

Empowering Airline Customers

through Support Data

GLOBAL PRODUCT DATA INTEROPERABILITY SUMMIT 2017



ELYSIUM

Parker Aerospace

NORTHROP GRUMMAN

BOEING

ELYSIUM

Parker Aerospace

NORTHROP GRUMMAN

BOEING

Jamie Kessel – Boeing Technical Architect
Presentation RROI Number is: 17-00614-CORP

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **Presentation Overview**
 - **Regulatory requirements**
 - Engineering
 - Maintenance
 - **Data Sources**
 - **Types of data**
 - Engineering
 - Maintenance
 - **Delivery methods**
 - **Access Methods**
 - **Wrap-up/Q&A**

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **What are the pertinent regulations from the FAA for Airlines and Aircraft Manufacturers?**



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **Federal Aviation Administration CFR Part 121 – Operating Requirements: Domestic, Flag, and Supplemental Operations**
- **Federal Aviation Administration CFR Part 135 – Rules for Commuter and On-demand Operations (e.g. Corporate, etc...)**
- **Federal Aviation Administration CFR Part 25 – Airworthiness Standards: Transport Category Airplanes**

Empowering Airline Customers through Support Data

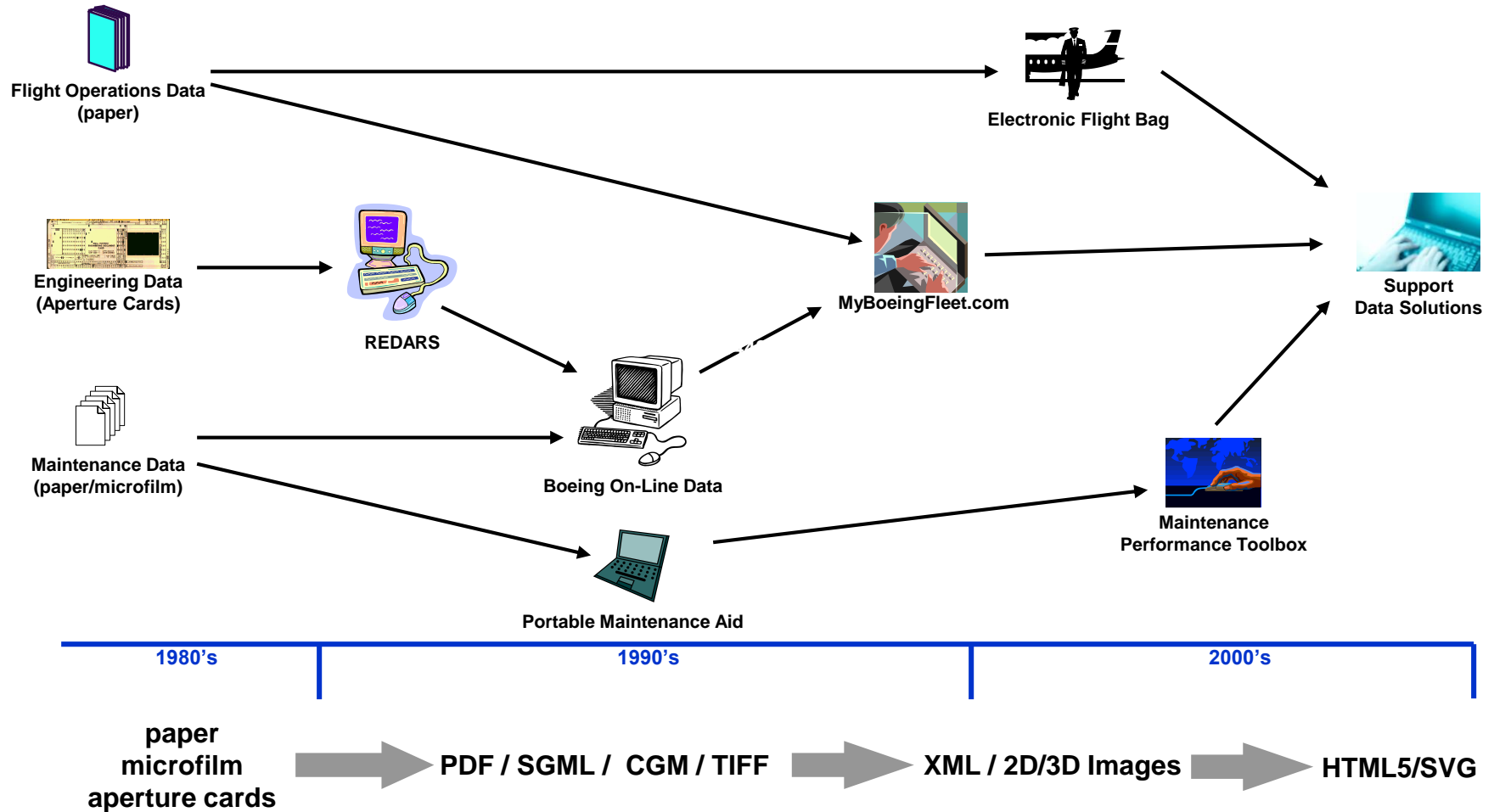
Global Product Data Interoperability Summit | 2017

- **Sounds awesome! Where does the data come from for Engineering and Maintenance data customers use?**



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **Engineering Data**
 - **LOPA (Layout of Passenger Arrangements)**
 - **Standard Parts**
 - **Engineering Bill of Materials (EBOM)**
 - **Material and Process Specifications**
 - **Drawings & new Graphics formats (e.g. 3DPDF)**
 - **Extrusions & Shapes**
 - **Markers & Placards**

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Engineering Data used by Airline Customers



Engineering Drawings/ 3DPDFs

Engineering BOM



- Understand Overall Configuration of Parts
- Find Part Number Based on Illustration
- View Shape of Part
- Identify Interchangeability
- View Part Dimensions & Tolerances
- Identify Part Effectivity
- Bill of Material Part Information/Notes
- Find Used-On and Component Breakdown of Parts
- Composite Ply-Layup Data

■ Primary User Communities

■ Engineering Maintenance Support

- Support Inspection and Repair of Damage
- Create Specification for Part Fabrication

■ Project Engineers

- Write EO (Engineering Order) to Support Boeing-Generated Industry Service Bulletin
- Write EO to Support Airline-Solicited Service Bulletin
- Write EO to Support Internal Modification of Aircraft

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Maintenance Data used by Airline Customers

- **Maintenance and Repair Documents**
 - **Aircraft Maintenance Manual (AMM)**
 - Part 1 (System Description Section, SDS)
 - Part 2 (AMM)
 - **Fault Isolation Manual (FIM)**
 - **System Schematics Manual (SSM)**
 - **Wiring Diagram Manual (WDM)**
 - **Standard Wiring Practices Manual (SWPM)**
 - **Illustrated Parts Catalog (IPC)**
 - **Structural Repair Manual (SRM)**
- **Service Documents**
 - **Service Bulletins (SB) and Service Letters (SL)**
- **Component Maintenance Manual (CMM)**
- **Structure of the Manuals**
- **Change Management**
 - **Revision Cycles**
 - **Temporary Revisions**
 - **Customer Originated Change (COC)**

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Aircraft Maintenance Manual

- **AMM Part 1 - System Description Section (SDS)**
Contains information on component location, system operation, and Training Information Points for all systems and equipment installed in the airplane.
- **AMM Part 2 – Practices and Procedures**
Contains information required to service, trouble shoot, functionally check, and repair or replace all systems and equipment installed in the family of airplanes normally requiring such action on the line or in the maintenance hangar. The Airplane Maintenance Manual (AMM) also contains information on inspection and maintenance of airplane structure; however, information on repair of airplane structure is contained in the Structural Repair Manuals.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017
AMM Part 1 – System Description Section (SDS)

Aircraft Maintenance Manual

The screenshot displays a software interface for an Aircraft Maintenance Manual (AMM). On the left, a 'Bookmarks' pane shows a hierarchical table of contents for Chapter 23 - Communications. The main area on the right shows the title page for Chapter 23, Communications.

