interactive training session to be used by individuals for independanct learning.

Variation Management

Chapter 7 Manufacturing and Inspection

Manufacturing and product integration processes, including inspection.

7.1 Variation Management of Key Characteristics (24 Feb 2010)

- 7.1.1 Introduction
- 7.1.2 Overview
- 7.1.3 Guidance Material -Presentation Format
- 7.1.4 9103 Guidance -Training Tutorial

Alternative to the PPT file, this tutorial is available in a "zip" with an "exe" file type, it is an interactive training session to be used by individuals for independanct learning.

AS9103 Support Materials

Contents & Document Structure

- Introduction: Why manage variation?
  - What is variation?
  - Why manage variation?
- To know more about Key Characteristics
  - What are Key characteristics ?
  - Identifying Key Characteristics
    - Benefits of identifying Key Characteristics
    - Who, Why and How to determine Key Characteristics ?
    - Approaches and tools to determine Key Characteristics

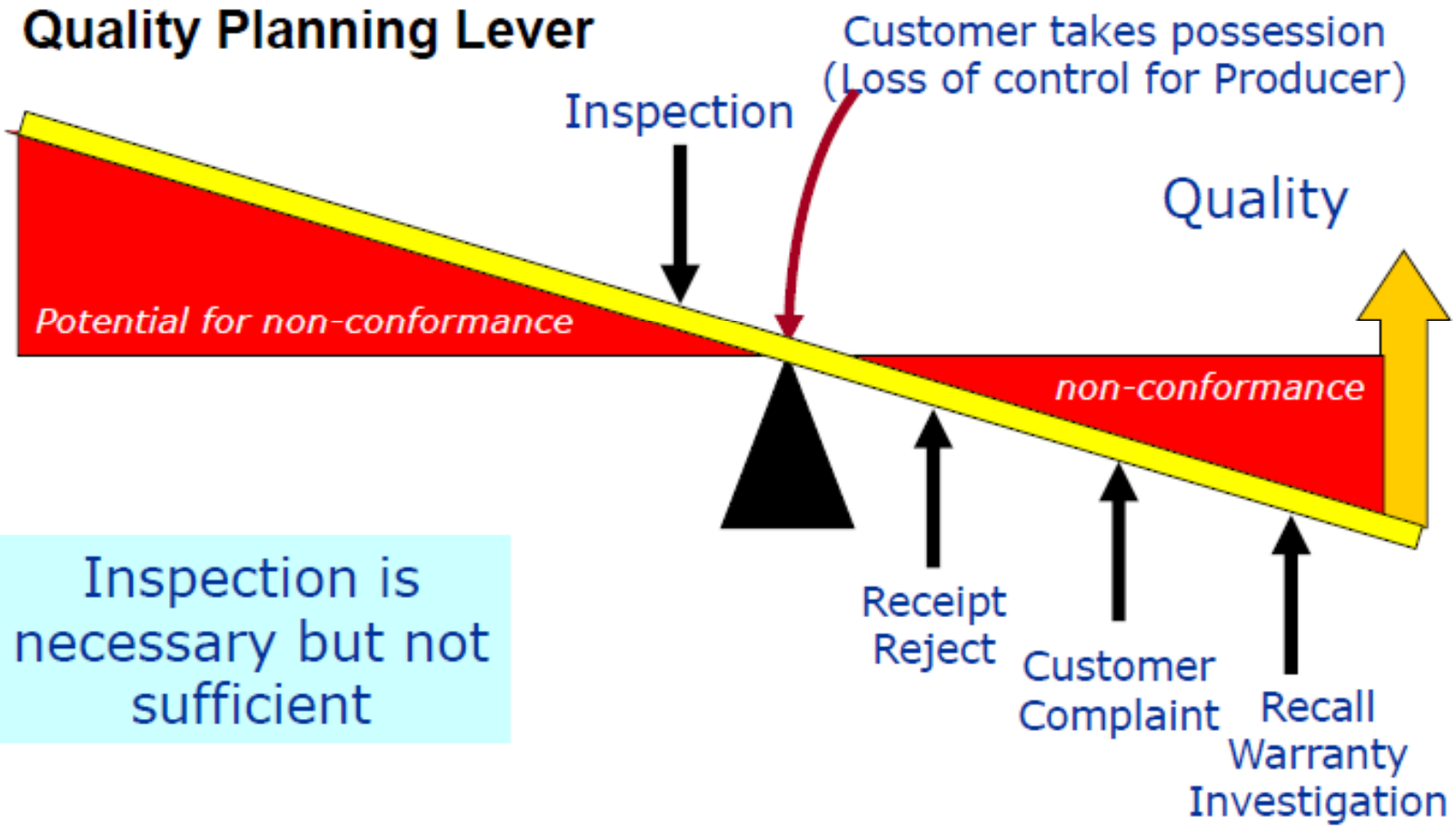
AS9103 Support Materials

Contents & Document Structure -*cont.*

- ***9103 presentation***
  - Scope of 9103
  - KC and 9103 applicability
  - 9103: A seven stage process
    - Stage 1 Understand Key Characteristics and Required Performance
    - Stage 2 Plan Manufacturing Processes
    - Stage 3 Operate on Trial Basis to Generate Data
    - Stage 4 Analyse data to identify appropriate Action and
    - Stage 5 Take action from study (operate, re-design and improve)
    - Stage 6 Continue to Monitor the Performance
    - Stage 7 Is a Process Change required ?

AS9103 Support Materials

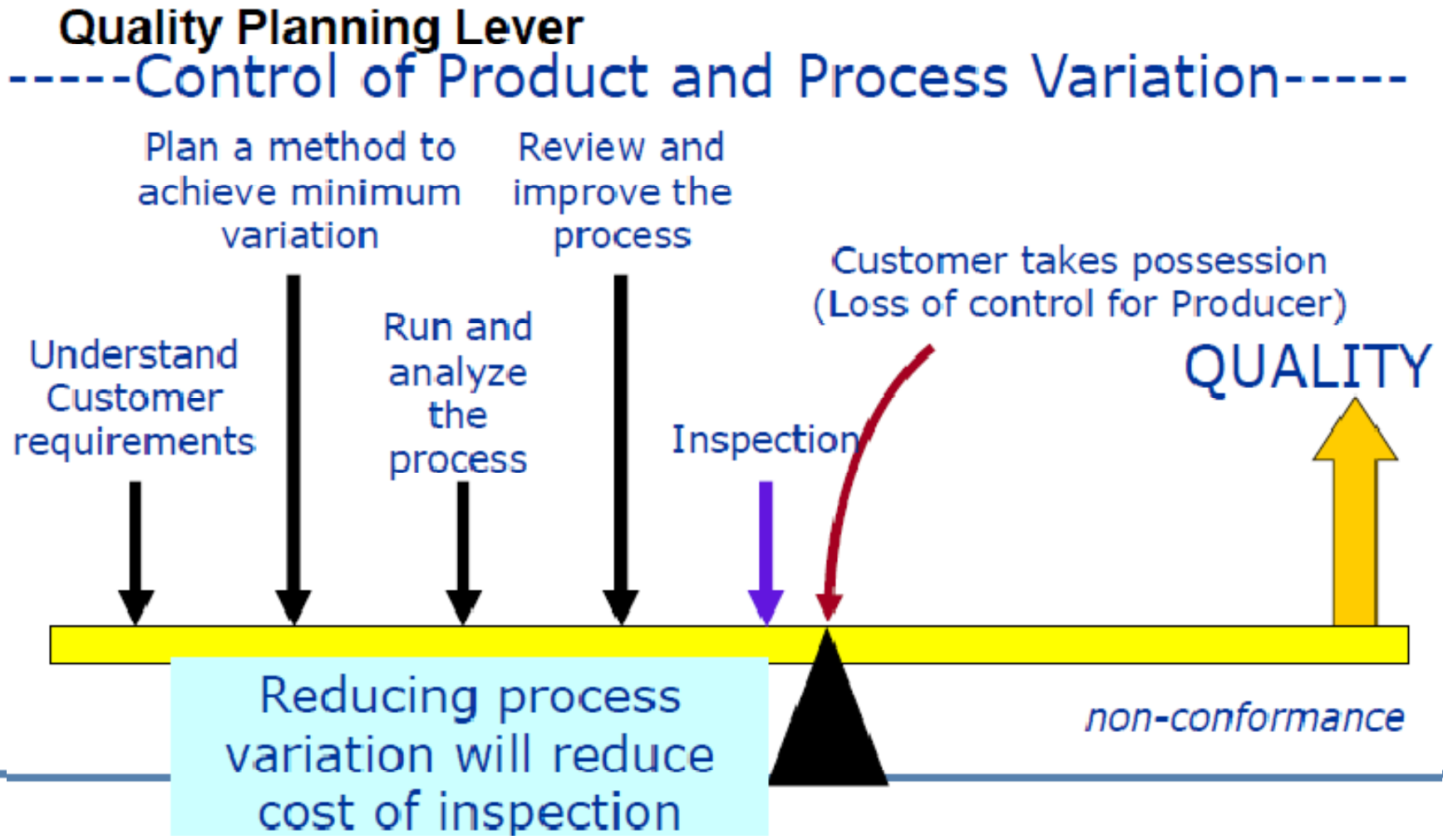
Why manage variations?



