



Provisioning Services

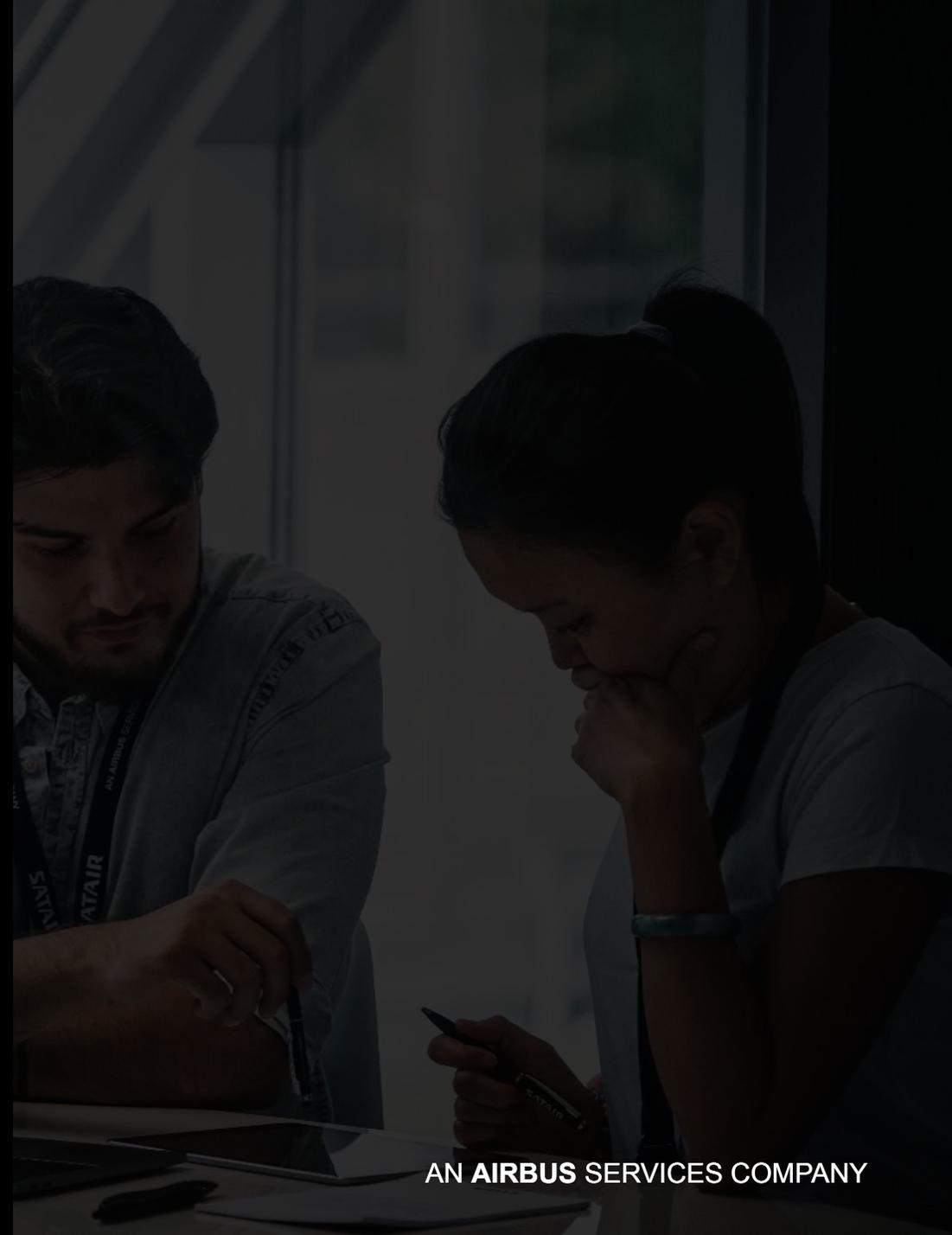
Material Readiness Roadmap

SATAIR

AN AIRBUS SERVICES COMPANY

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1. INTRODUCTION

This introduction to the Material Readiness Roadmap process provides a guide to the activities that take place in order to ensure the successful provisioning of an Airbus customer. The Material Readiness (MR) is for unscheduled maintenance only and ensures flight operation of your aircraft.

It will illustrate the activities of the Integrated Provisioning Services department from the initial involvement in sales campaigns up to the support of previously owned and leased aircraft. In this brochure other documents will be referenced, which are available from or via the Integrated Provisioning Services department. The Provisioning Services department is part of Satair, a wholly owned subsidiary of Airbus. All MR related support activities are fully carried out by the Satair Provisioning Services department.