Bookmarks Table of Contents:

Item
Chapter 23 - Communications
23-Effective Pages
23-Contents
Section 23-11 - HIGH FREQUENCY (HF) COMMUNICATION SYSTEM
Section 23-12 - VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM
Subject 23-12-00 - VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM
Pageset 23-12-00-001 - VERY HIGH FREQUENCY COMMUNICATION SYSTEM - INTRODUCTION
Pageset 23-12-00-002 - VHF SYSTEM - GENERAL DESCRIPTION
Pageset 23-12-00-003 - VHF SYSTEM - FLIGHT DECK COMPONENT LOCATIONS
Pageset 23-12-00-004 - VHF SYSTEM - MAIN EQUIPMENT CENTER COMPONENT LOCATIONS
Pageset 23-12-00-005 - VHF SYSTEM - EXTERNAL COMPONENT LOCATIONS

Chapter 23 Title Page:

CHAPTER 23

Communications

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

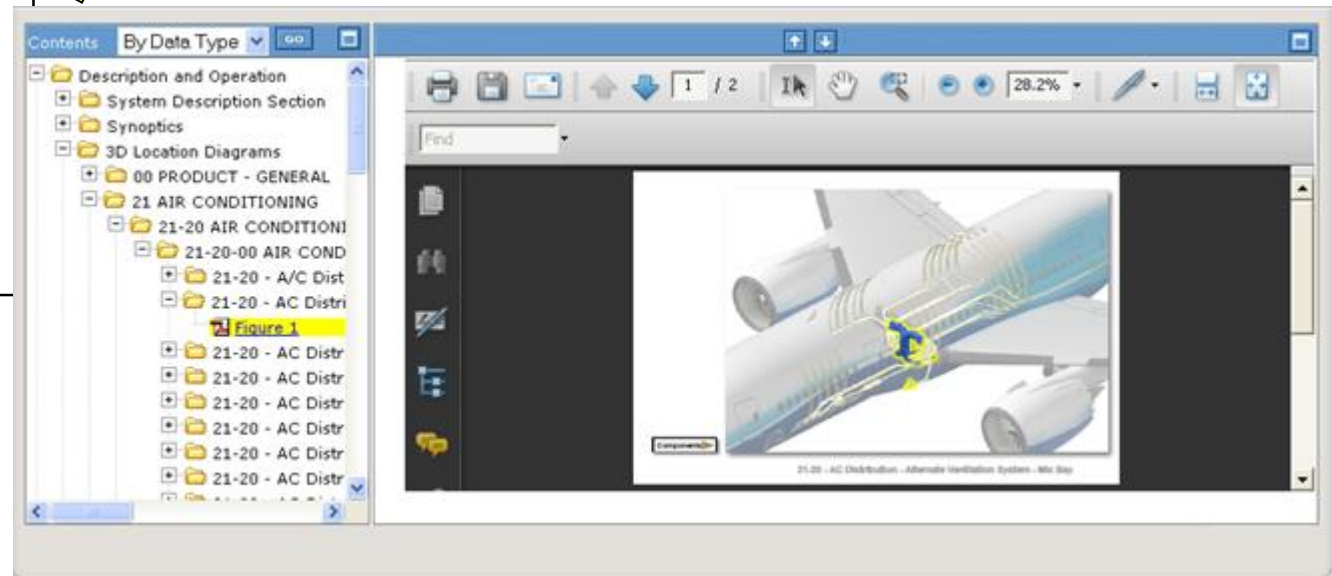
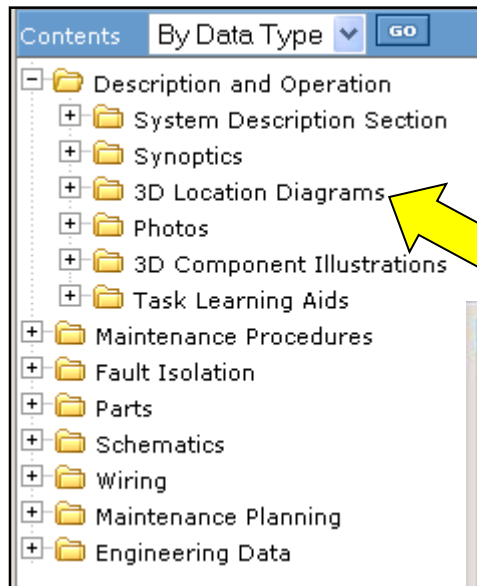
Synoptics

The screenshot displays a software interface for aircraft support data. On the left, a 'Contents' pane shows a tree view of data types. A yellow arrow points from the 'Synoptics' folder in this list to a larger synoptic diagram on the right. The tree view includes folders for 'Description and Operation', 'System Description Section', 'Synoptics', '3D Location Diagrams', 'Photos', '3D Component Illustration', 'Task Learning Aids', 'Maintenance Procedures', 'Fault Isolation', 'Parts', 'Schematics', 'Wiring', 'Maintenance Planning', and 'Engineering Data'. The 'Synoptics' folder is expanded, showing a hierarchy of aircraft systems: '00 PRODUCT - GENERAL', '21 AIR CONDITIONING', '21-00 AIR CONDITIONING', '21-20 AIR CONDITIONING', '21-20-00 AIR COND', 'Air Distribution /', 'Figure 1', 'Figure 2', 'Figure 3', '21-21 MAIN AIR DISTR', '21-26 LAVATORY/GALL', '21-27 EQUIPMENT COC', and '21-29 CREW REST ARE'. The main area on the right shows a detailed synoptic diagram of the aircraft's air conditioning system, with various components and connections labeled.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