Inspection is necessary but not sufficient

AS9103 Support Materials

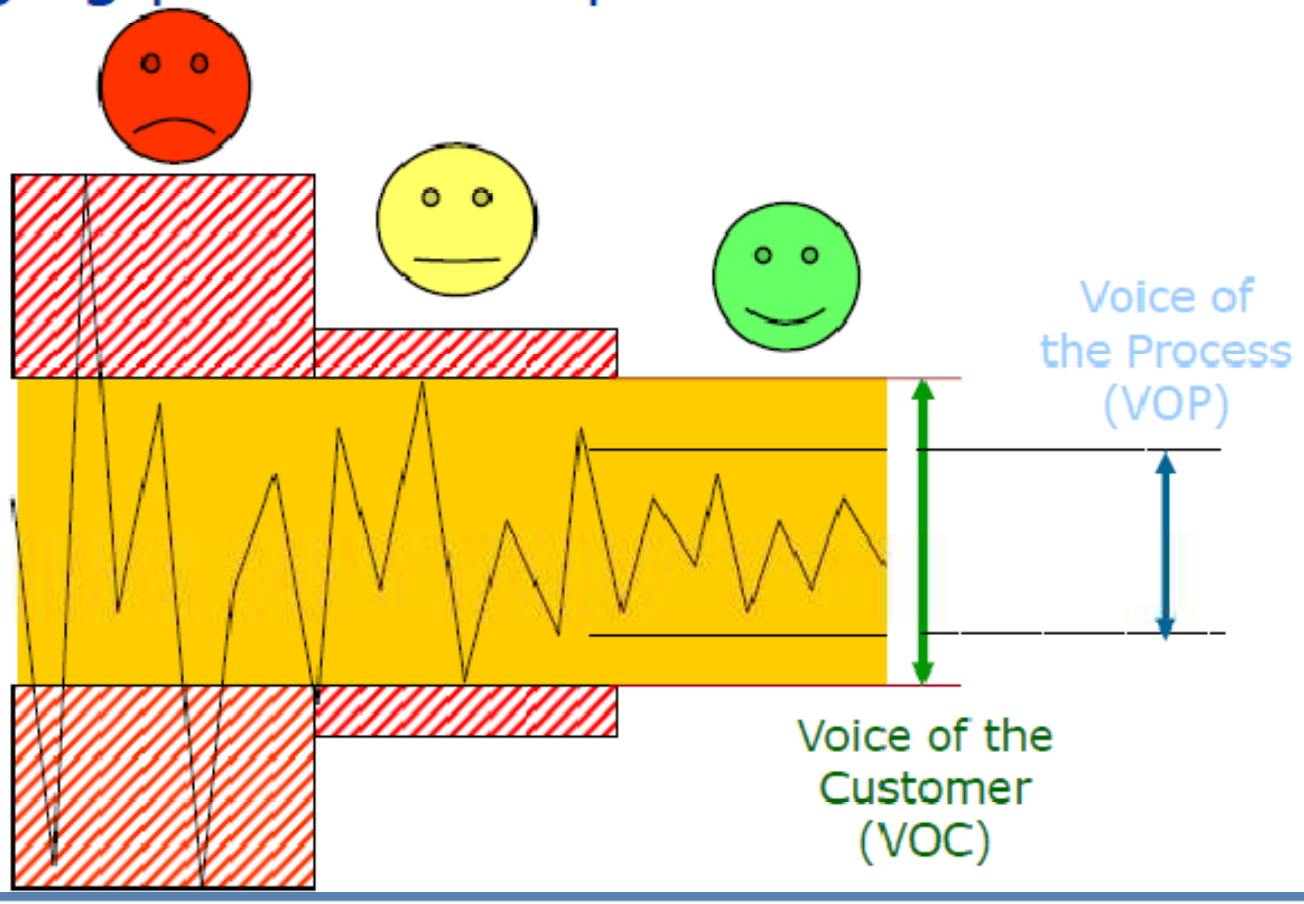
Why manage variations?