2. INTRODUCTION AND MATERIAL READINESS PROCESS

The Material Readiness and its process are to ensure revenue flight dispatch to the Airbus customers. As defined in ATA SPEC 2000, the MR process is concerned with supporting a new aircraft fleet or an end item for an initial period of operation. Therefore the Integrated Provisioning Services team deals as a service provider for the aircraft maintenance by

- Providing aircraft spares data for planning and purchasing purposes
- Planning and recommendation of spares required for the Line and Base Maintenance support of Airbus aircraft
- Offering commercial IP packages
- Consulting and training in material management processes

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3. PROVISIONING PROCESS TIMESCALE

The traditional timescale of the MR process, as defined in the Supplier Support Conditions (SSC)*, has emerged over the years from the broad outline specified in the relevant chapters of both ATA SPEC 2000 (Chapter 1) and the World Airlines Suppliers Guide WASG (Chapter 3), which was replaced by the Common Support Data Dictionary CSDD.

According to ATA SPEC 2000 the transmission of provisioning data: “...starts well in advance of the first delivery to permit ordering and establishment of support inventories in time for initial operations.”

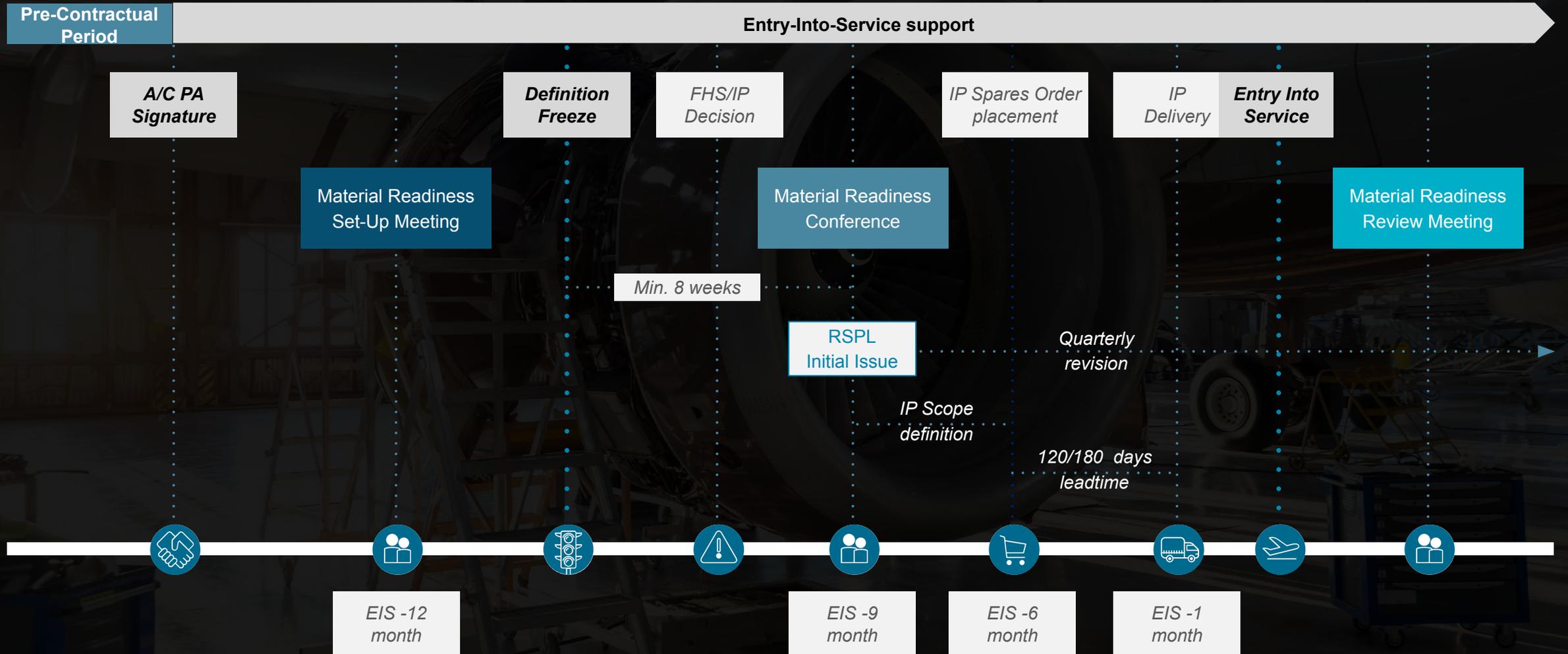
According to the Airbus SSC, the MR process should begin: “...-24 months before delivery of the first aircraft...for long lead time items.” and “...- 18 months before delivery of the first aircraft ...for S File items.” However, the timeframe given in the SSC does not comply with modern day demands and Airbus has geared itself to a more flexible schedule in order to provide shorter lead times for entry into service.