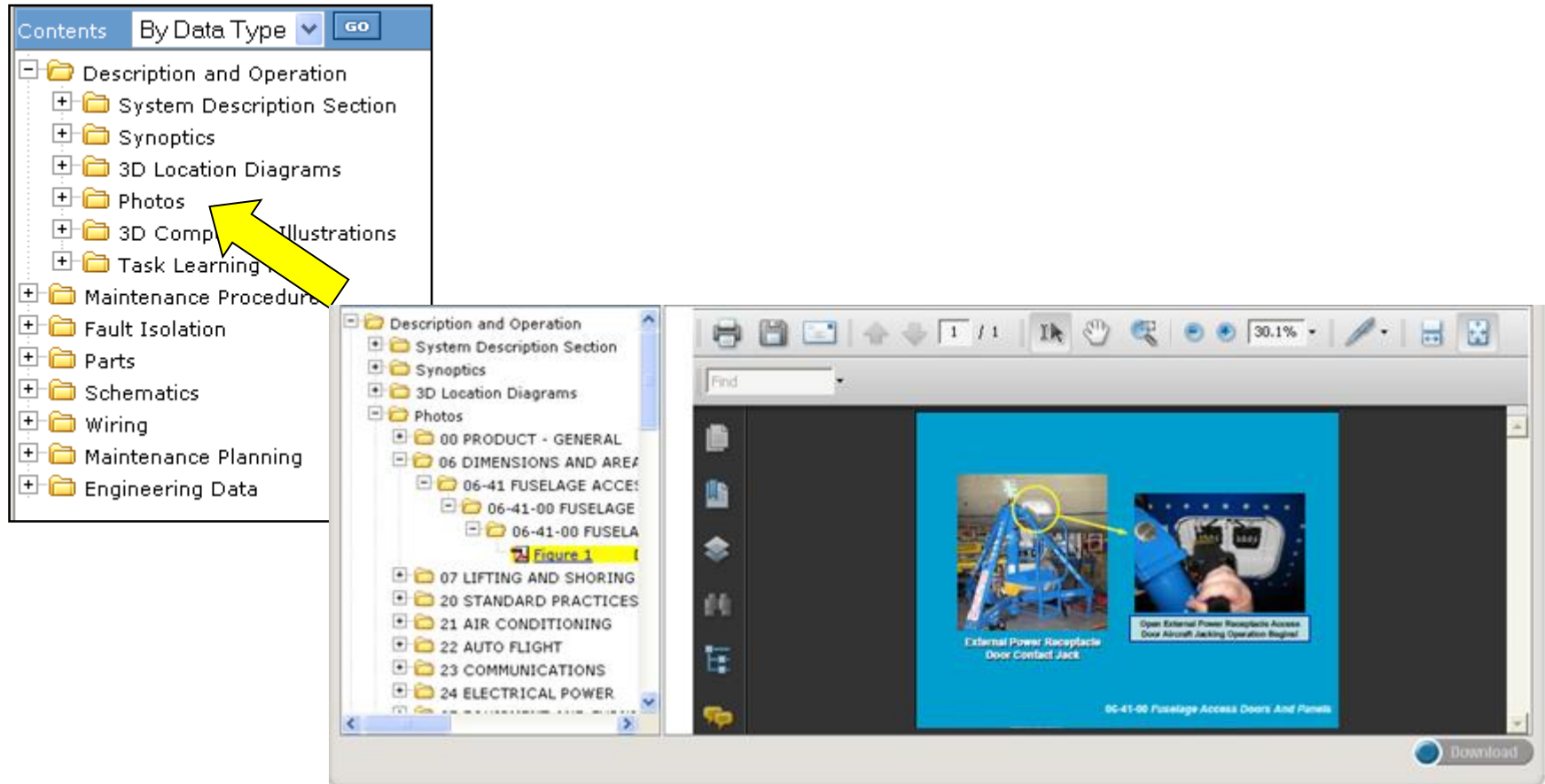
3D Component Locator Guide



Empowering Airline Customers through Support Data

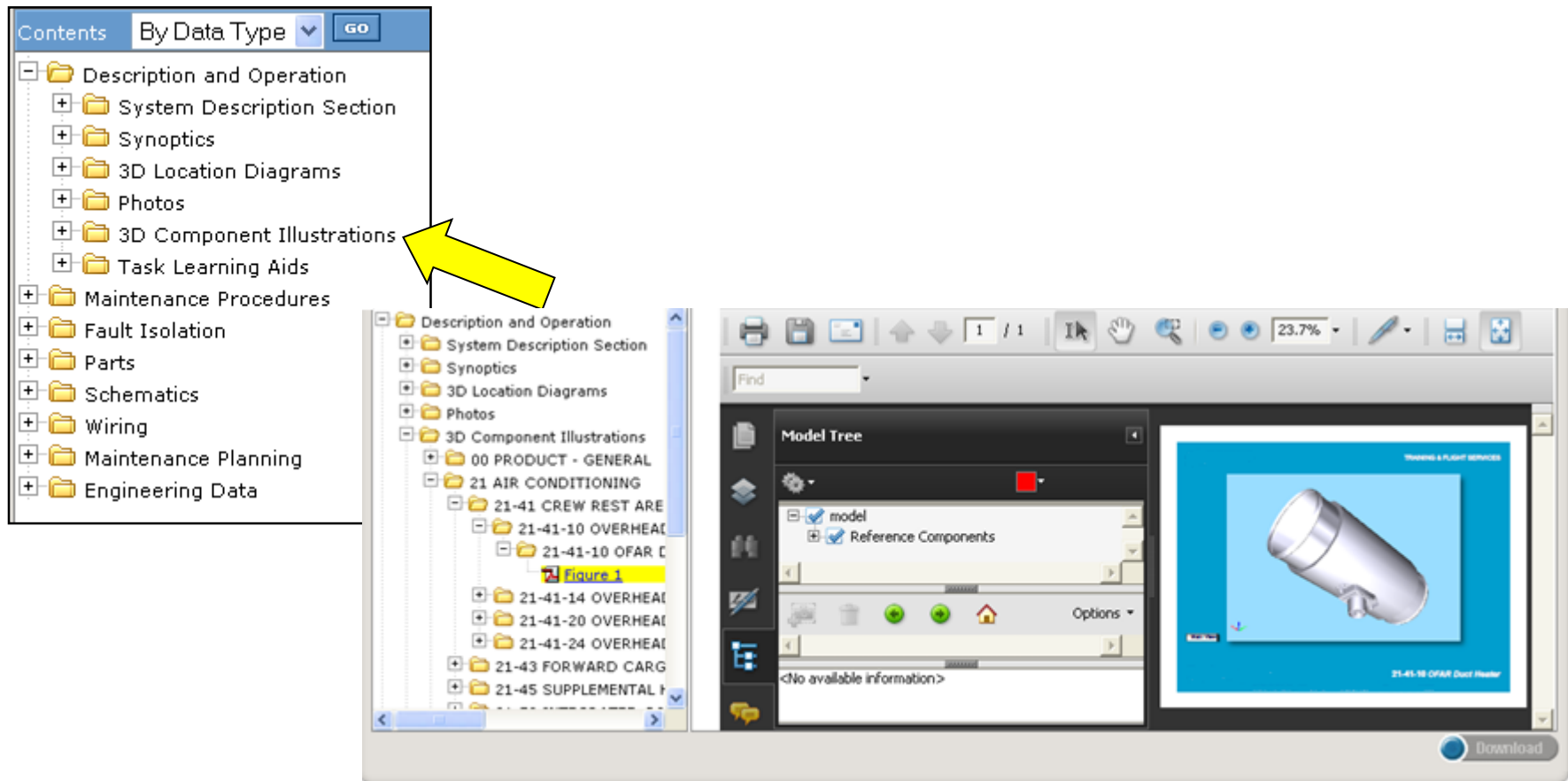
Global Product Data Interoperability Summit | 2017

Photos



Empowering Airline Customers through Support Data

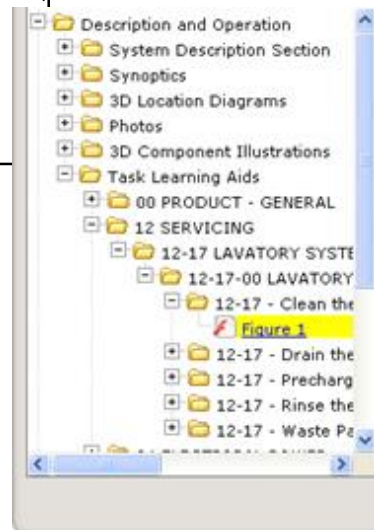
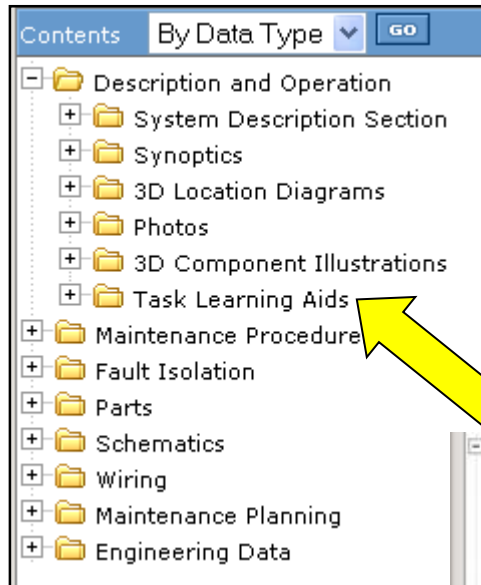
Global Product Data Interoperability Summit | 2017



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Tasks Training Materials



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

AMM Part 2 – Practices and Procedures

The screenshot displays a digital interface for an Aircraft Maintenance Manual (AMM). On the left, a 'Bookmarks' sidebar lists the contents of Chapter 23 - COMMUNICATIONS, including sections for High Frequency (HF) and Very High Frequency (VHF) communication systems, and satellite communications. A specific pageblock, 'Pageblock 23-12-00-5 - VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM - ADJUSTMENT/TEST', is highlighted. The main area on the right shows the detailed procedure for 'VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM - ADJUSTMENT/TEST'. The procedure includes a 'General' section with tasks for operational and system tests, a 'References' section with a table of related tasks, and a 'Procedure' section with step-by-step instructions for the BIT test. The interface also includes a 'Bookmarks' sidebar and a 'Pageblock' header.