AS9103 Support Materials

Why manage variations?

Managing product and process variations

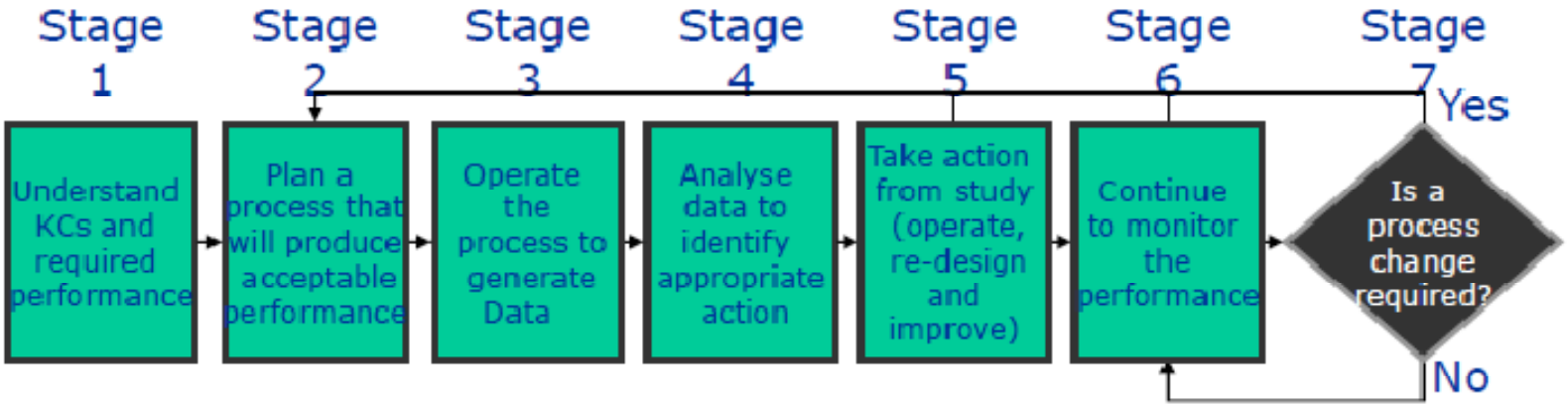


On Target with minimum variation

AS9103 Support Materials

9103 : A seven stages process

- 9103 - Variation Management of KCs



Full "how to" and associated training program available to ensure process capability and minimize variation.

AS9102 FAIR Guidance

IAQG
International Aerospace Quality Group

7.2 First Article Inspection FAI (24 Feb 2010)

- 7.2.1 Introduction
- 7.2.2 FAI 9102 FAQs
- 7.2.3 FAI Checklist
- 7.2.4 FAI 9102 Tutorial

This is an interactive tutorial based on the 9102 standard. Please follow online instructions to view the materials and select "Quit", then "Y" and "Esc" to return to the SCMH. Some operating systems may require additional software or may have trouble connecting at this time, a solution is in the works.