An example of the current roadmap for the MR process is illustrated on the next page.

*For A220 specific SPSAs apply that are not yet fully harmonized with the SSCs.

Material Readiness Roadmap for new Entry-into-Services

Recommended timeline as a title below the graph



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4. THE MATERIAL READINESS SET-UP MEETING

The Material Readiness (MR) Set-up Meeting, unlike the Material Readiness (MR) Conference, is an obligatory aspect of the MR process as stated in ATA SPEC 2000 Chapter 1: "...a pre-provisioning conference will be held between the airframe/engine manufacturer or BFE supplier to plan the provisioning programme prior to the release of the first data."

The primary objectives of the MR Set-up Meeting are:

- to confirm criteria concerning the aircraft and the airline's maintenance ability
- to ascertain the customer's proposed operating parameters
- to decide which data and documents the customer desires
- to prepare the agenda and format of the Material Readiness Conference
- to ascertain the customer's specific requirements for the Material Readiness Conference
- to consider which personnel (e.g. Material Controllers, Supply Managers, Purchasers) should attend the conference
- to mutually set up the strategy for the provisioning exercise and future maintenance

The first three objectives are necessary in order to begin the process of producing spares recommendation documentation. It is necessary to confirm at least the initial MSN(s) in order to begin allocating customised data.

Operational parameters, which are determined by the customer, are the essential variables to calculate the spare recommendation. The principles of the mathematical model are explained during the MR Set-up meeting.

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4.1. DOCUMENTATION

At or shortly before the Material Readiness Conference the Airline receives the Initial Issue of the Provisioning Documentation. This includes both Recommended Spares Parts List (RSPL) and the Detailed Parts Lists (DPL). Those documents are provided in excel format. Standard Provisioning Documents*:

RSPL:

- Line Replaceable Units (LRU)
- Line Maintenance Breakdown Parts of LRUs (LMP)
- Cockpit Push Buttons (CPB)
- Standard Hardware (STD)

DPL:

- Airbus Proprietary Parts (AIB)

The RSPLs can be supplied in several sorts, including part number sort, manufacturer sort, end item sort (for LMPs) and ATA 100 Chapter sort depending on the customer's preferences. The RSPLs are supplied in Excel format. The format, content and further descriptions of the RSPLs are explained in a dedicated RSPL session during the MR Conference.

*For A220 LRU, LMP, STD, Insurance Parts are all integrated into one document.

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4.2. AGENDA AND FORMAT OF THE MATERIAL READINESS CONFERENCE

At the stage of the MR Set-up of the provisioning process it must also be decided whether to invite suppliers or not. If suppliers should be invited, the customer may choose which suppliers they wish to see. If no suppliers are invited, all the provisioning data will be presented by Airbus. Finally, the date and attendees for the MR conference must be agreed. This event takes place at an Airbus Material / Satair facility (usually Beijing, Singapore, Hamburg, Washington DC).

5. PREPARING THE MATERIAL READINESS CONFERENCE

If a MR Conference is mutually agreed, the MR Set-up Meeting is used to prepare the background for the conference. Following the MR Set-up Meeting, the process of producing, revising, and refining the initial provisioning documentation will begin. An initial set of the RSPLs will be produced and copies of the relevant pages will be sent to the invited suppliers for their comments in order to update the information. The process of revising data such as part number, effectivity and prices will continue throughout the Material Readiness process to reflect the latest updates. In order to minimize the operational threat of such updates, the suppliers have the obligation to deliver as per latest aircraft configuration at aircraft delivery (as per SSC/SPSA).

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6. THE MATERIAL READINESS CONFERENCE

6.1. LINE REPLACEABLE UNITS

The primary focus of the MR Conference will be supplier LRUs. The reason for this is that they represent an overwhelming percentage of the investment for IP whilst representing only a fraction of the quantity of part numbers.

Other topics discussed during the MR Conference are internal Airbus topics concerning GSE & Tools (if not already covered before the MRC in a dedicated meeting), Satair Portfolio, purchase order administration procedures and a conclusion and review session.