AIRCRAFT MAINTENANCE MANUAL
VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM - ADJUSTMENT/TEST

1. General

A. This procedure contains scheduled maintenance task data.
B. This procedure has these tasks:
(1) An operational test of the very high frequency (VHF) communication system.
(2) A system test of the very high frequency (VHF) communication system.
C. There are three VHF communication systems installed: VHF left (VHF L), VHF right (VHF R), and VHF center (VHF C).
D. The left, right, and center radio tuning panels (RTPs) are on the aft side stand panel, PS, in the flight compartment.

TASK 23-12-00-710-801

2. VHF Communication System - Operational Test

A. General
(1) The operational test does a check of the internal functions of the VHF communication transceiver. The do-nothing test also does a check of the radio tuning panel input to the VHF communication transceiver.
(2) The same sequence of steps is used for the left, right, or center VHF communication system.
(3) A maintenance access terminal is necessary for this procedure. For instructions on how to use a maintenance access terminal, do this task: How to Use the Central Maintenance Computing System, TASK 45-10-00-740-805.

B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (PRB 201)
45-10-00-740-805	How to Use the Central Maintenance Computing System (PRB 201)

C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

D. Procedure

NOTE: Before you do the BIT test, make sure that VHF3 is in the voice mode (a voice frequency shows in the active (left) display of the RTP).

(a) On the applicable VHF transceiver, momentarily push the TEST switch on the transceiver front panel.

(b) Make sure the LEDs come on as follows:

- 1) All LEDs come on red in color for approximately two (2) seconds.
- 2) The LRU STATUS LED changes to green in color and the CONTROL FAIL and ANTENNA FAIL LEDs remain red in color for approximately two (2) seconds.

EFFECTIVITY
AAL ALL

23-12-00
Page 501
May 09/2008

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

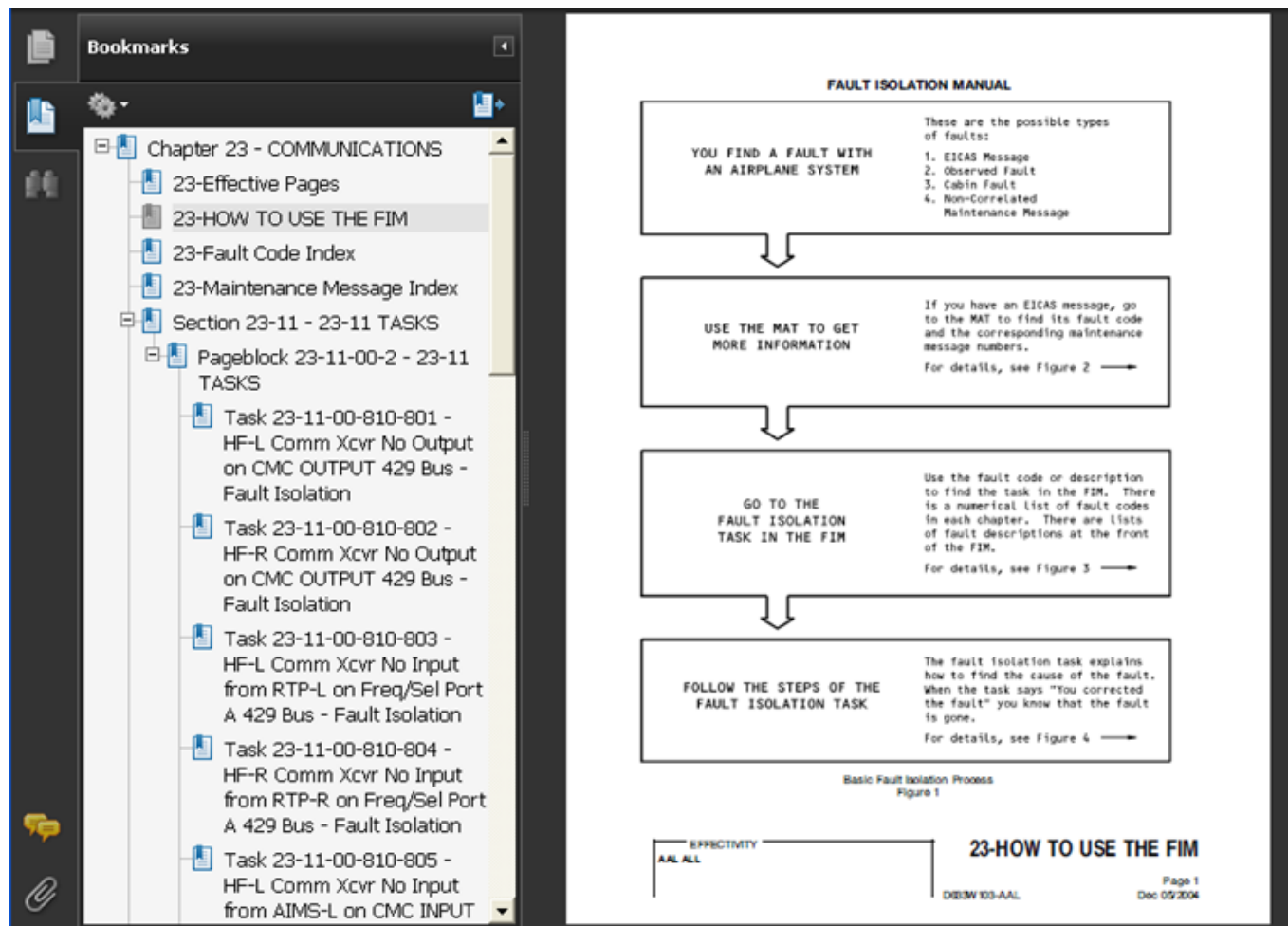
Fault Identification Manual

- **What it is:**
 - The Fault Isolation Manual contains information necessary to isolate and correct faults in systems and equipment installed.
- **What it's for:**
 - Troubleshooting identified faults on the airplane
- **Primary Fault Identification:**
 - EICAS Messages (the message that appears to the pilots on the instrument panel)
 - Observed Faults (those faults that are detected by means other than BIT)
 - Maintenance Messages (numeric code indicating a fault from a BIT)
 - Cabin Faults (faults that appear in the cabin specifically)