AS9102 FAIR Guidance

7.2 First Article Inspection FAI (24 Feb 2010)

- 7.2.1 Introduction
- 7.2.2 FAI 9102 FAQs
- 7.2.3 FAI Checklist
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Excellent interactive training program available to train personnel on First Article Inspection Reports

AS9102 FAIR Guidance

7.2 First Article Inspection FAI (24 Feb 2010)

7.2.1 Introduction

7.2.2 FAI 9102 FAQs

7.2.3 FAI Checklist

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AS9102 FAIR Guidance

9102 Rev A

Aerospace First Article Inspection Requirement (FAI)

Frequently Asked Questions (FAQ□s)

June 7, 2008

Forward

International Aerospace Group (IAQG) procedure 103 defines the process for providing "clarifications" to published standards. Standards provide requirements but are prohibited from providing methods for meeting those requirements.

To use this document, scroll through or use the links in the Table below. To return, use "Control Home" on your keyboard.

Table:

AS9102 FAIR Guidance

9102 Rev A

Aerospace First Article Inspection Requirement (FAI)

Frequently Asked Questions (FAQ□s)

June 7, 2008

Forward

International Aerospace Group (IAQG) procedure 103 defines the process for providing "clarifications" to published standards. Standards provide requirements but are prohibited from providing methods for meeting those requirements.

To use this document, scroll through or use the links in the Table below. To return, use "Control Home" on your keyboard.

Table:

AS9102 FAIR Guidance

C. Standard Catalog Hardware (SCH)

C1. Question:

Where is Standard Catalog Hardware (SCH) entered on the First Article Inspection Report (FAIR)?

C1. Response:

Standard Catalog Hardware (SCH), when used as purchased, is entered on form 1 using its catalog part number. When SCH is being used as a "make from" part or as raw material, it is entered on form 2 and the engineered part in which it is consumed is entered on form 1

C2. Question:

How is standard Catalog Hardware defined?

C2. Response:

Any item purchased from a catalog available to the public is considered Standard Catalog Hardware. 9102 A defines STANDARD CATALOG HARDWARE as: A part or material that conforms to an established industry or national authority published specification, having all characteristics identified by text description, National/Military Standard Drawing, or catalog item.

AS9016 Notice of Change

8.1 Notice of Change NOC Tool (AS9016) (24 Feb 2010)

AS9016 Deployment Support Materials: Change Impact Analysis Tool Training Module Change Impact Analysis Tool

8.1.1 Introduction

8.1.2 Guidance Material

'This is a direct link to the AAQG AS9016 writting teams articulte training module and the NoC Tool.

When a design change is required – do you have a rigorous methodology for assessing the impact of the changes, and for appropriately communicated the change to your customer?

AS9016 Notice of Change

8.1 Notice of Change NOC Tool (AS9016) (24 Feb 2010)

AS9016 Deployment Support Materials: Change Impact Analysis Tool Training Module Change Impact Analysis Tool

8.1.1 Introduction

8.1.2 Guidance Material

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AS9016 Notice of Change

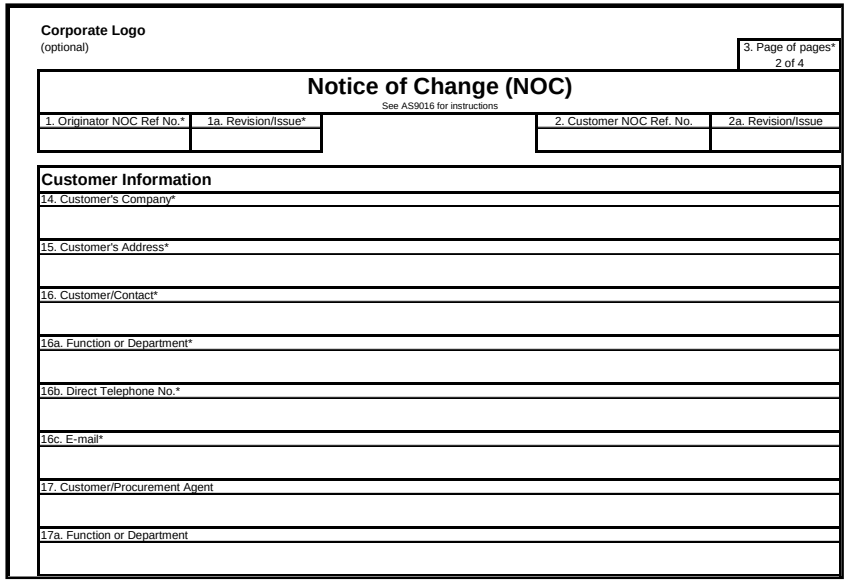
Supplier Notification of Change - Impact Analysis