The time dedicated to LRUs during the conference is therefore related to their relative importance. Typically, a conference will last three to five days. Suppliers, who represent the majority of the proposed LRU investment, will be invited to the conference on behalf of the customers.

Their presentations allow them to:

- Briefly explain and illustrate their company's background and product support including their AOG services, repair procedures and spares finance policies
- Present their product
- Answer questions raised by the customer
- Cover technical discussions (e.g. known in-service reliability issues of their part number scope and effect on IP recommendations)
- Agreement on IP recommendations and justification in case of deviations

The quality of the presentation and the documents provided are closely monitored by the provisioning department and any shortfall from the expected levels of performance are fed back to the supplier's management.

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6.2. OTHER MATERIAL CATEGORIES

These categories are dealt with in a different manner to LRUs. The aim of these sessions is to explain the layout, the logic, and how the RSPLs of these categories interface with the LRU RSPL and between themselves. Therefore these sessions concentrate on explaining the documents rather than recommending and explaining individual items. This allows the customer to analyse the documents and make their purchase decision later on.

6.3. CONCLUSION AND REVIEW

This session will reiterate the action that needs to be taken following the Material Readiness conference. This typically consists of outstanding questions from the conference and the actions that must be taken to answer them, confirming which documents to be sent to which customer's email-address and what the revision cycle of the documents will be during the remaining time of the provisioning process.

The revision cycle will depend on the RSPL. The W File, Airbus Proprietary Parts, Standard Hardware, and Cockpit Push Button RSPLs usually are revised on request. The LRU and LMP documents, which are subject to a more significant change during the provisioning process, are revised as mutually agreed. This is usually every three months, in line with ATA SPEC 2000: "Revisions to the provisioning data, ... will be submitted to the customer on a revision cycle as negotiated following the original submission." and the Common Support Data Dictionary (CSDD): "...revisions will be issued every 60 to 90 days."

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7. POST MATERIAL READINESS CONFERENCE

The provisioning period for previously owned aircraft and MR Review may be much shorter than for a customer purchasing new build aircraft. If an airline acquires additional aircraft second hand and/or through secondary lease agreements, they will require the information for provisioning immediately as the lead-time for entry into service will be shortened and constraints like the Configuration Definition Freeze date do not apply. A Data Release Agreement (DRA) will be needed every time a requestor of a RSPL product is not the owner or allocated operator (granted all support rights) of the respective MSNs to be covered by the RSPL product.

Under those circumstances, the functions of a normal provisioning exercise usually cannot be carried out. Therefore for previously owned aircraft the usual provisioning process consists of extracting and customising the RSPLs and handing over the documentation to the customer. The configuration data is equivalent to the configuration shown in the Illustrated Parts Catalogue valid at that point of time.

A MR Review is offered on customer request for an established fleet and inventories when airline route structure and/or fleet configuration are altered, main base and station inventories are assessed for surplus or new requirements. Also MR Reviews are conducted for new build aircraft if delivery streams are spread over a period of several years. In that case, the MR Review exercise may be similar to that of the MR process.

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8. ABBREVIATION LIST

A/C	Aircraft	IP	Initial Provisioning
AIB	Airbus Proprietary Parts	IPC	Illustrated Parts Catalogue
AOG	Aircraft on Ground	LMP	Line Maintenance Breakdown Part of LRU
ATA	Air Transport Association	LRU	Line Replaceable Unit
BFE	Buyer Furnished Equipment	MR	Material Readiness
CML	Consumable Material List	MSN	Manufacturer's Serial Number
CPB	Cockpit Push Buttons	MTBUR	Mean Time Between Unscheduled Removals
CSDD	Common Support Data Dictionary	PA	Purchase Agreement
DRA	Data Release Agreement	RSPL	Recommended Spare Parts List
EIS	Entry Into Service	SIF	Sales Investment Forecast
FHS	Flight Hours Services	STD	Standard Hardware Material
GSE	Ground Support Equipment	SSC	Supplier Support Conditions
		WASG	World Airlines Suppliers Guide

About Satair

Satair provides genuine OEM parts distribution and offers an exhaustive and innovative multi-fleet service portfolio to OEMs and customers. In addition, the company provides genuine Airbus Material Support and is the sole Airbus authorised distributor for a wide range of Proprietary Products and Services accessible through the trading partner Airbus SAS. Satair is a stand-alone company and Airbus subsidiary.

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3 February 2023