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

FIM Example



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

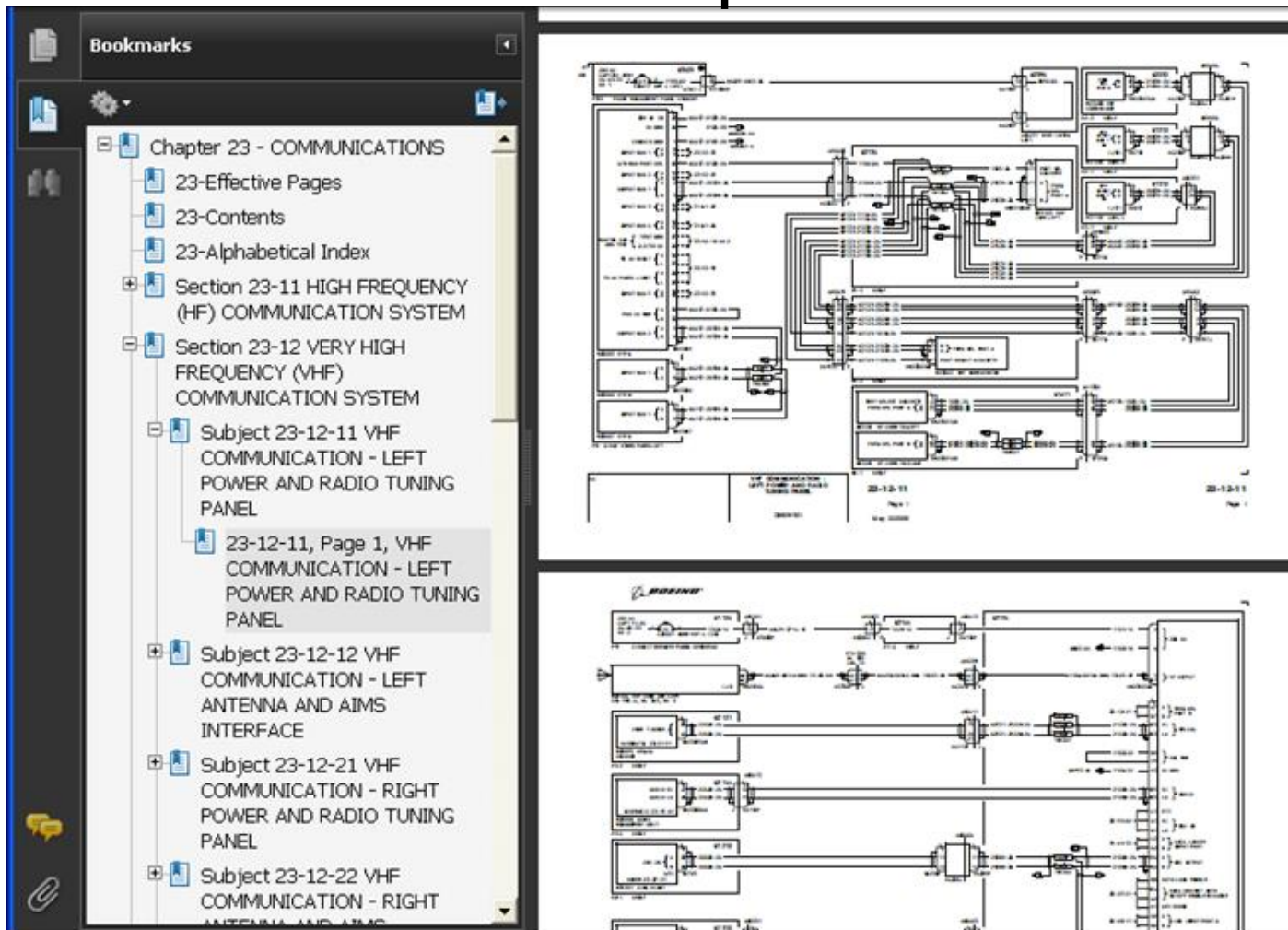
Wiring Diagram Manual (WDM)

- **What it is:**
- The Boeing Wiring Diagram Manual (WDM) is a collection of diagrams, drawings, and Lists which define the wiring and hookup of associated equipment installed on the listed Boeing airplanes.
- **What it's for:**
- Detailed troubleshooting and engineering research
- **Example of when you would use a WDM:** A mechanic receives a fault report from the pilot and uses the FIM to troubleshoot the fault. The fault isolation procedure leads the mechanic to the conclusion that there is a problem with a signal flow between two components. The mechanic needs to check the signal between the two components.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