Click here to toggle between fixed list and scrolling through the questions: Scroll through questions

Impact of Change	Question	Yes	No	Don't Know
Airworthiness	Is the change in response to a safety or airworthiness concern?			
Airworthiness	Will the change impact positively or negatively Failure Mode and Effects Analysis (FMEA) or Failure Review and Corrective Action System (FRACAS) information originally approved?			
Form	Does the change affect the external configuration of the Assembly (including visual impact when it is a requirement) or any external interface between the Assembly and surrounding systems?			
Form	Does the change include changes to Materials that could impact interface characteristics between the Assembly and surrounding systems?			
Fit	Will the change impact interchangeability, compatibility, maintainability or reparability of the Assembly within the surrounding system?			
Fit	Will the change impact interchangeability, compatibility, maintainability or reparability of the Components within an Assembly, but not of the Assembly within the surrounding system?			

AS9016 Notice of Change

Standard forms and templates provided to support NOC analysis and communication between Purchaser and Supplier



Corporate Logo
(optional)

3. Page of pages*
2 of 4

Notice of Change (NOC)
See AS9016 for instructions

1. Originator NOC Ref No.*	1a. Revision/Issue*	2. Customer NOC Ref. No.	2a. Revision/Issue

Customer Information

14. Customer's Company*

15. Customer's Address*

16. Customer/Contact*

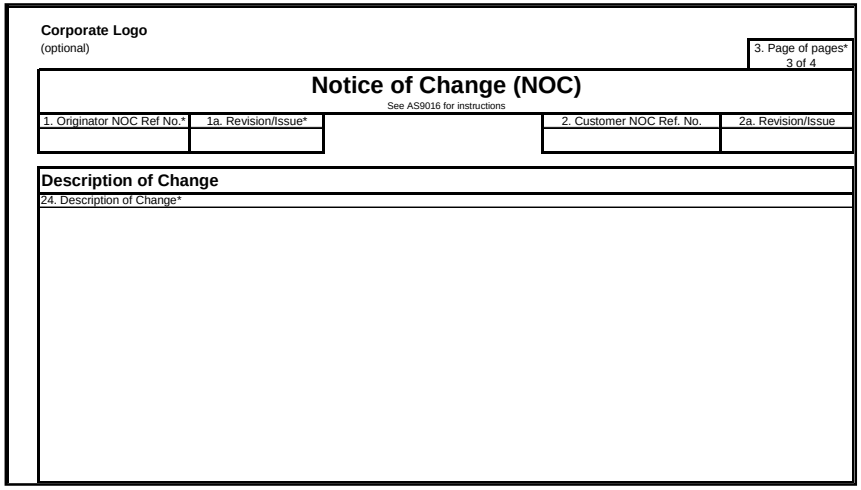
16a. Function or Department*

16b. Direct Telephone No.*

16c. E-mail*

17. Customer/Procurement Agent

17a. Function or Department



Corporate Logo
(optional)