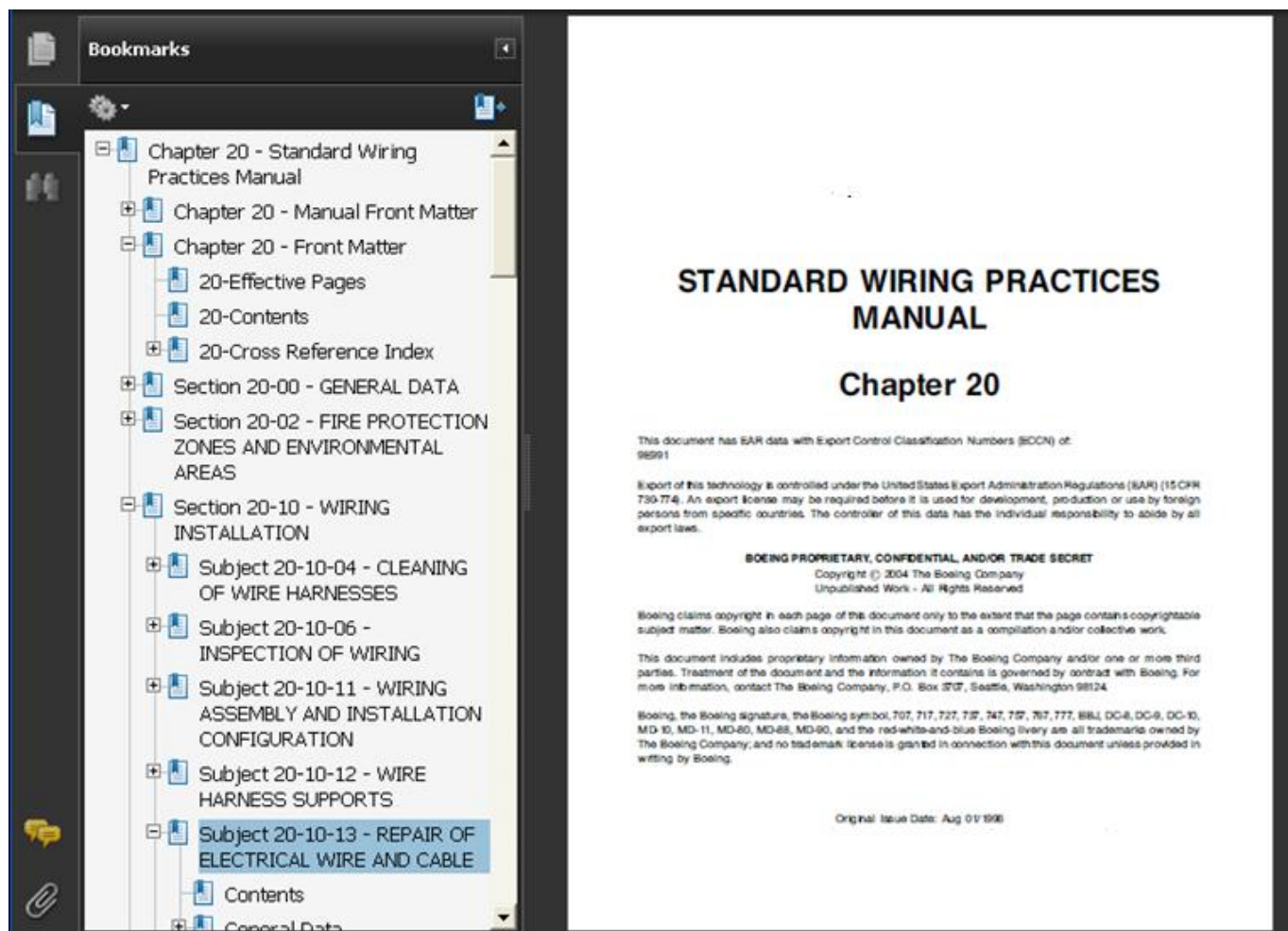
WDM Example



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

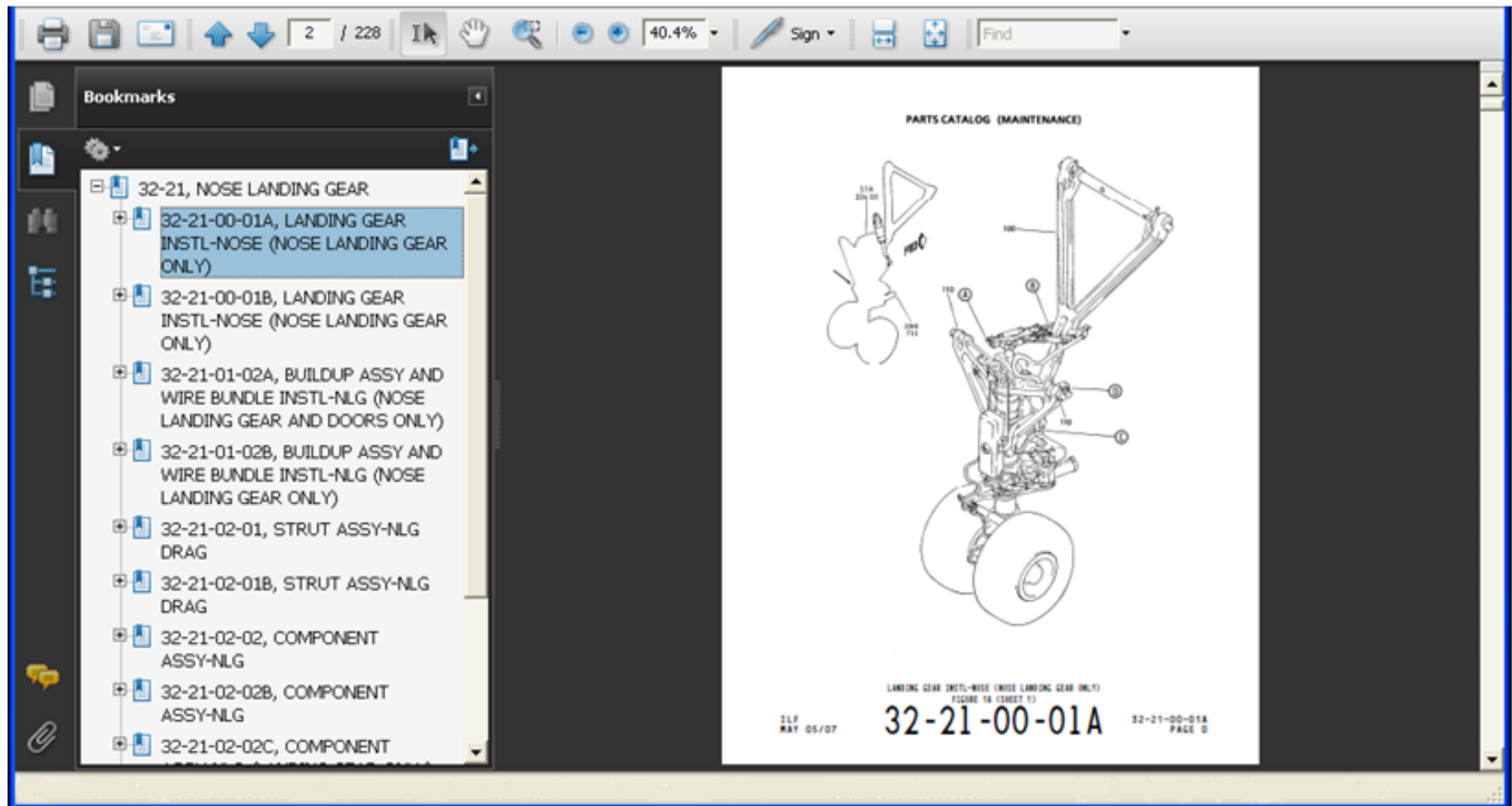
Standard Wiring Practices Manual



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Illustrated Parts Catalog



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Systems Schematic Manual

- **What it's for:**
- The System Schematic Manual (SSM) is a collection of diagrams which define the airplane systems. The System Schematic Manual (SSM) was prepared to serve as a source of information to assist in understanding system function and to facilitate fault isolation to the Line Replaceable Unit (LRU) level.
- **Example of when to use an SSM:** A mechanic needs to find out which circuit breaker provides power to a particular component, and does not need to see information at the level of detail provided in a wiring diagram.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Systems Schematic Manual Examples

The screenshot displays a software interface for a Systems Schematic Manual. On the left is a navigation pane with a 'Bookmarks' section. The tree structure includes:

- Chapter 23 - COMMUNICATIONS
 - 23-Effective Pages
 - 23-Contents
 - 23-Alphabetical Index
 - Section 23-10 SPEECH COMMUNICATIONS
 - Section 23-11 HIGH FREQUENCY (HF) COMMUNICATION SYSTEM
 - Subject 23-11-11 HF COMMUNICATION LEFT (highlighted)
 - Subject 23-11-21 HF COMMUNICATION RIGHT

The main area on the right shows a detailed schematic diagram titled 'SYSTEM SCHEMATIC MANUAL'. The diagram illustrates the electrical connections for the HF communication system, including components like antennas, amplifiers, and control units. At the bottom right of the schematic, the following text is visible:

23-11-11
Page 101
May 2009

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Structures Repair Manual

- **What it's for:**
- This Structural Repair Manual gives general data and special instructions for the repair of the airplane structure. This manual gives general airplane data, usual procedures, and repair materials. This manual also includes material identification, allowable damage, and repair data for the airplane structure. Procedures usually done together with the structural repair (such as an airplane symmetry check or support of the airplane in the jugged position) are also given.
- **Example of when to use an SRM:** A catering truck crashes into the forward leading edge of the wing of an airplane, leaving a 6" gouge that is 1/4" deep. The mechanic needs to determine whether or not the damage is within allowable limits to fly the airplane, or if a repair must be made.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Structures Repair Manual Example

The screenshot displays a digital repair manual interface. On the left is a sidebar with a tree view of the manual's structure. The main content area on the right shows the 'STRUCTURAL REPAIR MANUAL' for 'GENERAL - INSPECTION AND REMOVAL OF DAMAGE'. The sidebar tree view includes:

- Chapter 51 - STRUCTURES - GENERAL
 - 51-Effective Pages
 - 51-Contents
 - Section 51-00 - STRUCTURES - GENERAL
 - Section 51-10 - AERODYNAMIC SMOOTHNESS, INSPECTION AND REMOVAL OF DAMAGE, AND RVSM
 - Subject 51-10-01 - AERODYNAMIC SMOOTHNESS
 - Subject 51-10-02 - INSPECTION AND REMOVAL OF DAMAGE
 - Procedure 51-10-02-0G-0 - Inspection and Removal of Damage
 - Subject 51-10-03 - REDUCED VERTICAL SEPARATION MINIMUM (RVSM) OPERATION
 - Subject 51-10-04 - GENERAL - ANALYSIS AND CONTINUED

The main content area displays the following text:

STRUCTURAL REPAIR MANUAL

GENERAL - INSPECTION AND REMOVAL OF DAMAGE

1. **Applicability**

A. Use this chapter-section-subject for the investigation, inspection and removal of any type of damage to the airplane skin and structure.

B. This chapter-section-subject also gives the general definitions for the types of damage that are given in the different chapters of this structural repair manual.

2. **References**

Reference	Title
51-05-06, GENERAL	Structural Repair Definitions
51-05-07, GENERAL	Definitions of Terms Used in the Structural Repair Manual (SRM)
51-10-01, GENERAL	Aerodynamic Smoothness Requirements
51-25-01, GENERAL	Protective Treatment of Metallic and Composite Materials
51-25-02, GENERAL	Heat Treat Verification - Hardness and Conductivity Testing
51-25-03, GENERAL	Repair Sealing
51-25-07, GENERAL	Pinch Plug Installation
51-25-08, GENERAL	Procedures for Machine and OHS Holes in Composite Structures and Composite-Metal Assemblies
51-45-02, GENERAL	Fastener Installation and Removal
51-45-03, GENERAL	Fastener Hole Splice
51-45-03, GENERAL	Control Surface Balance Requirements
AMM 25-11-00	FUEL TANKS
AMM 51-21-00	INTERIOR AND EXTERIOR FINISHES
AMM 51-21-02	PREPARE, CLEANING AND TREATMENT
CPM 25-45-00	Removing Contaminants from Fire Damaged Parts
NOT Part 1, 51-05-00	Eddy Current
NOT Part 6, 51-05-01	Non-Destructive Testing
NOT Part 6, 51-05-02, 51	Aluminum Part Fastener Hole Inspection (Meter Display)
SDPM 25-35-02	Penetrant Methods of Inspection
SDPM 25-35-03	Standard Overhaul Practices Manual
SDPM 25-35-03	Solvents for General Cleaning of Metal (Series B)
SDPM 25-41-02	Application of Chemical and Solvent Resistant Finishes
SDPM 25-43-02	Anodizing of Magnesium Alloys
SDPM 25-45-04	Miscellaneous Materials

3. **Damage Classification**

A. Make sure that you refer to the applicable chapter-section-subject for "Allowable Damage" in chapters 52 through 57 of this structural repair manual for the correct rework limits and the specified shot peening data.