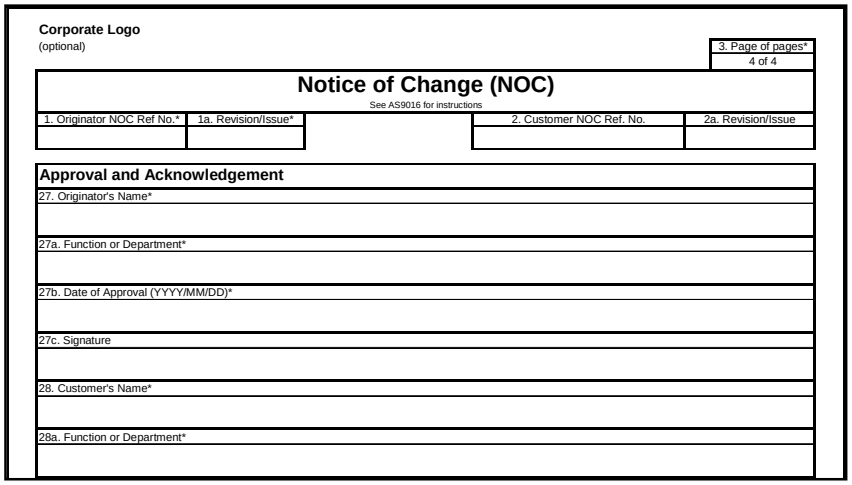
3. Page of pages*
3 of 4

Notice of Change (NOC)
See AS9016 for instructions

1. Originator NOC Ref No.*	1a. Revision/Issue*	2. Customer NOC Ref. No.	2a. Revision/Issue

Description of Change

24. Description of Change*



Corporate Logo
(optional)

3. Page of pages*
4 of 4

Notice of Change (NOC)
See AS9016 for instructions

1. Originator NOC Ref No.*	1a. Revision/Issue*	2. Customer NOC Ref. No.	2a. Revision/Issue

Approval and Acknowledgement

27. Originator's Name*

27a. Function or Department*

27b. Date of Approval (YYYY/MM/DD)*

27c. Signature

28. Customer's Name*

28a. Function or Department*

Chapter 9

9.1 Root Cause Analysis and Problem Solving (24 Feb 2010)

9.1.1 Introduction

9.1.2 Root Cause Analysis and Problem Solving Training Material

9.2 Non Conforming Product (24 Feb 2010)

Common industry guidance for the control of non conforming product.

9.2.1 Introduction

9.2.2 Instructions For Using Non-Conforming Product Guidance Material

9.2.3 Guidance in Document Format

9.2.4 Non-Conforming Product Guidance Material

Chapter 9

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- 9.2.2 Instructions For Using Non-Conforming Product Guidance Material
- 9.2.3 Guidance in Document Format
- 9.2.4 Non-Conforming Product Guidance Material

Non-Conforming Product

- **Assist organizations in executing an effective non-conforming product program.**
  - **Material was developed using 9100:2003 as a guide.**
  - **Material is in-process for AS9100:2009.**
- **AS/EN/JISQ 9100B Requirement - The organization shall ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery Supplier Expectations. Selected elements:**
  - **A Quality process that assures control nonconforming product.**
  - **Conduct internal audits to verify compliance with procedural requirements.**
  - **Assign dedicated, secured and monitored area for storage of nonconforming product to prevent unintended use/delivery.**
  - **Assure all non-conformances are documented on a non-conformance record.**
  - **Maintain records of quarantined and scrapped product along with authorized dispositions.**
  - **Ensure product designated as scrap is physically rendered unusable and the buyer is notified (if required).**

Non-Conforming Product

International Aerospace Quality Group

Section:	8.3	Control of Nonconforming Product			
9100 Clause	(Paragraph 2.) The organization's documented procedure shall define the responsibility for review and authority for the disposition of nonconforming product and the process for approving personnel making these decisions.				
Other Specifications	AS/EN/JSQ 9131 Quality Systems Non-conformance Documentation; Mil-Std-1520C Corrective Actionand Disposition System for Non-conforming Material; Mil-Hdbk-350 A Guide for Mil-Std-1520C Corrective Action and Disposition System for Non-conforming Material				
Generic Expectation	Any supplier in the chain, shall have delineated to them from the buyer and defined within their documented procedures, what their authority is to disposition nonconforming product. The buyer and the supply chain must define and document the process for approving any personnel authorized to make these decisions.				
Product Type		COTS/Standards	Raw Material	Build-to-Print	Supplier Design
Specific Expectation	Organization (Buyer)	Buyer expects the supplier to have a MRB system to address nonconformances within the scope of the buyers' delegation for the products to be procured.	Buyer expects the supplier to have a MRB system to address nonconformances within the scope of the buyers' delegation for the products to be procured.	Buyer expects the supplier to have a MRB system to address nonconformances within the scope of the buyers' delegation for the products to be procured.	Buyer expects the supplier to have a MRB system to address nonconformances within the scope of the buyers' delegation for the products to be procured.
			Define the requirements for submittal of non-conformances for MRB disposition, within the limitations of the MRB delegation.	Define the requirements for submittal of non-conformances for MRB disposition, within the limitations of the MRB delegation.	Define the requirements for submittal of non-conformances for MRB disposition, within the limitations of the MRB delegation.