B. Use your good judgment to find the type of damage and an estimate of the cross-sectional area changes by a visual inspection of a specified area.

NOTE: Measure the damage or the combination of damage for both the correct depth and the correct length.

51-10-02

GENERAL
Page 1
Jan 19/2009

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Service Bulletins and Service Letters

- **What they're for:**
 - Service Bulletins provide operators with FAA approved instructions for modification or inspection of in-service airplanes and Boeing-built components.
 - Service Letters provide operators with a variety of technical information for delivered airplanes.
- **Example of Service Bulletin:** Boeing provides instructions to modify the video surveillance system from the Electronic Flight Bag to display on the flight deck.
- **Example of Service Letter:** Boeing informs customers of a change to the hardware of the Cabin Control Panel along with interchangeability information.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Service Bulletin Example

Commercial Airplanes		Service Bulletin
Number:	777-23-0283	Summary
Original Issue:	March 17, 2009	
Revision 1:	May 13, 2009	
ATA System:	2375 3161	
SUBJECT:	COMMUNICATIONS - Audio and Video Monitoring - Change of Flight Deck Entry Door Video Surveillance System (FDEVSS) Interface from Electronic Flight Bag (EFB) to Flight Deck Multi Function Display (MFD)	
CONCURRENT REQUIREMENTS		
None.		
BACKGROUND		
<p>This service bulletin and a kit of parts were prepared to give instructions to change the Flight Deck Entry Door Video Surveillance System (FDEVSS) with video display on Electronic Flight Bag (EFB) to the Flight Deck Multi Function Display (MFD).</p> <p>This change was requested by the operator.</p>		
ACTION (MC 2370MK7080)		
In the Flight Compartment, do these changes:		
— Group 1-10 airplanes:		
— On the Pilot's Main Instrument Panel, route and change wire bundle W1004.		
— On the M31038 Engine Indication and Crew Alerting System (EICAS) Display Select Panel, route and change wire bundle W1008.		
— On the P3 Forward Panel, change wire bundle W1002.		
— On the AF0202 disconnect bracket, change wire bundle W1052.		
— From AE0232 disconnect bracket to AF0202 disconnect bracket, route and change wire bundle W4207.		

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Service Letter Example

Commercial
Aviation
Services

SERVICE LETTER

ATA: 2339-00
12 September 2008

SUBJECT: CABIN CONTROL PANEL (CCP) INTERCHANGEABILITY AND
INTERMIXABILITY

MODEL: 777 Series

APPLICABILITY: All 777 airplanes with CCP P/N 285W0863 installed

REFERENCES:

- a) Airplane Service Bulletin 777-23-0178
- b) BAE Systems Component Service Bulletin 285W0863-23-01
- c) BAE Systems Component Service Bulletin 285W0863-23-02
- d) BAE Systems Component Service Bulletin 285W0863-23-03
- e) BAE Systems Component Service Bulletin 285W0863-23-04
- f) BAE Systems Component Service Bulletin 285W0863-23-05

SUMMARY:

This service letter informs operators of the changes made to the hardware of the Cabin Control Panel (CCP). This service letter also provides operators with interchangeability and intermixability information of all CCP and backlight sub-assembly delivered as of 31 July 2007 on 777 airplanes.

BACKGROUND:

The CCP hardware was changed to address the nuisance power cycles condition, insulator material compliance with FAA flammability requirements, and LCD obsolescence.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Component Maintenance Manuals

- **What it's for:** Information required to check, repair, adjust, and test units or assemblies, normally performed away from the airplane because of the need for special equipment, are contained in the Boeing Component Maintenance Manual or vendors' component maintenance manual(s).
- **Example of when to use a CMM:** A mechanic removes a component that reports a failure. Further troubleshooting of the component is required to correct the fault.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Component Maintenance Manuals Example

The screenshot displays a digital component maintenance manual for a Universal Passenger Control Unit (UPCU). The interface includes a sidebar with a table of contents, a main content area showing the manual title and part number, and a detailed view of the '301, CHECK' section.

Table of Contents (from sidebar):

- COVER PAGE
- HIGHLIGHTS
- TITLE PAGE
- RECORD OF REVISIONS
- RECORD OF TEMPORARY REVISIONS
- SERVICE BULLETIN LIST
- LIST OF EFFECTIVE PAGES
- TABLE OF CONTENTS
- INTRODUCTION
- DESCRIPTION AND OPERATION
- TESTING AND FAULT ISOLATION
- DISASSEMBLY
- CLEANING
- CHECK
- REPAIR
- ASSEMBLY
- FITS AND CLEARANCES
- SPECIAL TOOLS, FIXTURES, AND EQUIPMENT
- ILLUSTRATED PARTS LIST

Main Content Area:

Universal Passenger Control Unit (UPCU)

component maintenance manual

23-00-54

301, CHECK

COMPONENT MAINTENANCE MANUAL
PART NO. 5937740

RECIRCULATION FAN INLET PLENUM ASSEMBLY

1. **Repair**

A. **Repair Materials**

NOTE: A. Equivalent substitutes may be used for items listed below.

B. Some materials in the Materials List may not be permitted to be used on your location. Persons in each location must make sure they are permitted to use these materials. All persons must obey all applicable federal, state, local, and provincial regulations for their location.

Adhesive, Silgrip SR-529 with SMC-18 catalyst	Techcon Systems Inc.
Brush, paint	Commercially available
Container, glass	Commercially available
Cup, polyethylene coated paper	Commercially available
Ethyl alcohol	O-S-740
Roller, hard rubber	Commercially available
Scraper, nonmetallic	Commercially available
Sealant, silicone, RTV-88 with RTV-9910 catalyst	General Electric Co.
Adhesive, silicone sealant, Silastic 732RTV (clear)	Dow Corning Corp.
Sandpaper, 180-grit	
Spatula	Commercially available
1,1,1 Trichloroethane	MIL-T-81533
Wipers, cotton, lint-free	Commercially available

21-20-03
Page 401
Oct 15/92

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **Specifications for Maintenance Manuals**
 - **ATA – Air Transport Association (ISpec 2200)**
 - Specification for the creation and development of technical manuals for aerospace
 - **S1000D – Specification 1000D**
 - Specification for the creation of all technical manuals – not limited only to aerospace

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Decoder Ring for Maintenance Manuals

Emergency Locator Transmitter Antenna Installation

(ATA Ispec 2200)

23 - 24 - 02 - 400 - 801

CH SEC SUB PB TASK

(S1000D)

DMC-B787-A-23-24-02-00A-720A-A

DATA MODULE CH SEC SUB INFORMATION CODE CODE

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Specification Code Examples

ATA Specification

ATA Structure
AMM Description & Operation Pageblock
1-99 Description and Operation
AMM Fault Isolation Pageblock
101-199 Troubleshooting
AMM Maintenance Procedures Pageblocks
201-299 Maintenance Practices
301-399 Servicing
401-499 Removal/Installation
501-599 Adjustment/Test
601-699 Inspection/Check
701-799 Cleaning/Painting
801-899 Approved Repairs
WDM
Ch-Sec-Subj arrangement in separate manual
SSM
Ch-Sec-Subj arrangement in separate manual
IPC
Ch-Sec-Unit-Figure arrangement in separate manual

S1000D Specification

S1000D Primary Codes
Description & Operation
000 Function, data for plans and description
100 Operation
Fault Isolation
400 Fault reports and isolation procedures
Maintenance Procedures
200 Servicing
300 Examinations, tests, and checks
500 Disconnect, remove and disassemble procedures
600 Repairs and locally make procedures and data
700 Assemble, install and connect procedures
800 Storage procedures and data
Wiring
000 Function, data for plans and description
Schematics
000 Function, data for plans and description
Parts
900 Miscellaneous - IPD
Engineering Data
900 Miscellaneous – Service Bulletins

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **Traditional maintenance manuals are revised and published per schedule. Some have quarterly revisions, others have semi-annual revisions, and others have ad-hoc revisions.**

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

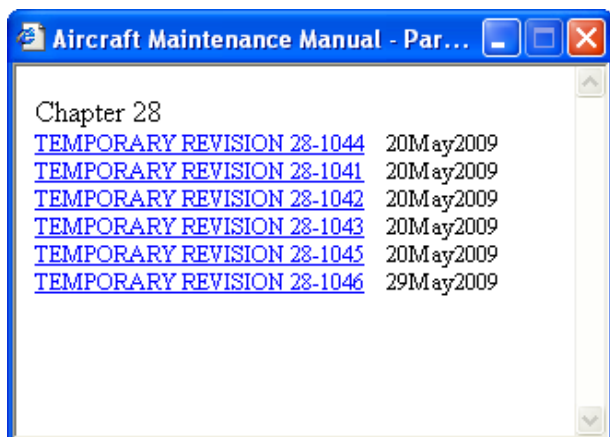
Temporary Revisions

- **What they're for:**
 - To provide changed data to airlines that can not wait until the next published revision to the manual
- **Example of a TR:** a correction to a torque value for the installation of a component is discovered.
- **Example that would not result in a TR:** a simple clerical error that does not result in any compromise to safety or standard maintenance practices.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Temporary Revision Example



TR 28-1044
Page 1 of 5

AIRCRAFT MAINTENANCE MANUAL

WING DRY BAY ACCESS DOOR - REMOVAL/INSTALLATION

TEMPORARY REVISION 28-1044

FILING INSTRUCTIONS

This temporary revision applies only to document D633W101-AAL. For the printed manual, file this temporary revision adjacent to the pages affected.

For the microfilm supplement, file this temporary revision in sequence by ATA number. Mark the microfilm cartridge to indicate that it has been changed by temporary revision.

This temporary revision will be incorporated in the revision dated Sep 05/2009.

Revision reason: Added airworthiness limitation data.

This temporary revision furnishes an advance copy of the enclosed pages which supersede any previously issued pages. The information on these pages is valid as of the creation date and time at the bottom of this page. Use these pages until this temporary revision is incorporated, superseded, or rescinded.

At the end of this TR there is a TR Status Report for document D633W101-AAL.

REVISED LIST OF EFFECTIVE PAGES FOR THIS DOCUMENT

PAGE	DATE			
401	Jan 05/2009			
402	Jan 05/2009			
* 403	May 20/2009			
* 404	May 20/2009			
* 405	May 20/2009			
* 406	May 20/2009			
407	May 05/2009			

* INDICATES PAGE INCLUDED IN THIS TEMPORARY REVISION.

EFFECTIVITY	THIS TR CREATED AT	28-11-05
AAL ALL	2009/05/13 19:42:01 UTC D633W101-AAL	Page COVER-1 May 20/2009

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Customer Maintenance Manual Changes

- **Customer Originated Change (COC)**
- **Publication Change Request (PCR)**

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Customer Originated Changes (COC)

- **What they are:**
- Changes or additions to Boeing data as requested by the customer. These changes are provided for a fee.
- **Example of a COC:** A customer purchases and installs a new In Flight Entertainment System that replaces the system that Boeing had installed. The airline wishes to keep all maintenance data for this new system together with existing Boeing maintenance data, and submits the data to Boeing for inclusion into the maintenance manual.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

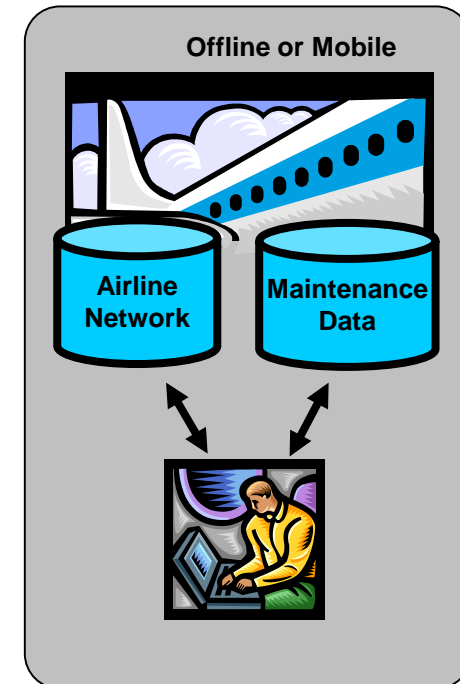
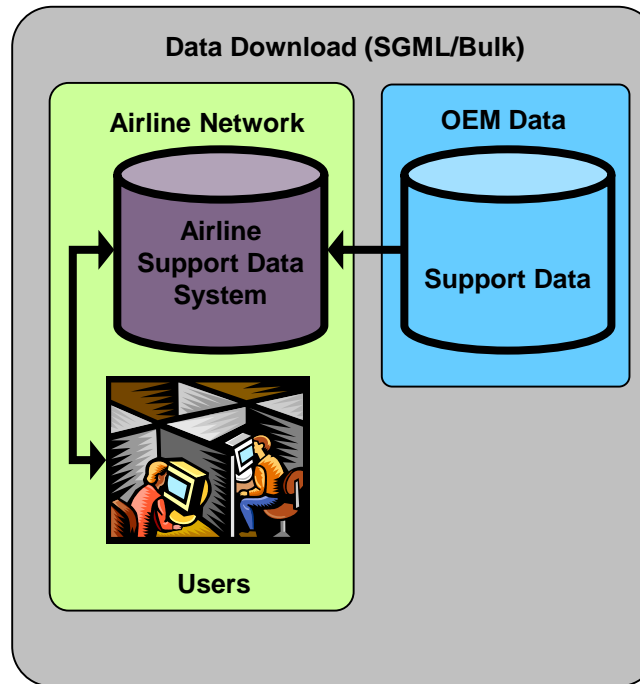
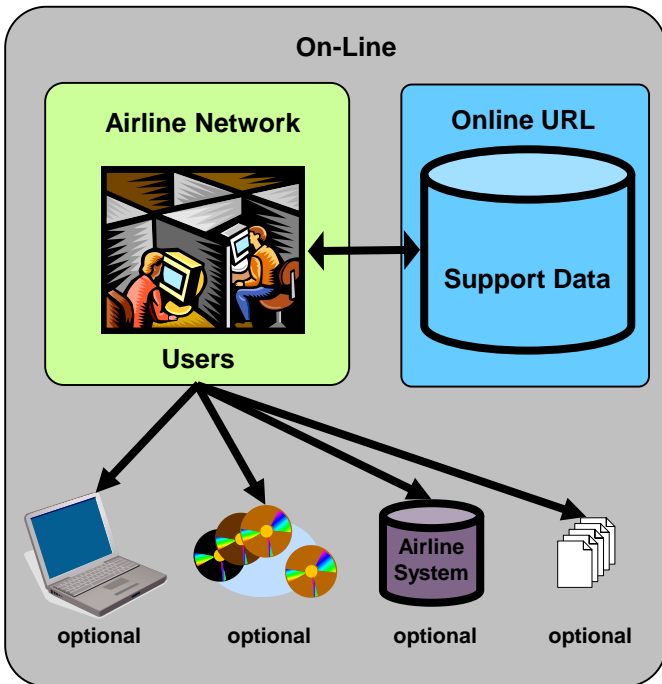
Publication Change Request

- **What it is:**
- Corrections to Boeing provided data. Customers can send in a PCR if an error in the data is identified and Boeing will fix it free of charge.

Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

- **Methods for Accessing Maintenance Data**
 - 1) On-Line Application
 - 2) Data Download (SGML/Bulk)
 - 3) Offline or Mobile



Empowering Airline Customers through Support Data

Global Product Data Interoperability Summit | 2017

Questions ?