Non-Conforming Product

Section:	8.3 Control of Nonconforming Product				
9100 Clause	(Paragraph 5) The organization shall not use dispositions of use-as-is or repair, unless specifically authorized by the customer, if: - the product is produced to customer design, or - the nonconformity results in a departure from the contract requirements. Unless otherwise restricted in the contract, organization-designed product which is controlled via a customer specification may be dispositioned by the organization as use-as-is or repair, provided the nonconformity does not result in a departure from customer-specified requirements.				
Other Specifications	AS/EN/JISQ 9131 Quality Systems Non-conformance Documentation; Mil-Std-1520C Corrective Actionand Disposition System for Non-conforming Material; Mil-Hdbk-350 A Guide for Mil-Std-1520C Corrective Actionand Disposition System for Non-conforming Material				
Generic Expectation	Any member of the supply chain shall refrain from using the "use-as-is" or "repair" unless authorized by the proper authority or customer if the product is produced to a customer engineered design or if the contract does not address or permit. The organization (supplier) retains the right to disposition products of its own design as "use-as-is" unless it otherwise restricted from doing so or the disposition will result a nonconformance of the product to the customer's requirements.				
Product Type		COTS/Standards	Raw Material	Build-to-Print	Supplier Design
Specific Expectation			Purchase Order and/or reference documents clearly defines the level of authority/boundaries and conditions as to when a supplier may disposition a non-conforming product for repair or "use-as-is" verses submittal to a another authority/customer for disposition	Purchase Order and/or reference documents clearly defines the level of authority/boundaries and conditions as to when a supplier may disposition a non-conforming product for repair or "use-as-is" verses submittal to a another authority/customer for disposition	Purchase Order and/or reference documents clearly defines the level of authority/boundaries and conditions as to when a supplier may disposition a non-conforming product for repair or "use-as-is" verses submittal to a another authority/customer for disposition

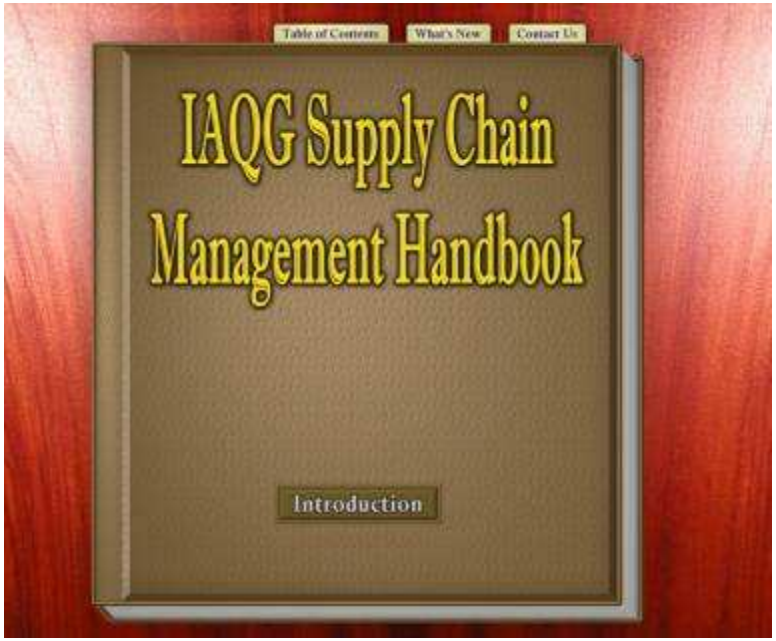
SCMH Summary

- **The SCMH is a collection of guidance materials, training packages, and best practices for suppliers.**
- **The objective of the SCMH initiative is to improve the "On Time and On Quality" performance through out the supply chain**
- **Provides "how to" information for various Aerospace Standards requirements.**
  - **Guidance, not a requirement or auditable checklist.**
- **Free - may be adopted (and adapted) by any organization to improve quality and delivery performance.**

http://www.iaqg.sae.org/iaqg

http://www.iaqg.sae.org/scmh

Questions?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